TUM School of Life Sciences
Technische Universität München

Module Catalog

M.Sc. Sustainable Resource Management

TUM School of Life Sciences

Technische Universität München

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Module Catalog: General Information and Notes to the Reader

What is the module catalog?
One of the central components of the Bologna Process consists in the modularization of university curricula, that is, the transition of universities away from earlier seminar/lecture systems to a modular system in which thematically-related courses are bundled together into blocks, or modules.
This module catalog contains descriptions of all modules offered in the course of study.
Serving the goal of transparency in higher education, it provides students, potential students and other internal and external parties with information on the content of individual modules, the goals of academic qualification targeted in each module, as well as their qualitative and quantitative requirements.

Notes to the reader:

Updated Information
An updated module catalog reflecting the current status of module contents and requirements is published every semester. The date on which the module catalog was generated in TUMonline is printed in the footer.

Non-binding Information
Module descriptions serve to increase transparency and improve student orientation with respect to course offerings. They are not legally-binding. Individual modifications of described contents may occur in praxis.
Legally-binding information on all questions concerning the study program and examinations can be found in the subject-specific academic and examination regulations (FPSO) of individual programs, as well as in the general academic and examination regulations of TUM (APSO).

Elective modules
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[SZ0344] German as a Foreign Language B2.2: Controversial Topics in Science and Society | Deutsch als Fremdsprache B2.2 - Kontrovers: Was Wissenschaft und Gesellschaft bewegt 553 - 555
[SZ0345] German as a Foreign Language C1: Controversial Topics in Science and Society | Deutsch als Fremdsprache C1 - Kontrovers: Was Wissenschaft und Gesellschaft bewegt 556 - 557
[SZ0346] German as a Foreign Language C1.2: Communicating Professionally in Science and Business | Deutsch als Fremdsprache C1.2 - Professionell kommunizieren in Wissenschaft und Beruf 558 - 560
[SZ0347] German as a Foreign Language Training C1 - Writing and Grammar Skills | Deutsch als Fremdsprache C1 - Sicherheit in Wortschatz und Grammatik 561 - 562
[SZ0348] German as a Foreign Language A1.1: Dive into the grammar and apply it in practice | Deutsch als Fremdsprache A1.1: Dive into the grammar and apply it in practice 563 - 564
[SZ0349] German as a Foreign Language C1 - Communication in Companies | Deutsch als Fremdsprache C1 - Kommunikation im Unternehmen 565 - 566
[SZ0350] German as a Foreign Language B1.1 | Deutsch als Fremdsprache B1.1 567 - 569
[SZ0351] German as a Foreign Language B1.2 | Deutsch als Fremdsprache B1.2 570 - 572
[SZ0354] German as a Foreign Language B1 - Get for B2 | Deutsch als Fremdsprache B1 Brückenkurs - Werden Sie fit für die B2 573 - 574
[SZ0355] German as a Foreign Language B2 - Grammar compact | Deutsch als Fremdsprache B2 - Grammatik Kompakt 575 - 576
[SZ0356] German as a Foreign Language B2.1 - Start at Companies | Deutsch als Fremdsprache B2.1 - Einstieg ins Unternehmen 577 - 578
[SZ0357] German as a Foreign Language B1.1 - Start at Companies | Deutsch als Fremdsprache B1.1 - Einstieg ins Unternehmen 579 - 580
[SZ0359] German as a Foreign Language B2.2 - Start at Companies | Deutsch als Fremdsprache B2.2 - Einstieg ins Unternehmen 581 - 582
[SZ0360] German as aForeign Language B1 – Crossover German: Communication at University and in daily Life | Deutsch als Fremdsprache B1 – Crossover German: Kommunikation an der Uni und im öffentlichen Leben 583 - 584

[SZ0361] Projekt Weeks: German as a Foreign Language B2.2 - Sustainability using the example of a national park | Projektwochen: Deutsch als Fremdsprache B2.2 - Nachhaltigkeit am Beispiel eines Nationalparks 585 - 587
[SZ0362] German as a Foreign Language B1.1 - Communication in everyday life and internships | Deutsch als Fremdsprache B1.1 - Kommunikation im Alltag und Praktikum 588 - 589
[SZ0363] German as a Foreign Language C1.2 - Quickly grasping and commenting on complex texts | Deutsch als Fremdsprache C1.2 - Komplexe Texte schnell erfassen und kommentieren 590 - 591
[SZ0364] German as a Foreign Language B2.1 with Grammar | Deutsch als Fremdsprache B2.1 mit Grammatik 592 - 593
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[SZ04041] English - Basic English for Architects B2 | Englisch - Basic English for Architects B2 598 - 599
[SZ04043] English - English in Action - What is Art? from B2 | Englisch - English in Action - What is Art? ab B2 600 - 601
[SZ0406] English - Writing Academic Research Papers C2 | Englisch - Writing Academic Research Papers C2 602 - 603
[SZ0407] English - Advanced Business Communication C2 | Englisch - Advanced Business Communication C2 604 - 605
[SZ04100] English - Selected Readings in Popular Science B2 | Englisch - Selected Readings in Popular Science B2 606 - 607
[SZ04102] English - Great Minds in Science and Technology C1 | Englisch - Great Minds in Science and Technology C1 608 - 609
[SZ04103] English - English for Computer Science and the Tech Industry C1 | Englisch - English for Computer Science and the Tech Industry C1 610 - 611
[SZ04104] English - English for Nerds: Learning with Sci-fi and Fantasy C1 | Englisch - English for Nerds: Learning with Sci-fi and Fantasy C1 612 - 613
[SZ04105] English - English Grammar Advanced C1 | Englisch - English Grammar Advanced C1 614 - 615
[SZ04106] English - Poetry for Engineers C1 | Englisch - Poetry for Engineers C1 616 - 617
[SZ04107] English - Key Issues in Business and Technology B2 + C1 | Englisch - Key Issues in Business and Technology B2 + C1 618 - 619

[SZ04108] English - Professional English for Business and Technology C1 | Englisch - Professional English for Business and Technology C1 620 - 621
[SZ0411] English - Management and Shakespeare C1 | Englisch - Management and Shakespeare C1 622 - 623
[SZ0413] English - Professional English for Business and Technology - Management and Finance Module C1 | Englisch - Professional English for Business and Technology - Management and Finance Module C1 624 - 625
[SZ0414] English - Intercultural Communication C1 | Englisch - Intercultural Communication C1 626 - 627
[SZ0417] English - Introduction to English Pronunciation B2 | Englisch - Introduction to English Pronunciation B2 628 - 629
[SZ0418] English - English Through Cinema C1 | Englisch - English Through Cinema C1 630 - 631
[SZ0420] English - Focus on the USA C1 | Englisch - Focus on the USA C1 632 - 633
[SZ0421] English - English Writing for Social Scientists C2 | Englisch - English Writing for Social Scientists C2 634 - 635
[SZ0422-1] English - Jobline B2 | Englisch - Jobline B2 636 - 637
[SZ0423] English - English for Technical Purposes - Industry and Energy Module C1 | Englisch - English for Technical Purposes - Industry and Energy Module C1 638 - 639
[SZ0424] English - English for Technical Purposes - Environment and Communication Module C1 | Englisch - English for Technical Purposes - Environment and Communication Module C1 640 - 641
[SZ0425] English - Introduction to Academic Writing C1 | Englisch - Introduction to Academic Writing C1 642 - 643
[SZ0426] English - Professional English for Business and Technology - Marketing Module C1 | Englisch - Professional English for Business and Technology - Marketing Module C1 644 - 645
[SZ0427] English - Academic Writing C2 | Englisch - Academic Writing C2 646 - 648
[SZ0429] English - English for Scientific Purposes C1 | Englisch - English for Scientific Purposes C1 649 - 650
[SZ0430] English - English in Science and Technology C1 | Englisch - English in Science and Technology C1 651 - 652
[SZ04311] English - Basic English for Academic Purposes B2 | Englisch - Basic English for Academic Purposes B2 653 - 655
[SZ0438] English - Transatlantic Relations: Current Affairs in the U.S. and the E.U. C1 | Englisch - Transatlantic Relations: Current Affairs in the U.S. and the E.U. C1 656 - 657

[SZ0442] English - The Science of Science Fiction C1 | Englisch - The Science of Science Fiction C1 658 - 659
[SZ0443] English - English Grammar Compact B1 | Englisch - English Grammar Compact B1 660 - 661
[SZ0452] English - Critical Thinking and Science Writing C2 | Englisch - Critical Thinking and Science Writing C2 662 - 663
[SZ0453] English - Scientific Presentation and Writing C2 | Englisch - Scientific Presentation and Writing C2 664 - 665
[SZ0454] English - Basic English for Scientific Purposes B2 | Englisch - Basic English for Scientific Purposes B2 666 - 667
[SZ0455] English - English for Political Science C1 | Englisch - English for Political Science C1 668 - 669
[SZ0456] English - English Grammar Intermediate B2 | Englisch - English Grammar Intermediate B2 670 - 671
[SZ0458] English - Literature, Technology and Society C1 | Englisch - Literature, Technology and Society C1 672 - 673
[SZ0460] English - English for Automotive Engineers C1 | Englisch - English for Automotive Engineers C1 674 - 675
[SZ0471] English - Intensive Thesis Writers' Workshop C2 | Englisch - Intensive Thesis Writers' Workshop C2 676 - 677
[SZ0479] English - Introduction to Critical Thinking and Science Writing B2 | Englisch - Introduction to Critical Thinking and Science Writing B2 678 - 679
[SZ0480] English - Controversial Topics in Science and Technology C1 | Englisch - Controversial Topics in Science and Technology C1 680 - 681
[SZ0488] English - Gateway to English Master's C1 | Englisch - Gateway to English Master's C1 682 - 683
[SZ0489] English - English Pronunciation C1 | Englisch - English Pronunciation C1 684 - 685
[SZ0495] English - English Conversation Partners Program B1-C1+ | Englisch - English Conversation Partners Program B1-C1+ 686 - 687
[SZ0497] English - Creative Writing C1: Introduction to Narrative Strategies and Literary Forms | Englisch - Creative Writing C1: Introduction to Narrative Strategies and Literary Forms 688 - 689
[SZ0498] English - Creative Writing C1: The Art of Craft - Toward Publication: Critical Revision Techniques | Englisch - Creative Writing C1: The Art of Craft - Toward Publication: Critical Revision Techniques 690 - 691
[SZ0499] English - Basic English for Technical Purposes B2 | Englisch - Basic English for Technical Purposes B2 692 - 693
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[SZ0501] French A1.1 | Französisch A1.1 694 - 696
[SZ0502] French A1.2 | Französisch A1.2 697 - 698
[SZ0503] French A2.1 | Französisch A2.1 699 - 701
[SZ0504] French A2.2 | Französisch A2.2 702 - 703
[SZ0505] French B1.1 | Französisch B1.1 704 - 705
[SZ05061] French B1.2 | Französisch B1.2 706 - 707
[SZ0507] French B2 - French for the profession | Französisch B2 - Le français pour la profession 708 - 709
[SZ0511] French B2/C1 - France currently | Französisch B2/C1 - La France actuelle 710 - 711
[SZ0512] French B1/B2 - Conversation Course: French Society | Französisch B1/B2 - Cours de conversation: La société française 712 - 713
[SZ0514] French B2 - Communication Course | Französisch B2 - Cours de conversation 714 - 716
[SZ0515] French C1 - Upper Conversation Course | Französisch C1 - Cours de conversation supérieure 717 - 719
[SZ0517] French B2 - Preparation Course for University Exchange | Französisch B2 - Cours de préparation à un échange universitaire 720 - 721
[SZ0518] French B2 Technical French | Französisch B2 Technisches Französisch 722 - 724
[SZ0522] French A1.1 + A1.2 | Französisch A1.1 + A1.2 725 - 726
[SZ0523] French C1 - French in Business | Französisch C1 - Le français des affaires 727 - 729
[SZ0526] French B1.1 + B1.2 | Französisch B1.1 + B1.2 730 - 731
[SZ0527] French A2.1 + A2.2 | Französisch A2.1 + A2.2 732 - 733
[SZ0528] French C1 - oral and written expression | Französisch C1 - s'exprimer à l'écrit comme à l'oral 734 - 735
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[SZ0601] Italian A1.1 + A1.2 - Intensive | Italienisch A1.1 + A1.2 - Intensiv 736 - 737
[SZ0602] Italian A1.1 | Italienisch A1.1 738 - 739
[SZ0604] Italian C1 - Italian Communication: Language and Conversation | Italienisch C1 - Comunicare in italiano: lingua e conversazione 740 - 742
[SZ0605] Italian A1.2 | Italienisch A1.2 743 - 744
[SZ0606] Italian A2.1 | Italienisch A2.1 745 - 746
[SZ0607] Italian A2.1 + A2.2 - Intensive | Italienisch A2.1 + A2.2 - Intensiv 747 - 748
[SZ0608] Italian A2.2 | Italienisch A2.2 749 - 750
[SZ06081] Italian A2.2/B1.1 for Medicines | Italienisch für Medizinstudierende A2.2/B1.1 751 - 752
[SZ0609] Italian B1.1 | Italienisch B1.1 753 - 754

[SZ06091] Italian B1.2 | Italienisch B1.2 755 - 756
[SZ0616] Italian B2/ C1 - Communication in Italy: language and conversation | Italienisch B2/ C1 - Comunicare in italiano: lingua e conversazione 757 - 758
[SZ0618] Italian B2.1 | Italienisch B2.1 759 - 760
[SZ0619] Italian B1/B2 - Modern Italian Society | Italienisch B1/B2 - La società italiana oggi 761 - 762
[SZ0620] Italian B2.2 | Italienisch B2.2 763 - 764
[SZ0623] Italian A1.2 + A2.1 - Intensive | Italienisch A1.2 + A2.1 - Intensiv 765 - 766
[SZ0624] Italian A2.2 + B1.1 - Intensive | Italienisch A2.2 + B1.1 - Intensiv 767 - 768
[SZ0630] Italian B1/B2 Conversation | Italienisch B1/B2 - Corso di conversazione 769 - 770
[SZ0631] Italian B1.1 + B1.2 - intensive | Italienisch B1.1 + B1.2 - intensiv 771 - 772
[SZ0632] Italian B1/B2 – Grammar Compact | Italienisch B1/B2 – Grammatica compatta 773 - 774
[SZ0633] Italian B2.1 + B2.2 - intensive | Italienisch B2.1 + B2.2 - Intensiv 775 - 776
[SZ0635] Italian C1.1 | Italienisch C1.1 777 - 778
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[SZ0705] Japanese A1.1 | Japanisch A1.1 779 - 780
[SZ07052] Japanese A1.1 + A1.2 | Japanisch A1.1 + A1.2 781 - 782
[SZ0706] Japanese A1.2 | Japanisch A1.2 783 - 784
[SZ0707] Japanese A1.3 | Japanisch A1.3 785 - 786
[SZ0709] Japanese A1.4 | Japanisch A1.4 787 - 788
[SZ0711] Japanese A2 Communication Course | Japanisch A2 Kommunikation 789 - 790
[SZ0716] Japanese A2.3 + A2.4 | Japanisch A2.3 + A2.4 791 - 792
[SZ0717] Japanese B1 Communication | Japanisch B1 Kommunikation 793 - 794
[SZ0718] Japanese A1.3 + A1.4 | Japanisch A1.3 + A1.4 795 - 796
[SZ0719] Japanese A2.1 + A2.2 | Japanisch A2.1 + A2.2 797 - 798
[SZ0720] Japanese B1.1 | Japanisch B1.1 799 - 800
[SZ0722] Japanese B2 Communication | Japanisch B2 Kommunikation 801 - 802
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[SZ0801] Portuguese A1 | Portugiesisch A1 803 - 805
[SZ0806] Portuguese A2.1 | Portugiesisch A2.1 806 - 808
[SZ0807] Portuguese A2.2 | Portugiesisch A2.2 809 - 811
[SZ0808] Portuguese B1.2 | Portugiesisch B1.2 812 - 814

[SZ0809] Portuguese B1.1 | Portugiesisch B1.1 815 - 817
[SZ0815] Portuguese - Portuguese for Spanish speakers A1 + A2 | Portugiesisch - Português para hispanofalantes A1 + A2 818 - 820
[SZ0816] Portuguese B2.1 | Portugiesisch B2.1 821 - 823
[SZ0817] Portuguese B2.2 | Portugiesisch B2.2 824 - 826
[SZ0818] Portuguese - Portuguese for Spanish Speakers A1 | Portugiesisch - Português para hispanofalantes A1 827 - 829
[SZ0819] Portuguese - Portuguese for Spnish Speakers A2 | Portugiesisch - Português para hispanofalantes A2 830 - 832
[SZ0820] Portuguese C1 - Communication Course | Portugiesisch C1 - comunicação oral e escrita 833 - 834
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[SZ0901] Russian A1.1 | Russisch A1.1 835 - 836
[SZ0902] Russian A1.2 | Russisch A1.2 837 - 838
[SZ0903] Russian A2.1 | Russisch A2.1 839 - 840
[SZ0904] Russian A2.2 | Russisch A2.2 841 - 842
[SZ0905] Russian B1.1 | Russisch B1.1 843 - 844
[SZ0906] Russian B1.2 | Russisch B1.2 845 - 846
[SZ0907] Russian B2.1 | Russisch B2.1 847 - 848
[SZ0908] Russian - Introduction to Russian in Science B1 | Russisch - Einführung in die Wissenschaftssprache ab B1 849 - 851
[SZ0909] Russian as language of origin from B1 | Russisch als Herkunftssprache ab B1 852 - 854
[SZ0910] Russian - Communication Course B1/B2 | Russisch - Kommunikationskurs B1/B2 855 - 856
[SZ0911] Russian B1/B2 - Grammar | Russisch B1/B2 - Systematische Grammatik 857 - 858
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[SZ1001] Swedish A1 | Schwedisch A1 859 - 860
[SZ1002] Swedish A2 | Schwedisch A2 861 - 862
[SZ1014] Swedish C1.1 | Schwedisch C1.1 863 - 864
[SZ1016] Swedish B1.1 | Schwedisch B1.1 865 - 866
[SZ0003-11] Intercultural Communication | Interkulturelle Kommunikation 867
[SZ1102] EuroTeQ Intercultural Workshop – Intercultural competencies for working in multicultural teams | EuroTeQ Intercultural Workshop – Intercultural competencies for working in multicultural teams 867 - 868
[SZ0003-12] Spanish | Spanisch 869
[SZ1201] Spanish A1 | Spanisch A1 869 - 870
[SZ1202] Spanish A2.1 | Spanisch A2.1 871 - 873
[SZ1203] Spanish A2.2 | Spanisch A2.2 874 - 876

[SZ12031] Spanish A2.1 + A2.2 | Spanisch A2.1 + A2.2 877 - 878
[SZ1207] Spanish A1 + A2.1 | Spanisch A1 + A2.1 879 - 881
[SZ1208] Spanish A1 - AVE (online) | Spanisch A1 - AVE (online) 882 - 883
[SZ1209] Spanish C1 - current issues in Spain and Latin America | Spanisch C1 - La actualidad en España y América Latina 884 - 886
[SZ1212] Spanish C1 - Spain and Latin America - Yesterday and Today | Spanisch C1 - España y América Latina ayer y hoy 887 - 888
[SZ1216] Spanish B1.2 | Spanisch B1.2 889 - 890
[SZ1217] Spanish B2.2 | Spanisch B2.2 891 - 893
[SZ1218] Spanish B1.1 | Spanisch B1.1 894 - 895
[SZ1219] Spanish B2.1 | Spanisch B2.1 896 - 897
[SZ1225] Spanish B1.1 + B1.2 | Spanisch B1.1 + B1.2 898 - 899
[SZ1227] Spanish C1.1 | Spanisch C1.1 900 - 901
[SZ1228] Spanish B2 - Spanish in Science and Technology | Spanisch B2 - Español para la Ciencia und Tecnología 902 - 903
[SZ1229] Spanish B1 - Grammar Training | Spanisch B1 – Grammatik Training-Curso práctico de gramática 904 - 905
[SZ1230] Spanish A2 - Grammar Training | Spanisch A2 - Grammatik Training-Curso práctico de gramática 906 - 907
[SZ1231] Spanish A2 plus - Writing and Grammar Skills | Spanisch A2 plus - Sicherheit in Wortschatz und Grammatik 908 - 909
[SZ1232] Spanish B2 plus - Preparation for C1 | Spanisch B2 plus - Vorbereitung auf C1 910 - 911
[SZ1234] Spsnish C1.1 | Spanisch C1.1 - Más allá de los límites 912 - 913
[SZ1235] Spanish C1.2 | Spanisch C1.2 914 - 915
[SZ0003-13] Hebrew | Hebräisch 916
[SZ1304] Hebrew A1.1 | Hebräisch A1.1 916 - 917
[SZ1305] Hebrew A1.2 | Hebräisch A1.2 918 - 919
[SZ1306] Hebrew A2.1 | Hebräisch A2.1 920 - 921
[SZ0003-14] Turkish | Türkisch 922
[SZ1402] Turkish A2.1 | Türkisch A2.1 922 - 923
[SZ1403] Turkish A2.2 | Türkisch A2.2 924 - 925
[SZ1404] Turkish A1.1 | Türkisch A1.1 926 - 927
[SZ1405] Turkish A1.2 | Türkisch A1.2 928 - 929
[SZ1408] Turkish - Communication A2 | Türkisch - Kommunikation A2 930 - 931
[SZ0003-15] Danish | Dänisch 932
[SZ1501] Danish A1 | Dänisch A1 932 - 933
[SZ1502] Danish A2 | Dänisch A2 934 - 935
[SZ1503] Danish B1 | Dänisch B1 936 - 937
[SZ0003-16] Dutch | Niederländisch 938
[SZ1601] Dutch A1 | Niederländisch A1 938 - 939

[SZ1602] Dutch A2 | Niederländisch A2 940 - 941
[SZ1606] Dutch B1 | Niederländisch B1 942 - 943
[SZ0003-17] Norwegian | Norwegisch 944
[SZ1701] Norwegian A1 | Norwegisch A1 944 - 945
[SZ1702] Norwegian A2 | Norwegisch A2 946 - 947
[SZ1703] Norwegian B1 | Norwegisch B1 948 - 949
[SZ1704] Norwegian B2 | Norwegisch B2 950 - 951
[SZ0003-18] Korean | Koreanisch 952
[SZ1804] Korean A2.1 | Koreanisch A2.1 952 - 953
[SZ1805] Korean A2.2 | Koreanisch A2.2 954 - 955
[SZ1807] Korean B1.2 | Koreanisch B1.2 956 - 957
[SZ1808] Korean A1.1 | Koreanisch A1.1 958 - 959
[SZ1809] Korean A1.2 | Koreanisch A1.2 960 - 961
[SZ1810] Korean B1.1 | Koreanisch B1.1 962 - 963
[SZ1812] Korean B1.1 plus B1.2 - Preparation for TOPIK | Koreanisch B1.1 plus B1.2 - Vorbereitung auf die Sprachprüfung TOPIK 964 - 965
[SZ1813] Korean B1.1 + B1.2 - Grammar | Koreanisch B1.1 + B1.2 - Grammatik 966 - 967
[SZ0003-20] Catalan | Katalanisch 968
[SZ2001] Catalan A1 | Katalanisch A1 968 - 969
Master's Thesis | Master's Thesis 970
[WZ2754] Master's Thesis | Master's Thesis 970 - 972

Required Modules | Pflichtmodule

Module Description

LS50031: Introduction to GIS and Remote Sensing | Introduction to GIS and Remote Sensing

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning success will be assessed by a 90 min. written examination (Klausur – essay exam). Within a limited period of time and without any means of help, demonstrate their knowledge in GIS and remote sensing principles, concepts, components and methods and their ability to select appropriate concepts to implement problem solution strategies to solve a given task. Therefore, application examples are given, which have to be solved. The examination requires originally verbalised answers.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
None

Content:
Implementation of basic concepts for acquisition, management, visualization of spatial data, and data evaluation, as well as their inter-connection with tabular data from different sources.
• GIS: the focus is on the use of vector based spatial data; the potentials of raster based GIS are demonstrated.
• Remote Sensing: basic concepts of Remote Sensing (physical background, sensor types, signatures, visual and quantitative image processing of spatial information extraction) are introduced. Besides, application possibilities of remote sensing are elucidated.

Intended Learning Outcomes:
After successful completion of this module, students are able to:

• Understand the basic GIS and remote sensing principles, concepts, components and methods;
• Select an appropriate GIS/Image Analysis program with respect to its intended field of application;
• Identify a geospatial problem and
• Decide on the appropriate data analysis strategy for the task to be supported.
• Apply a Geoinformatics tool (GIS and RS) to solve individual problems dealing with spatial information;

Teaching and Learning Methods:
The module includes lectures, where theoretic aspects of GIS and Remote Sensing are explained with help of accompanying examples, followed by hands-on exercises with GIS software on computers.

Media:
Online material
Slides with lecture contents
Lab data and task descriptions

Reading List:
Introduction to GIS:
• Environmental Systems Research Institute Inc.: Map Projections. Georeferencing spatial data, ESRI Press
• Zeiler, M.: Modelling Our World. The ESRI Guide to Geodatabase Design, ESRI Press
• Vienneau, A.: Using ArcCatalog, ESRI Press
• Minami, M.;Sakala, M.;Wrightsell, J.: Using ArcMap, ESRI Press
Introduction to Remote Sensing:
• Remote Sensing and Image Interpretation by Lillesand, Kiefer, and Chipman (2015).
• Remote Sensing Digital Image Analysis - an introduction by Richards, Jia (2005).
• Internet tutorials from ESA, DLR, NASA.

Responsible for Module:
Döllerer, Martin, Dr. rer. silv. doellerer@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Introduction to GIS (Vorlesung, 1 SWS)
Döllerer M

Introduction to GIS (Übung, 1 SWS)
Döllerer M

Introduction to Remote Sensing (Vorlesung mit integrierten Übungen, 2 SWS)
Mengesha M
For further information in this module, please click campus.tum.de or here.

Module Description

WZ1821: Natural Resources - Traits, Management and Theory of Sustainability | Natural Resources - Traits, Management and Theory of Sustainability

Natural Resources - Traits, Management, Theory of Sustainability

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 80	**Contact Hours:** 70

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The intended learning outcomes as defined below require a differentiated way of examination. A written exam (Klausur, 90 min) at the end of the semester will test whether the students sufficiently understand sustainability concepts and their connection to specific resources. Moreover, in the exam, they have to be able to apply the acquired knowledge for assessing real-world problems (as presented in the form of case studies) and to suggest and substantiate constructive solutions.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
None

Content:
The module is intended to be a leitmotif during the first semester. It consists of three basic units:
Unit 1 Introduces the theory and the history of sustainability, supplemented by introducing interdisciplinary method knowledge.
Unit 2 Introduces important natural resources, their specific traits in combination with sustainability challenges.
Unit 3 Discusses case studies from interdisciplinary real-world-implementations.

Lecturers change during the semester. Each lecture is given by an expert in the specific field.

Intended Learning Outcomes:
After successful completion of the module students understand the most important theories and perceptions of sustainable resource management as well as traits and challenges connected with essential natural resources. Moreover, they are able to apply this knowledge for critically questioning given real-world situations. This comprises the ability to assess strengths and weaknesses of given problem solution approaches (as presented in the media or specialist literature), and to outline possible approaches if confronted with a resource management problem.

Teaching and Learning Methods:
Depending on each lecture's specific contents and due to the modules' interdisciplinary character, teaching methods combine classic presentations, blended learning and group work.

Media:
presentations, worksheets, simulation models

Reading List:
Recommended up-to-date readings are supplied by the specific lecturers

Responsible for Module:
Biber, Peter; Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:
Natural Resources - Traits, Management, Theory of Sustainability (Vorlesung, 4 SWS)
Biber P [L], Biber P, Häberle K, Kasperidus H, Knoke T, Koppenborg F, Menzel A, Mikula P, Parreno M, Schad P
For further information in this module, please click campus.tum.de or here.

Module Description

LS50030: Scientific Writing | Scientific Writing

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 120	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a research paper (of around 12 pages), which is worked out in a group by 3-5 members. That is the means to evaluate whether the students are able to apply the regulations of scientific writing according to international standards and guides for authors of journals with peer-review process in their own scientific paper.
The individual contribution of each author (student) must be labeled and provided in the paper following the research and publication ethics of international scientific journals.
With starting the writing process of the research paper, an individual concept paper from each student has to be submitted for the selected topic to show the individual contribution to the group paper from the beginning. This will not be counted for the grade, but is the basis for the group discussions and the development of the group paper. The scientific paper will be graded. The first submission of the scientific paper and the second submission, which is after the revision according to the reviewers (lecturers) feedback, will contribute to the grade with 50% each.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basics in (Scientific) Writing

Content:
- the communication process as two-way interaction
- group dynamics, dealing with difficult situations and facilitating conflict resolution in groups during the writing process
- purpose of scientific writing
- procedure of scientific writing according to the international standards of journals with peer-review
- process of writing a scientific paper

- content details of the different chapters in a scientific paper according to the international standards of journals with peer-review
- creation and description of tables, graphs and charts
- looking for literature and data sources to write a scientific paper
- revision of the scientific paper by reflection and integration of feedback

Intended Learning Outcomes:
- understand the topic scientific writing in an international, scientific environment
- apply the procedure of scientific writing according to the international standards of journals with peer-review
- analyze the structure and outline of scientific papers
- search, select and use literature sources
- create and deliver own scientific papers according to the international standards of journals with peer-review
- reflect and implement feedback

Teaching and Learning Methods:
The module consists of a lecture part, providing the theoretical foundations of the course content. The main part is a seminar, in which the students write a scientific paper about a selected topic and the lecturer gives feedback to the students' work. Concerning teaching methods, lectures and videos provide theoretical foundations in scientific writing. Within the seminar, tasks are introduced to the students who are requested for completing them individually as homework. In order to familiarize students with the process of scientific writing, they work in groups to study specialist literature and data files that form the basis for writing a scientific paper under time constraint. On basis of critique reviews and feedback sessions by the lecturers, they revise the scientific paper.

Media:
Power point presentation, lecture slides, PDFs of scientific papers, PDFs of Guidelines, videos

Reading List:
pp. 300.
Huss, J.; 2014: Schreiben und Präsentieren in den angewandten Naturwissenschaften.
Ein Leitfaden. 2. Auflage. 256 Seiten. Verlag Kessel, Remagen-Oberwinter 2014. ISBN 978-3-941300-94-1.
TUM citation guideline.
Summary guideline from Weber-Blaschke "How to write a scientific paper" within the seminar.
Other documents within the seminar, links to helpful videos and other information.

Responsible for Module:
Weber-Blaschke, Gabriele, Apl. Prof. Dr. rer. silv. weber-blaschke@hfm.tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Scientific Writing (Seminar, 2 SWS)
Weber-Blaschke G, Bauer E

For further information in this module, please click campus.tum.de or here.

Module Description

LS50032: Systems Analysis, Terrestrial Sampling and Statistics | Systems Analysis, Terrestrial Sampling and Statistics

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In a written exam (Klausur, duration 90 min), the students' knowledge and competencies in understanding of important concepts in systems analysis, terrestrial sampling and statistical evaluation is assessed. Students have to analyze problems formulated as cases in the examination and to justify their solution strategy. They apply analysis and theoretical simulation knowledge to solve the problems provided in the examination. In the statics part, students will be confronted with outputs of statistical software and then have to analyze and interpret the output. They also have to be able to offer alternative analysis methods, if asked for.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
None

Content:
This module combines the understanding of systems with methods of data and information acquisition and assessment. The contents include:

1 Dynamic systems and formal key methods in structuring system knowledge, building computer models, and learning from such models.
2 Feedback structures found in ecosystems and social science
This module combines the understanding of systems with methods of data and information acquisition and assessment. The contents include:

1 Dynamic systems and formal key methods in structuring system knowledge, building computer models, and learning from such models.

2 Feedback structures found in ecosystems and social science or engineering contexts.
3 Implementation of basic concepts for data acquisition and evaluation.
4 Terrestrial sampling methods: Introduction to sampling theory and application.
5 Statistics in Resource Management: Justification of statistics, descriptive statistics and exploration: Frequencies and their graphical representation, distributions and their moments, testing hypotheses, regression analysis, post hoc tests, a priori contrasts, analysis of variance.

Intended Learning Outcomes:
At the end of the module students understand essential elements of system, sampling and statistical theory and concepts as well as using software, such as VENSIM, EXCEL and JASP. They remember important dynamic patterns and methods to formulate, simulate, and analyze them. Moreover, they are able to apply key methods of system analysis (e.g., system dynamics diagrams, causal loop diagrams, model construction, computer simulations) to small and intermediate problems in a broad range of fields.
These abilities include essential techniques of System Dynamics as:
- using causal loop diagrams and stock-and-flow diagrams for structuring information,
- understanding the basic mathematics behind dynamic models,
- building small and intermediate simulation models,
- developing an understanding of the potential and limitations of computer simulations in general.
- understanding the principles of terrestrial sampling and how to assure the quality of a sample,
- understanding data analysis as a support for the students' Master's Thesis,
- understanding the formulation of hypotheses and applying them, the connection of statistics to epistemology, their preconditions for proper application and interpretation of the results,
- and applying basic statistical techniques.

Teaching and Learning Methods:
Lectures providing theoretical foundations of systems and data acquisition and evaluation. Interactive lecture in System Analysis (Software: VENSIM). In the beginning, the group is introduced to simple problems in order to develop routine in the methodological and technical basics while understanding fundamental dynamic processes from exponential growth and decay up to nth order delays. Later when the students have already developed basic skills and intuition, a special focus is on problems that directly connect to resource management challenges, like different approaches to sustainable harvest or overshoot and collapse systems. The lecture with integrated exercises in statistics is accompanied by numerous data examples which are evaluated by the students using basic statistical techniques. Software: Excel and JASP.

Media:
Reading material provided by lecturers, power point presentations, modelling software VENSIM PLE, example models

Reading List:
Systems Analysis:
Sterman, J.D., Business Dynamics. McGraw-Hill Education, 2000.

H. Bossel: System Zoo 1 Simulation Models – Elementary Systems, Physics, Engineering. Books on Demand, Norderstedt, 2007 (ISBN 978-3-8334-8422-3).
H. Bossel: System Zoo 2 Simulation Models – Climate, Ecosystems, Resources. Books on Demand, Norderstedt, 2007 (ISBN 978-3-8334-8423-0).
H. Bossel: System Zoo 3 Simulation Models – Economy, Society, Development. Books on Demand, Norderstedt, 2007 (ISBN 978-3-8334-8424-7).
Ford, A. Modeling the Environment. Island Press, 1999.
Pruyt, E., 2013. Small System Dynamics Models for Big Issues: Triple Jump towards Real-World Complexity. Delft: TU Delft Library. ISBN/EAN: 978-94-6186-195-5 (Free e-book)
Terrestrial Sampling Methods:
Gregoire TG and Valentine HT (2008) Sampling strategies for natural resources and the environment. Boca Raton, Fla.; London, Chapman & Hall/CRC
Mandallaz D (2008) Sampling techniques for forest inventories. Applied Environmental Statistics. Chapman and Hall. 276 p
Statistics with Microsoft Excel (4th Edition) by Beverly Jean Dretzke (Paperback - June 20, 2008)
Discovering statistics using SPSS Field, Andy P. 2009

Responsible for Module:
Knoke, Thomas, Prof. Dr. rer. silv. knoke@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Systems Analysis (Vorlesung, 2 SWS)
Biber P

Terrestrial Sampling (Vorlesung, 2 SWS)
Knoke T

Statistics (Vorlesung mit integrierten Übungen, 1 SWS)
Knoke T
For further information in this module, please click campus.tum.de or here.

Elective Modules | Wahlmodule

Science Topics | Science Topics

Climate, Air and Water | Climate, Air and Water

Module Description

WZ2730: Climate Change - Science, Impacts and Adaptation, Mitigation | Climate Change - Science, Impacts and Adaptation, Mitigation

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Assessment consisting of oral examination on the lecture and the seminar (30 min). In the oral examination, students are expected to demonstrate that they have understood the physical basis of the climate system and that they can identify the drivers of climate change. The students show that they are able to apply their knowledge to develop adaptation and mitigation measures and to argue in discussions on climate change issues.
In addition, there is the option of taking a voluntary mid-term assignments as coursework in accordance with APSO §6, 5. For this, a presentation (20 min + 10 min discussion) has to be given. In the presentation, the students summarize findings from scientific publications or case studies and present the content to an audience. Additionally, the students are expected to demonstrate that they are able to respond competently to any questions, suggestions or discussions brought by the audience and relating to their subject area. The module grade can be improved by 0.3 by passing the coursework if this better characterizes the student's performance level on the basis of the overall impression and the deviation has no influence on passing the examination. No repeat date is offered for the mid-term performance. When retaking a failed module examination at the next possible examination date, successfully passed mid-term assignments will be taken into account.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in meteorology, physics, biology.

Content:
Based on findings from the latest IPCC report (AR6) the theoretical background on the physical science basis of climate change, theory and practical application of adaptation and mitigation measures in biological, physical and chemical systems will be presented. In a related seminar, selected topics on climate change mitigation and adaptation will be intensified in case studies.

Intended Learning Outcomes:
After this module, the students can understand the physical basis of the climate system, identify all drivers of climate change and falsify common arguing of "climate sceptics". They can summarize observed changes in the climate system as well as impacts in drivers systems and regions. They are able to assess cross-sectorial impacts of climate change in selected areas, to evaluate and develop adaptation and mitigation measures and strategies in biological, physical and chemical systems including an analysis of their effectiveness and cost-effectiveness.

Teaching and Learning Methods:
Lecture on physical basis of the climate system, impacts of climate change and important mitigation strategies. In the seminar group presentations of various topics regarding adaptation and mitigation of climate change will be presented as case studies.

Media:
Lecture with PowerPoint Presentation, reader and exercises. Group work in seminar including problem driven case studies and student presentations, excursion.

Reading List:
IPCC, 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 35-115

Selected chapters from the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC-AR6) 2021, 2022, 2023 and most recent scientific literature.

Responsible for Module:
Rammig, Anja; Prof. Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Ecological, social and economic aspects of CC impacts, adaptation and mitigation on different scales (Seminar, 2 SWS)
Estrella N [L], Menzel A, Estrella N

Climate Change - The complete briefing (Vorlesung, 2 SWS)
Rammig A [L], Buras A, Figueiredo Lugli L

For further information in this module, please click campus.tum.de or here.

Module Description

WZ2732: Environmental Monitoring and Data Analysis | Environmental Monitoring and Data Analysis

Version of module description: Gültig ab summerterm 2023

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Upon completion of the module, the students have a profound understanding of key aspects of environmental monitoring and are able to choose appropriate as well as to efficiently run environmental measurements, to reproducibly analyze acquired data and to clearly communicate results of environmental measurements.
The examination of the module will be in the form of a written examination (Klausur, 180 min); which consists of two sub parts: first a written part (40%, approx.60 minutes) on monitoring concepts and second a programming part on handling environmental monitoring datasets (60%, approx. 120 minutes).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in R is recommended.

Content:
1 Environmental monitoring including principles, techniques and management issues used in environmental monitoring and assessment; Observing, recording, communicating and archiving collected data and providing it to project stakeholders in order to identify sustainable and responsible environmental practices.
Optional: short course Aerobiology, GAW program, visit of companies

2 Environmental data analysis

Introduction to data analysis with R; Principles of reproducible research and implementation with R; Pipelines for environmental data analysis from obtaining data via cleaning and transforming to modelling and visualization with modern R; Coverage of data retrieval from different storage types for climate, proxy, phenology, and other data (text- based, netCDF, data bases); Modeling and visualization as complementary strategies for hypothesis-driven data analysis, based on published research from different fields of environmental sciences

Intended Learning Outcomes:
After this module, the students can plan, implement and run environmental measurements. They are able to efficiently analyze environmental data sets, including download and import of data sets and visualization and modelling with R.

Teaching and Learning Methods:
Course 1 is a combined lecture and exercise sessions where students will work on applied case studies and exercises related to environmental / meteorological monitoring.
Course 2 then offers combined lecture and exercise sessions at the PC lab on how to efficiently analyze those environmental data sets of course 1.

Media:
PowerPoint Presentation, Field work, Interactive documents for data analysis

Reading List:
Beginner level tutorials for Swirl (http://swirlstats.com/)

Responsible for Module:
Menzel, Annette; Prof. Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:
Environmental monitoring and data analysis; ecological data analysis (Vorlesung mit integrierten Übungen, 3 SWS)
Menzel A [L], Buras A

Environmental monitoring and data analysis; ecological monitoring (Vorlesung mit integrierten Übungen, 2 SWS)
Menzel A [L], Kauffert J
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2731: Hydrometeorology and Management of Water Resources | Hydrometeorology and Management of Water Resources

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning outcome will be assessed by an oral examination (30 min) in which students should demonstrate their profound understanding of water management and their ability to analyze and evaluate key issues and challenges. They should exhibit the capability of identifying and solving problems in a concise way and show that they can express themselves in a clear and scientific manner. A voluntary mid-term assignment (presentation) in the seminar assesses the students' ability to communicate and present an integrated management study case on one selected topic in sustainable water management. It will serve for grade improvement by 0.3 according to §6(5) APSO.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in chemistry and physics.

Content:
1. Hydrometeorology (including hydrological cycles, precipitation-, runoff-, evapotranspiration - process of formation, measurement, global and regional spatial and temporal patterns, influences by land use land cover change, climate change scientific basis, climate change impacts, adaptation, vulnerability in water resources).
2. Problems in water management according to too little water, too much or too dirty. Different aspects of water augmentation (e.g. harvesting, desalination, translocation), water conservation (irrigation, pricing, household, …), water management processes (e.g. IWRM, virtual water) are discussed by practical examples.

Intended Learning Outcomes:
Upon the successful completion of this module, the students are able to understand the basics of hydrology and the influence of climate change on hydrological processes and management. They are able to analyze and classify various problems in water resource management and to assess the suitability and applicability of different management practices in the field of water augmentation (e.g., rainwater harvesting, fog nets, dams) and water-saving strategies (e.g., in irrigation, sanitation) to integratively solve water-resource-problems.

Teaching and Learning Methods:
The basics of hydrology and meteorology are presented and discussed in a lecture “Introduction into Hydrometeorology” with thorough explanations. Within the lecture, additionally some simple case studies are used to introduce the theoretical background (e.g. meteorological instruments at the meteorological platform). Student presentations and discussions as well as group work are the main content of the adjacent course “Management of Water Resources”.

Media:
PowerPoint presentations; Presentation notes supporting the lecture. Case studies.

Reading List:
Ahrends (2000) Meteorology today, 7th edition. Jones JAA (2010) Water Sustainability - A Global Perspective, Hodder Education London. Clarke R & King J (2004) The atlas of water. Figueres C. et al. (2003) Rethinking water management. Wescoat JL et al. (2003) Water for life, water management and environmental policy. Grambow M (2008) Wassermanagement.

Responsible for Module:
Prof. Dr. Annette Menzel - Professur für Ökoklimatologie Hans-Carl-von-Carlowitz-Platz 2, 85354 Freising, 08161/ 71-4740, amenzel@wzw.tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Management of Water Resources (Vorlesung, 2 SWS)
Estrella N, Menzel A

Introduction to Hydrometeorology (Vorlesung, 2 SWS)
Menzel A [L], Menzel A
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2722: Mountain Catchments under Changing Climate | Mountain Catchments under Changing Climate

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In a written exam (Klausur, 60 min), students demonstrate that they have gained an understanding of hydrological processes and that they are able to apply and run a hydrological model for a mountain catchment. For the Field Course of Applied Hydrometeorology, the students write a term paper (a written report of 8-10 pages). By this, students should demonstrate on a self-chosen topic/system/example that key properties and sustainability features of hydrological systems and resources in mountain catchments are understood and correctly assessed. Current relevant scientific literature is to be included in a clear and concise manner.The final grade is an average grade from the term paper (65%) and the written exam (35%).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
WZ2731 Hydrometeorology and Management of Water Resources.

Content:
In the Field Course Applied Hydrometeorology of Mountain Catchments, we will visit selected research stations, field sites, hydrological infrastructure, restoration sites, and protected areas in the Munich PreAlpine and Alpine area and learn more about hydrology-related threats for mountain catchments ranging from Glacier melt to Munich's drinking water. Sites include, e.g. Environmental Research Station Schneefernerhaus, KIT Alpine Campus Garmisch, Versuchstation Obernach, Sylvensteinspeicher, Walchenseekraftwerk, Meteorological Observatory Hohenpeißenberg, Versuchsstation Wielenbach, Drinking Water Supply and Sewage Treatment facilities of a city. .
The Hydrological Modeling course includes:
1) Dominant hydrological processes in mountain catchments: Precipitation types, runoff generation, concentration and flood routing

2) Data in mountain catchments: Availability, quality, acquisition, and analysis
3) Types of hydrological models
4) Generation, parameterization, and calibration of the process-based hydrological model SWAT+
5) Model sensitivity analyses with a focus on meteorological input and land use scenarios.

Intended Learning Outcomes:
After completion of the module, the students understand the main processes in mountain catchments like runoff generation, runoff concentration and flood routing processes. Additionally, they are able to use a quasi-physically based hydrological model to simulate the rainfall runoff process in mountain catchments and its influencing parameters caused by the special circumstances of these regions in a widely realistic and transparent way. The students are able to generate event based scenarios as well as land use scenarios and understand recent hydrology-related threats for mountain catchments as well as the influence of climate change on hydrological processes and management in mountain areas. They remember suitable monitoring and risk prevention strategies and are able to analyze, evaluate and communicate (both oral and written) a specific case study or research questions related to the experimental sites visited to a general audience.

Teaching and Learning Methods:
Teaching methods include lecture as well as practical exercises at PC laboratory in respect to hydrological modelling, a week of field trip to Alpine and pre-alpine areas to the listed sites with guided tours by local scientists, administrators, TUM lectures as well as short presentations by the students.

Media:
PowerPoint Presentation, Hydrological model (e.g. SWAT+), Field work

Reading List:
IPCC (2013) Fifth Assessment Report; Shelton ML (2009): Hydroclimatology - Perspectives and Applications; IPCC (2008) Technical Paper VI on Climate Change and Water

Responsible for Module:
Responsible for Module: Prof. Dr. Annette Menzel - Professur für Ökoklimatologie Hans-Carl-von-Carlowitz-Platz 2, 85354 Freising, 08161/ 71-4740, menzel@wzw.tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Introduction in Hydrological Modelling (Vorlesung, 2 SWS)
Alcamo L, Broich K

Field Course in Applied Hydrometeorology (Vorlesung mit integrierten Übungen, 3 SWS)
Menzel A [L], Lüpke M, Menzel A
For further information in this module, please click campus.tum.de or here.

Economic and Political Dimensions of Sustainability | Economic and Political Dimensions of Sustainability

Module Description

WZ2757: Advanced Environmental and Natural Resource Economics | Advanced Environmental and Natural Resource Economics

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 180	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a written exam (Klausur, 90 min). In the written examination, students demonstrate by answering questions under time pressure and only with the help of a calculator the theoretical and practical knowledge of resource problems. By answering to open questions, students can proof their ability to describe apply economic theory, for example, by demonstrating their understanding of the problem of optimal time paths of resource use, or by explaining welfare effects of production systems.
In addition, there is the possibility to perform a voluntary study performance as a mid-term performance according to APSO §6 (5). For this, a presentation (20 min) has to be passed.
By passing the course work, the module grade is improved by 0.3, if, based on the overall impression, this better characterizes the student's performance level, and the deviation has no influence on the passing of the examination. No repeat date is offered for the mid-term performance. In the case of repeating the module examination, a mid-term performance already achieved will be considered.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge of environmental and natural resource economics is recommended.

Content:
Dynamic optimization; Theory of optimal extraction of renewable and non-renewable resources; Theory of joint production; Application of game theory to resource management; Optimal growth and green accounting

Intended Learning Outcomes:
At the end of the module students have a profound knowledge of the economics of resource problems. They can derive the optimal time path to use renewable and non-renewable resources. They can explain how resources can be incorporated in the theory of optimal growth and how they can be accounted for in welfare and sustainability measurement. They can explain how some welfare enhancing effects are produced as a side effect of production systems. They are able to apply resource economic theory to real life resource problems. They know how to apply the basic concepts of game theory and how these can be used to explain the (im)possibilities of reaching international environmental agreements.
By the delivery of a presentation, students demonstrate the ability to understand an economic/ scientific subject out of its theoretical abstraction, to analyse and evaluate relevant policy measures and factors of influence, to summarize the subject and present it to an audience, and to stand a discussion about the presented subject. By the written summary, they improve their ability to summarise the major facts and the conclusion of a presentation in a clear and concise manner. Also, they learn how to integrate different views on questions of resource use and how to critically reflect on them.

Teaching and Learning Methods:
Lectures will be used to teach the theoretical material. The other part of the module will consist of a seminar. There, students under the supervision of the instructors will apply the theory taught in the lectures to solve problems and to facilitate a better understanding of the subject matter. In order to enable students to critically reflect on lecture topics, interactive elements are integrated (e.g., group work, case studies). Students are encouraged to actively participate in the course programme by giving a presentation (20 min), which shall also be prepared in written form (around 10 pages). The presentation shall analyse a lecture topic in detail and place it in the economic environment. It shall be designed in a way that allows the demonstration of theoretical economic concepts in real life examples (e.g., environmental agreements in game theory, methods of environmental evaluation). By preparing a presentation on their own and developing a short paper of it, students will enhance and deepen the knowledge gained in the lecture and learn how economic theory is applied in real life situations.

Media:
Lecture notes, PowerPoint presentations, Excel

Reading List:
Perman, R., Y. Ma, M. S. Common, D. Maddison, and J. McGilvray. 2011. "Natural Resource and Environmental Economics.". Fourth edition London: Pearson Education.

Responsible for Module:
Sauer, Johannes; Prof. Dr. agr.

Courses (Type of course, Weekly hours per semester), Instructor:
Advanced Environmental and Natural Resource Economics (WZ2757, englisch) (Vorlesung, 4 SWS)
Sauer J [L], Canessa C, Henao Henao J, Villalba Camacho R
For further information in this module, please click campus.tum.de or here.

Module Description

WZ1590: Climate Change Economics | Climate Change Economics

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
There will be a written exam (Klausur) of 90 minutes at the end of the semester. The students will be asked to demonstrate, within the stipulated amount of time using predefined methods and resources, their ability to outline the challenges climate change poses to regulators, propose pragmatic solutions and strategies as well as ways of implementing them. This will be based on the competencies acquired from the relevant literature of economic modeling, theories of climate change, and their understanding of the course content. The written exam is an appropriate assessment method to evaluate the degree to which the students understand the theoretical framework of climate change implications as well as provides an opportunity for them to put forward arguments based on existing theory.

In addition, there is the option of taking a voluntary mid-term assignments as course work in accordance with APSO §6, 5. For this, a presentation (15 min) has to be given.
The module grade can be improved by 0.3 by passing the course work if this better characterises the student's performance level on the basis of the overall impression and the deviation has no influence on passing the examination. No repeat date is offered for the mid-term performance. When retaking a failed module examination at the next possible examination date, successfully passed mid-term assignments will be taken into account.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge:
• Micro Economics (Welfare Economics)
• Environmental Economics
• Resource Economics

Content:
This course covers the trends in current and future climate change and their effects on economic and social outcomes.

The lectures cover the following topics:
1. Introduction to the Basic Science of Climate Change
- The students will learn about the scientific themes of global climate change and the economic dimension of the phenomenon.
2. Basic Economics
- The students will learn how a market economy can be efficient and socially optimal as well as about the prospects of externality.
3. Optimal Emission Levels
- The students will learn of the optimal abatement path and its uncertainty with respect to damages as well as Integrated Assessment Models (IAMs).
4. Intra-generational equity in climate policy
- The students will learn about how to account for equity across space (intergenerational equity) when deriving optimal emission levels.
5. International Environmental Agreements
- The students will learn about the dynamics behind common strategies towards achieving some form of optimal emission level.
6. Policy Instruments
- The students will learn about diverse instruments such as quality-based approach and Pigouvian Tax.
7. Regulation via Prices vs. Quantities
- The students will learn what circumstances will a regulator prefer prices over quantities and vice versa.
8. Credit-based Mechanisms
- The students will learn about how to deal with countries that do not want to commit but have a high potential for low-cost reductions.
9. German Climate Policy
- The students will learn about German Climate Action - strategies and policies
10. European Union Emission Trading Scheme - EU ETS

Intended Learning Outcomes:
After successfully completing the module, students are able to:
• Evaluate economic models related to climate change.
• Understand theoretical models of climate change regulations as well as policies that affect emission levels.
• Comprehend the complexity, uncertainty and possibilities associated with optimal emission level.
• Analyze appropriate instruments for emission levels that are efficient and cost-effective.
• Understand different forms of climate agreements and climate action strategies that are currently being implemented

Teaching and Learning Methods:
The course consists of lectures (2 SWS) and seminars (2 SWS). The lecture forms the basis for the subsequent discussion within the seminar on climate change issues from an economic perspective. The content of the module is expected to be transferred to the students in an interactive learning manner (including discussions in the lectures but especially intensive discussions in the seminar) where, among others, emission reduction instruments are scrutinized. This encourages the students to independently and self-reliantly study the literature guided by a structured framework.

Media:
PowerPoint, flipchart, internet portals, online reports etc.

Reading List:
Bréchet, T., & Eyckmans, J. (2009). Coalition theory and integrated assessment Modelling: Lessons for climate governance. Global Environmental Commons: Analytical and Political Challenges in Building Governance Mechanisms.
Rohling, M., & Ohndorf, M. (2012). Prices vs. quantities with fiscal cushioning. Resource and Energy Economics, 34(2), 169-187.
MacKenzie, I. A., & Ohndorf, M. (2012). Optimal monitoring of credit-based emissions trading under asymmetric information. Journal of regulatory economics, 42(2), 180-203.
Hake, J. F., Fischer, W., Venghaus, S., & Weckenbrock, C. (2015). The German Energiewende–history and status quo. Energy, 92, 532-546.
Climate Action Plan 2050 Principles and goals of the German government's climate policy. https://www.bmu.de
/fileadmin/Daten_BMU/Pools/Broschueren/klimaschutzplan_2050_en_bf.pdf
EU ETS Handbook. https://ec.europa.eu/clima/sites/clima/files/docs/ets_handbook_en.pdf

Responsible for Module:
Sauer, Johannes; Prof. Dr. agr.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WI000286: Environmental and Natural Resource Economics | Environmental and Natural Resource Economics

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning success will be assessed by a written exam (90 minutes)..
By answering the questions, students show that they are able to understand the economic view of environmental and resource problems. Furthermore students show that they are able to compare and evaluate alternative economic instruments (e.g. taxes, emission permits, payments for environmental services). They show their ability to apply environmental policy instruments and valuation methods to the use of natural resources and specific pollution problems. Finally students demonstrate that they are able to conduct and interpret economic cost-benefit analyses.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
A basic knowledge in Microeconomic theory is recommended

Content:
Building on the analysis of economic growth, we examine the interactions between economic growth and the environment. We analyse economic reasons for pollution problems and overexploitation of natural resources. We then examine economic conditions for a sustainable use of renewable and non-renewable resources. We discuss the suitability of economic policy instruments for reducing pollution and using natural resources more sustainably. In this context, we compare the economic efficiency of command and control measures with market-based instruments such as pollution taxes, emission trading and payments for environmental services. Next, we present monetary valuation methods for environmental non-market effects to empirically assess the economic performance of policy initiatives in the context of cost-benefit analysis.

Intended Learning Outcomes:
At the end of the module the students are able to understand the economic view of environmental and resource problems. They know alternative economic instruments, e.g. taxes, emission permits, payments for environmental services and how they work and are able to compare them regarding their economic efficiency. They know and can apply specific valuation methods to attach a monetary value to environmental effects and conduct and interpret economic cost-benefit analyses.

Teaching and Learning Methods:
The module will be held in the form of lectures which are partially combined with group discussions and exercises. The main learning objective is here to understand the economics of environmental policy. Lectures are a format suitable to convey theoretical knowledge about the welfare implications of policy interventions. Integrated exercises will help students to apply acquired knowledge to concrete problems and derive economically sound answers.

Media:

Reading List:
Jaeger, W.K. (2005): Environmental Economics. Island Press.
Kahn, J. R. (2006). The economic approach to environmental and natural resources, 3rd edition. South-Western, Mason.
Mankiw, N.G. and M.P. Taylor (2011): Microeconomics. 2nd Edition. South Western.
Perman, R., Y. Ma, J. McGilvray, M. Common (2003): Natural Resource and Environmental Economics. 3rd Edition. Pearson Education Limited.
Tietenberg, T. and L. Lewis (2010): Environmental Economics & Policy. Prentice Hall.
Wacker, H. and Blank, J. (1999): Ressourcenökonomik. Band I: Regenerative natürliche Ressourcen. R. Oldenbourg Verlag, München.
Wacker, H. and J. Blank (1999): Ressourcenökonomik. Band II: Erschöpfbare Ressourcen. R. Oldenbourg Verlag, München.

Responsible for Module:
Glebe, Thilo; PD Dr. habil.

Courses (Type of course, Weekly hours per semester), Instructor:
Environmental and Natural Resource Economics (WI000286, englisch) (Vorlesung mit integrierten Übungen, 4 SWS)
Glebe T
For further information in this module, please click campus.tum.de or here.

Module Description

WI001228: Economics of Environmental and Climate Policy | Economics of Environmental and Climate Policy

Version of module description: Gültig ab winterterm 2019/20

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 150	**Self-study Hours:** 0	**Contact Hours:** 150

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The performance of course participants is examined in form of a written exam (90 minutes) at the end of the semester. Closed, half-open and open-ended questions are used to test whether the students can economically analyze environmental and climate policy measures and explain the environmental policy practice using the New Political Economy. Answering the questions requires own formulations.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
BSc.

Content:
Evaluation criteria for environmental and climate policy measures based on welfare economics are used to derive a normatively optimal policy with regard to equity and temporal dimensions. We present economic cost-benefit analysis as a tool for the economic evaluation of environmental and climate protection measures. Subsequently, the suitability of environmental policy measures to overcome specific environmental problems is discussed. We compare a command and control approach with pollution taxes, pollution abatement subsidies and emissions trading. In addition to questions of allocation, the importance of transaction costs and technical progress is discussed. Against the background of environmental risks, the importance of property rights and liability rules is explained. An introduction to the public choice theory is given to explain the implementation of policy measures in practise. We discuss voter models for the analysis of political competition, decision-making rules and voting procedures, as well as the political influence of interest groups and bureaucracy. Against the background of global environmental and climate protection problems, game-theoretical explanations are presented.

Intended Learning Outcomes:
In this course, policy measures for environmental and climate protection will be analysed theoretically based on welfare economic approaches whereas the implementation in practice will be discussed based on the public choice theory. The course attendees get to know valuation criteria for environmental and climate policy measures, which take into account temporal dimensions, risk considerations and aspects of equity. After successfully attending the module, the students are able to understand the effects of specific economic policy measures and to evaluate them in terms of welfare economics. With regard to the practical design of environmental and climate policy, the students acquire a comprehensive understanding of how political behaviour, collective decision-making processes and structures can be explained by using public choice theory. Attending the module enables the participants to analyse the individual and collective actions of political actors such as voters, administrations, parties and interest groups, as well as to apply game-theoretical explanations for international negotiations in the context of climate and global environmental problems.

Teaching and Learning Methods:
The module consists of lectures. A lecture is a suitable form of imparting the theoretical foundations of environmental and climate policy analysis. The lecturer explains the relevant content; questions from the students can be clarified during the lecture. This ensures that all students get an in-depth insight into the topics at the same level. The students are also encouraged to study the relevant literature.

Media:
Slides, Moodle

Reading List:
Fees, E (1998): Umweltökonomie und Umweltpolitik.
Beckenbach et al. (2009): Diskurs Klimapolitik.
Tietenberg, T. and L. Lewis (2010): Environmental Economics and Policy.
Kirchgässner (2002): Demokratische Wirtschaftspolitik
Martiensen, J. (2000): Institutionenökonomie.
Weimann J. (1996): Wirtschaftspolitik.

Responsible for Module:
Roosen, Jutta; Prof. Dr. Ph.D.

Courses (Type of course, Weekly hours per semester), Instructor:
Economics of Environmental and Climate Policy (WI001228, englisch) (Vorlesung, 4 SWS)
Glebe T
For further information in this module, please click campus.tum.de or here.

Module Description

WZ1822: Introduction to Economics and Business Ethics | Introduction to Economics and Business Ethics

Version of module description: Gültig ab summerterm 2015

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Current notice: Due to the continuing CoViD19-pandemic, the exam for this winter semester 2020/21 has been adjusted.
Students have the opportunity to participate in the written online examination, Online Proctored Exam (Onlineprüfungen: WZ1822o, WZ1822-1o und WZ1822-2o). These exams will parallely be held as regular written exam in person (WZ1822, WZ1822-1 und WZ1822-2).
The written examination assesses the students' understanding of the basic concepts of microeconomic theory (module part introduction to economics) and major business ethical concepts and issues. Furthermore, the examination tests students' ability to precisely describe solutions, achieve certain results and reproduce standard arguments within a limited amount of time.
A Mid-Term assignment (presentation) assesses the students' ability to present a new topic in a comprehensible manner. It will serve for grade improvement by 0.3 according to §6 (5) APSO.

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
The module is an introduction to Business Ethics and Economics. Business ethics introduces the student to classical concepts of duty, consequentialism and virtues, in particular modern management virtues. The classical concepts are applied to corporate social responsibility and corporate governance. CSR and corporate governance will be discussed in the light of globalization, the financial crisis of 2008 and major corporate scandals.

The module part “Introduction to Economics” provides an introduction into microeconomic theory and the interaction between economics and the environment. Based on consumer and producer theory, we analyze the interactions of demand and supply on markets. We analyze economic reasons for market failure and use welfare economic concepts to evaluate market interventions. In the final part, we look at principles of intertemporal efficiency and an economic perspective of sustainability.

Intended Learning Outcomes:
The major theoretical positions are reflected in public as well as private debates. Thus, understanding the structure of standard arguments contributes to the development of solution-oriented approach to ethical dilemmas and to the students’ rhetorical skills.
We will take hands on approach to CSR, focusing on Un Global Compact and specific CSR policies. This approach will prepare the student for practical challenges of implementing CSR policies. We will approach Corporate Governance in a similar manner, looking at cases of bad corporate governance, at codes of corporate governance and at the practical challenges of implementing stricter procedures in the organizations.
The lectures on power will introduce the students to a significant aspect of organizational interaction. We look at different ways to obtain power in an organizational context and we will investigate the opportunity for ethical action in a professional environment characterized by a more or less intensive power struggles. The analysis of consumer ethics will clarify why our environmentally damaging consumer habits are so difficult to change.
Students will learn about ways in which the economy and the environment are independent. They will understand the microeconomic theory of consumer and producer behaviour and reasons for market failure. They will be able to apply welfare economics to evaluate governmental market interventions. Furthermore, they will understand the temporal dimension of economic decisions and their implications for sustainability.

Teaching and Learning Methods:
2/3 lectures, 1/3 group work and student presentations

Media:

Reading List:
The texts will be provided on moodle

Responsible for Module:
PD. Dr. Thilo Glebe – Lehrstuhl für Volkswirtschaftslehre - Umweltökonomie und Agrarpolitik Alte Akademie 14; 85354 Freising; 08161-71-5965; glebe@wzw.tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Introduction to Economics (WZ1822, englisch) (Vorlesung, 2 SWS)
Glebe T [L], Glebe T

(WZ1822) Business Ethics (Vorlesung, 2 SWS)
Thejls Ziegler M
For further information in this module, please click campus.tum.de or here.

Module Description

SOT86611: Sustainability Politics and Policy | Sustainability Politics and Policy

Version of module description: Gültig ab summerterm 2023

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The exam (100%) will consist of a portfolio of tasks that will relate to the different parts of the course which is co-taught by faculty teaching in the concentration area. The aim of this portfolio is to document the student's major activities and accomplishments throughout the course.

The portfolio will include a presentation (about 30 min, 50%) in the context of which they will interact with their peers. This will help them reflect on their academic goals and their progress as learners as regards the defined course objectives (see below).

Building on their presentations as well as on their reflections on the discussions in the lectures, they will later compile a report (about 10 pages, 50%) that will document what they have proceeded to learn. In the report, students will demonstrate that they have acquired the defined competencies (see below) and will reflect on their learning process.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
None

Content:
This module introduces students to theoretical debates about sustainable development and links the concept of sustainable development to different economic, social, environmental, and health policy areas. The lecture in this module examines the goals of "sustainable development" and the concepts of inter- and intra-generational justice. The module includes a historical overview of the sustainability concept looking into competing definitions and understandings. It investigates key theoretical and methodological approaches to examine such issues as rising government debt,

growing global competition for innovation, and intensifying global environmental degradation and resource scarcity. The lecture considers how policies differ in their "sustainability profiles" and the economic, social and political factors which are responsible for this variance.

Intended Learning Outcomes:
Upon completion of this module, students will be able to understand the roles and contributions different scientific and technological solutions as well as different social and behavioural approaches can play in designing, implementing and monitoring sustainable solutions. They will also be able to understand how different sustainability areas (e.g. economic, financial, educational, research, health, family, pension, mobility, environmental and energy policy) are being governed on the local, national and international levels. They will be able to highlight the interdisciplinary dimensions of sustainability, to analyse complex sustainability problems, and to develop concrete solutions.

Teaching and Learning Methods:
The course will be given as one lecture and will employ fitting methods to deepen the content such as exercises, group work or a laboratory.

Media:
Media like presentations, exercises, scripts and other media

Reading List:
Bornemann, Basil/ Knappe, Henrike/ Nanz, Patrizia (Ed.) 2022: The Routledge Handbook of Democracy and Sustainability. London: Routledge, 431-446. (https://www.lehmanns.de/shop/technik/52507134-9780367109585-the-routledge-handbook-of-democracy-and-sustainability)

Wurster, Stefan 2013: Comparing ecological sustainability in autocracies and democracies, in: Contemporary Politics, 2013, Vol. 19, No.1, 76-93. (http://www.tandfonline.com/doi/abs/10.1080/13569775.2013.773204)
A reader of texts with up-to-date and cutting edge scienitific literature will be made available at the start of the semester.

Responsible for Module:
Wurster, Stefan; Prof. Dr. rer. pol.

Courses (Type of course, Weekly hours per semester), Instructor:
(SOT86611) Sustainability Politics and Policy (Vorlesung, 4 SWS)
Schreurs M (Mohammed N), Wurster S (Iacentiuc S, Schmid H)
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2936: Sustainable and Environmental Regulations | Sustainable and Environmental Regulations

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Mode of assessment: presentation (around 60 min in total, ca. 30 min per seminar course, contributing in equal weightage to the module grade), complemented by a written executive summary on the topic of the presentation (up to 5 pages per seminar course).
The presentation is a means to measure the students' ability to understand the context an d complexity of sustainable development in different countries and formal impact assessment procedures by preparing and delivering a well- researched and instructive oral presentation on a certain facet. An accompanying executive summary indicates the capacity of the students to summarize findings and address their implications in a clear and concise manner. In addition, the students are expected to show their oral communication skills by responding competently to questions and comments by the audience as well as by contributing to class discussions. Depending on the number of seminar participants, the presentation may be given either individually or in groups.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Class discussion is a core element of the seminars. Therefore, students are expected to take part and contribute to the discussions.

Content:
Course 1 "Sustainable Development and Regime Type (SDRT)":
The seminar introduces both the theoretical debate on sustainable development and the discussion about the role political regime type (democracy, autocracy, hybrid regime) play for the sustainability performance of a country. What are the goals of "sustainable development"? Which policy areas have a strong relationship to sustainability? To what extent do countries differ in their

"sustainability profile" in various policy areas? What influence does the regime type play in this regard?
The seminar investigates these theoretical and empirical issues in the context of pressing future challenges, such as rising government debt in many countries, growing global competition for innovation, and intensifying global environmental degradation and resource scarcity. The seminar will focus on discussing theoretical approaches to current "sustainability debates" and considering what defines generationally just behavior. In addition, empirically based comparisons of countries under different political leadership will be made looking at several sustainability areas(e.g. economic, financial, educational, research, family, pension, environmental and energy policy).

Course 2 "Methods of Environmental Assessment (MEA)":
The seminar introduces Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) as worldwide established instruments for assisting sound environmental management. Being integral parts of spatial planning and decision-making, the assessment procedures integrate biophysical and socioeconomic information to predict and evaluate the environmental consequences of proposed projects, plans and policies and to suggest means to avoid or mitigate significant impacts. The seminar gives an overview of the concepts, methods, procedural elements of EIA and SEA and stimulates discussion on key aspects of environmental assessment.

Intended Learning Outcomes:
At the conclusion of the module, the students will have basic knowledge on sustainable development, its theoretical and empirical implications and its most important policy fields. The students understand the structure and the functioning of different political regimes and are able to evaluate their impact on the sustainable development of a country. Furthermore, the students are able to appreciate the purpose of EIA and SEA and their role in the decision- making process; explain the major principles and procedural steps of EIA and SEA; know options for estimating environmental impacts; reflect critically on the strength and limitations of the instruments; communicate findings in class and comment on the work of fellow students.

Teaching and Learning Methods:
In the SDRT seminar lectures, presentations and discussions provide students with a basic knowledge on sustainable development and political regime type and allows them to evaluate the performance of different states with regard to their sustainability performance.

In the MEA seminar, presentations by students and the lecturers provide the basis for exploring and discussing the concepts, methodology, current practice and potentials of environmental assessment. Class discussions engage students in critical thinking and analyzing the scope and limitations of the presented material.

Media:
The module includes lectures, presentations, class discussions, (small group) exercises and assigned readings.

Reading List:
Wintrobe, R. (2000): The Political Economy of Dictatorship, Cambridge University Press, Cambridge; Tremmel, J. (2006): Handbook of intergenerational justice, Edward Elgar, Cheltenham; Glasson, J., Therivel, R. & A. Chadwick (2019): Introduction to Environmental Impact Assessment. 5th edition. Routledge, London and New York: 394 pages; Sadler, B., Aschemann, R., Dusik, J, Fischer, T.B., Partidário, M.R. & R. Verheem (2011): Handbook of Strategic Environmental Assessment. Earthscan, London, Washington, DC. Additional material will be provided.

Responsible for Module:
Augenstein, Isabel; Dr. agr.

Courses (Type of course, Weekly hours per semester), Instructor:
Methods of Environmental Assessment (Seminar, 2 SWS)
Augenstein I

(WZ2936) Sustainable Development and Regime Type (Seminar, 2 SWS)
Wurster S (Iacentiuc S, Mohammed N, Schmid H)
For further information in this module, please click campus.tum.de or here.

Landscape Management | Landscape Management

Module Description

WZ2719: Landscape Planning | Landscape Planning

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The attainment of learning outcomes for the module will be assessed in a piece of Research Paper of around 10 pages in which students work independently on complex issues of contemporary landscape planning demonstrating their breadth of understanding in drawing out implications of their findings and putting them into a broader context. The written assignment is complemented by a presentation and/or a colloquium of around 30 min for assessing the capacity of the students to communicate their findings orally to an audience. Depending on the number of participants, research paper and accompanying talk may be prepared either individually or in groups.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic understanding of environmental systems; For the LP seminar, class discussion is a core element. Therefore, students are expected to take part and contribute to the discourse.

Content:
Concerned with the stewardship and enhancement of environmental systems, Landscape Planning is the key planning instrument for nature conservation and landscape management in Germany. The module introduces Landscape Planning and reflects on its potential contribution to sustainable land use with a focus on non-urban areas. Course 1 “Landscape Planning – lecture”: Lectures will address the guiding principles, formal instruments and procedural elements of Landscape Planning; present methodological approaches for the assessment of landscape functions and ecosystem services including methods and tools for data collection, analysis and evaluation; illustrate target formulation and implementation strategies with examples from the planning practice.

Course 2 “Landscape Planning – seminar”: The seminar gives students the opportunity to deepen their knowledge by reflecting on readings and planning documents as well as by discussing in class such topics as: contemporary and emerging scientific theories and methodological approaches relevant for environmental planning; rationale of stakeholder involvement; context-dependency of spatial planning; comparison of current jurisdictional and institutional arrangements on landscape- related planning in the home countries of the students and their implications.

Intended Learning Outcomes:
Upon completion of the module, students are able to:
- recognize the purpose and objectives of Landscape Planning;
- explain instruments and procedural elements of contemporary Landscape Planning;
- select appropriate methods and tools to assess landscape functions and ecosystem services;
- be aware of the role of Landscape Planning in the decision-making upon the use of land;
- retrieve and interpret information from different sources;
- communicate key concepts relevant for environmental planning (both written and oral).

Teaching and Learning Methods:
Lectures provide subject specific knowledge; class discussions of selected readings engage students in critical thinking; in group work activities students experience the application of selected methods and tools.

Media:
Lectures, presentations, class discussions, small group exercises, assigned readings.

Reading List:
Haaren, C. v., Lovett, A. & C. Albert (2019): Landscape Planning with Ecosystem Services – Theories and Methods for Application in Europe. Springer Nature, Dordrecht. Additional material will be provided.

Responsible for Module:
Dr. Isabel Augenstein i.augenstein@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Landscape Planning - seminar (Seminar, 2 SWS)
Augenstein I

Landscape Planning - lecture (Vorlesung, 2 SWS)
Augenstein I
For further information in this module, please click campus.tum.de or here.

Module Description

WZ4094: Landscape Management - Application Study | Landscape Management - Application Study

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The attainment of learning outcomes is demonstrated by project work. Students show their ability to work in a team and reach the defined objectives of a project assignment within a given period of time applying suitable methods and concepts of spatial ecology, landscape planning, GIS and remote sensing. Students prepare and deliver a project presentation (45% of module grade) of ca. 10 min per team member and a project report (55% of module grade) of ca. 5 pages per team member demonstrating their capacity to communicate their approach, findings, and conclusions in a concise, scientifically sound and convincing manner, both orally and in writing.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
The successful completion of the modules "Inventory Methods and GIS", "Remote Sensing and Image Processing", "“Spatial Ecology" and "Landscape Planning" or equivalent skills are required, courses on scientific writing and reporting recommended

Content:
- Implementation of GIS and RS techniques.
- Implementation of theoretical concepts of Spatial Ecology;
- Implementation of theoretical concepts of Landscape Planning;
- Oral presentation of findings;
- Elaboration of a final report.

Intended Learning Outcomes:
Upon successful completion of the module, students are able to develop or at least to contribute to a landscape management project. More in detail the students are able to:

- work in a team;
- apply the theoretical and practical skills in spatial ecology, landscape planning, remote sensing and GIS techniques;
- contribute to context-dependent landscape-related planning;
- deliver an oral presentation to communicate their findings;
- prepare a convincing project report using supporting data to back their statements in accordance with guidelines for scientific writing.

Teaching and Learning Methods:
Prime characteristic of the Application Study is the self-organized group work by the students to reach the defined objective of the project assignment. Progress of the team is supported by group discussions, theory input and coaching provided by lecturers on demand.

Media:
Scripts and reports of the above listed lectures and exercises offered within the elective field; basic data sets to develop the application study (GIS, RS, etc.); additional information on request and up on necessity (project driven).

Reading List:
The literature recommended within the Modules "Inventory Methods and GIS", "Remote Sensing and Image Processing", "Spatial Ecology", "Landscape Planning" is also to be used for the Application Study, among others: Haaren, C. v., Lovett, A. & C. Albert (2019): Landscape Planning with Ecosystem Services – Theories and Methods for Application in Europe. Springer Nature, Dordrecht.

Responsible for Module:
Döllerer, Martin; Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:
Landscape Management - Application Study (Vorlesung mit integrierten Übungen, 5 SWS)
Augenstein I, Döllerer M, Mengesha M
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2737: Remote Sensing and Image Processing | Remote Sensing and Image Processing

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 60	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module exam is a project work consisting of exercises, a presentation (10 Min) and a final report (ca. 15 pages). “Hands on” exercises with state of the art software packages are employed to train the main image processing steps and to assess the students’ understanding of the implementation of the basic concepts of remote sensing from data acquisition to data analysis. During the exercises, regular discussions measure the student’s ability to develop an idea from initial concepts to the complete picture within a given time frame, delivering interim results at relevant milestones (35% of the module grade). Each student prepare and deliver a presentation (20% of the module grade) on a topic related to remote sensing, demonstrating their ability to understand a technical/scientific subject, analyze and evaluate facts and influencing factors, summarize and present the issue to an audience, and lead a discussion on the issue presented. In the final report (45% of the module grade), students also demonstrate that they have acquired in-depth knowledge of the specific image analysis software packages and their components, of different analysis concepts, and that they are prepared to evaluate the existing situation as imaged by the respective remote sensing data set. They also demonstrate their ability are able to create new geodata layers suitable for analysis in an integrating GIS environment.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Module " Introduction to GIS and Remote Sensing " of the 1st semester of the Master Program "Sustainable Resource Management" passed, computer skills at least at working level.

Content:
Implementation of data interpretation and information extraction concepts and techniques offered in "hands on" exercises using advanced image processing and analysis programs.

Topics:
1. Introduction to image processing concepts;
2. Implications of air- and space borne data takes;
3. Data types: digital aerial photographs, high to very high resolution multispectral and hyperspectral scanner data, LIDAR data;
4. Development of interpretation keys;
5. Exercises on data pre-processing;
6. Unsupervised and supervised classification concepts, pixel-based, object based classification strategies;
7. Exercises on land use/land cover classification;
8. Basic verification concepts;
9. Exercises on the extraction of various parameters from RS image;
10. Change detection concepts;
11.Integration of Remote Sensing and GIS;
12. Accessing and data downloading from geodata providers.

Intended Learning Outcomes:
At the end of the Remote Sensing and Image Processing (RSIP) module, students are able to:
- decide on appropriate datasets for using remote sensing for various spatial problems;
- work with remote sensing image datasets (access databases, download and open, geocode/ georeference, extract various parameters, spectral signatures and calculate indices);
- develop appropriate interpretation keys, visualize and enhance the data set for thematic objective;
- perform unsupervised and supervised classifications;
- prove the quality of the results by an assessing the accuracy, perform a change detection study, and export the results as GIS layer;
- work with image processing software tools;
- deliver an oral presentation to communicate their findings on a selected remote sensing topic in a clear and comprehensible manner to an audience;
- write a persuasive report based on their results according to scientific writing guidelines.

Teaching and Learning Methods:
Through the use of advanced image processing software packages, the concepts explained in theory are practiced in “hands on” exercise and discussed using different data types, applying the “just in time teaching (JiTT)” technique. This is accompanied by presentations by each student on selected remote sensing topics.

Media:
Image processing software and tutorials, prepared exercises, different data types

Reading List:
The literature recommended within the Module " Introduction to GIS and Remote Sensing " should be used.

* Remote Sensing and Image Interpretation by Lillesand, Kiefer, and Chipman (2015). * Remote Sensing Digital Image Analysis - an introduction by Richards, Jia (2005). * Internet tutorials from ESA, DLR, NASA.

Responsible for Module:
Mengesha, Mengistie Kindu; Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Remote Sensing and Image Processing (Vorlesung mit integrierten Übungen, 6 SWS)
Mengesha M
For further information in this module, please click campus.tum.de or here.

Module Description

LS50026: Spatial Ecology | Spatial Ecology

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment of this module consists of a 90 min. written exam (Klausur) without the use of learning aids.
Within a limited period of time and without any means of help, the students demonstrate their theoretical knowledge in advanced topics of spatial data processing (e. g. spatial overlays, fuzzy suitability modelling, etc.) (50 % of questions), as well as insect ecology (50 %). The students show their ability to translate problems in landscape management into spatial processing units and their verbalization as well as their ability to develop management plans based on classified insect habitats. The examination requires originally verbalised answers.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in GIS and remote sensing, for example learned by attending the module "Inventory Methods, Statistics and GIS".
Basic knowledge of insect species and their role in the ecosystem.

Content:
The practical part of the course covers advanced analysis and visualization of spatial data as well as GIS based raster analysis. The lecture covers the (chemical) ecology, behavior, diversity and evolution of important insect groups, their species-specific resource use, their natural counterparts as well as theories on ecosystem processes/functions and services. Furthermore, based on chemical ecology, the basics of biological control of insect pests are presented as well as the possibilities of their practical application.

Intended Learning Outcomes:
Upon successful completion of this module, students know:

• advanced methods of spatial data analysis (e.g. spatial overlays, spatial interpolation).
• important insect groups and their role in natural and human-influenced ecosystems.
They are able to:
• manage, analyze and visualize spatial data to solve problems related to landscape management;
• break down general problems in landscape management to tasks which can be solved by using a GIS.
• deduce and evaluate the impact of insects on plants (including crops) and ecosystem processes based on ecology, behavior, diversity, evolution and ecosystem function;
• assess their role in ecosystems also under the influence of global change and alternative land use.

Teaching and Learning Methods:
Course with lecture and practical exercises: Theoretical introduction into certain topics followed by practical exercises using GIS software supported by screen animations.
The necessary knowledge of the course is imparted by the lecturers in the form of lectures and presentations and discussed together with the students. The students are encouraged to deal with the content of the topic and to study the scientific literature as well as the lecture notes.

Media:
Powerpoint, Collection of materials on Moodle, hands-on exercises on a computer, scientific papers

Reading List:
Chinery, Pareys Buch der Insekten, Kosmos;
Bellmann, Der Kosmos Insektenführer, Kosmos; Dettner und Peters, Lehrbuch der Entomologie, Spektrum;
Miller und Miller, Insect-Plant Interactions, Springer;
Chinery, Insects of Britain and Western Europe, A&C Black;
Gullan, The Insects: An Outline of Entomology

Responsible for Module:
Döllerer, Martin, Dr. rer. silv. doellerer@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Management and Protection of Forest Ecosystems | Management and Protection of Forest Ecosystems

Module Description

WZ2716: Forest Growth and Forest Operations | Forest Growth and Forest Operations

Version of module description: Gültig ab summerterm 2025

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning success of the module Forest Growth and Forest Operations will be assessed by a written examination (Klausur) of 90 minutes. The written examination tests the ability to understand the principles of tree and stand growth of forests, to analyze the influence of the driving forces of forest growth, to describe the structure and possible applications of different types of forest growth models and to assess the effects of climate change on forest growth. In the part “forest operations”, students will be tested on their understanding of mechanized harvesting methods and the most common systems, environmentally sound resource planning, wood transport and timber construction as well as the effects of forest operations on forest stands and soils and current developments in small-scale forest operations.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in biology and forest science.

Content:
The part Forest Growth deals with objectives and methods of forest growth and yield science. First, as fundamental topic, principal factors of the organic production of forest stands based on the driving forces (climate, water, nutrients) are shown and explained. In a next step growth and yield is analyzed more closely as part of the total production of plant communities. This leads to principles of tree shape development, tree growth and carbon dynamics in general. From individual tree growth the course proceeds to structure and development of whole forest stands.

Both previous subjects provide the basic knowledge for understanding the effect of silvicultural treatment on quantitatively measured growth and yield characteristics. Growth trends, productivity and carbon dynamics of the main tree species in Central Europe are presented. Analyses of stand structure, growth and yield in the view of climate change are discussed. Different types of forest growth models on tree, stand and forest enterprise levels are introduced. The part Forest Operations can be divided in 5 topics: (1) Overview of mechanized harvesting (methods and most common systems), (2) Environmentally sound resource road planning and construction, (3) Assessing the environmental impacts of forest operations on forest stands and soils, (4) Means of eco-efficient wood transportation from the forest to the mill and (5) Current developments in small-scale forest operations.

Intended Learning Outcomes:
On successful completion of the module, students are able to
- Understand the environmental factors influencing the forest stand production
- Describe the effects of silvicultural treatment on quantitatively measured growth and yield characteristics
- Understand the principles of growth models
- Analyze and evaluate the impact of environmental changes on tree and stand growth
- Create possible silvicultural measures to mitigate negative effects of environmental changes on forest stand growth
- Understand and evaluate the impact of biotic and abiotic factors on growth, vitality and stability of individual trees and forest stands
- Understand the fundamentals of sound resource road planning and construction
- Describe the links between mechanized harvesting and potential stand and soil damages
- Evaluate the productivity and carbon footprint of different harvesting systems.

Teaching and Learning Methods:
The learning methods are based on presentations that cover the theoretical principles and methods of forest research, planning, design and management, supported by growth modelling. A fiel d trip is organised to deepen theoretical knowledge.

Media:
Lectures and presentations (pdfs).

Reading List:
FOREST GROWTH: Pretzsch, H., (2009): Forest Dynamics, Growth and Yield. Springer Verlag, Berlin, 664 S. 2009 published as Hardcover(ISBN 978-3-540-88306-7) 2010 published as paperback (ISBN 978-3-642-14861-3) FOREST OPERATIONS: Bowers, S. 2012. Designing woodland roads. Oregon State University. EC 1137. 21 pp. Dykstra, D. P. and Heinrich, R. 1996. FAO Model code of forest harvesting practice. 85 pp. Enters, D., Applegate, G.B., Kho, P. C.S., and Man, G. (Eds.) 2002. Applying reduced impact logging to advance sustainable forest management. FAO. Heinrich, R. Recent developments on environmentally friendly forest road construction and wood transportation in mountainous forests. Rummer, B. 2009. New technology in forest operations. www.forestlandowners.com. 3

pp. Sutherland, B.J. 2003. Preventing soil compaction and rutting in the boreal forest of western Canada. FERIC. 53 pp.

Responsible for Module:
Peters, Richard; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ4161: Forest Management | Forest Management

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 67.5	**Contact Hours:** 82.5

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning outcome will be assessed by an oral examination (30 min) in which students should demonstrate their profound understanding of forest management and ability to analyze and evaluate related key issues and challenges over different spatial scales. They should exhibit the capability of identifying and solving problems in a concise way and show that they can express themselves in a clear and scientific manner without helping material. Students should be able to develop concepts for the sustainable management of forests using scientific and management methods. The oral exam will last 30 minutes covering all content of the module.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
None.

Content:
1. Definition of forest and forest ecosystem
2. Overview of forestry on global, regional and local scales
3. Introduction into objectives and methods of forest ecosystem management and forest management planning
4. Demonstration of forest decision support systems and multiple-objective optimization
5. Overview of silvicultural techniques
6. Basic Knowledge of Forest economics
7. Demonstration of examples in lowland and mountain forest management.

Intended Learning Outcomes:
Upon successful completion of this module students are able to:
- understand different concepts of forest management
- understand different demands in forest management
- apply means of linear programming to harmonize different measures
- apply decision support systems
- evaluate different forest management measures.

Teaching and Learning Methods:
The module is separated into lectures and exercises. Lectures providing the theoretical foundations and concepts in Forest Management.. Exercises are done to apply management concepts in supervised groups in the forest and to train computer based methods in the class room.

Media:
PowerPoint presentations, additional reading material, software application.

Reading List:
FAO (2018): State of the World's Forests; FAO (2016): Global Forest Resources Assessment 2015.

Responsible for Module:
Felbermeier, Bernhard; Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ2717: Genetic Resources Management and Forest Protection | Genetic Resources Management and Forest Protection

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning outcome will be assessed by a written exam (Klausur, duration 60 min) where the student have to analyze the risk of given pest and abiotic hazard-scenarios and to develop adequate disturbance management strategies. Furthermore, they have to analyze a genetic diversity study from a plant, animal or fungus species and develop a long-term genetic management strategy. In this way, the students can demonstrate that they have obtained the ability to use their knowledge in real world management situations.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in biology and forest science

Content:
Part I Genetic Resources Management – Schaefer/Benz
1. Introduction: DNA, genetic code, genes, alleles, genomes, speciation
2. Basics of Population Genetics
3. Genetic variation in forest ecosystems
4. Tree breeding
5. Genetic conservation & sampling strategies
6. GRM in mountain ecosystems
7. GRM in the Tropics
8. GRM in the dry zones
9. Sustainable management strategies
10. Fungi – The Good, the Bad, and the Ugly
11. The genetic treasure trove of fungi

Part II Disturbance ecology & management– Seidl/Werle
1. Disturbance ecology 101 (R. Seidl)
2. The role of disturbances in forest ecosystem dynamics (R. Seidl)
3. Forest protection strategies in the course of time (S. Werle)
4. Wind (R. Seidl)
5. Snow and ice (R. Seidl)
6. Fire (R. Seidl)
7. Drought (R. Seidl)
8. Functional roles of insects in forest ecosystems (S. Werle)
9. Bark beetles – ecology (S. Werle)
10. Bark beetles – management and impacts (S. Werle)
11. Defoliators (S. Werle)
12. Aphids, adelgids and others (S. Werle)
13. Deadwood-inhabiting insects (S. Werle)
14. Principles of disturbance management (R. Seidl)

Intended Learning Outcomes:
On successful completion of the module, students are able to
- assess genetic diversity patterns in natural populations of different groups of organisms (mammals, birds, plants, fungi)
- understand the importance of maximizing genetic diversity
- understand the impact of biotic and abiotic factors on vitality and stability of individual trees and forests;
- understand the impact of fungal pathogens and insects on trees;
- apply their ecological knowledge to minimize and forecast the risk of damages by fungal pathogens;
- explain the most important abiotic and biotic causes of tree death in forest ecosystems
- characterize forest disturbance regimes
- understand the different roles that disturbances play in forest ecosystems
- explain how plants adapt to different disturbance agents
- develop different disturbance management strategies.

Teaching and Learning Methods:
Lectures and presentations: provide the theoretical population genetics and ecological background to understand the role of genetic diversity in general and the role of disturbance at population level and beyond.
Group work: will be used to learn how to assess and interpret genetic diversity patterns in various real world examples and to practice risk forecasting in disturbance management or develop disturbance management strategies.
Field trip (optional): to help understand the role of disturbance and genetic diversity in a real Bavarian forest setting.

Media:
lectures and presentations (pdfs)

Reading List:
Frankham, et al. 2017, Genetic Management of Fragmented Animal and Plant Populations, Oxford University Press; Allendorf et al. 2013, Conservation and the Genetics of Populations, Wiley-Blackwell; Agrios, G.N. 2005, Plant Pathology, 5th edition. Elsevier Academic Press, Oxford; Speight, M.R. & Wylie, F.R., 2001: Insect pests in tropical forestry. CABI publishing; Ruppert, E.E. & Barnes, R.D., 1993: Invertebrate Zoology 6th edition (Chapter 16 insects; p 825-862)

Responsible for Module:
Schäfer, Hanno; Prof. Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Genetic Resource Management (Vorlesung, 2 SWS)
Benz J, Schäfer H

Disturbance ecology and management (Vorlesung, 2 SWS)
Seidl R [L], Lecina i Diaz J, Werle S
For further information in this module, please click campus.tum.de or here.

Module Description

WZ4082: Plantation Forestry and Agroforestry | Plantation Forestry and Agroforestry

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment for this module is a 90-minute written examination (Klausur) designed to evaluate students' comprehensive understanding and application of key concepts in Plantation Forestry and Agroforestry within the context of international forest and climate policy. The exam will encompass a variety of question types, aimed at testing the students' abilities to critically analyze and address the complexities of plantation and agroforestry management, including the evaluation of impacts, and the application of silvicultural techniques for sustainable plantation and agroforestry systems. Students will be expected to demonstrate their understanding of the role of these land-use systems globally and develop strategic management options that align with international climate goals. Through theoretical scenarios and practical problem-solving questions, the exam will challenge students to integrate their knowledge across topics, from assessing systems to conceptualizing management approaches, ensuring they are equipped with the critical thinking and skills necessary for addressing the challenges in land use systems involving woody components.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
none

Content:
Plantation forestry: Background, Definitions, Plantations in the Context of International Forest Policy, Plantation Forestry Purposes, Plantation Silviculture, Management and Economics; Agroforestry (AF): Introduction (global land-use problems, definitions, terminology), Traditional AF Systems, Environmental, economic and socio-cultural aspects of AF, Interactions in AF systems, Important tree groups in AF (NFT´s, MPT´s, Palms), Planning in AF, Legal aspects

Forest Management for Carbon Sequestration: Role of forests in the global carbon cycle, Possible impacts of climate change on forests, International climate policy, Forest in the Kyoto Protocol (KP), Flexible mechanisms of the KP, REDD and REDD+, Forest management options, Modelling forest sequestration with CO2FIX, Case studies.

Intended Learning Outcomes:
Upon successful completion of this module, students are able to
- understand and evaluate the major issues of plantations in the context of international forest policy,
- explain the fundamental purposes of Plantation Forestry,
- properly deploy the essential techniques of Plantation Silviculture, e.g. for establishment, tending and maintenance
- critically examine plantation projects (management, work volume, economic results).
- understand the fundamental principles and practices of agroforestry land use,
- analyze the interactions among different components of an agroforest system,
- assess the ecological and economic effects of AF-systems and develop adequate management options,
- address problems in the context of rural development and identify AF-based solutions
- understand the role of forests and forest management activities in the global C-cycle,
- assess forest management options for different purposes within the framework of the international climate policy,
- identify and develop concepts for mitigation projects.

Teaching and Learning Methods:
Knowledge and skills are imparted by lectures, group discussions, presentation of case studies and small exercises; the learning methods are learning, reviewing scientific articles, and research reference articles. The lectures will provide theories and basic reference materials which will be deepened and proved by reviewing articles. The achieved skills will be used to develop and discuss solutions for specified problems.

Media:
PowerPoint presentations, case studies, additional reading material

Reading List:
ABARE - JaakoPöyry (1999): Global Outlook for Plantations. Australian Bureau of Agricultural and Resource Economics (ABARE) Research Report 99.9, www.abare.gov.au. Evans, J., Turnbull, J. W. (2004): Plantation forestry in the tropics. FAO, (1998): FRA 2000 - Terms and definitions. Forest Resources Assessment Programme, Working Paper 1. FAO (2001): Global Forest Resources Assessment 2000. FAO Forestry Paper 140. Pandey, D. and Ball, J. (1998): The role of industrial plantations in future global fibre supplies. Unasylva 193, Vol. 49, 37 - 43. Sawyer, J., (1993): Plantations in the Tropics. Smith, D.M., Larson, B.C.,Kelty, M.J. and Ashton, P.M.S. (1997): The Practice of Silviculture: Applied Forest Ecology. Smith, J. (2002): Afforestation and reforestation in the clean development mechanism of the Kyoto protocol: implications for forests and forest people. Int. J. Global Environmental Issues 2 (3/4): 322-343. Shepherd, K.R. (1986): Plantation Silviculture.

West, P. W. (2006): Growing Plantation Forests. Ashton, M.S. and Montagnini, F. (2000): The silvicultural Basis for Agroforestry Systems. Agroforesty: Principles and Practice: Special issue of Forest Ecology and Management, 45 (1991). Nair, P.K.R. (2012): Agroforestry, the future of global land use. Atangana et al. (2014): Tropical Agroforestry. Springer Verlag

Responsible for Module:
Annighöfer, Peter; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Plantation Forestry (Vorlesung, 2 SWS)
Annighöfer P [L], Annighöfer P

Agroforestry and Forest Management for Carbon Sequestration (Vorlesung, 2 SWS)
Annighöfer P [L], Annighöfer P, Onyekwelu J
For further information in this module, please click campus.tum.de or here.

Material and Waste Management | Material and Waste Management

Module Description

WZ2724: Emission Control in Land-Use and Animal Husbandry | Emission Control in Land-Use and Animal Husbandry

Version of module description: Gültig ab winterterm 2022/23

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 105	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The oral examination will be held either as an individual or a group examination. In the case of group examination, students' performance will be evaluated individually. If more than 40 students sign in for the examination the oral examination can be done in a written form (Klausur, 90 min). The duration of the oral examination is 20 min per person. The Students are able to describe typical agricultural production, the environmental impact and the measurement procedures to quantify and to qualify these impacts. On that basis they are able to weigh the advantages and disadvantages of possible measures of air pollution in agriculture.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Interest in the field of agriculture; willingness to learn about the causal relation between agriculture and emission control.

Content:
Upon completion of the module, students are able to understand and analyze:
• the principle of agriculture in plant and livestock production on a basic level
• the main emissions caused by agricultural processes on a deeper level
• interactions of agricultural processes with the emission
• the environmental effects of these emission
• the measurement procedures to qualify and quantify agricultural emissions
• possibilities of emission abatement in land-use and animal husbandry.

Intended Learning Outcomes:
At the end of the module students are able to:
- understand the interrelation between local causes and global impacts,
- apply the comprehension of basic physical, chemical, and biological principles to phenomena in practice,
- evaluate measurement techniques in a qualitative manner,
- evaluate measures and techniques of environment protection;
- understand the interrelation between animal husbandry and air pollution control,
- derive adequate measures of environmental protection.

Teaching and Learning Methods:
Lecture, practice course.

Media:
PowerPoint-slides, short clips.

Reading List:
Tba

Responsible for Module:
Dr. Stefan Neser – Bavarian State Research Center for Agriculture; Institute for Agricultural Engeneering and Animal Husbandry; Voettinger Strasse 36, 85354 Freising, 0049 8161 713566; stefan.neser@lfl.bayern.de

Courses (Type of course, Weekly hours per semester), Instructor:
Emission control in Land-Use and Animal Husbandry (Vorlesung, 3 SWS)
Neser S
For further information in this module, please click campus.tum.de or here.

Module Description

WZ4206: Material Flow Management and Applications | Material Flow Management and Applications

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 105	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a research paper of around 12-15 pages which is the means to evaluate whether the students have understood and whether they are able to apply the methodology of material flow management on a case study in a scientifically manner and to create an own scientific paper about concepts for material flow management and treatment of materials based on the methodologies of material flow analysis and life cycle assessment. management and treatment of materials based on the methodologies of material flow analysis and life cycle assessment.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
knowledge in natural science (biology, chemistry, ecology, physics);
understanding for engineering science and also for social/cultural aspects.

Content:
The students acquire detailed and differentiated knowledge about the following topics:
- need of material flow management
- procedure of material flow management
- material and substance flow analysis
- material flow assessment by sustainability indicators
- life cycle assessment
- development of strategies and measures for material flow management
(e.g., resource efficiency, urban mining, industrial ecology, bio-economy, circular economy).

Intended Learning Outcomes:
By the means of the module the students are able to:
- understand the necessity of material flow management
- understand the relationships between different processes, technological treatments of materials and organizational measures
- apply the procedure of material and substance flow analysis
- apply the assessment methods of indicator systems and life cycle assessment
- create concepts for material flow management and treatment of materials.

Teaching and Learning Methods:
Concerning teaching methods, lecture and presentation parts provide the theoretical foundation of materials flow management. Real case studies are introduced to the students and worked out in the class. Likewise within interdisciplinary projects in reality, the students have to define and to solve problems collaboratively in group work by studying specialist literature and data sources. At the end they have to create a research paper as homework about this topic. The students are supervised by tutorials by the lecturer.

Media:
Power point presentation, lecture sheets, case studies of material and substance flow analysis and life cycle assessment.

Reading List:
Brunner, P.H.; Rechberger H.; 2004: Practical Handbook in Material Flow Analysis. Advanced Methods in Resource and Waste Management. Lewis Publishers, Boca Raton, pp. 318.
Brunner, P.H.; Rechberger, H.; 2016: Handbook of Material Flow Analysis: For Environmental, Resource, and Waste Engineers. Taylor & Francis Inc; 2. Revised Edition, pp. 453
Weber-Blaschke, G.; 2009: Stoffstrommanagement als Instrument nachhaltiger Bewirtschaftung natürlicher und technischer Systeme. Ein kritischer Vergleich ausgewählter Beispiele. Schriftenreihe „Nachwachsende Rohstoffe in Forschung und Praxis“ des Wissenschaftszentrums Straubing, Bd. 1, Verlag Attenkofer, Straubing, 330 S.

Responsible for Module:
Prof. Dr. Gabriele Weber-Blaschke - Lehrstuhl für Holzwissenschaft Hans-Carl-von-Carlowitz-Platz 2, 85354 Freising; 08161/71- 5635; weber-blaschke@hfm.tum.de

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

ED160017: Sustainable Manufacturing | Nachhaltige Produktion [SuM]

Version of module description: Gültig ab winterterm 2022/23

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 105	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination is held as a written exam (90 min) in order to be able to check the learning outcomes achieved by means of short and comprehension questions as well as complex application examples and calculation tasks. A non-programmable calculator can be used as an aid. The students calculate, among other things, various technically and economically relevant sustainability variables and parameters on the basis of given practical examples.
Thus the learning outcomes examined include basic aspects on awareness of the need for sustainable production, sustainability in the context of production, the holistic view of sustainability, manufacturing engineering measures, as well as assessment and measurement and standardisation of sustainability in production. In addition, the topics of sustainable design and use of products, energy and resource efficiency in production, social sustainability in production, data-based sustainability assessment in production and industrial circular economy are examined.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Knowledge of the basics of production and related areas (logistics, product development, etc.) is recommended but not mandatory.

Content:
The module covers all relevant aspects regarding the topic “sustainable manufacturing” including a general overview, ways of assessing sustainability and methods to improve sustainability in an industrial context.
Lecture units:
• Sense of urgency: Why do we need to act now?
• Sustainability in the context of manufacturing
• Thinking sustainability holistically

• Manufacturing technology measures
• Evaluate, measure and standardize sustainability in manufacturing
• Sustainable design and use of products
• Energy and resource efficiency in production
• Social sustainability in production
• Data-based sustainability assessment for manufacturing
• Industrial circular economy
The module also includes exercise units, e.g. how to conduct an LCA, how to follow ISO 14001 for sustainability assessments, practical exercise on system thinking, group activity (develop suggestions for improvement of sustainability for an exemplary company).

Intended Learning Outcomes:
After attending the module, students can understand the importance of addressing the topic of sustainability, understand the fundamentals of sustainable manufacturing, evaluate the possible technical lever in a production that can be addressed to increase sustainability, analyze products regarding the potentials for being produced more sustainably, apply the concept of system thinking on sustainable manufacturing, and apply methods to measure sustainability.

Teaching and Learning Methods:
The module takes place in the form of a lecture and an exercise. In the lecture, the basics of sustainable production are explained using PowerPoint presentations. The basics of sustainable production are deepened by means of use cases, expert presentations and practical application examples. In this way, participants learn, for example, how to carry out a life cycle assessment, how to follow the standards of ISO 14001 for sustainability assessments, or how to use systems thinking to find solutions. The lecture is rounded off by guest lectures from industry in order to give students an insight into current industrial issues relating to sustainability in production.

In the exercise, the methods and concepts learned in the lecture are applied to concrete examples. The participants can create solution concepts directly with the exercise instructor and thus apply what they have learned directly to industrial or academic practical examples. They thus learn, for example, how energy and resource efficiency in production can be increased, how social sustainability in production can be integrated into production management, or which measures need to be taken for data-based sustainability assessment in production.

Media:
Presentations, Videos, Additional Literature

Reading List:
• Neugebauer (2014): Handbuch Ressourcenorientierte Produktion. Hanser. ISBN: 978-3-446-43008-2
• Garbie (2016): Sustainability in Manufacturing Enterprises. Springer. ISBN: 978-3-319-29304-2
• Stark et al. (2017): Sustainable Manufacturing. Challenges, Solutions and Implementation Perspectives. Springer. ISBN: 978-3-319-48513-3
• Meadows (2008): Thinking in Systems. Chelsea Green. ISBN: 978-1603580557

• DIN EN ISO 14040: Umweltmanagement – Ökobilanz – Grundsätze und Rahmenbedingungen
• DIN EN ISO 14001: Umweltmanagementsysteme – Anforderungen mit Anleitung zur Anwendung

Responsible for Module:
Zäh, Michael; Prof. Dr.-Ing.

Courses (Type of course, Weekly hours per semester), Instructor:
Sustainable Manufacturing (Vorlesung, 2 SWS)
Zäh M, Wörle M (Reinbold N, Schneider D), Wagner S

Sustainable Manufacturing - Exercise (Übung, 1 SWS)
Zäh M, Wörle M, Wagner S
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2723: Utilization and Treatment of Special Materials and Waste | Utilization and Treatment of Special Materials and Waste

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 120	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is a presentation (10 minutes per person) complemented by a written precis (2,5 A4-pages in Arial and font size 10-11 per person), both as a group work with approx. 4 persons per group. The presentation and the written work each make up 50 % of the overall grade. This assessment method is a good means to evaluate both whether the students are able to work self-reliantly on a topic and to present their significant results to an auditorium and whether they have understood their respective selected topic. Thereby, students have to demonstrate the understanding of appropriate handling of special waste, the description of status quo of special waste treatment and the relevant legal background based on literature research; they have to show, that they are able to analyse problems of special wastes and to transmit existing solutions; they have to present respective scientific results both in oral (by the presentation itself and by answering questions to the presentation) and written form.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in natural science (biology, chemistry, ecology, physics) and engineering.

Content:
The students acquire detailed and differentiated knowledge about “Waste of Electrical and Electronic Equipment (WEEE)” as one typical special waste stream:
- Origin, types and properties of WEEE,
- Collection methods,
- Treatment methods,
- Waste as a source of raw material,
- Energetic utilization,

- Legal specification,
- Design for recycling and waste avoidance.

Intended Learning Outcomes:
Upon successful completion of this module, students are able to:
- understand treatment measures to handle the waste for avoiding or reducing impacts on the environment and human health,
- understand the relevant legal background for sustainable waste handling in European Union,
- analyze problems concerning the special wastes,
- transmit existing solutions to other waste and new products,
- explain and discuss the problems, methods and results of a selected topic by a presentation to and with an auditorium, summarize the most important issues in a short paper.

Teaching and Learning Methods:
The module consists of a lecture part, providing the theoretical foundations of the course content. The main part is a seminar, in which the students elaborate and present a special topic and the lecturer gives feedback to the students' work. The students have to analyse problems regarding a special waste collaboratively in group work by 2-4 students studying specialist literature. At the end, they have to prepare a presentation and a written summary including problem statement and conclusions as homework. The students are supervised by the lecturer.

Media:
PowerPoint Presentation

Reading List:
Goodship, V., Stevels, A., Huisman, J. (Eds.), 2019: Waste Electrical and Electronic Equipment (WEEE) Handbook.
A volume in Woodhead Publishing Series in Electronic and Optical Materials. Elsevier, Second Edition, https://doi.org/10.1016/C2016-0-03853-6
Hester, R.E., Harrison, R.M. (Eds.), 2009: Electronic waste management: design, analysis and application, Cambridge, RSC Publishing, 280 pp., ISBN 978-0-85404-112-1
Other literature, presented in introductory lecture.

Responsible for Module:
Weber-Blaschke, Gabriele; Prof. Dr. rer. silv. habil.

Courses (Type of course, Weekly hours per semester), Instructor:
Utilization and Treatment of Special Materials and Waste (Seminar, 2 SWS)
Weber-Blaschke G [L], Reh K
For further information in this module, please click campus.tum.de or here.

Module Description

BGU38014: Water and Wastewater Treatment Engineering | Wasserversorgung, Wasseraufbereitung und Abwasserbehandlung

Version of module description: Gültig ab summerterm 2020

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is a written exam of 120 minutes duration.
Through theoretical questions students prove that they understand the individual stages for the elimination of wastewater constituents, the basics of water supply and wastewater management systems as well as necessity and feasibility of wastewater treatment methods, especially of municipal wastewater. Through calculation and design tasks, which are comprised of a treatment task with given input parameters, the students show that they can analyze resource management in the field of wastewater treatment, the performance of related systems, as well as location factors for water technology systems and can critically evaluate various conventional water and wastewater treatment techniques, taking into account urban and natural conditions. They also show that they are able to analyze water treatment problems in a limited time and apply the necessary procedures for the protection of public health, as well as to develop process optimization and solutions for municipal wastewater treatment considering technical and legal regulations.
The tasks often require own formulations, in some cases, multiple choice answers, the focus however being on short calculation tasks. In the exam, limited aids such as lecture handouts and personal notes are allowed. Not allowed are text books, internet and communication among themselves and with third parties.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Siedlungswasserwirtschaft Grundmodul (BGU38016)
Siedlungswasserwirtschaft Projektkurs (BGU38020)

Content:
1. Water supply resources and source protection; Character of raw water qualities
2. Regulatory and technical requirements for water and wastewater treatment; discharge standards
3. Processes to abstract, treat, store and distribute water for potable supply
4. Structure and organization of public water supply
5. Operation and maintenance of water treatment facilities
6. Character of wastewater, in particular municipal wastewater
7. Regulatory requirements and discharge standards
8. Approaches to treat municipal wastewater/resource recovery facilities
9. Fundamentals of biotechnology and microbial reactions/processes
10. Biological treatment processes
a. Activated sludge processes (aerobic, anaerobic)
b. Sequencing Batch Reactor (SBR) Technology
c. Biofilm reactors
11. Disinfection (chlorine-based; UV irridiation)
12. Biosolids stabilization and energy recovery from waste streams

Intended Learning Outcomes:
After completion of this module course the students are able to:
- understand concepts of drinking water and wastewater treatment facilities and processes
- they will be able to apply the knowledge to select proper siting for drinking water facilities considering constraints within the urban and natural environment
- to analyze critical control points and evaluate the appropriate treatment unit processes to protect public health
- to create optimized treatment processes based on regulatory and technical requirements
- to understand the need and feasibility of wastewater treatment, with special emphasis on treatment of municipal wastewater
- to apply individual unit processes and operations to remove problematic constituents from wastewater using biological processes for organic and inorganic constituents as well as pathogens
- to analyze resource management related to wastewater treatment
- to design concepts for conventional processes for wastewater treatment and evaluate their performance.

Teaching and Learning Methods:
The module consists of a lecture with integrated exercises. In the lecture, the technical and legal requirements for water and wastewater treatment as well as the theoretical principles of mechanical and biological treatment methods are presented by means of presentations. Furthermore, holistic concepts for water and wastewater treatment are presented. On the basis of the lecture, the methods for water and wastewater treatment are worked into voluntary problem-solving exercises during class exercises and via the Moodle platform.

Media:
Powerpoint presentations; Exercises in class and as voluntary homework via classworks during the lecture and via Moodle

Reading List:
Crittenden et al. (2012), Water Treatment Principles and Design , 3rd edition, John Wiley & Sons, New York, 2012
Edzwald, J. (2011), Water Quality & Treatment , 6th edition, McGraw Hill, New York, 2011
McGraw-Hill; 4th edition (2003). Wastewater Engineering Treatment and Reuse
Fourth Edition by Metcalf & Eddy, Inc.
Gujer, Willi (2007). Siedlungswasserwirtschaft. Springer, 3., bearb. Aufl.

Responsible for Module:
Prof. Dr.-Ing. Jörg Drewes (jdrewes@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:
Water and Wastewater Treatment Engineering (Vorlesung mit integrierten Übungen, 4 SWS)
Drewes J [L], Drewes J
For further information in this module, please click campus.tum.de or here.

Module Description

ED130092: Waste and Waste Water Treatment | Waste and Waste Water Treatment

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The written exam (90 min.) consists of general questions and simple calculations. In the written exam, students demonstrate their theoretical knowledge of waste and wastewater treatment. The answers require wording, single choice tests, and calculations. Only the use of a calculator is allowed (closed book exam).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Interest and basic knowledge in chemistry, physics, biology, and preferably in environmental, chemical, civil, or process engineering. However, the level of the course is adapted to the known broad spectrum of background knowledge, allowing also students to follow who hold a bachelor in a totally different realm.

Content:
Waste management:

1. Basics of waste management (What is waste, waste amounts, global situation of waste management, waste legislation, waste classification);
2. Avoidance and recovery of waste and waste management concepts;
3. Waste disposal (legal aspects of landfill, processes in above-ground landfill, above-ground landfill technologies, underground disposal sites);
4. Biological treatment (composting, fermentation, mechanical biological treatment, feedstocks, products, emissions and emission reduction);
5. Thermal treatment (thermal processes, equipment, power generation, emissions and emission reduction, hazardous waste treatment).

Wastewater treatment:

1. Water treatment & management concepts; overview wastewater treatment steps
2. Wastewater characteristics & discharge limits
3. Mechanical wastewater treatment
4. Fundamentals in bioprocess technology; stoichiometry of biological reactions; kinetics of biological reactions; aeration
5. Biological wastewater treatment
6. Sewage sludge treatment
7. Field trip to Garching wastewater treatment plant (optional)

Intended Learning Outcomes:
At the end of the module, students are able to:

1. Understand the necessity and objectives of waste management.
2. Understand the most important processes and technologies for waste treatment.
3. Decide which treatment method is valid for which type of waste.
4. Understand sources and types of emissions arising from waste treatment and measures for emission reduction.

8. Understand the necessity and the feasibility of wastewater treatment, especially in treating municipal wastewater.
9. Classify the single steps of eliminating wastewater compounds, such as coarse material, organic and inorganic pollutants.
10. Recall important treatment processes and their requirements.
11. Assess the pros and cons of different treatment technologies.

Teaching and Learning Methods:
The knowledge in the field of waste management is imparted during lectures. Theoretical background is given and discussed with practical examples of existing waste management infrastructure (collection systems, landfills, treatment facilities, etc.)

The content of the lecture is taught through practical examples. By means of example tasks in the lecture, possible solutions are discussed, and exemplified calculations are performed. An optional field trip to the Garching wastewater treatment plant at the end of the course allows for connecting theoretical knowledge with practical application and gives a final platform for questions.

Media:
The course is mainly taught using PowerPoint presentations and is supported by notices on the black board. The lecture notes are uploaded to Moodle before the class. It is ensured that further readings are available in the university library either for download or as hardcopy in an adequate number.

Reading List:
Waste Management:
Bilitewski, B., Härdtle, G., Marek, K.; Weissbach, A.; Boedekker, A.: Waste Management, Springer-Verlag Berlin Heidelberg, ISBN-10: 9783642082122
Waste Management: https://issuu.com/tkverlag/docs/waste_management_4
Evans, G. (Ed): Biowaste and Biological Waste Treatment, ISBN: 978-1-902916-08-8

Wastewater Treatment:
Chen, G., van Loosdrecht, M.C.M., Ekama, G.A., Brdjanovic, D., 2020. Biological Wastewater Treatment – Principles, Modelling and Design. IWA Publishing, London, ISBN: 9781789060355
Tchobanoglous, G., Burton, F.L., Tsuchihashi, R., Stensel, H.D., 2013. Wastewater Engineering: Treatment and Resource Recovery. McGraw-Hill, Boston.
Roskosch, A., Heidecke, P., 2019. Sewage Sludge Disposal in the Federal Republic of Germany. Umweltbundesamt, Bonn. URL: https://www.umweltbundesamt.de/en/publikationen/sewage-sludge-disposal-in-the-federal-republic-of.

Responsible for Module:
Koch, Konrad; Prof. Dr.-Ing. habil.

Courses (Type of course, Weekly hours per semester), Instructor:
Waste Management (Vorlesung, 2 SWS)
Franke M, Linke F, Koch K

Waste Water Treatment (Vorlesung, 2 SWS)
Linke F, Koch K
For further information in this module, please click campus.tum.de or here.

Renewable Resources | Renewable Resources

Module Description

WIB14002: Advanced Seminar Life Sciences, Management & Policy: Sustainable Entrepreneurship - Theoretical Foundations | Advanced Seminar Life Sciences, Management & Policy: Sustainable Entrepreneurship - Theoretical Foundations

Version of module description: Gültig ab summerterm 2017

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The grading is based on a research paper (max. 7.500 words). The students show that they are able to apply theoretical perspectives to the context of life sciences. Moreover, they develop an argument matching the concept of sustainable entrepreneurship as a promising approach for addressing complex sustainability issues in general and in the field of life sciences in particular. In the research paper students show that they can evaluate different approaches and develop their own ideas for life sciecne-related sustainable ventures.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Courses in entrepreneurship, corporate sustainability and/or sustainability marketing are recommended.

Content:
Whether it is tackling climate change, resource degradation or social inequalities - responding to sustainability issues constitutes the biggest challenge for businesses in the 21st century. Embracing a great range of industries including food, energy or textiles, the field of life sciences is a key area for sustainability. Since the production of these goods accounts for an extensive use of resources, there is great potential for effecting real improvements on a way towards more sustainable production and lifestyles. The course "Advanced Seminar Life Sciences and Management" will investigate this exciting and ongoing industrial transformation. It will deal with

the following topics (all topics will be explained in general and then discussed in the context of life sciences in particular):

1) Introduction to Sustainability and Entrepreneurship
2) Sustainable Entrepreneurship
3) Opportunity Identification
4) Development of Double and Triple Bottom Line Solutions
5) Forming and Funding of New Sustainable Ventures
6) Market Entry
7) Sustainable Entrepreneurship and Life Sciences - Reflections and Discussion

Intended Learning Outcomes:
Upon successful completion of this module, students will be able to (1) summarize and (2) evaluate the socio-economic problems society is facing. They will (2) match the concept of sustainable entrepreneurship as a promising approach for addressing complex sustainability issues in general, and in the field of life sciences in particular. More specifically, students will (3) be able to identify the venture creation process from opportunity identification to market entry in the context of sustainability and life sciences. In addition, participants will be able to (4) apply this knowlede to the field of life sciences. Finally, the students will be able to (5) critically evaluate case studies from the field of life sciences and to (6) create own ideas for sustainable ventures in this context.

Teaching and Learning Methods:
The module is a seminar which intends to familiarize the student with the relevant literature and follows an interactive course format with group work assignments and guest lectures. This is the appropriate format for this advanced level module because it encourages the students to go into further detail and to deal with the issues in an integral, interactive and independent way.

Media:
Presentations, slides, cases, links and further literature will be provided via www.moodle.tum.de

Reading List:
Muñoz, P., & Cohen, B. (2018). Sustainable entrepreneurship research: taking stock and looking ahead. Business Strategy and the Environment.

The module is based on key scientific papers on each topic. These form the basis for classroom discussions and are to be used for developing an argument in the reflection essay. All articles are provided as pdf files in TUM Moodle (https://www.moodle.tum.de).

Responsible for Module:
Belz, Frank-Martin; Prof. Dr. oec.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ2721: Agriculture Raw Materials and their Utilization | Agriculture Raw Materials and their Utilization [ARM&U]

Version of module description: Gültig ab winterterm 2020/21

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module grade is assessed by a written exam (60 min). The students show that they have understood the principles of biomass production for bioenergy use, biomass supply chains, and the different bioenergy systems. The written exam demonstrates the student's ability to deal with questions, and calculations, complete figures or prepare sketches in regard to biomass production for bioenergy use.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
General understanding of natural science, mathematics and basics of technology.

Content:
The targets for the module "Agriculture Raw Materials and their Utilization" are impart a basic understanding of the possibilities and limitations for the agricultural production of biomass for energetic and industrial uses and to provide an overview of ecological impacts of diverse biomass and bioenergy utilization pathways.
The module comprises a lecture which deals with the following topics:
- Production of agricultural biomass and the most important energy and industry crops
- Biomass chains and uses
- Diverse bioenergy systems
- Bioeconomy & biorefineries (related to Agricultural products)
Ecological impact assessment of biomass and bioenergy utilization.

Intended Learning Outcomes:
At the end of the module students have acquired knowledge of the production and utilization of renewable resources from the agricultural and forestry sector.
They know how to analyze the performance and ecological impacts of different biomass supply and utilization chains. They can estimate the suitability of various crops for bioenergy use. The students have an insight in the physical and chemical basics of energy production from biomass and are able to apply related basic equations. They can compare different biomass combustion systems and attribute emissions. The students know the production pathways and properties of different biofuels for transportation and are able to estimate their future potentials. They understand the technological background of biogas production and can do basic designs of biomass supply and utilization chains using the example of biogas systems in agriculture.

Teaching and Learning Methods:
The lecture with integrated exercises and discussions will improve the understanding. During the lecture a power point presentation related to the lecture topics will be done from each student to improve the discussion in the different topics of the module.

Media:
Power point presentations, black board. Videos, Online Quiz.

Reading List:
Hijazi, O; Munro, S; Zerhusen, B; Effenberger, M. (2016): Review of life cycle assessment for biogas production in Europe. Renewable and Sustainable Energy Reviews (54), 1291-1300.

Responsible for Module:
Hijazi, Omar; Dr. rer. agr.

Courses (Type of course, Weekly hours per semester), Instructor:
Agriculture Raw Materials and their Utilization (Vorlesung, 4 SWS)
Hijazi O
For further information in this module, please click campus.tum.de or here.

Module Description

WZ4098: Forestry Raw Materials and their Utilization | Forestry Raw Materials and their Utilization

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning success will be assessed by a written examination (duration 60 min) where students are expected to demonstrate their knowledge on properties assessment and the transformation technologies, in order to select the correct materials and products in societal applications of wood-based materials and develop new wood-based materials and products fit for purpose (solution finding strategies for product development and applications). Additionally, the students have to prepare and give a structured oral presentation (20 min) in a seminar organized at the end of the summer term, with a (voluntary) mid-term assessment, showcasing their ability to analyse products and uses of biobased materials. The topic of the presentation is defined in agreement with the lecturer. The presentation may be prepared either individually or in groups of two. The midterm presentation assignment allows to improve the examination mark by 0.3.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basics of biology, chemistry, physics and sciences to deal with the biological production, and the processing and conversion processes of wood to final products, and the environmental assessment.

Content:
1. Overview and global potential of forest resources;
2. Availability, characteristics and properties of forest based products (wood and non-timber forest products);
3. Technologies and processes from raw materials to final products: sawn timber, wood-based products, pulp and paper;
4. Criteria and rules of a resource efficient application;

5. Environmental assessment of forestry raw materials and products.

Intended Learning Outcomes:
Upon successful completion of the module students are able to:
- illustrate the multidisciplinary of forests and their products;
- propose options to maximize the value chains of forest based products;
- exemplify production and process technologies and typical sector industries;
- demonstrate the role, potential and limitations of forestry raw materials in the framework of sustainable development;
- outline economical, environmental and social aspects of typical products and applications;
- develop strategies to strengthen the value and impact of typical forestry raw materials and non-timber forest products.

Teaching and Learning Methods:
Lecture, exercises, seminar, Optional: visits to laboratories and During the lectures on students are introduced to forestry raw materials and their markets where through integrated exercises they will learn about analysing and developing transition processes from resources to products and applications. They will further self study starting from selected literature on their topics of interest for their oral presentations on the selected topic, exercise, Optional: visit to wood research laboratories.

Media:
Demonstration material: raw materials and products; PP presentations; videos.

Reading List:
Fengel, D.; Wegener, G. (2003): Wood - Chemistry, Ultrastructure, Reactions. Kessel Publishers
Wood Handbook, Forest Products Laboratory (fpl_gtr190-2.pdf)
Dinwoodie, J.M. (2000): Timber: Its nature and behaviour. Van Nostrand Reinhold Publishers
Forest Products Laboratory (ed) (2010): Wood as an Engineering Material: http://www.fpl.fs.fed.us-documnts-FPLGTR-fplgtr.113-PL113.htm.
Rowell R. ed. (2012): Handbook of Wood Chemistry and Wood Composites. Sec. Edition, CRC Press Taylor & Francis Group, 703 pp.
Shmulsky, R., Jones P.D (2011): Forest Products & Wood Science, 6th ed. Wiley-Blackwell, Chichester UK

Responsible for Module:
van de Kuilen, Jan Willem; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

EI70860: Integration of Renewable Energies | Integration of Renewable Energies [IRE]

Version of module description: Gültig ab summerterm 2020

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module exam consists of a written exam (60 min). The goal of the exam is to test with questions if the students are able to reproduce general challenges regarding the integration of renewable energies. With calculations on simple examples the capability of working with this general knowledge on specific questions is tested. The exam will be graded.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Fundamental knowledge in:
- renewable energy technologies (hydro, wind, photovoltaic, biomass, geothermal)
- power generation and transportation in large quantities in future energy supply scenarios
- fossil and renewable energy carriers
- regulation frameworks in electricity markets
- political and social aspects in energy systems

Content:
The lecture is subdivided in an introduction and three main chapters (physical, system and market integration), which classify the different challenges of the integration of renewable energies in an existing electricity system:
The introduction discusses the characteristics of fluctuating power generation from renewable energies and derives the resulting challenges for the system.
Physical integration discusses (technical) options, which enable an adaption of the generation side and the demand side (grid, storage, demand side integration, etc.).
System integration evaluates the possible contribution of renewable energies to provide ancillary services (balancing power, reactive power, inertia, etc.).

Market integration explain the influence of an increasing share of renewables on the existing market participants and discusses alternative framework design options.

Intended Learning Outcomes:
Upon successful completion of the module, students are able to:
- describe the challenges of a power system with a high share of renewable energies
- understand the properties of renewable energies from a system perspective
- analyze possible options to improve the integration of the renewable energies
- understand the system behavior of renewable energies
- analyze the influence of renewable power generation on operation of the conventional power plant park
- assess renewable power generation in relation to electricity markets and the demand of balancing power

Teaching and Learning Methods:
Lecture: beamer and partly blackboard presentations with teacher centered teaching
Tutorials: Calculations (by hand or PC based) as well as reading assignments which are both discussed in lessons

Language of instruction, English in Winter Semester and German in Summer Semester.

Media:
Lecture and exercise with beamer and blackboard. Presentations and exercise will be presented online.

Reading List:
Lawrence E. Jones, Renewable Energy Integration, 2017
IEA: The Power of Transformation, 2014

Responsible for Module:
Hamacher, Thomas; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Integration of Renewable Energies (Vorlesung mit integrierten Übungen, 4 SWS)
Kuhn P, Gawlick J
For further information in this module, please click campus.tum.de or here.

Module Description

WZ4202: Political and Social Perspectives of Renewable Resources | Political and Social Perspectives of Renewable Resources

Version of module description: Gültig ab winterterm 2015/16

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 105	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Oral presentation of the group project work, review paper for a scientific journal. The learning outcomes are assessed by a group project work concerning a selected topic related to the political and social perspectives of renewable resources. Therefore students have to prepare a scientific paper for an international journal of their choice and give a short oral presentation about the work done for the paper, similar to what would be expected in a 15 minute conference presentation.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Knowledge of sustainable resources (materials and energy). Scientific writing.

Content:
In the lectures a number of examples of societal aspects of Sustainable Resource programs will be presented and discussed. Backgrounds are global developments such as urbanization, the rise of countries like China and India, resource availability and technological developments. Case studies deal with tropical forestry and pros and cons of tropical hardwood uses, urban planning, vernacular architecture and the use of renewable resources We take a tour around the world and look at social housing programs in Europe, Brazil and South-East Asia. Furthermore we look at successes and failures in the German/European energy policies in comparison to the United States.

Intended Learning Outcomes:
After this course, students should be able to:

1. Develop SR stimulation programs on country or regional level and priority analysis of renewable resource applications
2. Assess priorities for development and application of renewable resources in countries with different levels of development
3. Critically analyze existing SR programs taking into account social values of stakeholders,
4. Assess impacts of global developments such as urbanization and UN-policies on SR.

Teaching and Learning Methods:
Discussion and creativity sessions. Project work evolving in a scientific paper for a journal of choice. Oral presentation.

Media:
Lectures, UN-policy notes, Discussion and Creativity sessions.

Reading List:
Tba

Responsible for Module:
van de Kuilen, Jan Willem; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Political and Social Perspectives of Renewable Resources (Vorlesung, 4 SWS)
van de Kuilen J [L], van de Kuilen J, Khaloian Sarnaghi A
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2720: Renewable Energy Technologies | Renewable Energy Technologies

Version of module description: Gültig ab winterterm 2015/16

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a written test, where the students have to proof that they understand and remember the basic technical principles related to energy production and the working principles of the presented renewable energy technologies, as well as the related ecological and economical properties and frame conditions. The students have to answer questions, but may also be asked to do calculations, complete figures or prepare sketches.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
General understanding of natural science, mathematics and basics of technology.

Content:
The course provides an overview of the basics of thermodynamics and the principles of energy conversion. Energy conversion and its importance for the economy is discussed. Because of their transitional character due to the German “Energiewende”, the course focusses on the European and German energy systems. The international students in the course are expected to support the lecture with their experiences from abroad.
Basic technical principles of energy production, efficiencies, costs and environmental impacts will be understood. The focus lies on the following areas: solar, wind, water and geothermal energy conversion.
The course provides an overview of the basics of thermodynamics and the principles of energy conversion. Energy conversion and its importance for the economy is discussed. Because of their transitional character due to the German “Energiewende”, the course focusses on the European and German energy systems. The international students in the course are expected to support the lecture with their experiences from abroad.

Basic technical principles of energy production, efficiencies, costs and environmental impacts will be understood. The focus lies on the following areas: solar, wind, water and geothermal energy conversion.
In order to complete the picture, also storage and fossil fuel technologies will be discussed. The students will understand their role and their contribution to balancing energy production and demand.

Intended Learning Outcomes:
At the end of the course, the students understand the technical principles of renewable energy conversion systems.
They are able to interpret energy scenarios and solve simple problems associated with a high renewable energy share and its implications on society.
The students can estimate the importance of distinct technologies for a sustainable energy supply.

Teaching and Learning Methods:
Lecture with integrated exercises and teamwork, as well as discussions to improve understanding.

Media:
Power point presentation, black board, Videoclips

Reading List:
Tba

Responsible for Module:
Benedikt Schweiger (benedikt.schweiger@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ2736: Analytical Characterization of Soil Resources | Analytical Characterization of Soil Resources

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The students are required to demonstrate that they are able to apply their knowledge of the major physical, chemical, and biological processes in soils to their laboratory assessments. This will be tested by a research paper (10-15 pages), in which they present and discuss the analytical data obtained by own laboratory characterization of soil samples that were collected by the students themselves during a guided exercise in the field. In the research paper, the students are required to show their competences to interpret the laboratory data and how to draw and communicate scientific conclusions. To assess the scientific communication skills of the students, the research paper is accompanied by an oral presentation (15-20 min) in which the students demonstrate that they are able to communicate their findings also in an oral manner. For the final mark, the research paper accounts for 75% and the oral presentation for 25%.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
The successful completion of the module "Introduction to Soil Science" (WZ2733) or equivalent skills are required.

Content:
• Guidelines of scientific working, sampling and sample preparation
• Lab analyses: Soil texture, bulk density, water retention and conductivity, organic and inorganic carbon, nitrogen, microbial biomass, pH, cation exchange capacity, pedogenic oxides, phosphate retention

Intended Learning Outcomes:
The students are able to apply their knowledge of soils, as achieved in the module “Introduction to Soil Science”, to assess the most important physical, chemical and biological processes in soils. They are able to determine the suitability of laboratory methods to answer research questions related to soil. The students know how to conduct a target-oriented sampling, adequately prepare samples and laboratory work. They can interpret laboratory data and know, which conclusions can be made and which conclusions cannot be made. The students are able to communicate their findings in a written and an oral manner.

Teaching and Learning Methods:
The theoretical background of various soil analysis methods is provided. Afterwards, the methods are implemented by the students themselves, guided by the lecturers and the laboratory staff ranging from sampling, to analyses, and to data interpretation.

Media:
Lecture: presentation notes; sampling: field equipment; laboratory course: laboratory instruments

Reading List:
Pansu and Gautheyrou, 1st Edition (2006): Handbook of Soil Analysis Mineralogical, Organic and Inorganic Methods, Springer, Berlin (Germany).
Carter and Gregorich, 2nd Edition (2007): Soil Sampling and Methods of Analysis, CRC Press, Boca Raton (USA).
Blume, Stahr and Leinweber, 3rd Edition (2010): Bodenkundliches Praktikum Eine Einführung in pedologisches Arbeiten für Ökologen, Land- und Forstwirte, Geo- und Umweltwissenschaftler, Spektrum Akademischer Verlag Heidelberg
Amelung et al., 1st edition (2016): Scheffer/Schachtschabel Soil Science Springer, Berlin (Germany).

Responsible for Module:
Schweizer, Steffen; Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Analytical characterization of soil resources: Laboratory course (Übung, 3 SWS)
Prietzel J [L], Prietzel J, Schweizer S, Just C, Göttlein A, Kolb E

Analytical characterization of soil resources: Lecture (Vorlesung, 1 SWS)
Schweizer S
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2733: Introduction to Soil Science | Introduction to Soil Science

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 67.5	**Contact Hours:** 82.5

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In a written exam of 60 minutes duration, the students prove by answering questions without helping material their understanding of soil-forming processes and important mineralogical, biochemical and physical properties of soils. Furthermore, they remember the characteristics of the soils of the field course as well the field assessment methods. In a pass/fail exam (laboratory assignment) in the field of 10 minutes duration, they prove their ability to survey a soil profile. They are required to use the surveyed characteristics to discuss genesis and possibilities of the soil and the risks to the soil and its environment.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in chemistry, physics, and biology.

Content:
• What is a soil?
• Mineral (inorganic) soil components
• Soil biology and soil organic matter
• Soil chemistry
• Soil physics
• Soil-forming processes
• Soil survey
• Soil interpretation
• Soil erosion assessment

Intended Learning Outcomes:
The students understand the basics of soil science. They can use their knowledge from soil mineralogy, soil organic matter, soil chemistry, and soil physics to understand soil-forming processes and important mineralogical, biochemical and physical properties. The students are able to survey the major characteristics of a soil profile and to detect the genesis of the surveyed soil. They can evaluate the possibilities of soil use, the risks to the soil itself and the risks to its environment. They are able to evaluate the hydrology of the soil and to judge the erosion risk.

Teaching and Learning Methods:
The lecture discusses the essentials of soil science. The field assessment starts with peer instructions to analyse a soil profile, using the Field Guide of the international soil classification system WRB. During the course, the students will do more and more group work to train the evaluation of a soil profile, its hydrology and its erosion risks.

Media:
Lecture: presentation notes. Field Assessment: spade, auger, knife, colour charts, erosion assessment kits.

Reading List:
1. Weil R, Brady N (2016): The nature and properties of soils. 15th edition.
2. Scheffer/Schachtschabel (2016): Soil Science. Springer, Heidelberg.
3. Eash, Sauer, O'Dell, Odoi, Bratz (2016): Soil science simplified. 6th edition.
4. Blum WEH, Schad P, Nortcliff S (2016): Essentials of Soil Science.
5. IUSS Working Group WRB (2022): World Reference Base for Soil Resources. 4th edition. International Union of Soil Sciences (IUSS), Vienna, Austria.

Responsible for Module:
Schad, Peter; Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:
Introduction to Soil Science: Lecture (Vorlesung, 2 SWS)
Schweizer S

Introduction to Soil Science: Field course (Übung, 3,5 SWS)
Wiesmeier M [L], Wiesmeier M, Zare M, Sümmerer M, Schad P
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2734: Soil Protection | Soil Protection

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In an oral exam of 30 minutes duration, students demonstrate in a scientific discussion by answering questions without helping material their broad and deep understanding on how to protect soils. The understanding of soils, as achieved in the modules "Introduction to soil science" and "World soil resources", is implicitly part of the oral exam. They prove their understanding of the major environmental factors determining food production and are required to design adequate land-use methods. They prove their understanding of the major factors determining the fate of pollutants in soil and are required to design scenarios to manage and remediate brownfields.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
The successful completion of the module "Introduction to Soil Science" or equivalent skills are required. The successful completion of the module "World Soil Resources" is recommended.

Content:
Principles of soil degradation, the world food problem, highly erodible soils, semi-arid environments (including irrigation and salinization problems), kaolinitic soils, shifting cultivation, organic and mineral fertilization, agroforestry, land use and greenhouse gases, soil functions, organic pollutants, inorganic pollutants (heavy metals), radionuclides, pesticides, pathways of pollutants, sorption, precipitation, co-precipitation, acidification, ways to assess the mobility of pollutants, remediation of brownfields.

Intended Learning Outcomes:
The students are able to apply their knowledge of soils, as achieved in the modules “Introduction to Soil Science” and “World Soil Resources”, to develop strategies of soil protection. They understand the major environmental factors that determine the food production in the world. They are able

to address the specific problems of highly erodible soils, semi-arid land and kaolinitc soils and to design adequate land-use methods. The students understand the major factors that determine the fate of substances in soil. They are able to analyze and forecast the fate of heavy metals, organic pollutants and radionuclides in soil and are familiar with important techniques for managing and remediating brownfields.

Teaching and Learning Methods:
The lecture presents and discusses the state of soil degradation and how to avoid and to meliorate it.

Media:
Presentation notes.

Reading List:
Blanco, H., Lal, R. (2008): Principles of soil conservation and management. Diamond, J. (1998): Guns, germs and steel. A short history of everybody for the last 13,000 years. Mirsal, I. (2008): Soil Pollution.

Responsible for Module:
Schad, Peter; Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:
Bodenschutz - Organische und anorganische Schadstoffe in Böden (Vorlesung, 2 SWS)
Just C

Soil Protection and World Food Production (Vorlesung, 2 SWS)
Schad P
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2735: World Soil Resources | World Soil Resources

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 78	**Contact Hours:** 72

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In an oral exam of 30 minutes duration, students demonstrate in a scientific discussion by answering questions without helping material their fundamental understanding of the soils of the world in relation to other ecological factors, and they remember the soils of the field course as well as the methods of surveying and classifying soils in the field. In a pass/fail exam (laboratory assignment) in the field of 10 minutes duration, they prove their ability to survey and classify soils of various landscapes and environmental settings. The understanding of soils, as achieved in the module "Introduction to soil science" is implicitly part of the oral exam.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
The successful participation at the module "Introduction to Soil Science" (which is given in the first half of the summer semester) is required.

Content:
• Soils of the world according to the international soil classification system World Reference Base for Soil Resources (WRB)
• Chemical, biological and physical properties of soils
• Genesis of soils as the result of soil-forming factors
• Soil survey using the WRB Field Guide
• Soil classification according to the international system WRB
• Soil interpretation.

Intended Learning Outcomes:
The students are able to apply their knowledge of soils, as achieved in the module “Introduction to Soil Science”, to all soils of the world. The students understand the characteristics of the soils of

the world, the pattern of their geographical distribution, their genesis, their ecological potential and the threats to their functions. The students are able to survey a soil profile, to detect the genesis of the surveyed soil and to classify it according to the international soil classification system. They are able to evaluate the possibilities and risks of soil management. They can assess the relationship between the soil and its environmental setting.

Teaching and Learning Methods:
The lecture gives an overview of all soils of the world. The field course (several days) presents soils in a landscape outside southern Bavaria. The students are trained in the methodological skills of soil survey, soil classification and soil interpretation.

Media:
Lecture: presentation notes. Field Assessment: spade, auger, knife, colour charts.

Reading List:
1. Zech W, Schad P, Hintermaier-Erhard G (2022): Soils of the World. Springer, Heidelberg.
2. IUSS Working Group WRB (2022): World Reference Base for Soil Resources. 4th edition. International Union of Soil Sciences (IUSS), Vienna, Austria.

Responsible for Module:
Schad, Peter; Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:
World Soil Resources: Lecture (Vorlesung, 2 SWS)
Schad P

Bodenansprache und Bodenklassifikation nach internationalen Standards (Übung, 2,8 SWS)
Schad P, Just C
For further information in this module, please click campus.tum.de or here.

Sustainable Agricultural Systems and Products | Sustainable Agricultural Systems and Products

Module Description

LS10016: Environment, Agriculture and Food | Environment, Agriculture and Food

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is carried out in the form of an individual report (4 pages, figures and tables in annex, word limit = 2,500), complemented by a presentation. The report and presentation account for 70% and 30% of the final grade, respectively.

The learning outcomes are examined with the explanation of key concepts. The report documents evidence of quantification of multiple selected metrics to assess livestock systems. The presentation is structured in slides and lasts no more than 20 min, followed by 10 min discussion, and will be scheduled within the lats three weeks of the semester. The report has to be handed in at the end of the semester.

The assessment is based on the criteria below:
• Ability to conceptualise multiple threats to the environment arising from agriculture and food systems by using quantitative metrics and other scientific evidence (theoretical thinking);
• Ability identify problems and propose solutions based on scientific evidence;
• Completeness and correctness of the evidence presented in the report;
• Presentation and demonstration of the material included in the assessment.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic nummercial skills to handle data and basic knowledge of R.

Content:
1) Agricultural and food systems, global, trends, dynamics and environmental threats;
2) The state of the environment in rural and urban food systems (in figures and maps);
3) Food systems, land use and climate change (theory, quantitative description and appraisal using the most recent literature);
4) GHG emissions, water and biodiversity (global goals and regional targets, assessment of progress);
5) Regional agricultural systems with important ecological, production and societal features;
6) Environment and development; synergies and tradeoffs with wellbeing.
7) Livelihoods and agricultural development in low and high-income countries;
8) Metrics to assess performance of agricultural and food systems (theory);
9) Application of metrics to assess local and regional agricultural and food systems (practical);
10) Critical assessment of future needs to balance environmental goals and economic growth.

Intended Learning Outcomes:
Upon completion of this module, the students will be able to:

• Identify key environmental issues arising from agricultural production and food systems.
• Appraise the scientific literature on current issues;
• Understand the economic and societal issues constraining the adoption of environmentally sustainable agriculture;
• Integrate theory, data and metrics to evaluate agricultural and food systems.
• Discuss solutions for environmental problems associated with agriculture and food;
• Write critically about environmental problems associated with modern agriculture identifying solutions;

Teaching and Learning Methods:
• The module will be delivered through lectures, integrated with interactive exercises to introduce theory, and guide the implemation of quantitative assessments.
• The module also includes a data handling training or refresher (2 weeks) to enable students to obtain and process (data mining) data from online open sources.
• Students learn how to apply concepts and methods and collaborate to solve practical problems, produce a report and communicate findings in class.
• Students interact with each other and the instructors both in the seminar room and online when working on their assigments.

Media:
Powerpoint slides, Moodle, Videos, Muro, Zoom etc.

Reading List:
FAO. 2022. The State of Food and Agriculture 2022. Leveraging automation in agriculture for transforming agrifood systems. Rome, FAO. https://doi.org/10.4060/cb9479en
Pörtner et al. 2023 Overcoming the coupled climate and biodiversity crises and their societal impacts. Science, 380, 256

Biesbroek et al. 2023 Toward healthy and sustainable diets for the 21st century: Importance of sociocultural and economic considerations. Proc National Academy Sci 120, 2219272120

Responsible for Module:
Rufino, Mariana, Prof. Dr. mariana.rufino@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Life Cycle Assesment applied to agricultural and food systems (Seminar, 1 SWS)
Hawkins J, Rufino M

Agriculture and food, trends, environmental challenges and solutions (Vorlesung mit integrierten Übungen, 2 SWS)
Rufino M

Quantifying environmental impacts of agriculture and food systems(multiple metrics) (Seminar, 1 SWS)
Rufino M
For further information in this module, please click campus.tum.de or here.

Module Description

LS10021: Livestock Production and Global Grasslands | Livestock Production and Global Grasslands

Version of module description: Gültig ab winterterm 2023/24

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is carried out in the form of an individual report (4 pages excluding annex with tables and figures, word limit 2500), complemented by a presentation. The report and presentation account for 70% and 30% of the final grade, respectively.

The learning outcomes are examined with the explanation of key concepts. The report documents evidence of quantification of multiple selected metrics to assess livestock systems. The presentation is structured in slides and lasts no more than 20 min, followed by 10 min discussion, and will be scheduled within the last three weeks of the semester. The report has to be handed in at the end of the semester.

The assessment is based on the criteria below:
• Ability to conceptualise multiple threats to livestock systems by using quantitative metrics and other evidence (theoretical thinking);
• Ability identify problems and propose solutions based on scientific evidence;
• Completeness and correctness of the evidence presented in the report;
• Presentation and demonstration of the arguments included in the assessment.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic experience handling datasets and basic knowledge of R.

Content:
1) Main livestock systems of the world, trends, dynamics and threats;
2) Livestock systems, land use and climate change;

3) Introduction to global grasslands and important ecological, production and societal features;
4) Grasslands, biodiversity and livestock (theory and metrics);
5) Livelihoods and development of livestock-based agricultural systems;
6) Livestock systems and human nutrition;
7) Current methods to assess of livestock systems (Life cycle assessment (LCA), water productivity, energy efficiency, biodiversity impacts);
8) The use of multiple metrics to assess the state and performance of livestock systems;
9) Scenario analyses global grassland and livestock systems using models and metrics;
10) Local versus regional livestock system analysis (application of concepts learnt);

Intended Learning Outcomes:
Upon completion of this module, the students will be able to:

• Identify and understand key issues affecting livestock production and grasslands, and critically appraise the literature on these issues;
• Understand the economic and societal issues constraining the adoption of more environmentally sustainable livestock production;
• Discuss alternative scenarios and solutions for key environmental problems associated with livestock;
• Integrate theory, data and metrics to evaluate livestock systems performance.
• Write cogently and critically about key environmental problems associated with modern livestock systems and alternative, sustainable solutions;

Teaching and Learning Methods:
• The module will be delivered through lectures, integrated with interactive exercises to introduce theory, and guide the implemation of quantitative assessments.
• The module also includes a data handling training or refresher (1-2 weeks) to enable students to obtain and process (data mining) data from online open sources.
• Students learn how to apply concepts and methods and collaborate to solve a practical problem, produce a report and communicate findings to the class.
• Students interact with each other and the instructors both in the seminar room and online when working on their assigments.

Media:
Powerpoint slides, Moodle, Videos, Muro, Zoom etc.

Reading List:
Book on grasslands: Brian Wilsey, The Biology of Grasslands, ISBN: 9780198744528.
Book on current livestock systems: FAO. 2015. The Second Report on the State of the World's Animal Genetic Resources for Food and Agriculture, edited by B.D. Scherf & D. Pilling. FAO Commission on Genetic Resources for Food and Agriculture Assessments. Rome (available at http://www.fao.org/3/a-i4787e/index.html).
Recommended articles from peer-reviewed journals:

Phelps and Kaplan 2017 Land use for animal production in global change studies: Defining and characterizing a framework. Global Change Biol. 23, 4457-4471.
Bardgett et al. 2021 Combatting global grassland degradation. Nature Reviews Earth & Environment 2, 720–735.
Godfray et al. 2028 Meat consumption, health, and the environment. Science, 361, 243.

Responsible for Module:
Rufino, Mariana, Prof. Dr. mariana.rufino@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Grasslands and livestock systems, services and environmental and social outcomes (Vorlesung mit integrierten Übungen, 2 SWS)
Rufino M

Global livestock production, land use, metrics and future scenarios (Seminar, 2 SWS)
Rufino M, Hawkins J, Nevermann S
For further information in this module, please click campus.tum.de or here.

Module Description

MGT001412: Sustainability Assessment of Agri-Food Supply Chains | Sustainability Assessment of Agri-Food Supply Chains

Version of module description: Gültig ab summerterm 2023

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination format consists of a report (60% of the final grade; based on a LCA exercise; approx. 8-10 pages) supplemented by an oral presentation (40% of the final grade; approx. 20 - 30 minutes), where students will present a scientific study selected from a curated list.
The oral and written examination will assess the students' competency to i) understand and communicate the factors and concepts that define, shape, and quantify the sustainability of agri-food supply chains and ii) identify the challenges and opportunities in the field of sustainability assessment of agri-food supply chains to provide decision support and foster sustainable development.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Focused on the global challenges of natural resource conservation, ecosystem preservation, climate mitigation, and sustainable food consumption, this seminar is tailored for master students specializing in Sustainable Resource Management, Agrosystem Science, Ecological Engineering (Life Sciences), and Consumer Sciences (Management). However, addressing these challenges necessitates collaboration among several disciplines, and hence this research seminar also extends to master students with other background. Prerequisite is i) a strong interest in gaining knowledge on the factors and concepts underpinning sustainability assessment within agri-food supply chains and ii) to contribute to this interdisciplinary discourse by presenting a scientific study to your fellow students, participate in the group discussion and concisely summarize the key findings in a written report.

Content:
In an increasingly globalized world where the demand for natural resources continues to rise, the sustainability of food and agricultural supply chains has emerged as a critical concern, playing a pivotal role in achieving numerous Sustainable Development Goals. By comprehending and assessing the hotspots and drivers that impact the sustainability of agri-food supply chains, collaborative efforts between the scientific community, industry, and policymakers can effectively address the sustainability of agri-food systems, thereby advancing the SDGs. As a future graduate of TUM, you have the opportunity to contribute to this endeavor by: i) gaining foundational knowledge of the factors and concepts within the realm of sustainability assessment of agri-food supply chains ii) developing the ability to communicate this knowledge to a multidisciplinary audience for providing sustainable decision support. Through case studies at global and national levels, this seminar will familiarize you with the knowledge and quantitative methods necessary to gain a holistic understanding of the challenges and opportunities in promoting sustainable agri-food supply chains.

Intended Learning Outcomes:
After successfully completing this module, students will be able to articulate the factors and concepts that define, shape, and quantify the sustainability of agri-food supply chains to a multidisciplinary audience. In particular, students will acquire the ability to explain how:
a) agri-food systems affect sustainability by identifying the hotspots, drivers and levers in the global supply chain.
b) to assess sustainability of agri-food supply chains with quantitative methods including top-down and bottom-up life-cycle assessment, regionalized impact assessment methods, scenario modelling, and remote sensing.
c) to utilize the knowledge from a) and b) to provide sustainable decision-support for industry, policy and society, illustrated by case studies at global and national scales.

Teaching and Learning Methods:
Following an introduction on the factors and methodologies that delineate, influence, and measure the sustainability of agri-food supply chains, students will engage with these concepts by:
- Presenting a scientific study selected from a curated list to your fellow colleagues to foster a deeper understanding of real-world applications and challenges within the realm of sustainability assessment of agri-food supply chains.
- Active participation in group discussions that encourage critical thinking and the exchange of diverse perspectives to provide a dynamic platform for exploring the multifaceted aspects of sustainability within agri-food supply chains.
- Crafting a concise yet comprehensive summary on the challenges and opportunities intrinsic to the field of sustainability assessment for agri-food supply chains, allowing you to distill key insights and reflect on the broader implications in view of the SDGs.

Media:
Lecture inputs (in hybrid form), exercises with a semi-automated LCA software (based on matlab and tableau), student presentations + discussion.

Reading List:

Alexander, P., Brown, C., Arneth, A., Finnigan, J., Moran, D., & Rounsevell, M. D. (2017). Losses, inefficiencies and waste in the global food system. Agricultural systems, 153, 190-200.
Cabernard, L., Pfister, S., Oberschelp, C., & Hellweg, S. (2022). Growing environmental footprint of plastics driven by coal combustion. Nature Sustainability, 5(2), 139-148.
Camilleri, A. R., Larrick, R. P., Hossain, S., & Patino-Echeverri, D. (2019). Consumers underestimate the emissions associated with food but are aided by labels. Nature Climate Change, 9(1), 53-58.
Chaudhary, A., Verones, F., De Baan, L., & Hellweg, S. (2015). Quantifying land use impacts on biodiversity: combining species–area models and vulnerability indicators. Environmental science & technology, 49(16), 9987-9995.
Cucurachi, S., Scherer, L., Guinée, J., & Tukker, A. (2019). Life cycle assessment of food systems. One Earth, 1(3), 292-297.
de Adelhart Toorop, R., Yates, J., Watkins, M., Bernard, J., & de Groot Ruiz, A. (2021). Methodologies for true cost accounting in the food sector. Nature Food, 2(9), 655-663.
Hellweg, S., & Milà i Canals, L. (2014). Emerging approaches, challenges and opportunities in life cycle assessment. Science, 344(6188), 1109-1113.

Responsible for Module:

Cabernard, Livia; Prof. Dr.sc. ETH Zürich

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ1561: Value Chain Economics | Value Chain Economics

Version of module description: Gültig ab winterterm 2014/15

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination is a project that expects students to identify problems and generate ideas concerning market and non-market based solutions. Within this project students work in groups and provide one written report (15 to 20 pages) and two presentations per group.
Each of the two presentations lasts 30 minutes and is followed by a 30-minute questions-and-answers session. The presentations take place throughout the semester during class time. The final written report is due at the end of the semester. Students summarize the content of their presentations and incorporate the feedback and information received during the questions-and-answers sessions in the final report.

The presentation tests the ability of students to (1) describe in oral form the main actors, their interactions and the structure of value chain(s), and the institutional environment (including industrial policies); (2) explain in oral form the performance of the chain(s), the distribution of welfare, the effect of the institutional environment on the chain's performance of the chain by applying economic models and conceptual frameworks; (3) explain in oral form potential challenges for the functioning and performance of the chain(s) and related market-based and non-market based solutions by applying economic models and conceptual frameworks.

The final paper tests the ability of students to (1) describe in written form the main actors, their interactions and the structure of the value chain(s), and the institutional environment (including industrial policies); (2) explain in written form the performance of the chain(s), the distribution of welfare, the effect of the institutional environment on the chain's performance by economic models and conceptual frameworks; (3) explain in written form potential challenges for the functioning and performance of the value chain(s) and suitable market-based and non-market based solutions to improve the performance of the chain(s) and related solutions by applying economic models and conceptual frameworks; (4) draw conclusions regarding the analysis of the value chain(s) performed throughout the semester.

Each presentation contributes 30% to the final grade. The final report contributes 40% of the final grade.

Each student in a group is responsible for one part of the presentation. Individualized grades for each group presentation are obtained as follows:
• 10% Organization and structure
• 20% Quality of content and originality
• 10% Clarity of exposition of the student
• 60% Ability of the student to address questions

All students in a group contribute to the drafting of the final report. The final report is structured in sections as listed below. Each section contributes to the grade for the final report with a given % weight as explained below. The final report sections and respective weights are as follows:
• Abstract, Introduction (10%)
• Value chain structure and institutional environment (20%)
• Challenges (20%)
• Proposed solutions (20%)
• Conclusions (20%)
• References (10%)

Each section of the report is graded as follows:
• 25% Organization and structure
• 25% Language quality
• 50% Quality of content and originality

For each section, the group clearly indicates the extent (in %) of each student's contribution. Individual grades for the final report are obtained by weighting the performance in each section by the student's contribution and summing up the partial grade for each section of the final report.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Undergraduate level microeconomics and industrial organization.

Content:
The course covers the economics of value chains with a focus the agro-food sector.
The course provides an overview of the institutional framework in which the EU agro-food sector operates, and covers trends in and challenges to the functioning and performance of the agro-food sectors in the EU, USA and developing countries. The course covers economic models and conceptual frameworks required to analyse the economic effects of various challenges posed by globalization, climate change, growing consumer demand for quality and sustainable products, market power and the imbalance of power within the supply chain. The course introduces students to the EU industrial policy for the agro-food sector and discusses market-based and non-market

based solutions to improve the functioning and performance of the agro-food sector, including food labelling and production, processing, and distribution standards, formal and informal coordination and alignment of incentives among different actors of the supply chain.

Intended Learning Outcomes:
After successfully completing the module, students will be able to perform an independent analysis of a value chain. This entails being able to:
(1) describe the main actors, their interactions and the structure of the value chain
(2) describe the institutional environment and the relevant industrial policies
(3) assess the performance of the value chain and the distribution of generated welfare along the value chain by applying economic models and conceptual frameworks
(4) assess the effect of the institutional environment (including industrial policies) on the functioning and performance of the value chain by applying economic models and conceptual frameworks
(5) find suitable market-based and non-market based solutions to improve the functioning and performance of the value chain by applying economic models and conceptual frameworks
(6) present in oral form the analysis of a value chain
(7) draw up a written report of the analysis of a value chain

Teaching and Learning Methods:
Lectures are used to provide an overview of the institutional framework, trends and challenges faced by the agro-food sector and to cover the economic models and conceptual frameworks needed to analyse value chains. Frontal lectures are used to provide students with the needed background for the analysis of value chain(s).

As exercise aspects, market experiments (e.g., the-market-for-lemons-class-experiment) are used to illustrate economic models and conceptual frameworks. Group work is used to train students to research and summarize information related to value chain(s) and their institutional environment, to assess the performance of value chain(s), to explain challenges to the functioning and performance of value chain(s), to find potential solutions, and to draw up a final report. Student presentations and class discussion are used to train students to present their analysis in oral form and to receive and integrate feedback into a written report.

Media:
Teaching aids include: PowerPoint slides, scientific journal papers and hand-outs.

Reading List:
Due to the lack of a standardized textbook on the specific subject, scientific journal articles from the recent literature and official reports from public institutions (e.g., EU, USDA etc.) will be provided during the lecture.
A starting point would be:
Roosen, J., & Hobbs, J. E. (Eds.). (2022). A modern guide to food economics. Edward Elgar Publishing.

Responsible for Module:
Menapace, Luisa; Prof. Ph.D.

Courses (Type of course, Weekly hours per semester), Instructor:
Value Chain Economics (WZ1561, englisch) (Vorlesung mit integrierten Übungen, 4 SWS)
Menapace L [L], Menapace L, Rackl J
For further information in this module, please click campus.tum.de or here.

Module Description

MGT001344: Advanced Seminar Economics, Policy & Econometrics: Food Governance, Fairness and Sustainability Literature Review and Presentation Skills | Advanced Seminar Economics, Policy & Econometrics: Food Governance, Fairness and Sustainability Literature Review and Presentation Skills

Version of module description: Gültig ab summerterm 2022

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Grading will be based on a written report (consisting of a literature review) and an oral presentation (20 min) with subsequent discussion, both with an individual and a teamwork component. Both the literature review and the oral presentation are worth 50% of the grade. The literature review and the oral presentation will verify that students can conduct in-depth research and present their results to a wider audience. They will also confirm that they are prepared for their Master Thesis.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Knowledge in microeconomics

Content:
The module deals with issues of governance, fairness and sustainability in the food system.
Key topics of the module may thereby include:
- Locks-ins and levers for facilitating a transitions toward more sustainable food systems;
- Food labels (origin-based labels, animal welfare labels);
- Food quality standards;
- Potential paths for a transition to more sustainable food systems
- Private and public governance in food sectors
- Fairness in business relationships
- European and national regulations and policies concerning the food sector

From a methodological point of view, the focus of this module is on

- Exploratory and Qualitative research methods
- Scientific writing skills

Intended Learning Outcomes:
After successful completion of this module, students will have in-depth knowledge on how to analyze the scientific literature and present a scientific paper on the governance, fairness and sustainability in agro-food systems. Moreover, students will be able i) procure and screen relevant literature, ii) conduct a systematic review of the scientific literature; iii) present scientific findings in front of their peers and v) entering and moderating a scientific discussion on their topic. The module thereby prepares students for the scientific work to be conducted in their master theses.

Teaching and Learning Methods:
The module is a seminar and provides students with in-depth knowledge of governance, fairness and sustainability grounded in economic theory. The seminar includes a set of lectures on selected topics concerning the governance, fairness and sustainability of food system.
Guided by the instructor(s) through the entire process, students will work alone and/or in groups around a topic in governance, fairness and/or sustainability.
Activities are carried out in parallel and in coordination with one or more foreign universities and students will have the opportunity to collaborate and exchange with students from those universities. The course hence takes place online.
Together with “Advanced Seminar Economics & Policy/Life Sciences & Management – Food system governance, fairness and sustainability, Scientific Writing and Exploratory Research Methods”, this module offers a comprehensive toolkit to prepare students for their master thesis as well as for a career in science.

Media:
PowerPoint presentations, economic textbooks, scientific articles

Reading List:
Barrett, Christopher B. (2021): Overcoming Global Food Security Challenges through Science and Solidarity. In American Journal of Agricultural Economics 103 (2), pp. 422–447. DOI: 10.1111/ajae.12160.
Béné, Christophe; Fanzo, Jessica; Prager, Steven D.; Achicanoy, Harold A.; Mapes, Brendan R.; Alvarez Toro, Patricia; Bonilla Cedrez, Camila (2020): Global drivers of food system (un)sustainability: A multi-country correlation analysis. In PloS one 15 (4), e0231071. DOI: 10.1371/journal.pone.0231071.
Bowie, N. E. (1988). Fair markets. Journal of Business Ethics, 7(1-2), 89-98.
Christopher B. Barrett, Thomas Reardon, Johan Swinnen and David Zilberman (2020): Agri-food Value Chain Revolutions in Low-and Middle-Income Countries. In Journal of Economic Literature,
Clapp, Jennifer (2018): Mega-Mergers on the Menu: Corporate Concentration and the Politics of Sustainability in the Global Food System. In Global Environmental Politics 18 (2), pp. 12–33. DOI: 10.1162/glep_a_00454.
Giuliano Martiniello and Ricardo Azambuja: Contracting Sugarcane Farming in Global Agricultural Value Chains in Eastern Africa: Debates, Dynamics, and Struggles.

Glavee-Geo, Richard; Engelseth, Per; Buvik, Arnt (2021): Power Imbalance and the Dark Side of the Captive Agri-food Supplier-Buyer Relationship. In Journal of business ethics : JBE, pp. 1–20. DOI: 10.1007/s10551-021-04791-7.
Gudbrandsdottir, Ingunn Y.; Olafsdottir, Gudrun; Oddsson, Gudmundur Valur; Stefansson, Hlynur; Bogason, Sigurdur G. (2021): Operationalization of Interorganizational Fairness in Food Systems: From a Social Construct to Quantitative Indicators. In Agriculture 11 (1), p. 36. DOI: 10.3390/agriculture11010036.
Hamann, Steffi (2020): The global food system, agro-industrialization and governance: alternative conceptions for sub-Saharan Africa. In Globalizations 17 (8), pp. 1405–1420. DOI: 10.1080/14747731.2020.1730050.
Koen Deconinck (2019): New evidence on concentration in seed markets. In Global Food Security 23, pp. 135–138.
Singh, Sukhpal (2019): The Export Value Chain of Baby Corn in India: Governance, Inclusion and Upgrading. In Agrarian South: Journal of Political Economy 8 ((1–2)), pp. 172–207.
Thompson, Merisa S.; Cochrane, Alasdair; Hopma, Justa (2020): Democratising food: The case for a deliberative approach. In Rev. Int. Stud. 46 (4), pp. 435–455. DOI: 10.1017/S0260210520000017.
Wood, Benjamin; Williams, Owain; Nagarajan, Vijaya; Sacks, Gary (2021): Market strategies used by processed food manufacturers to increase and consolidate their power: a systematic review and document analysis. In Globalization and health 17 (1), p. 17. DOI: 10.1186/s12992-021-00667-7.
Hansman, Christopher; Hjort, Jonas; León, Gianmarco; Teachout, Matthieu (2017): Vertical Integration, Supplier Behavior, and Quality Upgrading among Exporters. Cambridge, MA.
Burchardi, Konrad B.; Gulesci, Selim; Lerva, Benedetta; Sulaiman, Munshi (2019): Moral Hazard: Experimental Evidence from Tenancy Contracts*. In The Quarterly Journal of Economics 134 (1), pp. 281–347. DOI: 10.1093/qje/qjy023.

Responsible for Module:
Menapace, Luisa; Prof. Ph.D.

Courses (Type of course, Weekly hours per semester), Instructor:
Advanced Seminar Economics, Policy & Econometrics /Life Sciences, Management & Policy (MGT001344, englisch): Food Governance, Fairness and Sustainability Literature Review and Presentation Skills (Seminar, 4 SWS)
Menapace L
For further information in this module, please click campus.tum.de or here.

Module Description

MGT001345: Advanced Seminar Economics, Policy & Econometrics: Food Governance, Fairness and Sustainability Scientific Writing and Exploratory Research Methods | Advanced Seminar Economics, Policy & Econometrics: Food Governance, Fairness and Sustainability Scientific Writing and Exploratory Research Methods

Version of module description: Gültig ab summerterm 2022

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Grading will be based on a written report (consisting of a research protocol and related research findings) and an oral presentation (20 min) with subsequent discussion, both with an individual and a teamwork component. Both the written report and the oral presentation are worth 50% of the grade. The report and the oral presentation will demonstrate that students have gained in-depth knowledge on how to conceptualize, plan and conduct a research project. It will thus show that students are prepared to write their Master Thesis.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Knowledge in microeconomics

Content:
The module deals with issues of governance, fairness and sustainability in the food system.
Key topics of the module may thereby include:
- Locks-ins and levers for facilitating a transitions toward more sustainable food systems;
- Food labels (origin-based labels, animal welfare labels);
- Food quality standards;
- Potential paths for a transition to more sustainable food systems
- Private and public governance in food sectors
- Fairness in business relationships
- European and national regulations and policies concerning the food sector

From a methodological point of view, the focus of this module is on
- Exploratory and Qualitative research methods
- Scientific writing skills

Intended Learning Outcomes:
After successful completion of this module, students will have in-depth knowledge on how to conceptualize, plan and conduct a research project concerning good governance, fairness and sustainability in agro-food systems. Moreover, students will be able to i) identify and structure a research topic, ii) build a conceptual framework for qualitative research; iii) applying qualitative research methods to a concrete research question; iv) develop a study instrument; v) conduct interviews for qualitative research; draft a scientific research report. The module thereby prepares students for the scientific work to be conducted in their master theses.

Teaching and Learning Methods:
The module is a seminar and provides students with in-depth knowledge of governance, fairness and sustainability grounded in economic theory. The seminar includes a set of lectures on governance, fairness and sustainability.
Guided by the instructor(s) through the entire process, students will work alone and/or in groups around a topic in governance, fairness and/or sustainability.
Activities are carried out in parallel in coordination with foreign universities and students will have the opportunity to collaborate and exchange with students from those universities. The course takes place online.
Together with “Advanced Seminar Economics & Policy/Life Sciences & Management – Food system governance, fairness and sustainability, Literature Review and Presentation Skills”, this module offers a comprehensive toolkit to prepare students for their master thesis as well as for a career in science.

Media:
PowerPoint presentations, economic textbooks, scientific articles

Reading List:
Barathova, K., Cacchiarelli, L., Di Fonzo, A., Lai, M., Lee, H., Menapace, L., ... & Vandervelde, S. (2020). Pass-through of unfair trading practices in EU food supply chains: methodology and empirical application.
Bowie, N. E. (1988). Fair markets. Journal of Business Ethics, 7(1-2), 89-98.
Denzin Lincoln 2017 The SAGE Handbook of Qualitative Research
Gentile, E., Loi, A., Gentile, M., Bruni, M., Berisio, S., Parisi, P., ... & Rieger, L. (2020). Evaluation of Marketing Standards contained in the CMO Regulation, the “Breakfast Directives” and CMO secondary legislation. Final report.
James, H. S. (Ed.). (2013). The ethics and economics of agrifood competition (p. 99). Dordrecht, Netherlands: Springer.
Kvale 1996 Interviews: An Introduction to Qualitative Research Interviewing
Miles Huberman Saldaña 2014 Qualitative Data Analysis: A Methods Sourcebook

Russo et al. (2021) Upfront Costs as Coordination Devices in the European Agri-Food Value Chain, forthcoming.

Responsible for Module:
Menapace, Luisa; Prof. Ph.D.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Wildlife and Protected Area Management | Wildlife and Protected Area Management

Module Description

WZ4189: Fisheries and Aquatic Conservation | Fisheries and Aquatic Conservation

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a 60 min. written exam (Klausur). In addition, the students need to prepare a 10-15 min. presentation in the practical exercise. Gradings from the examination and the presentation are weighed in the ratio 2:1. The examination means to measure the student's ability to assess anthropogenic influence on aquatic ecosystem functioning, evaluate the socioeconomic importance of fisheries and aquaculture, explain factors affecting susceptibility to and recovery from overexpoitation, create and apply sustainable aquatic conservation tools and recall fisheries management tools for wild populations as well as of the underlying biological principles such as fish population dynamics. In the written examination students demonstrate by answering questions under time pressure and without helping material their theoretical and practical (e.g. application of methods) knowledge about fisheries management. For answering the questions, the students require their own wording. In the practical exercise the students prepare a presentation in form of a brochure, poster, video or podcast. For the presentation, the student is expected to demonstrate that he or she is capable of preparing a certain topic within a given time frame in such a way as to present or report it in a clear and comprehensible manner to specific target audiences in the context of fisheries and aquatic conservation.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Interest in aquatic biology, social sciences, conservation biology and management; this course can be selected independently from other courses in the fields of Fish Biology and Limnology at TUM

Content:
The module combines the theoretical background and the practical implementation of fisheries management and aquatic conservation. The key aspects are:
1. Introduction to fish, shellfish and fisheries management,
2. The socioeconomic importance of fisheries and aquaculture,
3. The functioning of aquatic ecosystems and the impacts of fisheries on aquatic ecosystem health,
4. Factors affecting susceptibility to and recovery from overexploitation,
5. Fisheries Management Tools for wild populations,
6. Aquaculture,
7. Aquatic Biodiversity Conservation,
8. Case study and knowledge transfer/communication exercise

Intended Learning Outcomes:
At the end of the module students understand the importance of aquatic resources for mankind and the variables which influence ecosystem functions as well as the principles of aquatic biodiversity conservation. They are able to analyze the effects of natural and man-made disturbances in aquatic ecosystems (e.g. overexploitation) based upon an interdisciplinary understanding of methodological aquatic
and fisheries biology, human dimensions, socioeconomic factors and management skills. In addition, students are able to objectively integrate knowledge from different disciplines (e.g. fish biology, conservation biology, commercial fishing techniques, aquatic habitat assessment and management) to evaluate sustainable resource management.

Teaching and Learning Methods:
The module combines a lecture "Fisheries Management" with an accompanying practical exercise "Applied Aquatic Conservation". The lecture contents will be presented using lectures based on power-point presentation, group work and interactive role plays in order to combine The module combines a lecture "Fisheries Management" with an accompanying practical exercise "Applied Aquatic Conservation". The lecture contents will be presented using lectures based on power-point presentation, group work and interactive role plays in order to combine activating teaching methods with classic presentation techniques. In the accompanying practical exercise to the lecture the students will apply the gained theoretical knowledge by conducting case studies or participating research experiments with various content in the field of freshwater ecology and aquatic conservation. The content of the practical work is incorporated into running research projects at the chair (e.g. habitat restoration, artificial breeding programs, habitat assessment, conservation genetics). Additionally, the students learn to independently screen the respective literature in this field and learn methods in science communication.

Media:
Form of presentation: lecture, case study, movie segment and practical exercise
material: lecture notes, flip-chart/board, plus different materials for methodological/technical training

Reading List:
1. King (2007) Fisheries Biology, Assessment and Management
2. Helfman (2007) Fish Conservation: A guide to understanding and restoring global aquatic biodiversity and fishery
resources
3. Moyle & Cech (2004) Fishes An introduction to Ichtyology
4. Primack (2008) A primer of conservation biology

Responsible for Module:
Geist, Jürgen; Prof. Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Fisheries Management (Vorlesung, 2 SWS)
Geist J

Applied Aquatic Conservation (Übung, 2 SWS)
Geist J [L], Kalis E, Knott J, Pander J
For further information in this module, please click campus.tum.de or here.

Module Description

WZ4197: Protected Areas Biodiversity and Management | Protected Areas Biodiversity and Management

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The final examination is a 90-minute written test assessing students' understanding in the field of protected areas biodiversity and its management. This examination evaluates the comprehension of the global perspective on ecosystems and ecosystem services, the ability to explain threats and management strategies in the context of ecosystem utilization and protection and the knowledge and reflection on modern techniques in the management and monitoring of protected areas.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Successful completion of the 1st semester of the Master Program Sustainable Resource Management is recommended

Content:
Biodiversity and protected areas: A worldwide survey on ecozones and altitudinal belts of the word as carriers of natural biodiversity; habitat types protection of biological units; IUCN protected areas classification, the European FFH Directive as an example of a continent-wide tool for nature protection.

Habitat analysis and management: Tools for protecting habitats, design of management plans, visitor management, best practice examples and management guidelines in sustainable biodiversity and habitat protection conservation planning and project development, project monitoring and evaluation and problems in protected area management.

Intended Learning Outcomes:
On successful completion of the module students are able:

- to put ecosystems and its utilisation options as well as its threats into a global perspective
- to give clear options for further management, both regarding utilisation and protection
- to use and reflect new techniques for better management and monitoring of protected areas

Teaching and Learning Methods:
This module integrates the lectures "Protected Area Management" and "Biodiversity in Protected Areas". The lecture content is delivered through PowerPoint presentations and group work, blending interactive teaching methods with traditional presentation techniques. Students will apply their theoretical knowledge by working on case studies in groups, where they will evaluate, develop and present management concepts related to protected areas. The students learn to critically analyze and reflect on conservation management strategies and engage in intensive discussions, enhancing their skills in scientific communication at an academic level.

Media:
PowerPoint Presentation

Reading List:
J. Schultz (2005): The Ecozones of the World: Ecological Divisions of the Geosphere. Springer, Berlin. 459p.
M. Lockwood, G. Worboys, A. Kothari (2006). Managing Protected Areas; A Global Guide. Routledge 810p
LN Joppa, JEM Bailie, JG Robinson (2016) Protected Areas: Are They Safeguarding Biodiversity? Wiley 266p

Responsible for Module:
Kühn, Ralph; Apl. Prof. Dr. agr. habil. ralph.kuehn@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Biodiversity in Protected Areas (Vorlesung, 2 SWS)
Kühn R [L], Gula R, Theuerkauf J

Protected Area Management (Vorlesung, 2 SWS)
Kühn R [L], Gula R, Theuerkauf J
For further information in this module, please click campus.tum.de or here.

Module Description

WZ6432: Wildlife and Conservation Biology | Wildlife and Conservation Biology

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a 60 min. written exam (Klausur). The examination means to measure the student's ability to assess anthropogenic influence on Biodiversity, to explain factors affecting Wildlife, to recall methods in Conservation Biology and applied Genetics and to evaluate Conservation Biology concepts. In the written examination students demonstrate by answering questions under time pressure and without helping material their theoretical and practical knowledge about Wildlife and Conservation Biology. For answering the questions, the students require their own wording. In the practical exercise the students present a case study and design own research project proposal to practice their scientific communication skills and to transfer the theoretical knowledge to practical projects. Grading from the written exam and the project work are weighed in the ratio 6:4.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Interest in Wildlife Conservation Biology and Nature Conservation. Basic background in Biology

Content:
The module combines the theoretical background and the practical implementation of Wildlife Conservation Biology, Conservation Genetics and Nature Conservation. The key aspects are:
1. Scope and tasks of Conservation Biology and applied Genetics
2. Biodiversity, Ecosystems, Ecosystem Services and Sustainability
3. Factors affecting terrestrial and aquatic Biodiversty
4. Methods in Wildlife Conservation Biology and applied Genetics
5. Conservation Biology concepts and strategies for natural population using international examples

6. Case studies and applied Nature Conservation, from theory to praxis

Intended Learning Outcomes:
At the end of the module students understand the importance of Biodiverstiy of terrestial resources and its interaction with human dimensions. They are able to apply and to evaluate Conservation Biology methods and strategies based upon an interdisciplinary understanding of species biology, conservation biology and applied genetics. In addition, students are able to integrate interdisciplinary knowledge into applied conservation management on a regional and international scale. They have an overview of applied interdisciplinary Nature Conservation management and are able to evaluate sustainable resource management strategies.

Teaching and Learning Methods:
The module combines the lecture "Wildlife and Conservation Biology" with an accompanying practical exercise " Case Studies in Nature Conservation". The lecture contents will be presented using lectures based on power-point presentation and group work in order to combine activating teaching methods with classic presentation techniques. In the accompanying practical exercise, the students will apply the gained theoretical knowledge by conducting case studies (research programs), and presenting own concepts of research project in various content in the field of Wildlife Conservation Biology and Nature Conservation. Here the students learn to independently screen the respective literature in this field and learn methods in science communication.

Media:
Form of presentation: lecture, case study, movie segment and practical exercise
material: lecture notes, flip-chart/board, plus different materials for methodological/technical training

Reading List:
1. Primack (2014) Essentials of Conservation Biology 2. Frankham (2010) Introduction to Conservation Genetics 3. Sutherland (2009) Conservation Science and Action

Responsible for Module:
Kühn, Ralph; Prof. Dr. agr. habil.

Courses (Type of course, Weekly hours per semester), Instructor:
Conservation Biology and Applied Genetics (Vorlesung, 2 SWS)
Kühn R

Case Studies in Nature Conservation (Übung, 3 SWS)
Kühn R
For further information in this module, please click campus.tum.de or here.

Free Elective Modules Sustainable Resource Management | Free Elective Modules Sustainable Resource Management

Module Description

BGU38019: Anaerobic Processes and Energy Recovery | Anaerobtechnik und Energierückgewinnung

Version of module description: Gültig ab winterterm 2018/19

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The proof of performance is made in the form of a 60-minute written exam with questions on the fundamental understanding as well as small calculation tasks.
The aim of the written exam is the proof that the basic approaches in the field of energy recovery from urban waste streams were understood and different methods can be applied comparatively. Problems need to be analyzed and based on learning outcomes acquired in the course, students have to find and implement solutions in limited time. In the theoretical part, comprehension questions must be answered to basics of anaerobic technology and energy recovery from waste streams. In the calculating part, diverse issues should be analyzed and calculated based on the learning outcomes acquired during the module.
The answers require partly own formulations, partly ticking given single or multiple answers.
The focus is on short calculation tasks. For the exam no aids are permitted except for a non-programmable calculator.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Water and Wastewater Treatment Engineering (BGU38014)

Content:
• Basics of anaerobic digestion
• Co-digestion
• Power to gas

• Treatment of sewage sludge
o Agricultural use and incineration
o Recovery of phosphorous

Intended Learning Outcomes:
After the successful participation in the course, the students will be able to:
• remember the basic process concepts,
• analyze and evaluate the advantages and disadvantages of the different methods for the specific application,
• and develop simple approaches to calculate and dimension treatment schemes.

Teaching and Learning Methods:
The contents of the lecture are taught through practical examples. By means of example tasks in the lecture, possible solutions are discussed and exemplified calculations are performed. During exercise included in the lecture, students apply what they have learned on similar tasks and internalize the approach. The self-study is supported by the provision of further literature in Moodle.

Media:
Beamer, black board, literature provided

Reading List:
Appels, L., Baeyens, J., Degrève, J., Dewil, R., 2008. Principles and potential of the anaerobic digestion of waste-activated sludge. Prog. Energy Combust. Sci. 34, 755–781.
Chen, Y., Cheng, J.J., Creamer, K.S., 2008. Inhibition of anaerobic digestion process: A review. Bioresour. Technol. 99, 4044–4064.
Kelessidis, A., Stasinakis, A.S., 2012. Comparative study of the methods used for treatment and final disposal of sewage sludge in European countries. Waste Manag. 32, 1186–1195.
Roskosch, A., Otto, S., 2014. Technical Guide on the Treatment and Recycling Techniques for Sludge from Municipal Wastewater Treatment with references to Best Available Techniques (BAT). Fed. Environ. Agency Ger.
Wiechmann, B., Dienemann, C., Kabbe, C., Brandt, S., Vogel, I., Roskosch, A., 2013. Sewage sludge management in Germany. Umweltbundesamt, Bonn.

Responsible for Module:
Dr.-Ing. Konrad Koch, k.koch@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Anaerobtechnik und Energierückgewinnung (Vorlesung, 2 SWS)
Koch K [L], Koch K
For further information in this module, please click campus.tum.de or here.

Module Description

WIB14002: Advanced Seminar Life Sciences, Management & Policy: Sustainable Entrepreneurship - Theoretical Foundations | Advanced Seminar Life Sciences, Management & Policy: Sustainable Entrepreneurship - Theoretical Foundations

Version of module description: Gültig ab summerterm 2017

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The grading is based on a research paper (max. 7.500 words). The students show that they are able to apply theoretical perspectives to the context of life sciences. Moreover, they develop an argument matching the concept of sustainable entrepreneurship as a promising approach for addressing complex sustainability issues in general and in the field of life sciences in particular. In the research paper students show that they can evaluate different approaches and develop their own ideas for life sciecne-related sustainable ventures.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Courses in entrepreneurship, corporate sustainability and/or sustainability marketing are recommended.

Content:
Whether it is tackling climate change, resource degradation or social inequalities - responding to sustainability issues constitutes the biggest challenge for businesses in the 21st century. Embracing a great range of industries including food, energy or textiles, the field of life sciences is a key area for sustainability. Since the production of these goods accounts for an extensive use of resources, there is great potential for effecting real improvements on a way towards more sustainable production and lifestyles. The course "Advanced Seminar Life Sciences and Management" will investigate this exciting and ongoing industrial transformation. It will deal with the following topics (all topics will be explained in general and then discussed in the context of life sciences in particular):

1) Introduction to Sustainability and Entrepreneurship
2) Sustainable Entrepreneurship
3) Opportunity Identification
4) Development of Double and Triple Bottom Line Solutions
5) Forming and Funding of New Sustainable Ventures
6) Market Entry
7) Sustainable Entrepreneurship and Life Sciences - Reflections and Discussion

Intended Learning Outcomes:
Upon successful completion of this module, students will be able to (1) summarize and (2) evaluate the socio-economic problems society is facing. They will (2) match the concept of sustainable entrepreneurship as a promising approach for addressing complex sustainability issues in general, and in the field of life sciences in particular. More specifically, students will (3) be able to identify the venture creation process from opportunity identification to market entry in the context of sustainability and life sciences. In addition, participants will be able to (4) apply this knowlede to the field of life sciences. Finally, the students will be able to (5) critically evaluate case studies from the field of life sciences and to (6) create own ideas for sustainable ventures in this context.

Teaching and Learning Methods:
The module is a seminar which intends to familiarize the student with the relevant literature and follows an interactive course format with group work assignments and guest lectures. This is the appropriate format for this advanced level module because it encourages the students to go into further detail and to deal with the issues in an integral, interactive and independent way.

Media:
Presentations, slides, cases, links and further literature will be provided via www.moodle.tum.de

Reading List:
Muñoz, P., & Cohen, B. (2018). Sustainable entrepreneurship research: taking stock and looking ahead. Business Strategy and the Environment.

The module is based on key scientific papers on each topic. These form the basis for classroom discussions and are to be used for developing an argument in the reflection essay. All articles are provided as pdf files in TUM Moodle (https://www.moodle.tum.de).

Responsible for Module:
Belz, Frank-Martin; Prof. Dr. oec.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ0246: Advanced Concepts and Methods in Urban Ecosystems | Advanced Concepts and Methods in Urban Ecosystems

Version of module description: Gültig ab summerterm 2021

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module assessment is based on participation in group discussions, written critical reflections, and practical work assignments that demonstrate conceptual and applied understanding of course goals.

In addition, there is the possibility to submit a voluntary Mid-Term-Assessment (after APSO §6, Abs.5). For this assessment, students submit exercises, consisting of 3 assignments that were completed through the weekly exercises (e.g. data collection or analysis activity). Students should submit this on Moodle. By pasing this coursework students can improve their module grade up to 0,3. For the Mid-Term-Assessment, no repetition date is offered. In case of a repetition of the module examination, a previously completed Mid-Term-Assessment will be taken into account.

The examination performance is given in the form of a research paper. The research paper will include a written research proposal (3-5 pages; 80% of grade) complemented by an oral presentation (15 min. + 5 min. discussion; 20% of grade). In the research proposal, each student will develop a research question, hypothesis(es), and experimental protocol to answer their question. Students should situate their research proposal in a theoretical framework, and propose fitting methods to examine their research question. Students will search for and synthesize relevant literature to justify their experimental choices. The final written research proposal will be the culmination of this project and will take the form of a research grant proposal. Students will comply with the same proposal guidelines and rules that graduate (PhD) students must follow when they apply for funding from e.g., Deutsche Bundesstiftung Umwelt (https://www.dbu.de/stipendien_promotion). Written summaries measure each student's understanding and evaluation of environmental/ecological and social concepts, and ability to apply theoretical frameworks and appropriate methods. In the presentation, the students present their research proposal (PowerPoint plus any additional aides) to demonstrate understanding of a research gap in

urban ecosystems, communicative competence, presentation and discussion skills in front of an audience.

Repeat Examination:
Next semester / End of Semester

(Recommended) Prerequisites:
Basic knowledge in ecology and landscape ecology; beneficial to have completed the module(s) “Urban Ecology” WZ6407.

Content:
Urban areas are major drivers of global environmental change, habitat degradation, changes in biodiversity, and the loss of vegetation biomass. These and many other factors emphasize the necessity to understand and examine how urbanization affects the interactions between humans, greenspaces, wildlife and the built environment. Furthermore, it opens questions around the possibilities for urban habitats and landscapes to support the enhancement of biodiversity, energy conservation, food security, public health and well-being.

This module explores the ecology and planning of urban areas and landscapes. We will discuss advanced concepts in urban ecology including: altered dispersal and colonization dynamics of urban plant and animal communities; effects of environmental stressors on plant and animal traits and their interactions; soil and substrate heterogeneity in community dynamics, ecosystem structure and function; water and energy flows in urban food production; changes in cultural ecosystem services and human values; and the spatial analysis of dynamic urban land use. The students will utilize methodological approaches in urban ecology research including collecting and analyzing biodiversity data, structure and functions of greenspaces data, analyzing remotely sensed spatial data, and harnessing citizen science and social media data.

We will emphasize the importance of understanding and analyzing how dynamic ecological and social forces shape urban ecosystems and the provision of ecosystem services. The module will benefit students interested in urban ecology and conservation science, and those interested in urban planning and urban environmental management.

Intended Learning Outcomes:
On successful completion of the module, students are able to:
1. conceptually understand urban ecosystem dynamics, specifically the changes and the processes that underly ecosystem dynamics;
2. critically analyze the effects of environmental disturbances on urban ecosystem energy and nutrient flows, biodiversity, regeneration processes and the potential to deliver ecosystem services;

3. apply methods in the field and lab to measure and evaluate processes within terrestrial and aquatic urban systems, but also within social systems to analyze human perceptions and values underlying cultural services;
4. communicate critical insights into the potential consequences of ecological engineering strategies applied to managing different urban ecosystems and landscapes;
5. develop a research proposal to investigate novel questions in urban ecology and urban planning.

Teaching and Learning Methods:
The interactive module comprises a seminar (S) and an exercise (UE) / excursion (EX) to best combine lectures, case study analyses, group discussions, and presentations from guests and peers. The seminars will cover advanced concepts in lecture PowerPoint presentations but also through paper discussions and group work (3-5 students) on a range of topics (see above). Paired with a weekly topic, the exercises/excursions cover research methods that are based in experiential learning with foreseen excursions to field sites in Munich as well as laboratory work at TUM-WZW. Through field excursions and lab practical work, students will collect and analyze data to gain important methodological skills in conducting urban ecosystem and planning research.

Media:
PowerPoint, films, virtual lectures, virtual activities, data scripts

Reading List:
Barbosa, P. 2020. Urban ecology: its nature and challenges. CAB International, Boston, MA.
Brown, R. D. and Gillespie, T. J., 1995. Microclimatic Landscape Design: Creating Thermal Comfort and Energy Efficiency. John Wiley & Sons.
Carreiro, M M., Song, Yong-Chang and Wu, J. (eds.), (2008). Ecology, Planning and Management of Urban Forests. Springer: New York.
Craul, P. J., 1999. Urban Soils – Applications and Practices. John Wiley & Sons.
Ferrini, F., Konijnendijk van den Bosch, C., & Fini, A. (Eds.), (2017). Routledge handbook of urban forestry. London: Routledge.

Responsible for Module:
Egerer, Monika; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Advanced Concepts and Methods in Urban Ecosystems (Übung, 3 SWS)
Egerer M [L], Casanelles Abella J, Egerer M, Pauleit S, Sexton A

Advanced Concepts and Methods in Urban Ecosystems (Seminar, 2 SWS)
Egerer M [L], Casanelles Abella J, Egerer M, Pauleit S, Sexton A

For further information in this module, please click campus.tum.de or here.

Module Description

WZ2721: Agriculture Raw Materials and their Utilization | Agriculture Raw Materials and their Utilization [ARM&U]

Version of module description: Gültig ab winterterm 2020/21

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module grade is assessed by a written exam (60 min). The students show that they have understood the principles of biomass production for bioenergy use, biomass supply chains, and the different bioenergy systems. The written exam demonstrates the student's ability to deal with questions, and calculations, complete figures or prepare sketches in regard to biomass production for bioenergy use.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
General understanding of natural science, mathematics and basics of technology.

Content:
The targets for the module "Agriculture Raw Materials and their Utilization" are impart a basic understanding of the possibilities and limitations for the agricultural production of biomass for energetic and industrial uses and to provide an overview of ecological impacts of diverse biomass and bioenergy utilization pathways.
The module comprises a lecture which deals with the following topics:
- Production of agricultural biomass and the most important energy and industry crops
- Biomass chains and uses
- Diverse bioenergy systems
- Bioeconomy & biorefineries (related to Agricultural products)
Ecological impact assessment of biomass and bioenergy utilization.

Intended Learning Outcomes:
At the end of the module students have acquired knowledge of the production and utilization of renewable resources from the agricultural and forestry sector.
They know how to analyze the performance and ecological impacts of different biomass supply and utilization chains. They can estimate the suitability of various crops for bioenergy use. The students have an insight in the physical and chemical basics of energy production from biomass and are able to apply related basic equations. They can compare different biomass combustion systems and attribute emissions. The students know the production pathways and properties of different biofuels for transportation and are able to estimate their future potentials. They understand the technological background of biogas production and can do basic designs of biomass supply and utilization chains using the example of biogas systems in agriculture.

Teaching and Learning Methods:
The lecture with integrated exercises and discussions will improve the understanding. During the lecture a power point presentation related to the lecture topics will be done from each student to improve the discussion in the different topics of the module.

Media:
Power point presentations, black board. Videos, Online Quiz.

Reading List:
Hijazi, O; Munro, S; Zerhusen, B; Effenberger, M. (2016): Review of life cycle assessment for biogas production in Europe. Renewable and Sustainable Energy Reviews (54), 1291-1300.

Responsible for Module:
Hijazi, Omar; Dr. rer. agr.

Courses (Type of course, Weekly hours per semester), Instructor:
Agriculture Raw Materials and their Utilization (Vorlesung, 4 SWS)
Hijazi O
For further information in this module, please click campus.tum.de or here.

Module Description

BV400009: Land Management and Land Policy | Bodenordnung und Bodenpolitik

Version of module description: Gültig ab summerterm 2020

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment method is project assessment. The students must present a group work executed the entire module period (1 hour per week) on a topic related to land management and land policy. The topic will be communicated to the students in due time. Through presentations students should demonstrate that they are able to investigate given case study projects. This includes, depending on the topic, objectives of the projects, theoretical and conceptual idea of the project and implementation measures undertaken. Furthermore, the students will analyse and assess the results, and will develop and derive conclusions. The group work will be presented in form of PowerPoint presentation of 10 minutes, by which its scientific quality, comprehensiveness, and appropriateness with regard to the topic assigned will be verified. Furthermore, compliance with all formalities (referencing, use of language, etc) will be considered. The presentation will be followed by question session of 10 minutes. Each student also writes an individual paper. The final mark will be based on both the group work and the individual work (50/50).

Note in view of the limitations on university operations as a result of the CoViD19 pandemic: If the basic conditions (hygiene, physical distance rules, etc.) for a classroom-based examination cannot be met, the planned form of examination can be changed to a written or oral online examination in accordance with §13a APSO. The decision about this change will be announced as soon as possible, but at least 14 days before the date of the examination by the examiner after consultation with the board of examiners of the respective study program.

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
i. Introduction
Some basic facts and data on global trends including population growth, distribution of natural resources, wealth and poverty, income and population, consumption and production schemes are provided as a base for further discussion. Different definitions, concepts, measurements and indicators of global land problems will be presented and discussed.

ii. Land policy and land governance for sustainable development
Students will understand the concepts of land tenure system and tenure security. Furthermore, they will learn the importance of a comprehensive land policy and good land governance as a basis for poverty reduction, sustainable resource management and economic growth. They will be introduced to the following crucial elements of a coherent land policy:
- The employment of democratic rules, rules of law and law enforcement, participation and transparency to control power and thus avoid land related corruption, land concentration and land grabbing.
- Conveying a vision of the desired development path.
- Focusing on an evolutionary process of change that supplants social upheaval and revolution, including intensive government-citizen dialogue and dialogue within civil society.

iii. Land registration and cadastre system
During the lecture the students will learn about basic concepts of land registration and cadastre system. They will discuss different country case studies and compare different cadastre and registration systems in the world and they will be familiar with general characteristics of these systems.

iv. Rural development issues
Limited opportunities, inappropriate assets and capabilities, institutional deficiencies, and unbalanced power structures will be identified as main causes for rural mass poverty. The strategic dimensions and the guiding principles of rural development will be introduced and discussed, as there is the economic, social, political and ecological dimension. Furthermore, students will learn about the principles of rural land consolidation as well as about the principles of village renewal.

v. Regional and urban development issues
Positive regional and urban development is committed to promoting sustainable cities, town and countryside that fulfil the promise of development for their inhabitants -- in particular, by improving the lives of the poor and promoting equity -- while contributing to the progress of the country as a whole. Furthermore, lessons on regional and urban development deal with issues such as housing and urban regeneration. Beyond general theories, students are familiar with regional and urban development practices in EU, Germany and Munich.

Intended Learning Outcomes:
After this module the students are able to discuss and recognise the potentials and limits of various international agreements that have been ratified by the international community to protect land and other natural resources in order to regulate their use and to ensure equitable access to them. The

students also appreciate international frameworks for land management and land tenure and are able to analyse topics related to land management and land tenure in line with global and local contexts. Participants also understand the principles of land registration and with different types of cadastre and land register. Furthermore, the students are familiar with diverse implementation aspects of land management.

Students are familiar with development theory as well as development policy and are acquainted with the basic principles and current trends in this field. They are also able to critically discuss theoretical and political approaches as well as their benefits and restrictions. Beyond general theory, students are familiar with concrete concepts for urban and rural development and different approaches including village renewal and land consolidation.

Teaching and Learning Methods:
Lecture and seminar are held as type of instruction. Teaching method includes presentation, individual and group works and case studies analysis. Through noted methods students are able to understand land management and land policy framework in different countries. Furthermore, the students are able to analysis different cases with respect to theories and its practice in the field.

Media:
PowerPoint presentations and handouts

Reading List:
A collection of relevant and up-to-date / recent articles and background reading materials will be handed out during the sessions. In additon, students need to find thier own background materials for both the group work and individual work

Responsible for Module:
Dr. Uchendu Eugene Chigbu

Courses (Type of course, Weekly hours per semester), Instructor:
Environmental Planning and Land Management - Seminar (Seminar, 2 SWS)
Bendzko T [L], Bendzko T, Dachaga W

Land Policy and Land Governance (Vorlesung, 2 SWS)
de Vries W [L], Bendzko T, Dachaga W
For further information in this module, please click campus.tum.de or here.

Module Description

LS20038: Biophysical Plant Physiology | Biophysical Plant Physiology

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination comprises a report (minimum of 5 pages, 65% of the overall grade) and a supplementary presentation including a discussion (15-20 min presentation + 30 min discussion, 35% of the overall grade). Students demonstrate their ability to understand a scientific publication on selected topics of biophysical plant physiology, to evaluate the experimental work, to summarize the publication, and to present it to an audience as well as lead a discussion on the presented scientific work. The presentation is a prerequisite to submit the written report.
The report consists of key sections: 1) Title: should reflect the content and the purpose of the selected study; 2) Summary statement: summarizing the key aspects of the entire report; 3) Introduction: introduce the selected scientific publication/topic and the relevance to biophysical plant physiology, provide background information, state the research questions and the hypothesis; 4) Methods: include information on plant materials, experimental setup, measurements, analytical techniques employed; 5) Results: present the key findings of the study including relevant graphs or figures from the publication; 6) discussion: discuss the significance of the findings, the implication and the identify limitations.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Participation in Plant Physiology practical sessions is recommended.

Content:
The following topics are covered:
• Introduction
• Cells and diffusion (Cell structure [Generalized plant cell, Leaf anatomy, root anatomy, vascular tissue], Diffusion [Fick’s law], membrane structure and permeability)

• Water physical properties (surface tension, capillary rise, water potential [matric, hydrostatic, osmotic])
• Water potential and plant cells (pressure-volume curve, incipient plasmolysis)
• Roots and fluxes (root hairs, radial water flow across root [apoplastic, symplastic], radial conductance and resistance)
• Leaves and fluxes (stomata [stomatal conductance and resistance, intercellular air space], CO2 conductances and resistances)
• Plants and fluxes (soil-plant-atmosphere continuum, aboveground and belowground feedback)
• Water use efficiency (WUE; value of WUE, stomatal control of WUE, C3 vs. C4 plants)
• Advanced methodologies in soil-plant interactions.
• Plant response to atmospheric and soil droughts; Open questions and introduction to seminar topics.
• Seminars and discussions of seminal research papers related to the lecture topics.

Intended Learning Outcomes:
After successfully completing the module, students are able to:
• explain and evaluate systematically the drivers of water stress to plants
• explain the dynamics of plant water status for varying environmental conditions and plant traits
• evaluate the biophysical properties of the root-soil interface that impact plant water relations
• describe the biophysical processes of water movement across soil-plant-atmosphere continuum
• critically evaluate current research on plant water relations
• evaluate the current trends in plant water research

Teaching and Learning Methods:
Oral presentations with PowerPoint presentations serving as visual aids, blackboard writing, discussion in class, and students' presentations with discussions

The module consists of 2 SWS lectures and 2 SWS seminars to provide a comprehensive learning experience and achieve the specified learning outcomes. The lectures are crucial for knowledge transfer and foundation building that are essential for understanding the biophysical processes of water movement across the soil-plant-atmosphere continuum. Seminars will offer opportunities for interactive learning, discussion, and applications of the concepts. The combination of both types of courses encourages a holistic understanding of biophysical plant physiology.

Media:
Presentations via PowerPoint, blackboard writing, pdf files of PowerPoint presentations will be uploaded in Moodle

Reading List:
- Physicochemical and Environmental Plant Physiology, by: P. Nobel
- Physiological Plant Ecology: Responses to the Physical Environment, by: O.L. Lange, P.S. Nobel, C.B. Osmond and H. Zeigler
- Plant Physiology, by: L. Taiz and E. Zeiger
- Suggested seminal research articles

Responsible for Module:
Ahmed, Mutez Ali Abdelrahman, Prof. Dr. rer. nat. mutez.ahmed@tum.de Abdalla, Mohanned,Dr. rer. nat mohanned.abdalla@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Biophysical Plant Physiology Lectures (Vorlesung, 2 SWS)
Ahmed M, Abdalla M

Seminar on Biophysical Plant Physiology (Seminar, 2 SWS)
Ahmed M, Abdalla M
For further information in this module, please click campus.tum.de or here.

Module Description

WI001190: Cooperation and Integration in Agribusiness | Cooperation and Integration in Agribusiness

Version of module description: Gültig ab winterterm 2020/21

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module assessment will be in the form of 120-minuten written exam. In the exam, students should demonstrate that they understand the theoretical concepts and apply relevant analytical methods to solve problems. In addition, the students should prove that they can analyze practical problems, assess the various forms of cooperation and networks in agribusiness, and develop appropriate solutions for strategic cooperation and integration.

Repeat Examination:

(Recommended) Prerequisites:
Basics of sustainability and organizational collaboration

Content:
The module deals with the complex forms and approaches of cooperation and integration in agribusiness in order to improve the performances of agricultural enterprises. Specific topics of the module are:
• Theoretical approaches and basics of cooperation and integration with a focus on the concept of institutional economics (resource-based theory, transaction cost economics, contract theory, principal-agent approach, value chain governance and interventions including ccertification programs)
• Strategic options of horizontal and vertical integrations
• Forms of customer, business relationship and stakeholder management
• "Lean Management" and corporate collaborations
• Sustainability in the agri-food value chain and entrepreneurial activities

Intended Learning Outcomes:
Upon completion of the module, students will be able to:
• understand collaboration dynamics, challenges and problems as well as related solutions,
• use relevant qualitative and quantitative methods to analyze and improve business collaborations within the value chain,
• analyze and evaluate agribusiness related horizontal and vertical integrations,
• develop and design strategies for effective agri-food entrepreneurial collaborations and integrations.

Teaching and Learning Methods:
Lecture with integrated individual exercises, group work and case study analysis.
The lecture is used to teach the theoretical concepts and approaches. Individual assignments, group work and case studies are used to work on specific empirical problems and to find solutions. This also includes learning through literature analysis.

Media:
Presentations (power points), case analysis formats and scripts

Reading List:
Adebanjo, D. 2009. Understanding demand management challenges in intermediary food trading: a case study. Supply Chain Management: An International Journal, 14(3): 224 – 233
Fischer, F., et al. (2010), Factors influencing contractual choice and sustainable relationships in European agri-food supply chains. European Review of Agricultural Economics, 36(4): 541-569
Gall, R. G. and Schroder, B. (2006). Agricultural Producer Cooperatives as Strategic Alliances. International Food and Agribusiness Management Review, 9 (4): 26-44.
Gereffi, G., Humphrey, J. and Sturgeon, T. (2005). The Governance of Global Value Chains. Review of International Political Economy, 21(1): 78-104
Mugera, A. W. (2012). Sustained Competitive Advantage in Agribusiness: Applying the Resource-Based Theory to Human Resources. International Food and Agribusiness Management Review, 15(4): 27-48
Peterson, C. et al (2001). Strategic choice along the vertical coordination continuum. International food and agri-business review, 4:149-166
Polonsky, M.J. et al. (2002). A Stakeholder Perspective for Analyzing Marketing Relationships. Journal of Market-Focused Management, 5:109–126
Porter, M.E. (1985), Competitive Advantage: Creating and Sustaining Superior Performance, Free Press, New York.
Schulze, et al. 2006. Relationship quality in agri-food chains: Supplier management in the German pork and dairy sector. Journal on Chain and Network Science, 6:55-68
Soon, J.M. and Baines, R.N. (2013). Public and Private Food Safety Standards: Facilitating or Frustrating Fresh Produce Growers? Laws 2: 1–19
Trienekens, J. and Zuurbier, P. (2008). Quality and safety standards in the food industry, developments and challenges. Int. J. Production Economics, 113: 107–122

Torres, J. et al. (2007). An Evaluation of Customer Relationship Management (CRM) Practices Among Agribusiness Firms. International Food and Agribusiness Management Review, 10(1): 36-56
Walters, D. and Rainbird, M. (2007). Strategic Operations Management. Palgrave Macmillan
Weber, A. (2011). „Why do farmers spend different amounts of transaction costs in agri-environmental schemes?“
Williamson, Oliver E. 1979. Transaction-Cost Economics: The Governance of Contractual Relations. Journal of Law and Economics, 22(2): 233–61.
The list will be expanded and updated using other thematically relevant books, journal articles and periodical newsletters and others.

Responsible for Module:
Sauer, Johannes; Prof. Dr. agr.

Courses (Type of course, Weekly hours per semester), Instructor:
Cooperation and Integration in Agribusiness (WI001190, deutsch) (Vorlesung, 4 SWS)
Abate Kassa G [L], Abate Kassa G
For further information in this module, please click campus.tum.de or here.

Module Description

WZ1590: Climate Change Economics | Climate Change Economics

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
There will be a written exam (Klausur) of 90 minutes at the end of the semester. The students will be asked to demonstrate, within the stipulated amount of time using predefined methods and resources, their ability to outline the challenges climate change poses to regulators, propose pragmatic solutions and strategies as well as ways of implementing them. This will be based on the competencies acquired from the relevant literature of economic modeling, theories of climate change, and their understanding of the course content. The written exam is an appropriate assessment method to evaluate the degree to which the students understand the theoretical framework of climate change implications as well as provides an opportunity for them to put forward arguments based on existing theory.

In addition, there is the option of taking a voluntary mid-term assignments as course work in accordance with APSO §6, 5. For this, a presentation (15 min) has to be given.
The module grade can be improved by 0.3 by passing the course work if this better characterises the student's performance level on the basis of the overall impression and the deviation has no influence on passing the examination. No repeat date is offered for the mid-term performance. When retaking a failed module examination at the next possible examination date, successfully passed mid-term assignments will be taken into account.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge:
• Micro Economics (Welfare Economics)
• Environmental Economics
• Resource Economics

Content:
This course covers the trends in current and future climate change and their effects on economic and social outcomes.

The lectures cover the following topics:
1. Introduction to the Basic Science of Climate Change
- The students will learn about the scientific themes of global climate change and the economic dimension of the phenomenon.
2. Basic Economics
- The students will learn how a market economy can be efficient and socially optimal as well as about the prospects of externality.
3. Optimal Emission Levels
- The students will learn of the optimal abatement path and its uncertainty with respect to damages as well as Integrated Assessment Models (IAMs).
4. Intra-generational equity in climate policy
- The students will learn about how to account for equity across space (intergenerational equity) when deriving optimal emission levels.
5. International Environmental Agreements
- The students will learn about the dynamics behind common strategies towards achieving some form of optimal emission level.
6. Policy Instruments
- The students will learn about diverse instruments such as quality-based approach and Pigouvian Tax.
7. Regulation via Prices vs. Quantities
- The students will learn what circumstances will a regulator prefer prices over quantities and vice versa.
8. Credit-based Mechanisms
- The students will learn about how to deal with countries that do not want to commit but have a high potential for low-cost reductions.
9. German Climate Policy
- The students will learn about German Climate Action - strategies and policies
10. European Union Emission Trading Scheme - EU ETS

Intended Learning Outcomes:
After successfully completing the module, students are able to:
• Evaluate economic models related to climate change.
• Understand theoretical models of climate change regulations as well as policies that affect emission levels.
• Comprehend the complexity, uncertainty and possibilities associated with optimal emission level.
• Analyze appropriate instruments for emission levels that are efficient and cost-effective.
• Understand different forms of climate agreements and climate action strategies that are currently being implemented

Teaching and Learning Methods:
The course consists of lectures (2 SWS) and seminars (2 SWS). The lecture forms the basis for the subsequent discussion within the seminar on climate change issues from an economic perspective. The content of the module is expected to be transferred to the students in an interactive learning manner (including discussions in the lectures but especially intensive discussions in the seminar) where, among others, emission reduction instruments are scrutinized. This encourages the students to independently and self-reliantly study the literature guided by a structured framework.

Media:
PowerPoint, flipchart, internet portals, online reports etc.

Reading List:
Bréchet, T., & Eyckmans, J. (2009). Coalition theory and integrated assessment Modelling: Lessons for climate governance. Global Environmental Commons: Analytical and Political Challenges in Building Governance Mechanisms.
Rohling, M., & Ohndorf, M. (2012). Prices vs. quantities with fiscal cushioning. Resource and Energy Economics, 34(2), 169-187.
MacKenzie, I. A., & Ohndorf, M. (2012). Optimal monitoring of credit-based emissions trading under asymmetric information. Journal of regulatory economics, 42(2), 180-203.
Hake, J. F., Fischer, W., Venghaus, S., & Weckenbrock, C. (2015). The German Energiewende–history and status quo. Energy, 92, 532-546.
Climate Action Plan 2050 Principles and goals of the German government's climate policy. https://www.bmu.de
/fileadmin/Daten_BMU/Pools/Broschueren/klimaschutzplan_2050_en_bf.pdf
EU ETS Handbook. https://ec.europa.eu/clima/sites/clima/files/docs/ets_handbook_en.pdf

Responsible for Module:
Sauer, Johannes; Prof. Dr. agr.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

ED130091: Designing Public Policy – Special Issue: Nature’s Design Lab: Crafting Policies and Change in the Wild | Designing Public Policy – Special Issue: Nature’s Design Lab: Crafting Policies and Change in the Wild [Designing Public Policy]

Designing Public Policy – Special Issue: Nature’s Design Lab: Crafting Policies and Change in the Wild

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The final examination of the module consists of the following two components:

(1) Policy Brief (individual) (50%): At the end of the course, you will submit a one-page policy brief (PDF, min 450-max 500 words, A4 format) individually that outlines your policy idea, the proposed design, the rational for it, as well as next steps towards implementation. You may choose to include visuals to illustrate your brief, and may choose the format and font that best supports your work.

(2) Reflection Paper (individual) (50%): At the end of the course, you will submit a reflection of your learning experience (PDF, min 450-max 500 words, excl. sources, A4 format). This paper should include a reflection of the core learnings of this course and their value to your respective professional journey (what have you learned and how are you planning to use these competencies going forward). You should also include references to the course readings. You may choose the font and include visuals or diagrams as you see fit.

Repeat Examination:

(Recommended) Prerequisites:
Fluency in English; interest in design-based and collaborative approaches to policy design; willingness to travel to an off-campus location; willingness to spend time in nature hiking and exploring no matter what the weather may be. Should you require accommodations for this

nature exploration (i.e. due to mobility issues), please let the course leaders know ahead of time. Knowledge about public policy is not a prerequisite for this course.

Content:
Our current reality is shaped by complex challenges that require us to fundamentally rethink our relationship with the planet we live on. Approaches to solve these challenges often have to include changes in policy, which, for the purpose of this seminar, we define in its simplest terms according to Thomas Dye, 1972: "anything a government chooses to do or not to do". But how are policies designed in reality? What happens when we think of policy design as a creative process? And how do we include the voices of nature as a "non-human stakeholder" in these processes?

In this module, you will embark on a learning experience beyond the confines of the classroom: Students from diverse disciplines are invited to an immersive journey into nature, design, and innovation, fostering an environment of creative thinking and interdisciplinary collaboration. Participants will engage in interactive experiences, nature walks, and prototyping sessions, joined by real-world practitioners to address tomorrow’s global challenges.

The course starts with a discussion-based session at TUM's main campus. Students are required to complete approximately 8 hours of reading of assigned materials in preparation for this gathering. During the session, a combination of impulses by the lecturers and potentially external guests together with conversations about the readings will create a shared understanding of the significance of public policies, the processes used to design them, as well as the opportunity to engage in public policy design as a creative act. A confirmed guest is Martin Waehlisch, who leads innovation at the UN Department of Political and Peacebuilding Affairs.

A few weeks later, (exact dates to be announced), participants will have the opportunity to travel to a retreat space at the Ammersee for a day-long immersive, hands-on workshop. The workshop will be joined by external guests who are policy makers or experinced in the space of imagining change at a large scale. Spending time in nature, participants will gather inspiration that, over the course of the day, will be translated into ideas for meaningful change.

The course culminates in students crafting policy one-pagers, empowering students to communicate complex ideas as concrete, impactful policy recommendations. This transformative experience is designed not only to inspire but to equip tomorrow's leaders with the tools to shape the future.

Intended Learning Outcomes:
After successful completion of this module, students will be able to:
● articulate an understanding of what public policy is, and understand associated processes
● apply creative methods to designing public policy
● derive inspiration from nature and translate that into insight
● produce a brief for a future policy in a concise and clear way

Teaching and Learning Methods:
This module is based on an experiential learning approach, in combination with readings, reflection, and discussion: Participants have the opportunity to experience a design process in service of creating public policy. They will acquire foundational knowledge as well as method competency through a combination of readings and short lectures. During the workshop part of the seminar, they will have the opportunity to apply these methods actively. Students will also have the opportunity to active dialogue with a transdisciplinary team of lecturers and guests, strengthening their ability to work beyond their own field of study.

Media:
Presentations, videos, whiteboard, poster boards, digital tools, basic prototyping materials, analog note taking tools.

Reading List:
Students will be provided with a mandatory reading package.

Responsible for Module:
Prof. Annette Diefenthaler, Prof. Dr. Florian Egli

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

LS10039: Data Science for Agricultural Systems Analysis | Data Science for Agricultural Systems Analysis

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is carried out in the form of a project work. This consists of a brief technical report (word limit 2,500 words), and accompanying presentation (15 minutes; 10 minutes presentation plus 5 minutes discussion;(option for both in-class and zoom presentation). The report is submitted in combination with the data files (using Excel software), R script, and GIS (shape or raster) files (if any) used to conduct the analysis. The report and supplementary files (Excel, R script and GIS files) will be verified for consistency (i.e. so the data presented in the report reflects the analysis done in R & QGIS). The supplementary files will additionally be evaluated for clarity and correctness of methods (based on data management and R/GIS methods instructed through lectures(The supplementary data files do not count towards the 2,500-word length of the report). The final grade is derived 75% from the written report, with supplementary files accompanying the report, and 25% for the presentation.

The learning outcomes are examined by the student's ability to choose an effective research hypothesis, analytic approach, and application of statistical concepts and software (R and GIS) relevant to the selected dataset and research objective. The report will be completed partly in class with instruction from supervisors and partly out of class and will be submitted 2 weeks from the last day of lectures/seminars.

The assessment is based on the criteria below:
• Ability to identify and apply statistical methods appropriate to data type and research objectives
• Ability to identify, interpret, and control confounding factors in analysis and experiment/survey data
• Ability to apply R and GIS software effectively to interpret data and convey results in report
• Ability to relate dataset and analytic method to a broader research objective of the student's choice

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
Basic experience handling datasets (Microsoft excel proficient)
Basic knowledge of R
Experience in any GIS software are useful but not required

Content:
1) Overview of select types of field-experimental or survey data relevant to agricultural and livestock systems analysis, including data collection methods
2) Data science: Theory and application of designs for field experiments and surveys
3) Data exploration and descriptive statistics for field-experiment and survey data, including measures of central tendency and dispersion and correlation coefficients (applied in R)
4) Parametric methods to evaluate field-experiment and survey data (applied in R), including basic regression techniques, analysis-of-variance (ANOVA), and treatment effects
5) Clustering methods to evaluate field-experiment and survey data (applied in R), including hierarchical and non-hierarchical clustering
6) Critical assessment of data-analytical methods for select scientific literature (specific to agricultural and livestock systems and comparable data-analytic methods)
7) Development of algorithms using the R software for handling survey and experiment datasets for agricultural and livestock systems
8) Application of GIS tools for the design and analysis of field-experiment/survey data
9) Critical appraisal of methods suitable to analyse agricultural and livestock systems
10) Techniques to effectively present results from the application of data analytics to agricultural systems

Intended Learning Outcomes:
Upon successful completion of this module, the students are able to:

• Understand key concepts involved in the design of field or survey experiments pertinent to given research objective(s)
• Understand and apply statistical methods for experimental and survey data analysis appropriate to a research objective(s)
• Discern appropriate analytical methods to answer questions related to experimental research
• Develop algorithms (R code) to analyse data and apply GIS tools to analyse field experiments and survey data
• Generate original research findings from existing datasets,
• Communicate findings through a project report, with accompanying presentation and supplementary data and script files

Teaching and Learning Methods:
• The module will be delivered through interactive lectures, integrated with exercises to assess theoretical and practical aspects of the module content

• The lectures are supplemented by seminars that will involve practical applications of R and GIS (using Quantum GIS, QGIS) to allow students to gain hands-on-experience in the tools required for the learning objectives and assignment
• Students will apply concepts learnt using a dataset of their choice, and conduct an analysis culminating in a presentation and a short report (word limit 2,500)
• The datasets provided will include at least one each of field experiment and survey based datasets
• Students interact with each other and the instructors both in the seminar room and online when working on their assignments.

Media:
Powerpoint slides, Moodle, Videos, Miro, Zoom.

Reading List:
Easterling, R.G. (2015). Fundamentals of Statistical Experimental Design and Analysis. Wiley. 246 pp.

Wickham, H., & Grolemund, G. (2023). R for Data Science. 2nd edition. O'Reilly. Sebastopol, USA. 520 pp.

Lumley, T. (2010). Complex surveys. A guide to Analysis Using R. Wiley. Hoboken, USA. 297 pp.

Bolstad, P. (2016). GIS Fundamentals. A first text on Geographic Information Systems. Fifth Edition. Acton, USA. 784 pp.

Responsible for Module:
Hawkins, James, Dr. james.hawkins@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Data science for agricultural systems (Vorlesung mit integrierten Übungen, 2 SWS)
Hawkins J

Analytic methods applied agricultural systems data (Seminar, 3 SWS)
Hawkins J, Sibilu H
For further information in this module, please click campus.tum.de or here.

Module Description

LS10052: Drone Remote Sensing Meets AI | Drone Remote Sensing Meets AI

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is carried out in the form of a report, complemented by a presentation. The report and presentation account for 70% and 30% of the final grade, respectively.

The learning outcomes are examined through assignments for a drone image analysis competition. The report documents how the assigned task is completed in 6 pages (A4 single line, excluding references and codes). The presentation is structured in slides and demos and it lasts no more than 20 min, followed by 20-30 min discussion.

The assessment is based on the criteria below:
Report:
•Clarity and logic of the workflow description.
•Accuracy and reproducibility of methods and results.
•Integration of drone remote sensing and AI techniques.
•Depth of analysis, including discussion of limitations and ethical considerations.
Presentation:
•Quality and structure of the presentation.
•Clarity in explaining technical solutions and outputs.
•Engagement with audience during Q&A.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Experience in programming course is recommended, e.g., Programming for Data Science in Agriculture.

Content:
During the module, a specific topic and drone image analysis competition will be defined based on students' interest and the state-of-the-art research.
The content of the module includes:
1) Introduction to Drone Remote Sensing: Overview of drones, sensor technologies (e.g., RGB cameras, multispectral, and hyperspectral), and their applications in agriculture.
2) Principles of Remote Sensing: Understanding the electromagnetic spectrum, spatial resolution, temporal resolution, and spectral signatures relevant to precision agriculture.
3) Drone Flight Planning and Data Acquisition: Essentials of drone mission planning, including flight path optimization, sensor settings, and environmental considerations.
4) Preprocessing of Drone Data: Methods for data calibration, georeferencing, orthomosaicking, and correcting distortions in drone-acquired datasets.
5) Introduction to AI in Agriculture: Overview of AI techniques (e.g., machine learning, deep learning) used for processing remote sensing data.
6) Data Management and Preparation: Techniques for handling large datasets, data cleaning, and structuring for efficient processing and analysis.
7) Image Analysis Using AI: Using convolutional neural networks (CNNs) and other image-processing techniques to extract features such as crop health, soil properties, and stress detection from drone images.
8) Integration of Multispectral and Hyperspectral Data: Analysis of data from specialized sensors to assess vegetation indices (e.g., NDVI) and detect subtle crop or soil variations.
9) AI Model Development and Training: Hands-on application of AI algorithms to classify, segment, and predict agricultural outcomes from drone data.
10) Evaluation of AI Models: Assessing the accuracy, precision, and robustness of models used for remote sensing applications in agriculture.
11) Visualization of Results: Tools and techniques for visualizing processed drone and AI outputs (e.g., QGIS, Agisoft Metashape, python).

Intended Learning Outcomes:
Upon completion of this module, the students are able to:
• Understand the principles of drone remote sensing and its applications in agricultural and environmental sciences.
• Apply AI techniques to process and analyze drone-acquired imagery data.
• Compare different drone sensing modalities (e.g., multispectral, hyperspectral, thermal) and AI models for their suitability to practical challenges.
• Assess the quality and reliability of drone-acquired data and AI-driven analyses.
• Apply the concept of programming for efficient and reproducible data analysis in their future study and research project.
• Develop workflows that integrate drone remote sensing data with AI models.

Teaching and Learning Methods:
The module focuses on problem-based learning and applies the format of seminars integrated with a mix of teaching methods and activities to help students achieve the learning outcomes effectively:

1) Introductary lectures integrated with Examples:
Core concepts are taught in lectures integrated with real-world examples and live demonstrations to connect theory with practice.
2) Practical exercises :
Students work with drone data and AI tools in hands-on labs to build essential technical skills.
3) Team work for the defined competition:
Teams design and implement solutions for real world challenges, like monitoring crop health, using drones and AI.
4) Seminars with intensive Discussions:
Students analyze real-life scenarios, discuss challenges, and share ideas in interactive group discussions.
5) Hackathon Week:
A one-week intensive group challenge where students solve a practical problem and present their solutions.
6) Blended Learning:
Combines in-person sessions with online materials like tutorials and discussion forums for flexible learning.
7) Feedback Sessions:
Regular feedback from peers and instructors helps students improve their projects and skills.
8) Student Presentations:
Students present their projects to the class, enhancing communication skills and receiving constructive feedback.

Media:
Scripts, Powerpoint slides, Moodle, Slack, GitHub/GitLab, Zoom etc.

Reading List:
Shahi T.B., Xu C.-Y., Neupane A. & Guo W. (2023). Recent Advances in Crop Disease Detection Using UAV and Deep Learning Techniques. Remote Sensing, 15(9), Article 9. https://doi.org/10.3390/rs15092450
Zhang Z. & Zhu L. (2023). A Review on Unmanned Aerial Vehicle Remote Sensing: Platforms, Sensors, Data Processing Methods, and Applications. Drones, 7(6), Article 6. https://doi.org/10.3390/drones7060398

Responsible for Module:
Yu, Kang, Prof. Dr. rer. nat. kang.yu@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Drone Remote Sensing Meets AI (Seminar, 5 SWS)
Yu K [L], Yu K, Belwalkar A, Lu C
For further information in this module, please click campus.tum.de or here.

Module Description

LS10035: Experimental Methods in Ecophysiology | Experimental Methods in Ecophysiology

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination is in the form of a laboratory report (15 to 20 pages).
The report introduces the topic, highlights the main methods in plant ecophysiology, summarizes the findings, and analyses of the measurements conducted during the module courses. Within the report, the students demonstrate that they understood how water flows in plants and soil and apply methods to monitor plant behavior during soil drying as well as showing the relationships between measured parameters and discuss the possible interpretations. The report should be submitted by the end of the semester.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
Basic knowledge in biophysical plant physiology (which is transferred, i.e., in participation in module LS20038).

Content:
The following topics are covered:
• Introduction to experimental methods in ecophysiology and biophysical plant physiology.
• Experimental methods assessing soil water status and hydraulic properties (TDR, HYPROP, TEROS 31, TEROS 21)
• Experimental methods measuring water fluxes from soil to plant (Sap-flow sensors, Isotopes [D2O])
• Plant water potential (matric potential, hydrostatic potential, osmotic potential)
• Methods assessing leaf water potential (Scholander pressure chamber, psychrometer, optical dendrometer, …)

• Experimentally measuring soil-plant hydraulics (root pressure chamber systems, rehydration kinetics)
• Methods evaluating plant responses to drying (stomatal regulation, turgor loss point, pressure volume curve)
• Experimental methods quantifying leaf gas exchange (transpiration rate, carbon assimilation rate) in response to soil drying
• Investigating root functional traits (root scanning and analysis, mycorrhiza colonization assessment)
• Imaging techniques in soil-plant interactions under drought (micro CT, Neutron radiography).
• Highlights on recent method advances and technical limitations on root-soil interaction

Intended Learning Outcomes:
After successfully completing the module, students are able to:
• Explain the principles of water flow in soil-plant-atmosphere continuum
• Differentiate processes/critically appraise linkages (e.g. classify the physical constraints on water flow in plant-soil system under different climatic and soil conditions)
• Understand and apply different methods to monitor plant behavior during soil drying, i.e., measure leaf water potential and leaf gas exchange during soil drying.
• Understand the principles of different methods to assess plant-soil interactions
• Measure water fluxes from soil to the plant using different methods (sap flow sensors), especially during soil drying.
• Design a set of experiments/models to test specific hypothesis (e.g. in regard to plant response to drought)
• Explore advanced techniques, including micro-computed tomography and neutron radiography, for imaging root-soil interaction under drought
• Evaluate and explain systematically the drivers of water stress to plants

Teaching and Learning Methods:
Oral presentations with PowerPoint presentations serving as visual aids, blackboard writing, discussion in class, and students' presentations with discussions. The module consists of 2 SWS lectures with integrated exercises and 2 SWS practical sessions to provide a comprehensive learning experience and achieve the specified learning outcomes. The lectures are crucial for knowledge transfer and foundation building that are essential for understanding the biophysical processes of water movement across the soil-plant-atmosphere continuum. Practical sessions will offer opportunities for interactive learning and applications of the concepts in the field/lab. The combination of both types of courses encourages a holistic understanding of Experimental Methods of biophysical plant physiology.

Media:
Presentations via PowerPoint and blackboard writing. Group work at the Chair of Root-Soil Interaction, TDR, tensiometer, porometer, osmometer, Scholander pressure chamber

Reading List:
- Physicochemical and Environmental Plant Physiology, by: P. Nobel

- Suggested seminal research articles

Responsible for Module:
Ahmed, Mutez Ali Abdelrahman, Prof. Dr. rer. nat. mutez.ahmed@tum.de Abdalla, Mohanned, Dr. rer. nat. mohanned.abdalla@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Experimental methods in biophysical plant physiology (Vorlesung mit integrierten Übungen, 2 SWS)
Abdalla M, Ahmed M

Experimental methods in biophysical plant physiology practical (Praktikum, 2 SWS)
Ahmed M, Abdalla M
For further information in this module, please click campus.tum.de or here.

Module Description

LS20022: Experimental Methods in Soil and Plant Hydrology | Experimental Methods in Soil and Plant Hydrology

Version of module description: Gültig ab winterterm 2022/23

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination is performed as a graded laboratory assignment. The grade for this module is determined by two factors. Firstly, the student's participation in conducting the planned experiments, collecting and analyzing data, and presenting the results to their peers, will contribute 40% towards the final grade. Secondly, students are expected to prepare an individual report, summarizing the findings of their analysis and measurements, which will make up 60% of the final grade. The report should be 10-20 pages in length and should be submitted by the end of semester.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
Students interested in this module are recommended to visit first the lecture on Soil Biophysics (offered by the Professorship for Soil Biophysics and Environmental Systems) or any other equivalent lectures such as Introduction to Soil Science or Introduction to Soil Physics during their master and bachelor studies.

Content:
In this module, students will gain an understanding of how to experimentally quantify the physical and hydrological properties of soils and plants. Specifically, students will learn:
1. To assess basic soil physical properties such as soil texture, moisture, porosity, and density.
2. To determine the water retention and flow characteristics of various soils.
3. To investigate the infiltration and evaporation of water from different soils.
4. To evaluate plant responses to soil drying, such as transpiration rate, stomata conductance, and xylem leaf water potential.

5. To utilize various sensors and techniques to measure water content and water potential within soil and plant systems.

Intended Learning Outcomes:
Upon completion of the module, students will possess the ability:
1. To experimentally measure the physical and hydrological properties of soils.
2. To utilize advanced experimental methods and tools to quantify physical and hydrological properties of soils, including soil particle size distribution, soil retention curve, soil hydraulic conductivity curve, and water flow within soils and plants.
3. To experimentally compare the physical and hydrological properties of various soils.
4. To experimentally evaluate the response of plants to soil drying in various soils.

Teaching and Learning Methods:
This module is designed as a practical course, in which students will learn how to experimentally quantify the physical and hydrological properties of soils and plants. To achieve this, students will be divided into three groups. Two soil samples with contrasting textures will be selected, and each group will be assigned one sample. This means that there will be three replications of the two soil types, each managed by a different group.
In the first part of the practicum, students will be instructed in the quantification of soil physical properties that impact water retention and flow.
In the second part, students will grow plants in the two different soil textures and measure soil and plant water relations by determining the transpiration rate of the plants, the leaf water potential, soil water content, and soil water potential during soil drying cycles.

Media:
Whiteboard, PowerPoint, Lab work

Reading List:
1) Hillel, D. (1998). Environmental soil physics. San Diego (Calif.): Academic Press.
2) Soil Hydrology and Biophysics by John Selker & Dani Or (Open access book)
3) Weekly distributed lecture notes

Responsible for Module:
Zare, Mohsen, Prof. Dr. mohsen.zare@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Advanced experimental methods in soil and plant hydrology (Übung, 4 SWS)
Zare M [L], Hafner B, Moser D, Zare M
For further information in this module, please click campus.tum.de or here.

Module Description

POL62200: Energy Transformation | Energy Transformation

Version of module description: Gültig ab winterterm 2017/18

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
For this module, evaluations will be based on written work and a presentation. The written assignment for the module will be of a length of approximately 20-25 pages. The topic of the module paper is to be developed in consultation with the seminar leaders and will deal with a specific topic of the seminar (energy transformation) and its technological, political, and social dimensions. The paper will be introduced with a precise question and then analyzed in depth. The methodology of research needs to be indicated and a comprehensive bibliography included. Students will be expected to prepare and give a presentation of at least 20 minutes tied to a session topic. Group presentations of up to three students are possible as long as individual contributions are discernible.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Ring lecture „Politics & Technology“

Content:
For a variety of reasons, including energy security, environment and climate concerns, and the potential to develop new technologies and processes, cities, countries and entire regions are pursuing low-carbon energy transitions. Understandings of what the best approach to a low carbon energy transition is, however, vary widely. The extent to which energy transitions are occurring in various sectors (power, heating/cooling, transportation) differs significantly. Why is this the case? What factors support or inhibit the scaling-up of policy solutions? What are the challenges associated with large scale energy system transformations? How similar or different are energy system transformations to other major transformations which have occurred in the past or which may need to occur in the future? This module will consider these and other questions in the context of Germany, at the European level and internationally.

Intended Learning Outcomes:
After participating in this module, students will understand the arguments underpinning decisions to pursue low carbon energy transitions, how low carbon energy transitions are affected by broader economic, technological, and political factors, and the ways in which actors at the local, national, or international level may act to promote or inhibit change. They will have gained insights into system transformation thinking, understand aspects of the production, distribution and utilization of energy and their interplay; apply methods of comparative policy analysis to energy policy in different political systems; be able to identify challenges of policy-making in national politics and the European multi-level system; to critically analyze energy policy in Germany, Europe, and internationally (for example in China, Japan, India, the United States as well as at the global level); to analyze the factors determining German, European, and international energy politics, and to evaluate the effects of different energy policy governance instruments (like legal regulation, planning, incentive design, taxes, subsidies, etc.).

Teaching and Learning Methods:
The module is offered in the form of two seminars, each dealing with different, but complementary thematic areas. One will be focused more on the transition of the energy systems in Germany and Europe while the other will concentrate more on the international and global level. To obtain a deeper understanding of the module’s topics a combination of independent work and general discussion will be used in the seminar. Seminars will include both direct input from the instructor and a wide variety of active learning methods. During the seminars, there will be in-depth discussions and inputs by students. Concrete examples will be used to practice, analyze, and evaluate the material which has been presented. Both the technical and scientific aspects of issues as well as their political and social implications will be discussed. The presentations developed and given by the students and ensuing discussions will contribute to the students' understanding of the seminar materials and instructor's inputs.

Media:
Online-Reader, PowerPoint

Reading List:
Moe, Espin. 2015. Renewable Energy Transformation or Fossil Fuel Backlash: Vested Interests in the Political Economy. Palgrave MacMillan.

Araújo, K., ed. 2022. Routledge Handbook of Energy Transitions. Routledge.

A reader of seminar texts with up-to-date and cutting edge scienitific literature will be made available at the start of the semester.

Responsible for Module:
Schreurs, Miranda; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
(POL62200) Energy Transformation (Seminar 1 + 2) (Seminar, 4 SWS)

Ohlhorst D

For further information in this module, please click campus.tum.de or here.

Module Description

SOT86701: EuroTeQ Collider. Enhancing Connections for Sustainable Futures (MSc) | EuroTeQ Collider. Enhancing Connections for Sustainable Futures (MSc)

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
During this module, students must complete following tasks: producing a presentation that provides information on the project concept development and implementation, as well as a final report, charting the progress of their work/research over time. These assessments will evaluate a) the success of the project and b) the learning success of the students in oral and written form. Students will be graded based on the active participation in a group project (20%), a final presentation of project results (60%) and a final project report (20%). These examination requirements will assess the success of the project, but also examine the learning success of the students in oral and written form.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
This module is aimed at all students enrolled in a Bachelor or Master program at the TUM; it is thus designed as an interdisciplinary venue which brings together a range of scientific perspectives. No specific prior knowledge is required; however, its project-based character requires high levels of intrinsic motivation and the willingness to actively participate in a project.Please register for this course via TUM Online. If you have any questions or problems to register, please send an email to euroteq@ja.tum.de

Content:
"Enhancing Connections for Sustainable Futures" aims to promote an integrated approach based on three main areas: People, Nature, and Technology. In the "People" domain, the focus is on empowering and enabling communities. This involves connecting people's needs and aspirations through technology, including digital solutions, in various areas such as wellbeing,

health, culture, etc. In the "Nature" realm, the call concentrates on the conscious use of nature and the consideration of its resources. This includes examining interactions in ecosystems, safeguarding biodiversity and nature conservation, as well as utilizing renewable energies. Within the "Technology" sphere, the emphasis is on establishing efficient connections through technology, both digital and physical. This encompasses various fields such as information technology, logistics, transportation, manufacturing, communication, etc. Overall, the call aims to promote sustainable connections that enable meeting human needs, protecting the environment, and leveraging innovative technologies to achieve these goals.

The Technical University of Munich (TUM) joint forces within eight leading universities of science, technology and business to foster the European spirit in a EuroTeQ format to promote innovative engineering education across Europe. Together, we are created the first EuroTeQ Collider in 2022. Now, the journey goes into the second round. The Collider is an innovative learning format with the aim of bringing students together with vocational trainees and professionals to tackle challenges. The theme for the period 2024-2026 is “Enhancing connections for sustainable Futures”. The goal is to connect participants with different profiles and personalities to boost creativity, innovation, shared understanding, enabling participants to imagine new approaches and design disruptive solutions.

The module is a seminar that gives students the opportunity to apply their knowledge on topics related to the theme “Enhancing connections for sustainable Futures”. Within this overarching theme, we are offering challenges on three different topic-domains, namely:

• People – e.g., empowering and enabling communities, connecting people's needs and aspirations through technology (including digital solutions) in different areas such as wellbeing, health, culture, etc.
• Nature – e.g., on the conscious use of nature, taking into account environmental resources and the relationship of organisms to the environment: interactions in the ecosystem, safeguarding biodiversity and nature conservation, use of renewable energies, etc.
• Technology – e.g., efficient connections through technology, both digital and physical, in various areas such as information technology, logistics, transportation, manufacturing, communication, etc.

Within every topic domain, interdisciplinary (and international) teams of students, vocational trainees and professional learners are formed to develop solutions towards a desirable future, test and validate tools and create prototypes of their solutions. A selection of the best projects will be presented in a major high-level event, the EuroTeQaThon.

Intended Learning Outcomes:
After completion, all EuroTeQ Collider participants will be able to:
- Select and apply appropriate design, engineering and business approaches and tools to create an innovative and science-based solution to a real-life challenge.
- Develop a profound interpretation of a complex, real-life problem and its context using a system-thinking approach, considering multiple perspectives.

- Develop a problem-driven, creative, and integrative design, demonstrated by a concrete prototype that balances desirability, feasibility, and viability.
- Use disciplinary knowledge and expertise in an inter-disciplinary team to develop an innovative and scientifically sound solution in a European context.
- Communicate your ideas, at different levels of elaboration, via several mediums in an international context to a diverse set of stakeholders.
- Define and regularly reflect on personal and team development.

Teaching and Learning Methods:
A range of teaching & learning techniques will be applied:
- (pre-recorded) videos and online presentations, with podcasts and interviews, Q&A Sessions with experts
- This module is focusing on service-learning and project-based learning
- After a set of introductory sessions which provide input on the core topics but also project management, students will work on their projects in groups. Progress will be determined through project presentations during the semester, continuous feedback from the instructors, as well as peer-to-peer feedback.
- Presentational skills will be further facilitated through the requirement to present the results
- As students and professionals will work together in a joint effort, all participants will not only improve their technical skills but also enhance their soft skills such as team spirit, flexibility to work in multicultural environments, and design thinking, which are also very important in professional life.

Media:

Reading List:

Responsible for Module:
Wester, Angela; M.A.

Courses (Type of course, Weekly hours per semester), Instructor:
(SOT82701, SOT86701) EuroTeQ Collider. Enhance Connections for Sustainable Futures (Seminar, 4 SWS)
Baumer D, Lau K, Miller N, Rufino M, Wester A (Finger P, Lehmann D, Schmid H)
For further information in this module, please click campus.tum.de or here.

Module Description

WI000946: Energy Markets I | Energy Markets I

Version of module description: Gültig ab summerterm 2021

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module entails a written exam at the end of the term (60 minutes). In order to optimally assess the students' achievements, the exam will consist of both, a multiple choice part (20%) and open questions (80%). In the multiple choice part students mainly show that they have professional knowledge regarding the characteristics of energy markets and that are able to classify it. With answering the open questions, students demonstrate their ability to solve problems as well as their ability of abstraction. Mathematical problems will be complemented by questions mainly aiming at economic intuition and thought patterns. Apart from a nun-programmable calculator no further tools or documents are permitted (closed book).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in economics (competition theory), basics in corporate strategy (Porter etc.), ideally industrial economics (market power, oligopoly, barriers to market entry, transparency etc.) and trade (call, put, forward, future etc.)

Modules:
- Investment and Financial Management
- Mikroökonomik (Economics I)
- Industrieökonomik (Industrial Economics)
- Introduction to Strategy and Organization

Content:
This module gives a broad overview of energy markets and energy industries across all commodities. It covers the whole energy value chain from primary energy supply to energy consumption and presents the most relevant economic concepts.
Focus issues are forecasting energy demand, primary energy exploration and production, supply and demand curves / merit orders in different commodities, specific feature of energy markets, price formation and organised energy trading.
The module will be continued in summer with energy markets 2, focusing on renewables and grid regulation.

Intended Learning Outcomes:
After successful participation in the module, students possess a broad basic knowledge regarding the economic specifications of energy markets. Furthermore, students are able to solve energy related problems self-reliantly using both, mathematical techniques as well as attained economic intuition.
Participants are moreover able to transfer economic principles on the special demands of energy markets.
After studying the provided literature, students are able to analyze and assess questions arising in terms of energy policy and recent developments in the fields of energy markets.
Participation in the module leads to a better understanding of energy markets and enables students to develop and evaluate business processes and models in the field of energy economics.
Taking part in the module enables students to competently advocate their views in discussions addressing energy economics and markets.

Teaching and Learning Methods:
The module consists of a lecture and an associated exercise course. The lecture provides basic knowledge about economical characteristics of energy markets via presentations. Students are encouraged to study the literature and discuss the provided topics. During the exercise courses, selected examples of problems arising in energy markets are discussed.

Media:
Slides and exercises

Reading List:
Erdmann, G. / Zweifel, P. (2010) Energy Economics: Theory and Applications; Springer 2017.
Ströbele, W. / Pfaffenberger, W. / Heuterkes, M. (2012) Energiewirtschaft - Einführung in Theorie und Politik; 3. Auflage; Oldenbourg 2012.
Bhattacharyya, S. (2011) Energy Economics - Concepts, Issues, Markets and Governance; Springer 2011.

Responsible for Module:
Wozabal, David; Prof. Dr. rer. soc.

Courses (Type of course, Weekly hours per semester), Instructor:
Energy Markets I (WI000946, englisch) (Vorlesung, 2 SWS)
Ikonnikova S [L], Bieberbach F, Madadkhani S

Energy Markets I - Exercise (WI000946, englisch) (Übung, 2 SWS)
Ikonnikova S [L], Madadkhani S
For further information in this module, please click campus.tum.de or here.

Module Description

WI001125: Energy Markets II | Energy Markets II

Version of module description: Gültig ab summerterm 2016

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination is based on a written exam (60 minutes), which has two parts and is open-book. The first part of the written exam (≤20% of written exam) consists of multiple-choice questions, which tests the students' knowledge and understanding of the basic concepts and economic characteristics of energy markets.

The second part of the written exam (≥80% of written exam) consists of open questions and calculations. Here students have to show that they can explain how to trade energy commodities in energy markets and interpret the role of energy grids and their regulation. In answering the open questions students demonstrate their ability to analyze business models of utilities and their ability to make business decisions regarding management and investment in the electricity market in response to a changing environment. . Students may use a non-programmable calculator.

Additionally students have the possibility to improve their test score by 10 percentage points through a voluntary midterm assessment. This involves successfully taking part in the browser-based business game offered during the exercise course. The results of the midterm assessment are used only if they improve the overall grade of the written exam.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in economics (competition) and industrial economics (market power, oligopoly, entrance barriers, transparency).
Modules:
- Energy Markets I
- Economics I (Microeconomics)
- Industrial Economics

Content:
In continuation of the lecture "Energy Markets I", students gain an overview of the more fundamental concepts of energy markets (eg. renewable energy promotion schemes, energy trading in wholesale markets). Thereto, the course covers the topics of renewable electricity production, introducing energy trading, a case study of the fracking industry and energy grids/ networks. Transmission grid management and expansion are considered as the significant topic of energy grids.

Intended Learning Outcomes:
Upon successful completion of this module, students are able to (1) name and (2) summarize the concepts and economic characteristics of all relevant fields of energy markets. Further, they can (3) explain how to trade energy commodities in energy markets. They are able to (4) interpret the role of energy grids and their regulation. Finally, they can (5) apply the aforementioned concepts and theoretical foundations presented in the module. Students are able to (6) analyze business models of utilities and make business decisions regarding management and investment in electricity markets in response to a changing environment.

Teaching and Learning Methods:
The module combines various learning methods:
- Basic knowledge, theoretical concepts and practical examples are provided through the lecture.
- Students are encouraged to get additional background knowledge from scientific literature in private reading.
- In the exercise course, students play a browser-based business game. In the course of the business game, the students slip into the role of the Chief Executive Officer of a utility company.

Media:
Presentation, white board, exercises, business game

Reading List:
Bhattacharyya, S. (2011) Energy Economics – Concepts, Issues, Markets and Governance; Springer 2011.
Erdmann, G. / Zweifel, P. (2010) Energieökonomik – Theorie und Anwendungen; 2. Auflage; Springer 2010.
Ströbele, W. / Pfaffenberger, W. / Heuterkes, M. (2010) Energiewirtschaft – Einführung in Theorie und Politik; 2. Auflage; Oldenbourg 2010.

Responsible for Module:
Schwenen, Sebastian; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Energy Markets II
Energy Markets II (Exercise Course)
Prof. Dr. Florian Bieberbach
For further information in this module, please click campus.tum.de or here.

Module Description

WI001204: Economics of Water Use, Regulation and Markets | Economics of Water Use, Regulation and Markets

Version of module description: Gültig ab winterterm 2018/19

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In a written examination at the end of the semester of 120 mins (in class), students will demonstrate the ability to understand and analyze concepts and methodological approaches related to water resource management using economic terminology, and the ability to apply mathematical tools to solve specific calculus problems. A written exam is necessary to assess the students' holistic understanding and analytical competencies.
In addition, there is the option of taking a voluntary mid-term assignment as coursework in accordance with APSO §6, 5. For this, an in-class presentation (~15 min) of a short research project related to water resource economics that they will choose from a list of references provided by the instructor has to be given. Students who are interested in participating in the research project activity will have to express their interest and choose a topic by the third week of the course. The module grade can be improved by 0.3 by passing the course work if this better characterizes the student's performance level on the basis of the overall impression and the deviation has no influence on passing the examination. No repeat date is offered for the mid-term performance. When retaking a failed module examination at the next possible examination date, successfully passed mid-term assignments will be taken into account.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Students taking this course should be familiar with the basics of microeconomics as well as mathematical economics (derivatives, basic function integrals and graphs). However, all necessary concepts will be introduced before application.

Content:
The course will examine the incentives that lead to overexploitation of water recourses and how altering these incentives can promote socially optimal use patterns. The course will also provide the students with a set of analytical tools that can be used to work on water issues or natural resource issues more broadly.
Those topics are:
1. Introduction and Economics Basics
2. Agricultural Water Use
(water rights, agricultural water use efficiency and productivity, land allocation, technology choice, environmental quality)
3. Residential Water Use
4. Water, Land Use and Environmental Aspects of Biofuel Production
5. Other Approaches to Value Water
(hedonic modelling, experimental economics, nonmarket valuation approach)
6. Intertemporal and Interregional Aspects of Water
7. Water Markets Around the World
(Europe, China, USA)

Intended Learning Outcomes:
This course is designed to introduce students to the subject of water economics.
Upon successful completion of the module, students will be able to:
• understand the basic concepts and economic models used to study the economics of water resources issues.
• select and apply the appropriate economic model to solve water policy problems as for example producer's profit or consumer's utility maximization.
• provide economic intuition for mathematical answers to water management problems.
• apply models to address a wide range of water resource problems and assess the economic effects of decision making process at different levels based either on the water demand or the water supply side of the economy.
• critique journal articles pertaining to economics of water resources.

Teaching and Learning Methods:
Theoretical concepts and example exercises will be given by the lecturer on the blackboard and by PowerPoint presentations to build the required knowledge base in water resource economics. Q&A sessions at the beginning of each lecture will be provided to recapitulate the previous lecture. In addition, under the supervision and help of the lecturer, in-class application exercises will be used to create real-world water management problems for which students in randomly assigned groups will create and solve problems. Discussion of relevant scholarly articles and literature will be used to aid understanding of the topic covered.

Media:
Presentation slides, Blackboard, hand-outs, Moodle course to provide materials (pdf of papers to read)

Reading List:

Auffhammer, M. et al., “The Value of Supply Reliability in Urban Water Systems,” Journal of the Association of Environmental and Resource Economists, Working paper.
Caswell, M. & D. Zilberman, “The Effects of Well Depth and Land Quality on the Choice of Irrigation Technology,” American Journal of Agricultural Economics 68(1986): 798-811.
Chong, H. & D. Sunding, “Water Markets and Trading,” Annual Review of Environment and Resources 31(2006): 239-264.
Gisser, M., “Groundwater: Focusing on the Real Issue,” Journal of Political Economy 91(1983): 1004-1027.
Green, G. et al., “Explaining Irrigation Technology Choices: A Microparameter Approach,” American Journal of Agricultural Economics 78(1996): 1064-1072.
Renwick, M. & R. Green, “Do Residential Demand Side Policies Measure Up? An Analysis of Eight California Water Agencies,” Journal of Environmental Economics and Management 40(2000): 37-55.
Zilberman, D. et al., “Changes in Water Allocation Mechanisms for California Agriculture,” Contemporary Economic Policy 12(1994): 122-133.

The list will be expanded and updated using material from a variety of textbooks and journal papers corresponding to each of the topics.

Responsible for Module:

Sauer, Johannes; Prof. Dr. agr.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ0228: Exercises in Precision Agriculture and Plant Phenotyping | Exercises in Precision Agriculture and Plant Phenotyping

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination uses the format of a Report (project report), in which students should demonstrate that they are able to apply the gained skills to address certain questions in research or applications, in the context of (but not limited to) precision agriculture and plant phenotyping. The report is supplemented by a presentation. The final grades are calculated from the following elements:
- On the topic of choice, each group of students (e.g., 3-4 persons but can also be solo) writes a project report (8-10 pages of A4 single line format, excluding references) (75% of the total grade), and
- Each group presents project results in 15 min following 5 min discussion (25% of the total grade). The individual contribution to the group performance must be clearly visible (i.e., Author Contributions).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
- Knowing the basics of scientific programming (e.g., R, Matlab) is recommended.
- Knowledge gained in the course module "Precision Agriculture" is recommended, but not mandatory.

Content:
The module aims to transfer the practical methods and skills of using novel technologies for precision agriculture and plant phenotyping. The main topics include:

1. cameras, sensors, and integrated systems used in precision agriculture and plant phenotyping;
2. basics of using Matlab, R, and other related software packages;

3. drone (UAV) operation, image data acquisition and analysis pipeline;
4. spectrometer operation, plant and soil spectral measurements, and spectral data analysis;
5. digital image analysis methods and software packages;
6. GIS tools for spatial data analysis and visualization;
7. satellite imagery data acquisition, processing, and analysis;
8. detection of plant biotic and abiotic stresses using different sensors;
9. measuring field spatiotemporal variability and crop yield;
10. data science methods in precision agriculture and plant phenotyping;

Intended Learning Outcomes:
Upon successful completion of the module, students are able to:
- understand the basics of characterizing plant traits and crop field variability using non-destructive methods;
- apply basic sensors and software packages (e.g. R, Matlab) in practices;
- evaluate the potentials and limitations of different sensors and data science methods (e.g. for image segmentation and classification);
- design sensing and data analysis pipelines for solving practical problems;
- develop critical and systematical thinking skills;
- to present their results in a clear and comprehensible manner to an audience

Teaching and Learning Methods:
- The module delivers the practical skills of precision agriculture and plant phenotyping through demonstrations of operational and analytic methods, hands-on practices, and computer exercises.
- Students actively participate in the exercises and discussion, and write learning journals to reflect the critical aspects in the exercises, e.g., application potentials and limitations of methods.
- Students conduct exercises through teamwork, write reports on topics of choice, and present the results and discuss with classmates.

Media:
Zoom, Scripts, PowerPoint

Reading List:
- Current literature related to the topics
- Hu Y, Schmidhalter U (2023) Opportunity and challenges of phenotyping plant salt tolerance. Trends in Plant Science 28(5): 552-566. DOI: doi.org/10.1016/j.tplants.2022.12.010
- Hund A., Kronenberg L., Anderegg J., Yu K. & Walter A. (2019). Non-invasive field phenotyping of cereal development. In Frank Ordon & Wolfgang Friedt (Eds.), Advances in breeding techniques for cereal crops (pp. 249–292). Burleigh Dodds Science Publishing. https://doi.org/10.19103/AS.2019.0051.13
- Zhang J., Hu Y., Li F., Fue K.G. & Yu K. (2024). Meta-Analysis Assessing Potential of Drone Remote Sensing in Estimating Plant Traits Related to Nitrogen Use Efficiency. Remote Sensing, 16(5), Article 5. https://doi.org/10.3390/rs16050838

Responsible for Module:
Yu, Kang; Prof. Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ1876: Entrepreneurship in the Agricultural and Horticultural Industry | Entrepreneurship in the Agricultural and Horticultural Industry

Version of module description: Gültig ab winterterm 2021/22

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination consists of a 120-minute written exam. This will focus on testing the holistic understanding and competence with regard to the conceptual and metodoligical approaches in agri-food entrepreneurship.
In addition, students will analyze business start-up processes and risks in the innovation and product development process, assess entrepreneurial cooperations in the agricultural and horticultural sector, and design associated management and organizational structures.

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Fundamentals of Microeconomics, Market analysis

Content:
The module covers and discusses the principles, theoretical approaches and significance of entrepreneurship orientations to support the application of innovations and start-up related economic activities in the agricultural and horticultural value chains and industries. The course specifically includes the following topics:
- Principles of entrepreneurship and entrepreneurship orientations in the agricultural and horticultural industries.
- Innovation and product development processes and related entrepreneurial opportunities and risks
- Entrepreneurial strategies and collaborations in the venture creation process

- Methodological approaches (e.g. attribute mapping, strategy canvas and various business model and quantiative approaches) to explain and evaluate entrepreneurship-related activities and venture creation processes
- Sustainable entrepreneurship

Intended Learning Outcomes:
After successful completion of the module, students will be able to:
- understand the principles of entrepreneurship and business creation in the agricultural and horticultural sector,
- use qualitative and quantitative methods to explain and evaluate entrepreneurship related activities,
- analyze the risks and opportunities in innovation and product development,
- assess collaborations and strategies in entrepreneurship and business creation, and
- develop venture creation processes, associated management, and organizational structures.

Teaching and Learning Methods:
With the help of lectures, the theoretical approaches and concepts of entrepreneurship and the business start-up process are taught. Group work and presentations are used to describe and work on practical problems and proposed solutions.

Media:

Presentations, case descriptions, scripts

Reading List:
Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. Journal of Business Venturing, 18: 105–123.
Berti, G. and Mulligan, C. (2016). Competitiveness of Small Farms and Innovative Food Supply Chains: The Role of Food Hubs in Creating Sustainable Regional and Local Food Systems. Sustainability, 8 (616): 1-31.
Bolton, W.K. and Thompson, J.L. (2000). Entrepreneurs: Talent, Temperament, Technique. Butterworth Heinemann, Oxford.
Casson, M., (2003). The Entrepreneur, New York, NY: Edward Elgar Publishing.
Dunkelberg, et al. (2013). Do entrepreneurial goals matter? Resource allocation in new owner-managed firms. Journal of Business Venturing, 28: 225–240.
Grichnik, D. (2006). International Entrepreneurship: Entscheidungs- und Risikoverhalten von Unternehmensgründern und Venture-Finanziers in kulturellen Kontexten — Theoriebildung und empirische Analysen. Berlin: Duncker & Humblot-Verlag.
Howieson, et al. (2014). New Product Development in Small Food Enterprises. Journal of New Business Ideas & Trends, 12(1): 11 - 26.
Joakim, T. et al. (2016). Business model innovation in the agri-food sector: a literature review. British Food Journal, 118(6): 1462-1476.
Kim, W.C. and Mauborgne, R. (2005). Blue Ocean Strategy, Harvard Business School Press: Boston.

Shane, S. and Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research, Academy of Management Review, 25(1): 218–228.
McGrath, R. G. and MacMillan, I. (2000).The Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in an Age of Uncertainty.
Mirzaeia, O. et al. (2016). Product and Marketing Innovation in Farm-Based Businesses: The Role of Entrepreneurial Orientation and Market Orientation. International Food and Agribusiness Management Review, 19(2): 99-130.
Morris, et al. (2017): Farm diversification, entrepreneurship and technology adoption:Analysis of upland farmers in Wales. Journal of Rural Studies 53: 132-143.
Shadbolt, M.N. and Olubode-Awosola, F. (2016). Resilience, Risk and Entrepreneurship. International Food and Agribusiness Management Review, 19(2): 33-52 .
Sporleder, et al. (2008). Innovation in Food Products: First-mover Strategy and Entropy Metrics. International Food and Agribusiness Management Review, 11(3): 139-164.
York, G.J. and Venkataraman, S. (2010). The entrepreneur–environment nexus: Uncertainty, innovation, and allocation. Journal of Business Venturing, 25: 449–463.
Die Liste wird anhand von weiteren thematisch relevanten Büchern, Zeitschriftenartikeln und aktuellen Themen aktualisiert

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

BGU62039: Case Studies of Sustainable Urban Developments and Infrastructure | Fallstudien nachhaltiger Quartiers-, Stadt- und Infrastrukturentwicklungen [FNQSI]

Version of module description: Gültig ab summerterm 2021

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination performance is achieved by writing a scientific paper in the form of an essay (about 5-7 pages). This is worked on in groups of 2-3 students. At the end of the semester, the results are presented in a graded short lecture and finally discussed.
The aim is to demonstrate that the students have understood and can critically reflect on the essential aspects of how sustainable neighborhood, urban and infrastructure development was implemented in the case study and that they can present their findings in an appropriate form.

The overall grade of the module is composed of the essay (70%) and the short presentation (30%).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
The contents of the modules

BV620007 Fundamentals of sustainable construction
BV000029 Traffic engineering and traffic planning basic module
BV000031 Urban water and waste management basic module

should be familiar to the students

Content:
In this module, the connections between urban planning and engineering as well as architectural concepts and the energy, material and traffic flows associated with them are shown and, above all, their implementation is dealt with in more detail.

Individual projects in the field of building construction and civil engineering as well as infrastructure systems and settlement quarters are examined and analyzed in more detail. The implementation of these projects, taking into account the location, social and societal aspects, as well as the integration of energy and political issues, are examined in a practical manner using case studies. The new building as well as projects of the reorganization, projects in the range plus energy house, zero-emission quarters are consulted.

Here, the criteria of sustainability are exemplarily dealt with in the phases of planning, construction, operation and deconstruction, in order to be able to evaluate buildings, structures, systems and developments in an active discussion in the future.

Intended Learning Outcomes:
After attending the module, students will be able to:

- apply the criteria for sustainability on the basis of exemplary projects and understand their influence on and interactions with the parameters involved.
- understand sustainable developments in cities and neighborhoods as well as civil engineering and building construction from spatial, structural, material, cultural and social aspects.
- evaluate the different subsystems such as infrastructure, building stock, new construction, urban planning framework, energy supply, traffic, mobility, water, waste, food, education, social structure, resources/ cycles at neighborhood level, microclimate, quality of life, social structures, use structures, economic structures.
- Understand concepts of active and passive building technology as well as intelligent building envelopes and building control systems.
- to understand factors such as comfort, climate, energy consumption, finiteness of resources and CO2 emissions and their mutual influence.
- understand scenic analyses and examples and apply them to other properties with their own proposed solutions.

Teaching and Learning Methods:
The module consists of a lecture series and a seminar.

In addition to the lecturers, external experts from science and practice are involved in the lecture series. The various actors in urban development provide the students with practical insights into the different subsystems of the city and are available for discussions.

In the seminar, the content taught in the lecture is further deepened through interactive formats such as workshops, discussions, student presentations and group mentoring, as well as a multi-day field trip to the current case study.

Participants* in the module each choose a topic/object from the course content at the beginning of the semester. The possible focal points are related to the case study of the current semester. These are assigned to one of the overarching themes of the city, such as material flows, mobility, neighborhoods, or buildings.
During the semester, the chosen topic/object is intensively studied by the students, visited on site if necessary, and presented. The development takes place in small groups of 2-3 students each.
In addition, individual contents and methods are further deepened in accompanying workshops.
The intermediate presentations, in the course of the development of the essay, serve as practice.

The students actively participate in the excursion components and develop their own concepts and strategies.

Towards the end of the semester, the result is submitted as a written paper (essay of 5-7 pages plus graphics, images, appendices, etc.).
It is then presented in the form of a short lecture and discussed together. As a rule, the students present the work of another group.

Media:
Slides, lecture notes (to be developed from each semester's lecture focus), posters, presentations.
Field trips and site visits to the properties discussed in the case studies with supporting guest lectures and on-site tours.

Reading List:
Friedman, T. L. (2009). Hot, flat, and crowded: Why we need a green revolution--and how it can renew America
(Release 2.0, updated and expanded ; 1st Picador ed.). New York: Picador/Farrar, Straus and Giroux.
Heck, H.-D., & Meadows, D. L. (1972). Dennis Meadows [u.a.] Die Grenzen des Wachstums (The limits to growth,
dt.).
McDonough, W., & Braungart, M. (2002). Cradle to cradle: Remaking the way we make things (First edition). New
York: North Point Press.

Responsible for Module:
Prof. Dr.-Ing. Werner Lang sekretariat.enpb.bgu@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ1545: Human Resource Management in Agriculture and Related Industries | Human Resource Management in Agriculture and Related Industries

Version of module description: Gültig ab winterterm 2018/19

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
During the written exam (90 min.) students demonstrate their ability to understand human resource management practices, to select and adapt techniques suitable to specific contexts in agriculture and life science industries, to compare and contrast techniques and practices, to evaluate and change selected practices in case applications. Example practices cover the fields of planning the workforce, recruiting, selecting, and training employees, as well as providing feedback to, and evaluating employees, as well as discipline and dismissal, compensation, incentive plans, benefits and services, and workplace diversity. Students analyze exam questions and write up answers in their own words.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
BS Degree. Prior knowledge of basic ideas of economics and management is required; knowledge in strategic management is recommended.

Content:
The course is designed to provide master level students with an understanding of pertinent human resource management practices and how to adapt practices from other industries to farms, horticultural and landscaping operations, in agribusinesses, in the food industry, and in related businesses. Practices relate to planning the workforce, recruiting, selecting, and training employees, as well as providing feedback to, and evaluating employees. Additional practices relate to discipline and dismissal, compensation, incentive plans, benefits and services, and workplace diversity. Examples of current issues as well as laws and regulations provide context for different human resource management practices.

Intended Learning Outcomes:
After successfully completing the module, students are able to accomplish the following:
- understand human resource management practices and their objectives;
- evaluate human resource management practices in use;
- develop and adapt appropriate human resource management practices for specific organizations in agriculture and the life science industries.
- determine the fit of different human resource management practices with different organizational goals and environments.

Teaching and Learning Methods:
Lectures serve to introduce human resource management practices and their objectives.
Video clips serve to illuminate HRM practices and as a basis of discussion of practices. Case descriptions and task sheets are analyzed in small groups and discussed in class to empower students to apply human resource management practices in specific constellations.

Media:
Presentation software, case descriptions and task sheets, discussion facilitation support media, video clips

Reading List:
Dessler, G. (latest edition). Human resource management, Prentice Hall: Upper Saddle River/NJ.

Responsible for Module:
Bitsch, Vera; Prof. Dr. Dr. h.c.

Courses (Type of course, Weekly hours per semester), Instructor:
Human Resource Management in Agriculture and Related Industries (WZ1545, englisch) (Seminar, 4 SWS)
Bitsch V [L], Bitsch V
For further information in this module, please click campus.tum.de or here.

Module Description

EI7467: Interdisciplinary Project Internship Concept Development of a Renewable Energy System in a Developing Country | Interdisciplinary Project Internship Concept Development of a Renewable Energy System in a Developing Country [ProRESDC]

Interdisciplinary Student Project Concept Development of a Renewable Energy System in a Developing Country

Version of module description: Gültig ab winterterm 2016/17

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 135	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The students' learning success will be determined by the following components of the project:

1. Input throughout the course of the milestone meetings (the supervisor of a team will rate each member of his team individually based on her or his input during the milestone meetings):
- Integration of the extraneous inputs, which his team members from other fields of study give, in order to develope a holistic concept for a renewable energy system in a developing country
- Analyzing the framework conditions, determining obstacles and deriving innovative solutions for renewable energy systems in developing countries before each milestone meeting
- Communication with the team leader and the other team members
- Meeting the timetable

2. Final presentation:
A jury will evaluate, how far the team manages to transfer their developed concept into an understandable context and to convince the audience of their choice of a certain concept. This includes the logic of the presentation, the focus on relevant points and appealing visualizations of their presentation slides.
In addition to this, each team member is individually evaluated for her or his presentation methods and expertise shown during the subsequent questions.

3. Project report (identic evaluation of all team members):

Here is rated how much convincing the decision was explained for the chosen energy concept and against other possible concepts due to the technological, financial and socio-cultural conditions and how comprehensible the implementation of the final concept was described.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
- Bachelor degree in a technical field of studies or in TUM-BWL
- Participation in "Series of lectures Renewable Energy Systems in Developing Countries"
- Interest in energy systems and their application / realization in developing countries
- Interest in the conversion of knowledge, which may differ from the field of her or his own studies on the one hand , but on the other hand is essential for the holistic understanding of their own study curriculum
- Interest in team-based project work and developing a realizeable concept
- Letter of motivation regarding study program, expertise, motivation and relevant experience (1.000 - 2.000 characters)

Content:
During the study project students develop a concept for the renewable energy system of a given location in a developing country.
During this concept development the variety of possible energy concepts will be reduced by general characteristics of stand-alone systems in the first step, followed by technological criteria in developing countries and socio-cultural impacts. Subsequently, the suitability of the various power production technologies, which are presented in the lectures, will be evaluated for the site in the developing country. Afterwards financing possibilities and framework conditions of regional market will be taken into account for the selection of the energy concept. In the end the final energy concept will be derived out of these sub steps.
Additionally the students derive options based on their developed energy concept, how to empower the population of the region economically by means of renewable energies.

Intended Learning Outcomes:
After participating in the project the students will be able to:
- understand extraneous knowledge concerning renewable energy systems in developing countries by the interdisciplinary collaboration with students from different study fields
- implement this interdisciplinary knowledge about energy systems in developing countries into action competences
- present the progress of a project target-oriented in meetings
- highlight the relevant technological, financial and sociocultural framework conditions of a planned energy system for a certain location in a developing country
- evaluate various options of energy supply concepts with based on their framework conditions
- manage the progress of a concept
- develop a suitable energy concept based on the requirements and possibilities of a defined location

- present convincingly their concept in a final presentation
- describe convincingly in a project report both the choice of their energy concept taking the involvement of all relevant aspects into account and the its realization

Teaching and Learning Methods:
Students are expected to achieve the learning outcomes by means of a project internship. Interdisciplinary teams of students, consisting of students from various faculties, develop a concept for a renewable energy system for a particular location in a developing country in defined milestones. Each team is advised by a scientific assistent, who is their team leader. This advisor is managing the technical expertise of the team members with her or his project experience during the weekly milestone meetings.
Finally, each team presents its energy concept in a final presentation and in a project report.
As a closing event there is offered a two-day excursion to an alpine mountain hut in Tyrol. Here both the the pros and cons of the concepts developed by the students are discussed to give the students the opportunity to reflect on their own work and that of their fellow students. Also the island energy system of the alpine hut, consisting of PV, biomass and battery storage, is shown in order to experience a realization of such a low-budget energy system.

Media:
- Practical presentation of components using PowerPoint slides and scripts for the subsequent experiments (practical events)
- PowerPoint slides to define the milestones
(milestone meetings)
- Final presentation using PowerPoint
- Project report using Word or Latex

Reading List:
- Engineers without Borders UK in 2014 - Engineering in Development
- Scripts for each practical event
- Other thematic literature on the recommendation of the speakers of the lecture series

Responsible for Module:
Hamacher, Thomas; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Interdisziplinäres Projektpraktikum Konzeptentwicklung eines Erneuerbaren Energiesystems in einem Entwicklungsland (Forschungspraktikum, 4 SWS)
Hamacher T, Cadavid Isaza A, Elyasi S, Erhart M, Rane D
For further information in this module, please click campus.tum.de or here.

Module Description

LS50000: International Climate Strategies / UNFCCC | International Climate Strategies / UNFCCC

Version of module description: Gültig ab winterterm 2021/22

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 90	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
For this module, students will give a presentation (ca. 30 min, 30% of final grade), contribute to a blog (10% of final grade) about the COP conference, and submit a written term paper (ca. 15 pages, 60% of final grade).
The purpose of the presentation is to display students' ability to conduct research independently and to present results in a professional manner, using PowerPoint or an equivalent presentation software. The blog about the COP conference will indicate students' evolving knowledge of and insights into ongoing discussions and relevant topics at the COP. In their term paper, students shall demonstrate their ability to conduct an in-depth analysis of a case study on respective climate strategies and politics and UNFCCC involvement as related to climate change adaptation, mitigation and sustainability challenges. Students have the opportunity to alternatively choose for a nation or group of actors or a thematic topic (such as climate finance or climate justice) for their written paper. They shall establish their analytical competence with regards to current problems and transdisciplinary connections between international climate politics and domestic circumstances, including available environmental resources.

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
The module International Climate Strategies / UNFCCC comprises following topics:
- Climate politics as an integrative part of environmental policy
- Evolution of climate negotiations under the UNFCCC and related actors' strategies

- UNFCCC design and processes, also practically experienced as part of an NGO observer delegation to COP negotiations
- Dynamics of international climate negotiations in times of crisis
- Interactions between country delegations and NGO observer delegations
- Climate change mitigation, adaptation, finance and loss & damage
- Climate justice
- National climate change adaptation and mitigation policies and their relation to international climate policy
- National climate policies' embeddedness in and relations to natural environmental resources and resulting sustainability options, such as LULUCF

Intended Learning Outcomes:
After participating in the module, students will be able
- to identify history, key concepts, actors, their strategies, and discourses in the UNFCCC process and related national climate policy debates and be exposed to negotiation theories and tactics
- to apply methods of comparative analysis to climate politics at the national and international levels and test theoretical concepts with empirical research/field study methods
- to have a deeper understanding of different aspects of climate change politics, such as mitigation, adaptation, finance, and loss & damage
- to apprehend the political challenges and opportunities embedded in big transformations, such as the one required to address the current climate crisis
- to identify climate change related national environmental and socioeconomic factors, such as geography, natural resources, impacts and mitigation options, and to develop and understand their relationship to climate strategies of (group of) actors

Teaching and Learning Methods:
The module is comprised of a seminar and an excursion (either in person or online) to a UN Climate Conference (COP). Students will participate in a TUM delegation as NGO observers and attend one of the two weeks of a COP conference. Students who are unable to physically attend the COP conference will be expected to follow the conference online as the conference proceedings are live-streamed.
Two excursions will be offered of one week length each to allow as many students as possible to actively participate, pending the number of eligible places. Note: Excursion costs (flight, accommodation, food) will not be covered by TUM. It is recommended to have international health insurance. Accident insurance is provided in accordance with section VII of the German Social Security Code (SGB VII).
The seminar is divided into two parts – a preparatory pre-excursion and a follow-up post-conference debriefing and analysis. In the preparatory part, the students read relevant introductory literature on the UNFCCC and international climate science and politics. Students will prepare short presentations based on the reading materials, which will serve as the foundation for discussions with the whole group (Guided Reading). In the post-conference period, students will obtain a deeper understanding of the module's topic through general discussion about what was learned regarding the climate negotiations and side events (as observed during the excursion or online) as well as independent/group work on concrete examples. Students will analyse, evaluate

and interlink national climate policies to the natural science of climate change and environmental sustainability as perceived in the different regions / nations or for actor groups. The students will prepare and hold related presentations and actively discuss the international context.

Media:
Seminar talks and discussions (both online over ZOOM and in presence), PowerPoint presentations, online blog on COP experiences, TUM Moodle, Earth Negotiations Bulleting (ENB) Newsletter

Reading List:
• Guri Bang, Arild Underdal, & Steinar Andresen, eds. The Domestic Politics of Global Climate Change: Key Actors in International Climate Cooperation (Cheltenham, UK 2015).
• Jon Hovi & Tora Skodvin, eds. Climate Governance and the Paris Agreement. Special Issue, Politics and Governance, Open Access Journal, Vol. 4, No. 3 (2016).
• Falkner, R. (2013) Handbook of Global Climate and Environment Policy, Chichester: John Wiley & Sons Inc.
• David Coen, Julia Kreienkamp & Tom Pegram (2020) Global Climate Governance, Cambridge: Cambidge University Press.
• National Communications under the United Nations Framework Convention on Climate Change.
• Repository of UN Documents

Responsible for Module:
Menzel, Annette; Prof. Dr. rer. silv.

Courses (Type of course, Weekly hours per semester), Instructor:
UNFCCC / COP Conference (Exkursion, 3 SWS)
Menzel A [L], Koppenborg F

International and National Dimensions of Climate Strategies in the Context of UNFCCC (Seminar, 3 SWS)
Menzel A [L], Koppenborg F, Menzel A
For further information in this module, please click campus.tum.de or here.

Module Description

LS50029: Internship | Internship

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 10	**Total Hours:** 300	**Self-study Hours:** 300	**Contact Hours:** 0

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
After completion of the 7-week internship (full-time), the students have to submit an internship report (a 10-page detailed report) and a confirmation of completion from the employer, in which the employer specifies the duration of the internship (including potential time of absence).

With the report, the students demonstrate that they are able to review critically the operational structures and procedures, to develop independently project proposals, to evaluate subject-specific tasks of principals and to reflect their personal competences for the practical work. They show additionally, that they can connect the different science issues of the Master's program with the practical application in the job.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Knowledge in the field of sustainable resource management according to the science and management-related outcomes of the Master's Program.

Content:
The internship delivers insights into various fields of business and research activities concerning sustainable resource management and into specific operation procedures of enterprises or organizations. It provides the possibility to explore the career options and to contact potential employers.

The internship must be completed during the course of your studies. Internships and other activities that were completed before the start of your study program as well as working student positions during the course of your studies cannot form the basis for the internship.

The internship consists of 280 hours of working time and 20 hours for the report. The internship period thus comprises at least 7 weeks (fulltime). The internship may be completed part-time for at least 20 hours per week.

The students have to look for an internship on their own and to plan it without getting in conflict with the lecture time.
The recommended time for the internship is the lecture-free period between the summer- and winter semesters (August – October).

The internship office can guide the selection of potential options. Those enterprises or organizations are recommended which are suitable as potential employers.

Organizational hints:
The processing of the internship has to be agreed with the Internship Office Weihenstephan in advance. Contact the office in time, i.e., several weeks before starting.
See: https://www.praktikantenamt-weihenstephan.bayern.de/237314/ index.php
Before starting the internship, an internship contract has to be concluded, which has to be agreed by the Internship Office Weihenstephan.

The internship must be completed during the course of your studies. Internships and other activities that were completed before the start of your study program as well as working student positions during the course of your studies cannot form the basis for the internship.

Intended Learning Outcomes:
After the successful completion of the internship, the students are able to link theory and practice, especially
- to apply their scientific knowledge and management competencies acquired in the master's program into practice in operational, strategic or scientific fields,
- to analyze and evaluate the functions and tasks of executive officers and managers in the area of sustainable resource management,
- to analyze and evaluate the operational, strategic and research-related structures and procedures, and
- to develop independently project proposals.

Additionally, they are able to apply their social skills received, especially
- to integrate confidently into enterprises or organizations by performing a new job and
- to communicate with colleagues, supervisors, and principals of enterprises or organizations in an adequate mode.

Teaching and Learning Methods:
The students take part in the daily routine of the enterprises or organizations during the internship.

According to the respective internship job, learning methods are applied like independently working on different tasks in the enterprise or organization, training of practical competencies during the

job execution, cooperating with colleagues, supervisors, and principals, implementing of tasks over a specific period, observing the mode of operation of principals and colleagues, writing documentation of own findings and experiences etc.

Media:
According to the internship job.

Reading List:
According to the internship job.

Responsible for Module:
Jositz-Pritscher, Ingrid, Dr. ge94cem@mytum.de

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

MGT001434: Introduction Remote Sensing in Life Science | Introduction Remote Sensing in Life Science

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 60	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination takes the form of a presentation (~15 min) on the case study carried out by the student, which is supplemented by a written report (4-5 pages). By presenting an individual case study based on their own interest, students prove that they understand the potential of image processing and analysis. They show that they are able to use open source software to perform remote sensing image processing and analysis. By conducting the case study based on their own interest, they show their ability to select remote sensing data and analysis approaches based on specific problems to be solved.
The written report (4-5 pages) is an integral part, but its purpose is to complement and reinforce the findings presented orally. In the report, students are expected to provide a detailed account of the methods used in their case study, together with the results and their interpretation. This dual assessment approach ensures a comprehensive evaluation of students' skills, with the oral presentation acting as the focal point for assessing their communication skills, understanding of remote sensing principles and ability to apply image processing techniques. Ultimately, the aim is to validate that students can effectively communicate their analytical processes and results, thereby enhancing their overall understanding of the subject for future applications in remote sensing projects.

The final grade will be an averaged grade from the presentation (60 %) and the written report (40 %).

Repeat Examination:
Next semester / End of Semester

(Recommended) Prerequisites:
Basic knowledge in R and GIS

Content:
Remote sensing is crucial in life sciences as it allows for non-invasive monitoring and assessment of the Earth's surface, enabling the study of dynamic biological processes, habitat mapping, and biodiversity monitoring. This course provides a comprehensive understanding of the theoretical and practical foundations of remote sensing, covering optical remote sensing, different sensor systems, properties of remote sensing data, and image processing and classification techniques. Emphasizing hands-on learning, this seminar includes practical applications. We will use open-source software and coding approaches throughout the course.
Understanding the importance of remote sensing in the life sciences, we'll explore its role in monitoring ecosystems, tracking changes in land use, and studying biodiversity patterns. This knowledge is central to advancing research in fields such as agriculture, ecology and environmental science.

Intended Learning Outcomes:
Remote sensing is crucial in life sciences as it allows for non-invasive monitoring and assessment of the Earth's surface, enabling the study of dynamic biological processes, habitat mapping, and biodiversity monitoring. This course provides a comprehensive understanding of the theoretical and practical foundations of remote sensing, covering optical remote sensing, different sensor systems, properties of remote sensing data, and image processing and classification techniques. Emphasizing hands-on learning, this seminar includes practical applications. We will use open-source software and coding approaches throughout the course.
Understanding the importance of remote sensing in the life sciences, we'll explore its role in monitoring ecosystems, tracking changes in land use, and studying biodiversity patterns. This knowledge is central to advancing research in fields such as agriculture, ecology and environmental science.

Teaching and Learning Methods:
The course is designed in a non-traditional way and is conducted as a weekly 4 SWS seminar. Each class starts with an introduction to the key concept of that day's topic. To reinforce the theory and make it applicable, the topic is then explored in depth through a practical session.
Towards the end of the semester, students will conduct a mini case study based on their interests where they apply the methods and concepts discussed during the course. At the end of the semester, students will give a presentation and hand in a report on their mini-case studies.

Media:
PowerPoint

Reading List:
Wegmann M. et al. (2016). Remote Sensing and GIS for Ecologists: Using Open Source Software. ISBN: 9781784270223

Responsible for Module:
Cabernard, Livia; Prof. Dr.sc. ETH Zürich

Courses (Type of course, Weekly hours per semester), Instructor:
Introduction Remote Sensing in Life Science (MGT001434, englisch) (Seminar, 4 SWS)
Schlosser V
For further information in this module, please click campus.tum.de or here.

Module Description

WZ4225: Concepts and Research Methods in Ecology | Konzepte und Forschungsmethoden der Ökologie

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 60	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination is a written exam (180 minutes). In the written exam, students demonstrate that they have understood the terms, concepts, and ecological mechanisms presented, the basic principles of biogeochemical cycles, and the role of anthropogenic influences on individual organisms, populations, and biotic communities. They will be able to explain these and illustrate them with their examples. In addition, the concepts introduced in the course should be applied to species conservation problems (e.g., land use scenarios). Finally, students should demonstrate that they can analyze and evaluate ecosystem and resource management questions about the composition of species communities.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic lecture in the field of biology (physiology, evolution)

Content:
The module is divided into two parts (“Introduction to Ecology” and “Community Ecology”). The lecture “Introduction to Ecology” is dedicated to the basics of ecology and includes sessions on auto-, population-, community- and functional ecology as well as global material cycles.
The exercise “Community Ecology” analyzes biological communities, records biological diversity, and investigates human influence on biological communities.

Intended Learning Outcomes:
After successfully completing the module, students will be able to define important terms in auto- and population ecology, community ecology, and global ecology and discuss the role of ecology in solving applied problems. Students can describe basic ecological and evolutionary terms,

concepts, and mechanisms, e.g., dispersal, speciation, evolution of traits, microbiome, population dynamics, niche theory, natural selection, competition, predation, and mutualism in their own words. In addition, they understand the basic principles of biogeochemical cycles influenced by human land use and climate change and can discuss the causes and consequences of the current biodiversity crisis.

Teaching and Learning Methods:
The module is designed to engage students through varied active learning activities. The sessions are organized according to a recurring structure: Inputs are in the form of lectures, followed by applied sessions with exercises, reading of scientific articles followed by discussions and/or debates. Key concepts will be introduced in the lectures, while the active learning activities will focus on deepening selected topics and consolidating the understanding of the concepts introduced in the lectures.

Media:
Moodle, lectures (and associated set of slides), simulations on the computer

Reading List:
Ökologie: Begon, Michael ; Howarth, Robert W. ; Townsend, Colin R. 3. Auflage [2017] https://doi-org.eaccess.tum.edu/10.1007/978-3-662-49906-1

Ökologie Globale Einblicke und Untersuchungen 2012 Peter Stiling New York Mc Graw Hill https://archive.org/details/EcologyGlobalInsightsAndInvestigations2012PeterStilingNewYorkMcGrawHill120mb.

Responsible for Module:
Weißer, Wolfgang; Prof. Ph.D.

Courses (Type of course, Weekly hours per semester), Instructor:
Introduction to Ecology (Vorlesung, 2 SWS)
Meyer S [L], Meyer S, Mak B

Community Ecology (Übung, 4 SWS)
Weißer W [L], Meyer S, Weißer W

Community Ecology (Übung, 4 SWS)
Weißer W [L], Meyer S, Weißer W
For further information in this module, please click campus.tum.de or here.

Module Description

LS10013: Modelling and Statistical Analysis of Large Arrays | Modelling and Statistical Analysis of Large Arrays [MASALA]

Evaluating climate projections, remote sensing data, and vegetation model output

Version of module description: Gültig ab winterterm 2023/24

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment type is a graded learning portfolio (100%), typically comprising 12 solutions (each approx. 1-2 pages) of exercises posed during the presence phase. In the portfolio students' record their individual learning progress and reflect their way of conduct and applied methods. Thus, the portfolio documents students' understanding and perception of module contents as well as their self-dependent approach during the self-learning phase, allowing for directly assessing whether the learning outcomes have been reached. Optionally, students may provide an oral presentation (10 min) of one portfolio entry as a mid-term assessment in accordance with APSO §6 Abs. 5 which may allow for a 0.3 improvement in the module degree in case the overall examination would have been passed regardless of the 0.3 improvement. There is no re-examination option for the mid-term assessment. In case the overall module examination is re-taken, a successful mid-term assessment will be accounted for.
For the grading, each of the typically 12 provided solutions is rated individually with a maximum of 10 points per solution. For the final grading, the points of individual solutions are added up and set in relation to the maximum number of achievable points (typically 120).

Repeat Examination:
Next semester / End of Semester

(Recommended) Prerequisites:
Fundamentals of programming (e.g. R, Python)
Fundamentals of climatology, remote sensing, and ecophysiology
Modules taken previously which are required for participation:
Modules taken previously which are helpful for participation:
Climate Change – The complete briefing
Introduction to ecological modelling

Modelling and simulation of ecological systems
Environmental Monitoring and Ecological Data analysis

Content:
Tackled contents comprise:
1. Specifics of a programming language (e.g. R, Python)
2. Efficient programming syntax in context of dealing with raster-based data
3. Statistical evaluation of climate data and projections, and their effects (e.g. CRU, CMIP)
4. Preprocessing of remote-sensing data (e.g. MODIS, Sentinel)
5. Evaluation and interpretation of simulation results from a dynamic vegetation model
6. Visualization of raster-based data (e.g. maps, histograms, scatterplots)
7. Quantification of statistical and causal relationships among land-surface processes
8. Interpretation of results from analyses
9. Critical reflection/falsification of deployed statistical methods
10. Documentation of learning progress within a learning portfolio (e.g. in R)
11. Presentation and discussion of methods and learning outcomes

Intended Learning Outcomes:
Upon successful completion of the module, students are able to process large, raster-based data related to climatology, climate- and land-surface models, and remote sensing by means of a programming language (e.g. ‘R’ or Python). Using basic statistical means, students are able to analyze large data-sets and correctly interpret derived results. They are able to display the results in plots, diagrams, and tables. Moreover, students have developed a profound understanding of key land-surface processes as well as dynamic vegetation- and land-surface models. Students are able to document their methodological approach and results in a report. Furthermore, students are able to present their learning progress and analyses results in a short presentation. They are able to critically evaluate the short presentations of their class mates. The students are able to self-dependently and efficiently develop solutions for newly posed questions in context of evaluating raster-based data. They are able to independently find solutions for the work steps.

Teaching and Learning Methods:
The module consists of an exercise. The exercise consists of a synchronous in-presence phase (4 SWS) and an asynchronous self-learning phase (6 h per week). During the presence phase, new programming routines for the efficient evaluation of raster-based data are taught and related exercises are posed. These exercises are independently solved by students during the self-learning phase and documented in an individual learning portfolio. Per teaching unit individual learning portfolios are presented and discussed. For this purpose, teaching portfolios are sent to the lecturers prior to a teaching unit, allowing for preparation of the evaluation and discussion in class. At the beginning of each teaching unit, selected participants briefly present their most recent portfolio entry which is then discussed in plenum. Constructive suggestions for improvement posed by the class-mates and lecturers point out potentials for improvement for the methodological approach and/or the documentation in the portfolio. At the end of the semester, all students have produced their individual learning portfolio, in which the programming routines, the interpretation of achieved results, and the individual learning progress are recorded. On the one hand, the portfolios

provide the lecturers detailed insights into the learning progress of the students as well as their individual understanding of contents tackled, allowing for judging whether the learning outcomes have been achieved. On the other hand, the portfolios eventually provide the students with a detailed documentation of the exercise, which may serve as a guideline for future programming exercises (e.g. in context of the M.Sc.-thesis).

Media:
To convey the theoretical fundamentals and discuss the individual learning achievements of the students, power-point presentations will be deployed. The required programming skills interactive exercises using PCs and laptops will be exemplified ‘hands on’ using case studies. Those skills are then elaborated by self-dependently solving posed exercises during the independent self-learning phase.

Reading List:
Fundamentals of plant ecophysiology: Lambers and Oliveira, 2019: Plant Physiological Ecology.
Fundamentals of remote sensing: Lillesand et al., 2014: Remote Sensing and Image Interpretation.
Fundamentals of ‚R‘: Crawley, 2014: Statistics: an introduction using R.
Fundamentals of climate- and land-surface modelling: F. Stuart ChapinIII, Pamela A. Matson, Peter M. Vitousek, 2011: Principles of Terrestrial Ecosystem Ecology

Responsible for Module:
Rammig, Anja, Prof. Dr. rer. nat. anja.rammig@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Modelling And Statistical Analysis of Large Arrays (Übung, 4 SWS)
Rammig A [L], Buras A, Rammig A
For further information in this module, please click campus.tum.de or here.

Module Description

BGU38023: Engineered Natural Treatment Systems | Natürliche Aufbereitungsverfahren

Version of module description: Gültig ab winterterm 2016/17

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The proof of performance will be made in the form of a 60-minute written exam. The aim of the written exam is to prove understanding of basics and mechanisms of natural treatment systems and the ability to plan and design simple systems based on natural treatment processes by using existing guidelines. The answers mostly require partly own formulations, but also ticking given single or multiple answers and short calculations will be required. For the exam no aids are permitted except for a non-programmable calculator. The examiner will provide additional documents if needed for the exam.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Water and Wastewater Treatment Engineering

Content:
This module deals with processes and application of engineered natural treatment systems. Major abiotic and microbial transformation processes will be discussed in general and with respect to different applications including vertical flow and horizontal flow constructed wetlands, bank filtration and different applications of managed aquifer recharge technology. In addition, students will learn basics on enzymatic processes and reactions. The module also comprises engineering aspects for design and operation of engineered natural treatment systems as well as contents from ongoing research towards optimization of these systems and combinations with other treatment processes for water reuse.

Intended Learning Outcomes:
Upon successful completion of this module, students are able

• To describe major mechanisms and key parameters for contaminant removal in natural treatment systems
• To explain microbial and enzymatic processes and their dynamics in natural treatment systems
• To outline design of wastewater treatment with constructed wetlands for small communities based on local parameters
• To characterize methods and applications of bank filtration and groundwater recharge and discuss their potential for application in future water concepts

Teaching and Learning Methods:
Lehr- und Lernmethoden:
The module will be teached as a seminar by explaining major content in form of short lectures with integrated discussion. Furthermore, students will work in groups to develop solutions for selected case studies within the seminar. Additional field trips will help to further understand learned contents.

Media:
Presentation, group work

Reading List:
Will be announced at the beginning of the course.

Responsible for Module:
Hübner, Uwe (u.huebner@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:
Natürliche Aufbereitungsverfahren (Seminar, 2 SWS)
Aumeier B
For further information in this module, please click campus.tum.de or here.

Module Description

ED160017: Sustainable Manufacturing | Nachhaltige Produktion [SuM]

Version of module description: Gültig ab winterterm 2022/23

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 105	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination is held as a written exam (90 min) in order to be able to check the learning outcomes achieved by means of short and comprehension questions as well as complex application examples and calculation tasks. A non-programmable calculator can be used as an aid. The students calculate, among other things, various technically and economically relevant sustainability variables and parameters on the basis of given practical examples.
Thus the learning outcomes examined include basic aspects on awareness of the need for sustainable production, sustainability in the context of production, the holistic view of sustainability, manufacturing engineering measures, as well as assessment and measurement and standardisation of sustainability in production. In addition, the topics of sustainable design and use of products, energy and resource efficiency in production, social sustainability in production, data-based sustainability assessment in production and industrial circular economy are examined.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Knowledge of the basics of production and related areas (logistics, product development, etc.) is recommended but not mandatory.

Content:
The module covers all relevant aspects regarding the topic “sustainable manufacturing” including a general overview, ways of assessing sustainability and methods to improve sustainability in an industrial context.
Lecture units:
• Sense of urgency: Why do we need to act now?
• Sustainability in the context of manufacturing
• Thinking sustainability holistically

• Manufacturing technology measures
• Evaluate, measure and standardize sustainability in manufacturing
• Sustainable design and use of products
• Energy and resource efficiency in production
• Social sustainability in production
• Data-based sustainability assessment for manufacturing
• Industrial circular economy
The module also includes exercise units, e.g. how to conduct an LCA, how to follow ISO 14001 for sustainability assessments, practical exercise on system thinking, group activity (develop suggestions for improvement of sustainability for an exemplary company).

Intended Learning Outcomes:
After attending the module, students can understand the importance of addressing the topic of sustainability, understand the fundamentals of sustainable manufacturing, evaluate the possible technical lever in a production that can be addressed to increase sustainability, analyze products regarding the potentials for being produced more sustainably, apply the concept of system thinking on sustainable manufacturing, and apply methods to measure sustainability.

Teaching and Learning Methods:
The module takes place in the form of a lecture and an exercise. In the lecture, the basics of sustainable production are explained using PowerPoint presentations. The basics of sustainable production are deepened by means of use cases, expert presentations and practical application examples. In this way, participants learn, for example, how to carry out a life cycle assessment, how to follow the standards of ISO 14001 for sustainability assessments, or how to use systems thinking to find solutions. The lecture is rounded off by guest lectures from industry in order to give students an insight into current industrial issues relating to sustainability in production.

In the exercise, the methods and concepts learned in the lecture are applied to concrete examples. The participants can create solution concepts directly with the exercise instructor and thus apply what they have learned directly to industrial or academic practical examples. They thus learn, for example, how energy and resource efficiency in production can be increased, how social sustainability in production can be integrated into production management, or which measures need to be taken for data-based sustainability assessment in production.

Media:
Presentations, Videos, Additional Literature

Reading List:
• Neugebauer (2014): Handbuch Ressourcenorientierte Produktion. Hanser. ISBN: 978-3-446-43008-2
• Garbie (2016): Sustainability in Manufacturing Enterprises. Springer. ISBN: 978-3-319-29304-2
• Stark et al. (2017): Sustainable Manufacturing. Challenges, Solutions and Implementation Perspectives. Springer. ISBN: 978-3-319-48513-3
• Meadows (2008): Thinking in Systems. Chelsea Green. ISBN: 978-1603580557

• DIN EN ISO 14040: Umweltmanagement – Ökobilanz – Grundsätze und Rahmenbedingungen
• DIN EN ISO 14001: Umweltmanagementsysteme – Anforderungen mit Anleitung zur Anwendung

Responsible for Module:
Zäh, Michael; Prof. Dr.-Ing.

Courses (Type of course, Weekly hours per semester), Instructor:
Sustainable Manufacturing (Vorlesung, 2 SWS)
Zäh M, Wörle M (Reinbold N, Schneider D), Wagner S

Sustainable Manufacturing - Exercise (Übung, 1 SWS)
Zäh M, Wörle M, Wagner S
For further information in this module, please click campus.tum.de or here.

Module Description

WI001215: Network and stakeholder analysis: Sustainable resource use and agri-food system | Network and stakeholder analysis: Sustainable resource use and agri-food system

Version of module description: Gültig ab winterterm 2019/20

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
There will be a 120-minute written exam. A written exam is necessary in order to assess the holistic understanding and analytical competencies of the students. In the exam, students will describe, discuss and analyze the concepts, dimensions and methodological approaches related to network and stakeholders in sustainable resource management and agri-food sector.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in cooperation and sustainability

Content:
The module deals with the theoretical concepts, methodologies and measurement indicators and approaches of networks and stakeholders for sustainable resource management and agri-food system. Specific topics include the following:

• Network and stakeholder theories and concepts to understand, describe and explain the structure, characteristics, interactions among networks and stakeholders

• Concepts and approaches to examine network and stakeholder compositions, engagements, conflicts and influences in designing and implementing strategic decisions related to sustainable innovation, resource management and agri-food system.

• Types, levels and extents of risk associated with stakeholder engagement in implementing sustainability related projects and programs

• Specific methodological approaches, tools and indicators to evaluate and prioritize the performances, outcomes and implications of different network and stakeholder constellations.

• Other relevant current network and stakeholder issues in sustainable innovation, resource management and agri-food system.

Intended Learning Outcomes:
After completing the module, students are able to
• understand the theories, concepts, principles and frameworks underlying network and stakeholder issues, influences and collaborations for sustainable innovation, resource management and agri-food system
• apply relevant techniques and tools for describing social, economic, environmental and institutional contexts of network and stakeholder management and engagement policies and strategies towards achieving specific sustainable goals.
• analyze types, levels and extent of risks associated with stakeholder engagement and commitment in implementing sustainability related projects and programs

• critically assess and evaluate the structure, characteristics, and impacts of various forms of networks and stakeholder groups on the outcomes of sustainable resource management, innovation and agri-food system.

Teaching and Learning Methods:
The module includes lectures, individual and group exercises, reading assignments, and presentations. The lectures will provide theoretical and conceptual basis. Individual and team exercises will be used to analyze and discuss specific network and stakeholder issues and their solutions.

Media:
Präsentationen, Fallbeschreibungen, Skripte

Reading List:
Freeman, R.E (1984). Strategic Management: A stakeholder Approach. Boston.
Prell, C., K. Hubacek and M. Reed (2009). Stakeholder analysis and social network analysis in natural resource management. Society & Natural Resources 22(6): 501-518.
Chiffoleau, et al. (2014) Understanding local agri-food systems through advice network analysis. Agric Hum Values, 31:19–32
Lange, P. et al. (2015). Sustainability in Land Management: An Analysis of Stakeholder Perceptions in Rural Northern Germany. Sustainability, (7): 683-704.
Reed, M. S. et al. (2009). Who's in and why? A typology of stakeholder analysis methods for natural resource management.Journal of Environmental Management 90(5): 1933-1949.

Mcadam, et al. (2016). Regional Horizontal Networks within the SME Agri-Food Sector: An Innovation and Social
Network Perspective. Regional Studies, 50(8): 1316–1329
Katz, N. et al. 2004. Network Theory and Small Groups. Small Group Research, 35(3): 307-332.
Sandström, A. and C. Rova (2010). Adaptive co-management networks: A comparative analysis of two fishery conservation areas in Sweden. Ecology and Society 15(3): 14.
Bixler, et al. R (2016). Network governance for large-scale natural resource conservation and the challenge of capture. Frontiers in Ecology and the Environment 14(3): 165-171.
Bixler, R. P. et al.(2016). Networks and landscapes: A framework for setting goals and evaluating performance at the large landscape scale. Frontiers in Ecology and the Environment, 14(3): 145-153.
Ernstson, et al. (2010). "Scale-crossing brokers and network governance of urban ecosystem services: The case of stockholm." Ecology and Society, 15(4): 28.
Muñoz-Erickson, T. A. and B. B. Cutts (2016). Structural dimensions of knowledge-action networks for sustainability. Current Opinion in Environmental Sustainability, 18: 56-64.
Wubben, E. and Gohar Isakhanyan. (2011). Stakeholder Analysis of Agroparks. Int. J. Food System Dynamics 2(2), 2011, 145#154.
The list will be expanded and updated using other thematically relevant books, journal articles and periodical newsletters and others.

Responsible for Module:
Abate Kassa, Getachew; Dr. rer. hort.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ0322: Ecological Colloquium: Scientific Foundations and Applications in Practice | Ökologisches Kolloquium: Wissenschaftliche Grundlagen und Anwendungen in der Praxis [SciTravels]

Overview of current research topics from local to global

Version of module description: Gültig ab winterterm 2023/24

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination consists of a written report (report of approx. 10 pages; 75% of the grade) and is supplemented by a presentation (approx. 20 min.; 25% of the grade). In the presentation, students should demonstrate that they can independently research and professionally present their findings. Through the written report, students should demonstrate that they can communicate specialized knowledge about ecology, conservation, biodiversity, sustainability, and resource use in writing. Students should also demonstrate that they can evaluate current problems and research questions as well as transdisciplinary connections between research, planning, nature conservation and environmental protection, politics and society in this subject area.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Depending on the topic, basic knowledge of landscape- , vegetation- , wildlife- , forest- or soil ecology, as well as climatology and land use is necessary.

Content:
The module consists of a seminar and a series of guest lectures by internationally or nationally renowned scientists. The guest lecturers presented selected topics on ecology, nature conservation, biodiversity, and sustainability research.

Students prepare for the lecture by reading the guest's publications and related studies. As part of the seminar, they introduce the respective guest and the topic and discuss the presentations in comparison with other contributions.
They also document how the specialist content is prepared and presented. Based on publications on the lecture topics and presentations, the students analyze the methods and techniques used by the scientists to convey their specialist content. This is done in a written report, which is produced at the end of the seminar.

Intended Learning Outcomes:
Upon successful completion of this module, students will be able to,
- understand sophisticated technical knowledge on diverse topics in the field of ecology, nature conservation and sustainable resource production and use;
- evaluate the quality of presentations by internationally or nationally recognized experts on selected topics in ecology, nature conservation, biodiversity and sustainability research according to methods and techniques, content and form;
- conduct research on the biography and professional focus of researchers, and
- present the results of their analysis and research efficiently and appropriately in a written report and to present and critically discuss them in a presentation.

Students will thus be able to critically evaluate current problems and research questions as well as transdisciplinary connections between research, planning and management, conservation and environmental protection, politics and society.

Teaching and Learning Methods:
The students prepare for the respective lectures by reading the publications of the visiting scientists and related studies. In a written report, they document how the technical content and other scientific topics are prepared and discussed. Building on the guests' CVs, publications and lectures, the students analyze the methods and techniques the scientists use to convey their specialist content. By critically analyzing publications and specialist lectures, students learn how scientists communicate their results to the public. By comparing and discussing several guest lectures as part of the seminar, students learn the essential techniques for efficiently conveying specialist knowledge verbally and in writing. The combination of oral presentation and written report meets the requirements profile of graduates in the professional fields of ecosystem management, nature conservation, landscape planning and public relations.

Media:
PowerPoint presentations, script, original scientific articles, students' own presentations.

Reading List:
Topic-specific literature for the seminar will be announced.

Responsible for Module:
Leonhardt, Sara Diana; Prof. Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Weihenstephaner Kolloquium zur Angewandten Ökologie und Planung (Kolloquium, 2 SWS)
Häberle K, Kollmann J, Seidl R, Annighöfer P, Leonhardt S, Pauleit S, Grams T, Rufino M, Geist J, Menzel A, Rammig A, Egerer M, Schloter M

Seminar Wissenschaftliche Grundlagen und Anwendungen in der Praxis (Seminar, 2 SWS)
Leonhardt S [L], Kollmann J, Häberle K
For further information in this module, please click campus.tum.de or here.

Module Description

WZ6407: Urban Ecology | Ökologische Stadtentwicklung

Version of module description: Gültig ab summerterm 2018

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assignment consists of a presentation (15 min) with a written report (appr. 20 pages). Students demonstrate in their presentation understanding of the tasks of urban ecology and knowledge of urban ecological theories and methods. They are able to apply this knowledge in a case study to develop a strategic approach for ecologically oriented urban planning for a chosen topic.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in landscape ecology and landscape planning are an advantage but no prerequisites.

Content:
Cities are good for people – but are they also good fort the planet? The module explores the potentials for ecological restructuring and sustainable development of cities focussing on the role of the urban landscape. The module is comprised of a series of lecture and a seminar. It introduces knowledge and methods of urban ecosystem research and urban ecological planning. The module may comprise the following topics: Challenges of global urbanisation for urban ecology, theory and principles of urban ecological planning; management of urban metabolism and resources (urban climates, water, soils and biodiversity), adaptation of cities to climate change, green infrastructure planning, green compact cities, ecological restructuring of shrinking cities, urban agriculture, urban forestry, community involvement.

Intended Learning Outcomes:
On successful completion of the module, participants should:
1. understand core theories and methods of urban ecology

2. understand and have acquired knowledge on important tasks for urban ecology in urban development such as planning for urban climates, local stormwater management, soil protection, biodiversity, and climate change adaptation
3. be able to analyse and assess strategies for urban ecological planning 4. be able to transfer and apply ecological theories and methods in a project excerxise for developing a strategy for urban ecological development

Teaching and Learning Methods:
The module is comprised of a lecture series and a seminar. The lectures series introduces knowledge on urban ecology with regards to topics such as: ecological challenges of urbanisation; urban landscapes and their ecosystem services; urban soils and their protection; urban climates; climate change adaptation; water; urban metabolism.The seminar aims to transfer this knowledge for developing an ecological strategy at the neighbourhood scale. To this end, the seminar is offered as a project work for small groups.

Media:
Powerpoint, modelling software, exercise sheets

Reading List:
Literature:
Niemelä J. et al., 2011. Handbook of Urban Ecology. Oxford University Press , Oxford, UK.

Further thematic reading will be made available in connection with the lectures and the seminar

Responsible for Module:
Stephan Pauleit pauleit@wzw.tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Ökologische Stadtentwicklung (Vorlesung, 2 SWS)
Pauleit S

Seminar zur ökologischen Stadtentwicklung (Seminar, 2 SWS)
Pauleit S
For further information in this module, please click campus.tum.de or here.

Module Description

EI74831: Project Lab Renewable and Sustainable Energy Systems | Project Lab Renewable and Sustainable Energy Systems [PropENS]

Version of module description: Gültig ab winterterm 2018/19

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Participants of the Project Lab Renewable and Sustainable Energy Systems should carry out analyses, planning and applications about renewable energy systems and their modelling.
A team of 3-5 students should achieve a goal defined for the group over the duration of the lecture period of the semester within the framework of the project work. The problem definition, role distribution, idea development as well as the choice of suitable instruments, implementation and documentation are to be developed essentially independently by the group. The essential aspects of the work within the framework of the project internship (e.g. essential scientific contents, the treatment of a task as a completed project, division of the task among the group members) should be documented in a written report (volume: 15-20 pages).
In a supplementary presentation, the competence of the students to present their work in a structured way in a small seminar in front of an audience consisting of staff members of the chair and students will be examined. Overall, competencies in project work in the team as well as in documentation and presentation of the work should be demonstrated. The report is included in the grade with 40 %, the presentation and the cooperation in the team with 30%.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge about:
- Power systems
- Renewable energies (potentials, technologies)
- Matlab / Simulink

Content:
These are research-related and practice-oriented tasks whose topics are in line with the current research areas of the chair, such as:
- Modeling, simulation and / or regulation of energy systems
- Investigation of the potential of renewable energies
- Analysis and generation of data for energy systems
- Evaluation and interpretation of model results
- Planning and installation of plants for the use of renewable energies on the Campus Garching

Intended Learning Outcomes:
After successfully completing the module, the student is - depending on the topic - able to:
- recognize challenges of integrating renewable energies,
- apply and implement appropriate tools and methods to analyze, plan or regulate energy systems,
- interpret and evaluate results from applied models.

Teaching and Learning Methods:
Project tasks are carried out individually or preferably in groups of 2-4 students. In the process, self-dependence respectively teamwork is supported in the processing of a project task. Depending on the topic, a literature research may be necessary. The main part of the project internship, however, is the computer-aided development of analysis and evaluation tools or the planning and execution of laboratory tests or installations.
The participants will finally have the opportunity to practice preparing and holding presentations.

Media:
- Application of various programs or programming languages (Matlab / Simulink, Python, etc.)
- Test benches (renewable energy conversion plants, real-time simulator, measuring instruments)
- Presentations

Reading List:
Konstantin, Panos: Praxisbuch Energiewirtschaft - Energieumwandlung, -transport und -beschaffung, Übertragungsnetzausbau und Kernenergieausstieg, Springer Vieweg, Springer-Verlag GmbH Deutschland, eBook ISBN 978-3-662-49823-1, DOI 10.1007/978-3-662-49823-1, Hardcover ISBN 978-3-662-49822-4

Wagner, Ulrich; Heilek, Christian (Bearb.): Nutzung regenerativer Energien (Vorlesungsskript), 10., vollständig überarbeitete Auflage, Herrsching, E & M, Energie-&-Management-Verl.-Ges., 2009, ISBN: 978-3-9805179-3-5

The Power of Transformation - Wind, Sun and the Economics of Flexible Power Systems, International Energy Agency, OECD/IEA, 2014, France, ISBN: 978 92 64 20803 2

Hillier, Frederick S., Lieberman, Gerald J.: Introduction to operations research, New York, McGraw-Hill Education, 2015, ISBN: 978-0-07-352345-3, 0-07-352345-3, 978-0-07-126767-0, 978-1-259-25318-8, 1-259-25318-X

Responsible for Module:
Hamacher, Thomas; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Projektpraktikum Erneuerbare und Nachhaltige Energiesysteme (Forschungspraktikum, 4 SWS)
Hamacher T, Kuhn P, Döpfert M, Breuning L, Cadavid Isaza A, Kerekes A
For further information in this module, please click campus.tum.de or here.

Module Description

LS60021: Places of Change – Education for Sustainable Development Outside the Classroom | Places of Change – Education for Sustainable Development Outside the Classroom

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 105	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination takes the form of a project work in which students work in groups to design a specific ESD program, carry it out in practice and then prepare and evaluate it in writing. The project work is divided into the following components: peer feedback during the process of finding ideas (10% of the grade), practical implementation (20% of the grade), written report (approx. 6 - 8 pages, 50% of the grade), written evaluation and reflection (approx. 2 pages, 20% of the grade).

In the course of the module, students work in groups to design an ESD program for a target group of their choice under the guidance of the lecturer and with the help of peer feedback (10% of the grade) and implement it outdoors in an authentic situation. The practical implementation should demonstrate that a technically and didactically sound educational offer for the target group can be developed independently and implemented outdoors. The implementation takes place as a practical group examination, lasting approx. 60 - 90 minutes depending on the size of the group (approx. 15 - 20 minutes per student, 20% of the grade). Subsequently, students are expected to prepare a written report (approx. 6 - 8 pages, 50% of the grade) on their ESD education program. The individual achievements of each student are to be marked in the report. In addition to the methodological and didactic implementation, the report should address the theoretical background and scientific findings and classify the student's own ESD offer in the context of sustainable development. In addition, the report should be followed by a written critical reflection and evaluation (approx. 1 - 2 pages, 20% of the grade) of the implemented ESD offer.

Repeat Examination:
Next semester / End of Semester

(Recommended) Prerequisites:
Participants should be willing to participate in outdoor lessons in various weather conditions during the winter semester. Basic knowledge and/or studies related to sustainability are an advantage, but not a prerequisite.

Content:
ESD means education for sustainable development. Development is sustainable when people worldwide, now and in the future, can live with dignity and develop their needs and talents while taking planetary boundaries into account. Such a social transformation requires strong institutions, participatory decisions and conflict resolution, knowledge, technologies and new behavioral patterns. ESD should enable people to reflect on the impact of their own actions on the world and to make responsible, sustainable decisions. (© BMBF)

The following contents and methods are part of the module:

- Education for Sustainable Development (ESD)
- Education Outside the Classroom
- Environmental Education, Global Learning, Transformative Learning
- Socio-Ecological Transformation
- Whole Institution Approach
- Resilience as a future skill
- Philosophical conversation as an ESD-method
- Human-nature-relationship
- Inclusion of Nature in Self Scale (INS-Scale) as a method to measure connectedness to nature
- LandArt and other types of active nature experiences

Intended Learning Outcomes:
After successfully completing the module, participants will be able to:
1. identify places of change that are suitable for Education for Sustainable Development (ESD) and outdoor education programs
2. understand the concept of the Whole Institution Approach
3. use the INS scale to measure closeness to nature and evaluate its role in sustainable action
4. implement ESD and outdoor education methods themselves with a target group
5. assess the role of ESD and outdoor education in the context of sustainable development
6. develop ESD and outdoor education programs for different target groups

Teaching and Learning Methods:
The interdisciplinary module is in its format as a project interactive and combines various learning methods. The content of the lessons is mainly actively developed, illustrated and deepened by the students in the form of presentations, group work, peer- feedback and discussions. Individual presentations by the teacher serve primarily to impart basic knowledge in the field of education for sustainable development. In the group work and discussions, the content, some of which has been prepared by students themselves, is deepened, critically examined and presented. The knowledge gained is put directly into practice within the module by students working in teams under guidance

of the teachers and by means of peer-feedback to develop an ESD offer for a target group of their choice and putting this into practice outside on site.

Media:
PowerPoint, flipcharts, films, virtual exchange in Zoom

Reading List:
BAIER, A.; MÜLLER, C.; WERNER, K. (2024): Unterwegs in die Stadt der Zukunft. Urbane Gärten als Orte der Transformation. transcript Verlag, Bielefeld
CORNELL, J. (2006): Mit Cornell die Natur erleben. Verlag an der Ruhr. Mühlheim
GEBHARD, U. (2020): Kind und Natur. Die Bedeutung der Natur für die psychische Entwicklung. 5. Aufl., Springer VS, Wiesbaden.
GEBHARD, U.; LUDE, A.; MÖLLER, A.; MOORMANN, A. (2021): Naturerfahrung und Bildung. Springer VS, Wiesbaden.
KOEDELPETER, T.; KREUZINGER, S.; SCHLEHUFER, A. (2022): Wandel braucht Bildung. Impusle, Konzepte und Praxis zur Bildung für nachhaltige Entwicklung. oekom Verlag, München.

Responsible for Module:
Egerer, Monika; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Places of Change – Education for Sustainable Development Outside the Classroom (Projekt, 3 SWS)
Endriß T
For further information in this module, please click campus.tum.de or here.

Module Description

MGT001437: Programming in Python for Business and Life Science Analytics | Programming in Python for Business and Life Science Analytics

Version of module description: Gültig ab winterterm 2023/24

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
This seminar is assessed by Project Work. Students have the option to either work with the real-life analysis examples we provide, such as cost optimization for a company, or choose topics related to business or life sciences that interest them for data collection, analysis, and enhancement.
The project work consists of a project report and a supplementary short presentation (shorter than 15 minutes) in week 8, in which each group must present their project´s initiation, problem definition, and role distribution (10% of the overall grade).
The project report is divided into two parts, with each group having to submit a group report at the end of the semester (Part A = 50% of the overall grade), together with the code developed during the project (20% of the overall grade). The group report is a maximum of 3,000 words (excluding appendices and references). Each student also submits an individual report of 500 words summarizing their contribution to the group work, their reflections, and possible areas for improvement (Part B = 20% of the overall grade).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Students should bring their own laptop to the seminar. Practical experience in programming of any language would be advantageous but not a must.

Content:
The aim of this seminar is to introduce students to the fundamentals of Python, a general-purpose programming language widely used in the application of Life Science Analytics and Business Analytics. The seminar will provide the skills for implementing your own algorithms as well as using the thousands of Python packages available for data analysis, modelling, inference, simulation,

prediction, forecasting, visualisation, optimization and decision support. During the seminar, students will be provided ample opportunity to practice their programming skills and obtain formative feedback. The seminar is focused on practical knowledge, examples, and Life Science analysis and business analysis, rather than learning general programming concepts only. The seminar is very much hands-on, with the ultimate goal of turning you into a versatile data analyst for business and life science applications.

Week Topics

1 Introduction and getting started with Python (Colab, github, VScode demonstration)
2 Conditionals and loops, Function, modules and exceptions
3 Object-oriented Programming (class)
4 Shallow vs deep copy, reading of and writing to files, variable number of arguments in functions
5 Numerical analysis I (Numpy)
6 Numerical analysis II (Pandas)
7 Data Exploration and visualization I (Kaggle, Matplotlib)
8 Group Presentation
9 Data Exploration and visualization II (Seaborn and other plot libraries)
10 Data processing and preparation in Python I (missing value handling)
11 Data processing and preparation in Python II
12 Introduction to machine learning with Python I
13 Introduction to machine learning with Python II
14 Introduction to machine learning with Python III
15 Prompt engineering for researchers and marketers

Intended Learning Outcomes:

At the end of the seminar, students are able to:

1. Read and write Python code and understand how to use Python packages.
2. Implement algorithms of moderate complexity in Python.
3. Understand the fundamentals of object-oriented programming using Python.
4. Understand how to implement simple data science and optimisation algorithms from the literature to tackle business and life science applications.
5. Develop their own algorithms to solve basic data science and optimization problems.
6. Use Python packages to solve complex analysis, visualization, and optimisation problems in business and life science.

The learning outcomes of the group work will be improved skills in working as a group, and improved communication and management report writing skills. For the individual presentation, the learning outcomes encompass refined skills in independent research, code development, and presentation techniques. These are practical skills that are transferable to team-focused work in general.

Teaching and Learning Methods:

The seminar each week will be delivered by face-to-face teaching, individual coding and feedback. Every seminar will have meticulously prepared code tasks, which students are required to complete within a specified time. Answers and solutions will be revealed half an hour before the end of the seminar. Note that during the seminar, using generative platforms like ChatGPT

for these tasks is discouraged. Students should rely on internet searches and reading relevant documents to produce workable code solutions. This is very important for beginners learning a programming language. Later on, when students have a more solid foundation in coding, they can use tools like GPT to tackle some more advanced tasks.
Material covered will be made available the week before the seminar. Students are suggested to look at the provided material prior to the seminar to avoid getting lost during the delivery as well as make learning as efficient as possible by asking questions on topics requiring clarity. Learning a programming language and being able to apply it to tackle analytics problems is like learning and using an actual new language. The only way this can be achieved is by sufficient practice.

Media:
Powerpoint, VScode, github, googlecolab

Reading List:
Core texts:

Python manual - https://www.python.org/doc/

A.B. Downey. Think Python: How to Think Like a Computer Scientist. O'Reilly, Media, Inc., 2012.

W. McKinney. Python for data analysis: Data wrangling with Pandas, NumPy, and IPython. O'Reilly Media, Inc., 2012.

S. Guido, A. Müller. Introduction to Machine Learning with Python: A Guide for Data Scientists. O'Reilly Media, 2016.

The seminar draws material from various sources but these three sources provide a nice overview of all the topics covered in the module.

Supplementary Texts:

E. Jones, E. Oliphant, P. Peterson, et al. SciPy: Open Source Scientific Tools for Python. http://www.scipy.org/, 2001-.

C.H. Papadimitriou and K. Steiglitz. Combinatorial optimization: algorithms and complexity. Courier Corporation, 1982.

C. Reeves and J.E. Rowe. Genetic Algorithms: Principles and Perspectives – A Guide to GA Theory. Kluwer Academic Publishers, 2003.

Responsible for Module:
Cabernard, Livia; Prof. Dr.sc. ETH Zürich

Courses (Type of course, Weekly hours per semester), Instructor:
Programming in Python for Business and Life Science Analytics (MGT001437, englisch) (Seminar, 4 SWS)
Shan Y
For further information in this module, please click campus.tum.de or here.

Module Description

MGT001443: Project Week 2024/25: Conflicts in Mining Critical Materials: Compromising in Sustainability Strategies | Project Week 2024/25: Conflicts in Mining Critical Materials: Compromising in Sustainability Strategies

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** one-time
Credits:* 4	**Total Hours:** 120	**Self-study Hours:** 60	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
To complete the course, students shall form groups representing different stakeholders and play their roles in the game set up in the class; then, make a presentation (50% of the grade) and write a group report (50% of the grade):
- showing their understanding of sustainability with respect to mining;
-their learning on costs, benefits, and challanges faced by a given stakeholder groups;
- conflicts and ways to find a compromise when it comes to mining strategies;
-importance of mining and its fair development.

Repeat Examination:

(Recommended) Prerequisites:
none

Content:
The course will consist of three parts, which allows for a type of experiment in how exposure to mining practices influences decision making. The first set of sessions will serve to introduce the topic and record “unexperience” and “noncollaborative” perspectives and decision choices on the mining problems presented. Next, students will be exposed actual mining practices, examine the conflicts (standing or past) onsite in visits to open-pit mines in Germany or Austria, and shall form their own views and opinions on the real-world challenges associated with sustainability in mining. Finally, the students return to the stakeholder roles to review their sustainability goals and weights assigned to them, negotiation strategies and impact oriented behavior.

Intended Learning Outcomes:
The module targets students of all backgrounds interested in understanding decision-making processes, challenges associated with choices, and divergence in perspectives on the sustainability goals, in particular, in extraction of critical metals and minerals. The course will explain environmental and societal costs of mining, alongside economic benefits, in the context of the increased demand for metals and materials brought about by decarbonisation goals. Participants will learn about different approaches for addressing the intricate challenges faced by German and global mining industries striving to provide critical resources.

Teaching and Learning Methods:
Students will engage in role-playing exercises to learn the perspectives of three major stakeholder groups, (1) affected communities, (2) upstream producers, i.e. mining operators, and (3) downstream industrial consumers, e.g., automotive companies. They will use the interactive multiobjective optimization (iMO) tool, we prototyped, to test their decisions exploring interest alignments and stakeholder conflicts, fostering deeper understanding of the multifaceted issues surrounding the extraction and consumption of critical materials.

Media:

Reading List:
1. Yakovleva, N., & Nickless, E. (Eds.). (2022). Routledge Handbook of the Extractive Industries and Sustainable Development. Abingdon, UK: Routledge.
2. Hatcher, P., & Grégoire, E. R. (2022). Governance of extractive industries. In Handbook on Governance and Development (pp. 294-307). Edward Elgar Publishing.
3. Veiga, M. M., & Marshall, B. (2018). The extractive industries and society.
4. Veraart, F., Smits, J. P., & van der Vleuten, E. Extractive Industries and Society.

Responsible for Module:
Ikonnikova, Svetlana; Prof. Ph.D.

Courses (Type of course, Weekly hours per semester), Instructor:
Project Week 2024/25: Conflicts in Mining Critical Materials: Compromising in Sustainability Strategies (MGT001443) (Seminar, 4 SWS)
Ikonnikova S, Li G
For further information in this module, please click campus.tum.de or here.

Module Description

MGT001446: Project week: Behavioral Economics and the Circular Economy | Project week: Behavioral Economics and the Circular Economy

Version of module description: Gültig ab winterterm 2024/25

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination consists of a final group presentation and a project report. The group presentation is 30 minutes long, with 20 minutes dedicated to presenting the project and 10 minutes allocated for a Q&A session and discussion. Additionally, students are required to submit a comprehensive project report, in which individual contributions are clearly highlighted. The grade for the presentation will make up 40% and the report 60% of the final grade.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
none

Content:
The module offers participants from all backgrounds an in-depth exploration of the intersection between behavioral economics and the circular economy.
It provides an overview of the fundamental principles of both fields and their application to pressing societal and environmental challenges.
Participants will have the opportunity to delve into specific topics, such as economic incentives, social norms, and psychological drivers that influence sustainable behavior.
The module aims to serve as a foundation for further research and equips participants with practical skills to address issues they may encounter in their professional lives.
Emphasis is placed on the integration of behavioral insights into circular economy strategies, including choice architecture, nudging, and creating sustainable consumption patterns.
Real-world case studies and interactive projects will highlight the application of these concepts in promoting resource efficiency, waste reduction, and environmental responsibility.

The topics are typically related to human behavior in the context of sustainability and economic systems, and potential behavioral interventions to foster a more sustainable and circular economy.

Intended Learning Outcomes:
At the end of the module, students are able to design and implement interdisciplinary projects that integrate principles of behavioral economics with circular economy strategies.
They can critically assess and apply economic incentives and behavioral interventions to promote sustainable practices. Additionally, they are skilled in presenting their findings to diverse audiences, effectively communicating complex ideas, and producing well-structured written reports.

Students will also be adept at understanding and addressing the needs of various stakeholder groups affected by environmental and economic challenges, using techniques to foster effective communication and collaboration.
They will be able to analyze and evaluate the principles of the circular economy and behavioral economics, drawing connections between theory and practice.
After completing the module, students can formulate strategic recommendations for businesses and policymakers to enhance sustainability and resource efficiency.
Furthermore, they will be capable of assessing the benefits and limitations of different approaches to implementing circular economy principles within organizational contexts.

Teaching and Learning Methods:
In an introductory session, the foundational principles of behavioral economics and circular economy are introduced and explored in detail. This introduction will also cover the essential knowledge required for integrating these fields. Knowledge and skills are imparted through a combination of lectures, flipped classroom teaching, individual and group project work, peer discussions, and individual coaching sessions. The learning methods include problem definition and solving, collaborative work, group discussions, preparation and delivery of presentations, and report writing.

Students will engage in interactive workshops and case studies to apply theoretical knowledge to real-world scenarios, fostering a deep understanding of the material. Additionally, guest lectures from industry experts will provide practical insights and current trends in the field. Throughout the module, students will receive continuous feedback and support to refine their skills and knowledge.

Media:

Reading List:
Behavioral Economics:

"Thinking, Fast and Slow" by Daniel Kahneman
A comprehensive overview of the dual-process theory of the mind, heuristics, and biases.

"Nudge: Improving Decisions About Health, Wealth, and Happiness" by Richard H. Thaler and Cass R. Sunstein
Explains the concept of "nudging" and how small interventions can significantly influence decision-making.

"Misbehaving: The Making of Behavioral Economics" by Richard H. Thaler
A memoir-style book that chronicles the development of behavioral economics.

"Predictably Irrational: The Hidden Forces That Shape Our Decisions" by Dan Ariely
Explores how and why people make irrational decisions and how to understand these patterns.

"The Undoing Project: A Friendship That Changed Our Minds" by Michael Lewis
A story of the collaboration between Daniel Kahneman and Amos Tversky, highlighting their contributions to behavioral economics.

Circular Economy:

"Cradle to Cradle: Remaking the Way We Make Things" by William McDonough and Michael Braungart
Introduces the concept of designing products and systems in a regenerative manner.

"Waste to Wealth: The Circular Economy Advantage" by Peter Lacy and Jakob Rutqvist
Discusses the business advantages of adopting circular economy principles.

"The Circular Economy: A Wealth of Flows" by Ken Webster
Provides an in-depth look at the circular economy, its principles, and implications.

"Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist" by Kate Raworth
Challenges traditional economic thinking and introduces a model balancing essential human needs and planetary boundaries.

"The Upcycle: Beyond Sustainability--Designing for Abundance" by William McDonough and Michael Braungart
A follow-up to "Cradle to Cradle," focusing on improving systems and products to create more positive impacts.

Responsible for Module:
Mohnen, Alwine; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Project week: Behavioral Economics and the Circular Economy (MGT001446, englisch) (Seminar, 4 SWS)
Burkhardt R, Kober K
For further information in this module, please click campus.tum.de or here.

Module Description

SOT86081: Project Week: GovTech Design Lab: Harnessing AI, Earth Observation and Data Storytelling to Tackle Climate Security and Conflict | Project Week: GovTech Design Lab: Harnessing AI, Earth Observation and Data Storytelling to Tackle Climate Security and Conflict

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In Progress ...

Repeat Examination:
Next semester

(Recommended) Prerequisites:
As the group project for this module will require a variety of different ideas and perspectives, STUDENTS FROM ALL SUBJECTS ARE STRONGLY ENCOURAGED TO APPLY. We aim to assemble a multidisciplinary group of students from a variety of fields, including policy, computer science, engineering, life sciences, education, design, and more, to collectively tackle this project week module. Cross-learning between these disciplines and the ability to understand diverse scientific perspectives will be integral to the learning objectives of this module.

This module is aimed at students enrolled in a Masters program at TUM and are interested in gaining skills in data analysis, the decision making process, and utilizing storytelling techniques to effectively communicate complex narratives. A high level of motivation and general willingness to participate in group projects is recommended.

Content:
In this module, students will discover how to utilize widely accessible tools, such as Google Earth Engine (GEE), and engage with publicly available datasets. They will develop insights

from geospatial data that serve to inform decision-makers, politicians, and the broader public. This year, the GovTech lab is collaborating with the United Nations Department of Political and Peacebuilding Affairs (UN DPPA) to enhance Geoguard, an innovative environmental dashboard. Geoguard is designed to tackle the intricate challenges of climate security and conflict by providing essential data and insights for informed decision-making. The project engages students who work alongside UN experts, gaining practical experience while contributing to global efforts in addressing environmental issues and promoting peace.

By integrating theoretical instruction, practical lab work, and hands-on projects, this module will enable participants to develop crucial skills in two key areas: (1) leveraging geospatial data in decision-making processes, and (2) utilizing storytelling techniques to effectively communicate complex narratives. Through fostering a deep understanding of these intertwined challenges, the module is designed to empower students to initiate meaningful change and contribute to addressing climate-induced conflict on a global scale.

This module is the result of a collaborative partnership involving various professorships from the TUM School of Engineering and Design, TUM School of Life Sciences, and the TUM School of Social Sciences and Technology, alongside the United Nations (UN), and other esteemed partners like the Institute for Interdisciplinary Data Science and AI at the University of Birmingham, the Rhode Island School of Design, the Al Jazeera Data Lab, and DesignIt, Munich. It will meld academic and practitioner perspectives, offering a comprehensive approach to tackling the subject matter. This module is a direct response to the TUM Sustainable Futures Strategy 2030, emphasizing sustainability challenges and the UN's Sustainable Development Goals (SDGs) as central themes.

Intended Learning Outcomes:
In this module, students will discover how to utilize widely accessible tools, such as Google Earth Engine, and engage with publicly available datasets. They will develop insights from geospatial data that serve to inform decision-makers, politicians, and the broader public. This year, the GovTech lab is collaborating with the United Nations Department of Political and Peacebuilding Affairs (UN DPPA) to enhance Geoguard, an innovative environmental dashboard. Geoguard is designed to tackle the intricate challenges of climate security and conflict by providing essential data and insights for informed decision-making. The project engages students who work alongside UN experts, gaining practical experience while contributing to global efforts in addressing environmental issues and promoting peace.

Throughout this module, students are expected to gain a wide variety of new skills, knowledge, and competencies. Some key aspects they will gain will be:

- Increase substantive knowledge: Students will gain in-depth knowledge surrounding the questions and problems related to Triangle for Planetary Challenges. This will require students to familiarize themselves with complex topics, further improving their substantive knowledge: For instance, what is Environmental and Climate Security and how can geospatial data be leveraged

to monitor situations “on the ground”? Or how can it be used to verify political commitments in regards to armed conflicts, when areas are too difficult or pose too high of a security risk - to be accessed?
- Better developed data analysis skills: Students will learn how to distinguish useful information and insights.
- Overcoming their disciplinary boundaries: The project requires that different perspectives are taken into account when addressing these global challenges. By bringing together students from Earth observation, computational & data science backgrounds with students from social sciences and design backgrounds, this project will cover the entire workflow; from acquiring satellite(-based) Earth observation data, extracting the information, interpreting it, deriving policies and interventions, then communicating these results to the public through an exhibition. It will also promote creativity through the exchange of ideas across disciplines.
- Transfer of knowledge: Students will gain a new skill set in “storytelling” as they learn how to derive insights from geospatial data, then build a narrative that allows them to communicate these insights to the public through different platforms (i.e.: online, an external exhibition, TUM Sustainability Day 2025, COP30, etc.). The project team would also be happy to support students in working to publish their results.
- Social competencies: Course participants will further practice and develop their presentation and collaboration skills.

Teaching and Learning Methods:
The module consists of a seminar. The main topics of the seminar are covered: through a kick-off event, multiple classroom events, through course material located on Moodle during the Self-Study Phase, and through a one week block-course (TUM Project Week). The students will use the knowledge they gain from Moodle, from class, from the project week, information from their scholastic background and from their own self-study, within a group to tackle a climate change related event. The overall group project ideas will be given to each group, based on their scholastic background by the lecturers.

Media:

Reading List:
Li, XY., Li, X., Fan, Z. et al. Civil war hinders crop production and threatens food security in Syria. Nat Food 3, 38–46 (2022). https://doi.org/10.1038/s43016-021-00432-4

Responsible for Module:
Brittany Engle; Dr. Ivan Bratoev

Courses (Type of course, Weekly hours per semester), Instructor:
(SOT86081) GovTech Design Lab: Harnessing AI, Earth Observation and Data Storytelling to Tackle Climate Security and Conflict (Project Week) (Seminar, 4 SWS)
Bratoev I, Engle B, Keune A, Körner M, Senf C, Wählisch M
For further information in this module, please click campus.tum.de or here.

Module Description

WZ2712: Project Management and Cross Cultural Communication | Project Management and Cross Cultural Communication

Version of module description: Gültig ab winterterm 2020/21

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a written project report (10 pages) comprising a description of the relevant project planning tools. Additionally, an oral group presentation of the results is required. The project work will validate the student´s ability to transform their project ideas into a project proposal including a corresponding work breakdown structure, while the presentation will allow assessing the ability to present a project idea to a professional audience, and to conduct a discussion about the presented issues. A voluntary mid-term assignment in form of a written report (2 pages) allows students to demonstrate their learning in cross-cultural communication. This assignment allows improving the examination mark by 0.3, and will be evaluated in a mid-term examination in the form of a written report.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
None

Content:
Objectives, dimensions and characteristics of project management; types of projects; project life cycle phases and work breakdown structures; project network diagrams and milestone plans; stakeholder analysis and management; risk analysis and management in projects; critical path method; financial project planning; project resource planning and control; team building skills. Dimensional model of culture; theory and practice of cross-cultural communication, exercises in dealing with different perceptions.

Intended Learning Outcomes:
At the end of the module, students are able to develop a detailed project plan and to understand related communication processes as well as apply that understanding to improve their task performance. They can present their results to specific target audiences in an organized manner. Additionally, they can organize ideas effectively and communicate them in a well-developed written report. Furthermore, students are able to understand cross-cultural differences and to apply techniques to avoid miscommunication in project management rooted in cross-cultural differences.

Teaching and Learning Methods:
Knowledge and skills are imparted by lectures as well as the flipped classroom method, individual and group work, presentation of case studies and peer discussions; the learning methods are definition and solving of problems, collaborative work, group discussions, preparation and implementation of presentations, report writing.

Media:
PowerPoint presentations, case studies, presentation notes and online resources

Reading List:
Hofstede, G., Hofstede, G.J. and Minkov, M. (2010): Cultures and Organizations: Software of the Mind. McGraw-Hill. Kerzner, H. (2017): Project Management: A Systems Approach to Planning, Scheduling, and Controlling, Wiley; Meredith J.R., Mantel S.J., and Shafer, S.M. (2019): Project Management: A managerial approach. Wiley; Meyer, E. (2015): The Culture Map: Decoding How People Think, Lead, and Get Things Done Across Cultures. PublicAffairs. Project Management Institute (2017): A Guide to the Project Management Body of Knowledge (PMBOK Guide).

Responsible for Module:
Bitsch, Vera; Prof. Dr. Dr. h.c.

Courses (Type of course, Weekly hours per semester), Instructor:
Project Management (WZ2712, englisch) (Seminar, 3 SWS)
Bitsch V [L], Bitsch V, Abate Kassa G

Cross Cultural Communications (WZ2712, englisch) (Seminar, 1 SWS)
Bitsch V [L], Bitsch V, Abate Kassa G
For further information in this module, please click campus.tum.de or here.

Module Description

LS10003: Remote Sensing of Agriculture and Vegetation | Remote Sensing of Agriculture and Vegetation

Version of module description: Gültig ab winterterm 2021/22

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module assessment is based on a written report (10 pages - A4 single line excluding references; 70% of grade) in combination with a presentation (15 min; 30% of grade). In the report, the students design a strategy of applying remote sensing to gain insights into improving decision making for solving practical problems (e.g., food security, overuse of agrichemicals, biodiversity) in agricultural and vegetation systems.

The students are examined based on the extent to which they are able to:
- situate the problems and strategy in a relevant context
- describe the start of the art and knowledge gaps in the relevant field
- demonstrate deep understanding on methodology
- break down the strategy into workable tasks
- discuss the strategy critically from interdisciplinary perspectives
- show communicative competence

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge in agricultural engineering is an advantage

Content:
Remote sensing provides a versatile tool for earth observation and environmental informatics from varied spatial and temporal scales. This module explores the potential and the future trend of the state-of-the-art remote sensing techniques in facilitating the understanding on as well as decision making in agricultural and vegetation systems. We will discuss the fundamentals of remote sensing science, including but not limited the topics below:

- Biophysical-spectral models (e.g., electromagnetic radiation (EMR), radiative transfer, spectral feature extraction, chlorophyll fluorescence);
- Sensor systems (e.g., satellite, drone) and spectral-radiometric measurements;
- Image processing and pattern recognition (e.g., classification, time-series)
- Applications in agriculture and ecology (e.g., crop stress, productivity and biodiversity monitoring)

Through integrated exercise, the students will learn about innovative methods of remote sensing and the use of remote sensing in interdisciplinary fields of agricultural and environmental sciences.

Intended Learning Outcomes:
Upon successful completion of this module, students are able to:
- Understand the important aspects of remote sensing;
- Relate the technologies to research questions and practical problems in other disciplines;
- Apply innovative concepts and methods to agricultural and vegetation systems;
- Evaluate the feasibility of remote sensing from the perspectives of agriculture and ecology;
- Develop a strategy of integrating remote sensing with domain knowledge for decision making in agricultural and vegetation systems;
- Communicate their strategy with good understanding and evidence.

Teaching and Learning Methods:
- This module combines lectures, guest seminars, field trips and computer exercises.
- The teaching content will be organized by topics instructed in both theoretical (e.g., seminar) and practical ways (e.g., hands-on demonstrations, computer programing).
- The students will learn the important concepts and methods of remote sensing, as well as the applications in addressing environmental and societal problems, in a highly interactive manner, e.g., discussion in seminars, collaborations in exercises.

Media:
- Present and virtual lectures
- PowerPoint, instruction manuals, scripts and codes;
- Field and lab hands-on demonstrations;

Reading List:
Literature will be provided according to individual topics and events.

Responsible for Module:
Yu, Kang; Prof. Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Remote Sensing of Agriculture and Vegetation (Vorlesung mit integrierten Übungen, 4 SWS)
Yu K [L], Yu K, Belwalkar A, Li D, Bai D
For further information in this module, please click campus.tum.de or here.

Module Description

LS10004: Research Project ‘Smart Agriculture’ | Research Project ‘Smart Agriculture’

Version of module description: Gültig ab winterterm 2021/22

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 10	**Total Hours:** 300	**Self-study Hours:** 150	**Contact Hours:** 150

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module assessment is based on a report (15 pages – A4 single line excluding references; 70% of grade) in combination with a presentation (15 min; 30% of grade). The students usually hand in the report and do the oral presentation in 4 weeks after the practical work has been concluded.

The grade of the written report is based on:
1) the description of the theoretical background, research questions and objectives of the project (20%);
2) the proper description and use of methods, including statistical analysis (20%);
3) the accuracy and correctness of the results, results interpretation and discussion (30%);
4) the quality of presentation formats (e.g., tables, figures) (10%);
5) the overall structure and quality (20%), particularly examines whether the report is situated and summarized in a concise and coherent manner, in the relevant context of the research area.

The grade of the oral presentation is based on:
1) The explanation of the background, state of the art, research questions/ hypothesis (30%)
2) The accuracy and correctness of methods, data and results interpretation (40%)
3) The relevance and rigor of discussion (20%)
4) The presentation quality and skills, e.g., powerpoint format and clarity (10%)

Repeat Examination:
Next semester

(Recommended) Prerequisites:
It is recommend to take the course ‘Remote Sensing of Agriculture and Vegetation’

Basic knowledge in plant and soil sciences, agricultural engineering and remote sensing is an advantage
Basic programing skills (e.g., R, Matlab, Python) will be an big advantage

Content:
Smart Agriculture or precision agriculture is considered as a high-tech and interdisciplinary field. Students will learn how to apply and combine multidisciplinary technologies, including but not limited to, field survey, lab biochemical analysis, phenotyping, remote sensing, image analysis and AI techniques to characterize plant traits and their responses to the environment and stresses (e.g., drought). Through specific research questions and objectives, students will explore the potential and limitations of applying the new technologies to solve practical problems, e.g., in the following categories:

- Using unmanned aerial vehicles (UAV) based images (e.g., RGB, multispectral) for high throughput analysis of crop traits (e.g., height, chlorophyll), and for yield estimation and weed detection.
- Using satellite remote sensing images to monitor the spatiotemporal variability in crop health (e.g., nitrogen, water status), biomass and yield in response to environmental and climate changes.
- Correlating leaf and plant optical properties to stresses (e.g., drought) and explaining plant phenotypic and genotypic variations with the aid of hyperspectral data and radiative transfer models.
- Mapping soil spatial variability based on proximal- and remote sensing of soil physical and chemical properties using hyperspectral and multispectral data.
- Applying machine learning (ML) and deep learning (DL) to analyze satellite remote sensing data for crop type and area mapping;
- Applying ML and DL methods to analyze plant images (e.g., UAV) to detect specific objects (e.g., flowers, wheat ears) as a proxy of seed germination, plant health, productivity and biodiversity.

Intended Learning Outcomes:
Upon successful completion of this module, students will be able to:
- understand the theoretical background knowledge related to smart agriculture;
- define research questions for their selected topics in the related research area;
- apply sensor and imaging techniques for data collection in the field and laboratory;
- acquire computational and artificial intelligence (AI) skills for big data handling and data evaluation;
- interpret the results of statistical analysis and machine learning models;
- present the research findings in a concise manner in written and oral form;
- gain competence in applying proximal- and remote sensing, and AI technologies in precision agriculture.

Teaching and Learning Methods:
- The students conduct a semester (normally three months) research project. The schedule of field or lab work can be adjusted according to the student’s curriculum.

- Three to five students team up as a group and define the research topic and proposal through discussion with the lecturer.
- The lecturer teach students through theoretical (e.g., seminar) and practical instructions (e.g., hands-on demonstrations, computer exercises).
- Students conduct the project through teamwork (3-5) and collaborations with doctoral students.
- Periodic meeting with the supervisor to discuss the progress of project.
- Journal club discussing related scientific articles with the lecturer and peers.
- Seminars to present project output and exchange with fellow students.

Media:
- PowerPoint, instruction manuals, scripts and codes;
- Field and lab hands-on demonstrations;
- TUM-Moodle, Zoom

Reading List:
Literature will be provided according to individual projects.

Responsible for Module:
Yu, Kang; Prof. Dr. rer. nat.

Courses (Type of course, Weekly hours per semester), Instructor:
Research Project 'Smart Agriculture' (Projekt, 10 SWS)
Yu K [L], Hu Y (Wu F), Afrasiabian Y, Yu K (Wang J)
For further information in this module, please click campus.tum.de or here.

Module Description

LS10007: Remediation of Contaminated Sites – Lecture and Seminar | Remediation of Contaminated Sites – Lecture and Seminar

Version of module description: Gültig ab summerterm 2024

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The type of assessment of the module will take the form of a Klausur and a Presentation, each of which will count for 50% of the final grade. Klausur and Presentation must be accomplished with a mark of 4.0 or better, each.
The competences acquired in the lecture are subject of a written exam (Klausur 60 min, no supporting materials), where the students demonstrate their ability to identify problems and find solution strategies. In the seminar, the students prove with an oral presentation (20-30 minutes) their ability to analyze selected case studies about contaminated sites, to develop remediation concepts and to explain their understanding to their fellow students demonstrating their communication skills in front of an audience. The presentation is accompanied by an essay (6-8 pages).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Knowledge in natural sciences (chemistry, physics and biology) is necessary. The module "Introduction to Soil Science" (also parallel in the same semester) is recommended.

Content:
Lecture: Bundesbodenschutzgesetz (Federal Soil Protection Act), investigation of contaminated sites, sector-specific contaminations, assessment of contaminants, risk potential, ecotoxicological tests, investigation methods, sampling strategies, analyses, remediation objectives, decontamination procedures, rehabilitation and remediation procedures.
Seminar: Investigation and remediation of contaminated sites by means of selected case studies

Intended Learning Outcomes:
After attending the lecture, the students are able to understand legal regulations dealing with contaminated sites. They know adequate procedures for the investigation of contaminated sites and suspected contaminated sites as well as for the remediation of contaminated sites. They are able to evaluate the hazard potential of a contaminated site in terms of pollutant type and emission pathway and understand the different investigation methods. After attending the seminar, the students are able to analyze studies about contaminated sites, to prepare remediation concepts and to evaluate applied remediation measures.

Teaching and Learning Methods:
Manifold site contaminations occur in our environment and plenty different remediation methods exist. The overview is best given in a lecture.
Professionals working in soil remediation must thoroughly understand a specific contamination problem and develop individual remediation plans. This is the purpose of the seminar, where students work independently and in groups, and then present and discuss the results.

Media:
Presentations

Reading List:
Lecture: presentation notes
Seminar: bibliographies to the seminar topics

Responsible for Module:
Kögel-Knabner, Ingrid, Prof. Dr. rer. nat. Dr. rer. nat. habil. koegel@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Remediation of Contaminated Sites – Investigation and remediation methods (Seminar, 2 SWS)
Heister K, Höschen C

Remediation of Contaminated Sites - Regeneration of contaminated soils (Vorlesung, 2 SWS)
Zare M
For further information in this module, please click campus.tum.de or here.

Module Description

LS10049: Research Project Soil-Plant-Atmosphere Continuum | Research Project Soil-Plant-Atmosphere Continuum

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 10	**Total Hours:** 300	**Self-study Hours:** 150	**Contact Hours:** 150

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning outcomes of this module will be assessed through two main components: a written report and an oral presentation. These assessment methods are chosen to reflect the students' ability to both critically analyze and present scientific findings, which aligns with the key skills developed throughout the course.
• Written Report (70% of total grade):
The primary assessment will be a scientific report, approximately 20 pages in length. This report will evaluate the experimental results obtained during the lab work, demonstrating the student's understanding of the research question, methodology, and data analysis. In addition, the report will require students to connect their findings to relevant scientific literature, illustrating their ability to engage with current research and place their results within the broader scientific context.
• Oral Presentation (30% of total grade):
In addition to the written report, students will give a 20-minute oral presentation to the public at the chair of Soil Biophysics and Environmental Systems, summarizing their research project and discussing their results. This will be followed by a short Q&A session where students will demonstrate their ability to defend their findings and discuss their relevance to the field.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
Basic knowledge of Soil Science is encouraged (this content is taught in modules WZ1825 Soil Science, LS10031 Experimental Methods in Soil Physics or LS20022 Experimental Methods in Soil and Plant Hydrology, for example).

Content:
This module introduces students to current topics and experimental methodologies related to soil-plant-atmosphere interactions, with a particular focus on water and carbon flux dynamics. The specific research project for each student is tailored according to the ongoing research within the group and the student's individual interests.
Typical topics covered in the module include:
• Soil-plant hydraulic dynamics and their role in water transport within ecosystems
• Carbon allocation processes within plants and soils, emphasizing storage and movement of carbon
• Root exudation and its impact on soil microbial communities and nutrient cycling
• Effects of drought and heat stress on soil health and plant physiological responses
• Soil amendments and their role in enhancing soil fertility and structure
• Regenerative farming techniques aimed at improving soil and ecosystem resilience
• Soil contamination and remediation, exploring approaches to mitigate and repair environmental damage
• Root anatomy and morphology and their influence on plant performance and soil interaction
• Root-mycorrhizae interactions and their contribution to nutrient uptake and plant health
• Rhizosphere development and the complex interactions between roots, soil, and microorganisms
• Soil hydrophobicity and its implications for water infiltration and retention
Students will gain hands-on experience with a variety of standard soil and plant physiology techniques. In addition, students will be introduced to data analysis tools commonly used in research, such as R, Python, and MATLAB, to handle and interpret experimental results.
A list of current projects is available at https://www.lss.ls.tum.de/sbe/offered-projects-theses-positions/, and students are encouraged to propose their own topics within the group’s research focus.

Intended Learning Outcomes:
Upon successful completion of this module, students will have acquired the following knowledge and skills:
• Comprehensive understanding of current challenges in research related to soil-plant-atmosphere interactions.
• Practical proficiency in advanced methodologies for investigating the dynamics within the soil-plant-atmosphere continuum.
• Ability to design, execute, and critically evaluate research studies, drawing connections between experimental results and existing scientific literature.
• Competence in effectively communicating research findings through both oral presentations and written reports, tailored for a scientific audience.
• Apply cutting-edge techniques in soil and plant ecology to solve complex, research-driven questions within the soil-plant-atmosphere system.

Teaching and Learning Methods:
This module combines practical laboratory work with theoretical instruction to ensure students achieve the learning outcomes effectively.
Practical Laboratory Work:

• Each student will work on an ongoing research project within the group, supervised by a dedicated scientist. The hands-on nature of this method allows students to directly apply the theoretical knowledge gained, reinforcing their understanding of experimental techniques and scientific processes. All laboratory work will be conducted under the guidance of experienced lab staff, using written laboratory protocols or technical literature provided to students. This ensures accuracy, safety, and the ability to follow established research methodologies.
Theoretical Instruction:
• Students will receive introductory briefings that lay the foundation for understanding the key concepts and methodologies central to the soil-plant-atmosphere continuum. These briefings ensure students have the necessary background before commencing their practical work. Throughout the project, students will engage in ongoing discussions with their supervising scientist, allowing them to continuously deepen their theoretical knowledge and critically reflect on their experimental results in the context of the current scientific literature.
Independent Research and Literature Review:
• Students will be encouraged to research current literature independently, supplementing their practical work with cutting-edge scientific findings. By synthesizing theoretical knowledge from research articles, students will develop a deeper understanding of their topic, cultivate critical thinking skills, and gain insights into the broader scientific context of their work.
Presentation and Communication:
• At the end of the module, students will be required to present their research findings both orally and in written form. This task is essential to develop communication skills, as students must articulate their methodologies, results, and interpretations clearly and professionally, just as they would in a scientific setting. It also reinforces the learning outcome related to effectively communicating complex scientific data to an audience.

Media:
Pdfs of lab methods, scientific papers, and whiteboard writing shared through TUMmoodle and/or Teams group chat.

Reading List:
Environmental Soil Physics (D Hillel)
Water Relations of Plants and Soils (PJ Kramer, JS Boyer)
Experimentelle Pflanzenökologie – Grundlagen und Anwendungen (R Matyssek, WB Herppich)

Responsible for Module:
Zare, Mohsen, Prof. Dr. (mohsen.zare@tum.de) Hafner, Benjamin, Dr. rer. silv. (benjamin.hafner@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:
Research Project Soil-Plant-Atmosphere Continuum (Projekt, 10 SWS)
Zare M [L], Zare M, Hafner B
For further information in this module, please click campus.tum.de or here.

Module Description

LS20016: Rhizosphere Research | Rhizosphere Research

Version of module description: Gültig ab winterterm 2022/23

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
This module is graded, and students are asked to give a seminar presentation complemented by the submission of an extended summary on a selected topic to demonstrate a solid understanding of topics discussed in the lectures. The oral presentation is expected to be 15 min presentation followed by a subsequent 30 min discussion to demonstrate that he or she is able to respond competently to any questions, suggestions, or discussions brought by the audience and relating to his or her subject area. The extended summary is expected to be a minimum of 5 pages and will be graded. Students will be informed about the grading criteria of their extended summary during the lecture via a template. The presentation will be scheduled within the last three weeks of the semester. The extended summary should be submitted by the end of the semester.

In addition, there is the option of taking a voluntary mid-term assignment as coursework in accordance with APSO §6, 5. For this, an oral examination (30 min) has to be given. The oral exam targets the learning outcomes of the lecture of Soil Biophysics. The module grade can be improved by 0.3 by passing the course work if this better characterizes the student's performance level based on the overall impression and the deviation has no influence on passing the examination. No repeat date is offered for the mid-term performance. Successfully passed mid-term assignments will be considered when retaking a failed module examination at the next possible examination date.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:

Content:
The scope of this module is to learn fundamental biophysical processes taking place at the root zone and particularly at the root-soil interface and their emerging impacts on water and nutrient exchange between the soil-plant-atmosphere continuum. In this module, we will discuss the basic principles of soil physics in the context of water and nutrient transport within soils and plant roots. The particular attention is to learn why, when, and where soil physics plays an important role in water and nutrient transport across the soil-plant-atmosphere continuum.

Intended Learning Outcomes:
This module aims to enable students:
1) To mechanistically describe the theories of water and nutrients retention and transport across the soil-plant-atmosphere continuum
2) To mechanistically discuss why and when plant access to soil resources is limited in different soils and how plants may deal with these limitations
3) To evaluate the potential roles of different belowground traits (soil and plants) in improving plant access to limited soil resources under different conditions
4) To explore the state-of-the-art search in the field of soil-plant interactions and rhizosphere

Teaching and Learning Methods:
This module consists of two parts:
1) Lecture on Soil Biophysics: In weekly lectures, students will be introduced to the principle of water and nutrient transport within porose media, such as the soils-plants-atmosphere continuum. We will first begin by introducing students to the fundamental principle of the following key physical processes in soils: water retention in soil, water potential (freedom) in soils, the flow of water within soils, infiltration, evaporation, transpiration, root water uptake, and solute transport within soils. Then we will continue by focusing on the feedback between soil and plants and soil and microorganisms. Students will learn how biota's life (plants and microorganisms) may impact soil's physical properties and how the physical properties of soil may impact the emergence of life in soils.

2) Seminar on New emerging topics in Soil Biophysics: This seminar aims to discuss the fundamental biophysical and biochemical processes taking place across the soil-root interface and their emerging impacts on water, nutrient, and carbon flux across the soil-plant-atmosphere continuum. Students will be briefly introduced to some selected state-of-the-art topics and will be asked to perform a deep literature review and present their findings in the form of an oral presentation and an extended summary at the end of the semester.

Media:

Reading List:

Responsible for Module:
Zare, Mohsen, Prof. Dr. mohsen.zare@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
New emerging topics in Soil Biophysics (Seminar, 2 SWS)
Hafner B, Zare M

Soil Biophysics (Vorlesung, 2 SWS)
Zare M
For further information in this module, please click campus.tum.de or here.

Module Description

LS20023: Soil and Plant Hydrology | Soil and Plant Hydrology

Version of module description: Gültig ab winterterm 2022/23

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

This module requires students to complete a graded seminar presentation and submit an accompanying extended summary on a chosen topic to demonstrate a solid understanding of topics discussed in the lectures. The oral presentation should be a 15-20-minute presentation, followed by a 30-minute discussion session to showcase the student's ability to respond effectively to any questions or discussions related to their subject matter. The extended summary should be a minimum of 5 pages and will be evaluated using the criteria outlined in a template provided during the lecture. The presentation is scheduled to take place during the last three weeks of the semester, and the extended summary must be submitted by the end of the semester. The oral presentation (counts for 30% of the final grade) is a prerequisite for the submission of the extended summary (counts for 80% of the final grade).

Repeat Examination:
End of Semester

(Recommended) Prerequisites:

Content:
Upon completion of this module, students will have an understanding of the principles of soil and plant water relations. This includes studying the physics of water flow across various components of the soil-plant-atmosphere continuum such as soils, the rhizosphere, the root system, xylem, and leaves. Additionally, students will be introduced to various techniques for quantifying water flow across these key elements. In the end, students will be encouraged to discuss the potential of different soil and plant traits impacting plant drought tolerance under water and nutrient deficit condition.

Intended Learning Outcomes:
This module is designed to provide students with a comprehensive understanding of the complex relationships between soil, plant, and water. Upon successful completion of this module, students will be able to:
1) Discuss the principle of water flow across soil-plant-atmosphere continuum.
2) Discuss potential mechanisms plants use to cope with drought stress, and how these mechanisms vary depending on the soil and climatic conditions. Indeed, how plants can adapt to different soil conditions, and how this adaptation affects their ability to tolerate drought stress.
3) Mechanistically describe/predict various physiological and anatomical adaptations that can improve plant access to soil resources under drying conditions.
4) Understand the state-of-the-art research in soil and plant hydrology in the context of drought stress.

Teaching and Learning Methods:
The lecture on soil-plant hydrology will be a 2-hour session held weekly, where students will be introduced to the principles of water flow through the soil-plant-atmosphere continuum, starting from an individual single root and extending to the plant and canopy scales.
The lecture will consist of a combination of PowerPoint presentations and demonstrations on the whiteboard. The PowerPoint slides will be made available to students before each lecture.
For the seminar part, students will be introduced to the latest research and discussions in the field of soil-plant-water relationships and potential strategies to cope with drought stress. Each student will choose a topic from a list of options, conduct a literature review, and prepare an oral presentation and an extended written summary. Students will be offered individual one-to-one meetings to guide them in the preparation of their oral presentation and extended summary.

Media:

Reading List:

Responsible for Module:
Zare, Mohsen, Prof. Dr. mohsen.zare@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:
Seminar on Water, nutrients and carbon exchange across soil-plant-atmosphere continuum (Seminar, 2 SWS)
Zare M [L], Hafner B, Zare M

Soil plant water relationship (Vorlesung, 2 SWS)
Zare M [L], Zare M
For further information in this module, please click campus.tum.de or here.

Module Description

SOT86611: Sustainability Politics and Policy | Sustainability Politics and Policy

Version of module description: Gültig ab summerterm 2023

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The exam (100%) will consist of a portfolio of tasks that will relate to the different parts of the course which is co-taught by faculty teaching in the concentration area. The aim of this portfolio is to document the student's major activities and accomplishments throughout the course.

The portfolio will include a presentation (about 30 min, 50%) in the context of which they will interact with their peers. This will help them reflect on their academic goals and their progress as learners as regards the defined course objectives (see below).

Building on their presentations as well as on their reflections on the discussions in the lectures, they will later compile a report (about 10 pages, 50%) that will document what they have proceeded to learn. In the report, students will demonstrate that they have acquired the defined competencies (see below) and will reflect on their learning process.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
None

Content:
This module introduces students to theoretical debates about sustainable development and links the concept of sustainable development to different economic, social, environmental, and health policy areas. The lecture in this module examines the goals of "sustainable development" and the concepts of inter- and intra-generational justice. The module includes a historical overview of the sustainability concept looking into competing definitions and understandings. It investigates key theoretical and methodological approaches to examine such issues as rising government debt,

growing global competition for innovation, and intensifying global environmental degradation and resource scarcity. The lecture considers how policies differ in their "sustainability profiles" and the economic, social and political factors which are responsible for this variance.

Intended Learning Outcomes:
Upon completion of this module, students will be able to understand the roles and contributions different scientific and technological solutions as well as different social and behavioural approaches can play in designing, implementing and monitoring sustainable solutions. They will also be able to understand how different sustainability areas (e.g. economic, financial, educational, research, health, family, pension, mobility, environmental and energy policy) are being governed on the local, national and international levels. They will be able to highlight the interdisciplinary dimensions of sustainability, to analyse complex sustainability problems, and to develop concrete solutions.

Teaching and Learning Methods:
The course will be given as one lecture and will employ fitting methods to deepen the content such as exercises, group work or a laboratory.

Media:
Media like presentations, exercises, scripts and other media

Reading List:
Bornemann, Basil/ Knappe, Henrike/ Nanz, Patrizia (Ed.) 2022: The Routledge Handbook of Democracy and Sustainability. London: Routledge, 431-446. (https://www.lehmanns.de/shop/technik/52507134-9780367109585-the-routledge-handbook-of-democracy-and-sustainability)

Wurster, Stefan 2013: Comparing ecological sustainability in autocracies and democracies, in: Contemporary Politics, 2013, Vol. 19, No.1, 76-93. (http://www.tandfonline.com/doi/abs/10.1080/13569775.2013.773204)
A reader of texts with up-to-date and cutting edge scienitific literature will be made available at the start of the semester.

Responsible for Module:
Wurster, Stefan; Prof. Dr. rer. pol.

Courses (Type of course, Weekly hours per semester), Instructor:
(SOT86611) Sustainability Politics and Policy (Vorlesung, 4 SWS)
Schreurs M (Mohammed N), Wurster S (Iacentiuc S, Schmid H)
For further information in this module, please click campus.tum.de or here.

Module Description

WI001165: Sustainable Entrepreneurship - Getting Started | Sustainable Entrepreneurship - Getting Started

Version of module description: Gültig ab summerterm 2017

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module assessment consists of project work. Students are divided into teams of 3 to 5 students. Starting from the student's initial idea, each team has to develop a sustainable business model over the term. By working in a team, students demonstrate their ability to manage resources and deadlines together and to be able to complete their tasks in a team environment.
Each team will work on assigned tasks. Each group member has to contribute to the final group presentation (a 15 minutes pitch per team, 25%) that will take place during the last session of the term. By presenting their sustainable business plan, students demonstrate they are capable of presenting their business model in a clear and comprehensible manner to an audience. In addition, each team member will work on a section of the final written project report, describing and analyzing the sustainable business plan of the team. The written paper is due four weeks after the oral presentation (max. 8,000 words, 75%). By writing the project report students demonstrate that they are able to elaborate more in-depth on their sustainable venture. They also show their ability to apply the theory and real-life examples provided to them to their own idea and business model.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Modules in entrepreneurship, corporate sustainability and/or sustainability marketing are recommended.

Content:
Whether it is tackling climate change, resource degradation or social inequalities - responding to sustainability issues constitutes the biggest challenge for businesses in the 21st century. Embracing a great range of industries including food, energy or textiles, the field of life sciences is a key area for sustainability. Since the production of these goods accounts for an extensive

use of resources, there is great potential for effecting real improvements on a way towards more sustainable production and lifestyles. In this module we want to invite and inspire students to make a difference. We introduce them to the theory and practice of sustainable entrepreneurship, pursuing the triple bottom line of economic, ecological and social goals. We present the sustainable business model canvas as a tool for the students to explore their own ideas and to develop a sustainable business in the area of life sciences. Adopting a step-by-step approach, the following topic will be covered (all topics will be explained in general and then discussed in the context of life sciences):

1) The nexus of entrepreneurship and sustainable development
2) An overview of the theory and practice of sustainable entrepreneurship
3) Social and ecological problems as opportunities for sustainable entrepreneurship
4) Developing a sustainable customer value proposition
5) Describing key activities, resources and partners
6) identifying revenues and costs
7) Consolidating all parts in a lean and feasible business model
8) Pitching and presenting a business model

Intended Learning Outcomes:
Upon successful completion of this module, students will be able to (1) discuss and (2) evaluate the socio-economic challenges of the 21st century. They will be able to (3) evaluate the concept of sustainable entrepreneurship as a means for addressing these complex sustainability issues. More specifically, students will be able to (4) perceive socio-ecological problems as opportunities for sustainable entrepreneurship and to (5) generate their own ideas for a sustainable venture. In addition, participants will be able to (6) transfer the provided theory and examples to their own idea and (7) design their own business model. Students will (8) have gained experience and new skills in presenting in front of a large audience. Finally students are able to exchange in a professional and academic manner within a team. They show that they are able to integrate involved persons into the various tasks considering the group situation. Furthermore the students conduct solution processes through their constructive and conceptual acting in a team. They can make this contribution in a time limited environment.

Teaching and Learning Methods:
The module is a seminar which intends to familiarize the student with the theory and practice of sustainable entrepreneurship. Since the main goal of the module is to ignite entrepreneurial thinking and passion, as well as to provide the students with the required know-how to get started, the module has an interactive format with excursions and a project work in small groups. A special feature of the module is the co-teaching by an academic and a practitioner with a mutual interest in the theory and practice of sustainable entrepreneurship.

Media:
Presentations, slides, cases, links and further literature will be provided via www.moodle.tum.de

Reading List:
The module is based on a few key scientific papers and practical tools such as the business model canvas. These form the basis for classroom discussions and are to be used for developing an own business model. All materials are provided as pdf files in TUM Moodle (https://www.moodle.tum.de).
Students should be familiar with the United Nations' Sustainable Development Goals (SDGs) and the basics of the business model canvas:
United Nations Sustainable Development Goals: http://www.un.org/sustainabledevelopment/sustainable-development-goals/
Business Model Canvas:
Osterwalder, A. & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. Wiley: New Jersey, US.

Responsible for Module:
Belz, Frank-Martin; Prof. Dr. oec.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ1567: Sustainability: Paradigms, Indicators, and Measurement Systems | Sustainability: Paradigms, Indicators, and Measurement Systems

Version of module description: Gültig ab summerterm 2019

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment type for the module is a graded report (10 pages). The report includes three sections: (1) critical analysis of a published empirical sustainability study in the context of its sustainability definitions and authors' backgrounds; (2) critical analysis of a sustainability measurement system in use with regard to fulfilling requirements to be met by indicators and indicator systems; (3) critical analysis of a public sustainability claim by an organization from a consumer or citizen point of view. Each analysis is also presented by each student. Through reports, the students demonstrate the ability to understand relevant research, measurement systems and claims, as well as critically analyze and discuss these issues. Through the presentation and discussion of each analysis, students demonstrate their ability to communicate these critical issues and further reflect on each topic in the light of other students' questions and presentations.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic knowledge and understanding of economic and management concepts as well as of social science research methods is required.

Content:
The development of a differentiated understanding of sustainability requires the critical analysis and reflection of sustainability concepts on multiple levels. In the module the following levels are systematically analyzed and discussed based on guided discussions of assigned readings and materials developed by students based on literature and internet research:
- Paradigms and value judgments in research on and evaluation of sustainability;

- Economic, environmental and social aspects of sustainable production, marketing, and consumption;
- Measurement systems for sustainability on different levels (products, supply chains etc.);
- Public and private standards, sustainability certifications and communication;
- Consequences of measurement systems and their foci, e.g., on environmental aspects, such as carbon footprint, or on social aspects, such as fair trade

These topics are discussed in the context to current and controversial issues regarding sustainability in science and in society.

Intended Learning Outcomes:

After successfully completing the module students are able to
- Analyze and evaluate the consequences of different paradigms on the definition and understanding of sustainability and its use in published scientific articles;
- Analyze and evaluate sustainability measurement systems on the product, enterprise, and supply chain levels as well as their potential consequences;
- Evaluate public sustainability claims based on the research of available information sources;
- Apply a differentiated understanding of sustainability in an interrelated, globalized context with differing value systems and priorities in scientific and practical questions and issues.

Teaching and Learning Methods:

The course “Sustainability: Paradigms, Indicators, and Measurement Systems” has a seminar format based on assigned readings and student presentations on assigned topic areas.
After an introductory guided class discussion on assumptions and implicit sustainability definitions of participants, readings are assigned and discussed in class to lay the basis for later student presentations. Through individual document research and individually prepared class presentations, students develop the ability to critically reflect on sustainability research, sustainability indicators and measurement systems, as well as sustainability claims by various actors and organizations. Through presentations and concept discussions, students develop in-depth knowledge of sustainability issues and hone their critical thinking skills. A final discussion summaries students’ learning and additional findings throughout the semester in the concept of wicked problems.

Media:

Reading assignments; use of data bases for literature research; presentation software; discussion facilitation support media, such as flipcharts and discussion boards; video clips and podcasts.

Reading List:

National Resource Council 2010, Toward Sustainable Agricultural Systems in the 21st Century, Washington/D.C.: National Academies Press.
Current articles on sustainability paradigms, requirements of sustainability indicators and indicator systems, and applications.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ1921: Strategy, Supply Chain Management, and Sustainability in Agribusiness and the Food Industry | Strategy, Supply Chain Management, and Sustainability in Agribusiness and the Food Industry

Version of module description: Gültig ab winterterm 2019/20

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment type for the module is a graded learning portfolio (100%). The portfolio includes memorandums addressing 9-10 of the case studies discussed in class; and a learning statement addressing conceptual, scientific and personal learning. Through the case memorandums, the students show the ability to discuss the assigned case questions by selecting and applying suitable theoretical concepts to supply chain management and sustainability challenges in the specific context of agribusiness and the food industry. In the learning statement, students demonstrate the ability to reflect on the semester long learning process and summarize the insights gained.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Solid economic and management background; knowledge of basic concepts of strategic analysis, planning, and management (e.g., industry analysis, horizontal and vertical coordination, and SWOT), as well as the ability to apply these concepts; furthermore, knowledge of value chain management is required (e.g., theoretical background, supply chain dynamics, actors and partnerships, governance). Successful completion of a management course on M.Sc. level required, e.g., agribusiness management or value chain management. Medium level experience in desk research and scientific writing is required.

Content:
The module builds on key concepts of supply chain management, strategy, and sustainability to provide master level students with the competency to evaluate pertinent issues in agribusiness and food industry supply chains.
Topics covered include:

- value propositions, creating and capturing added value in agribusiness and the food industry
- management of customers, suppliers, and other stakeholders
- innovation in supply chains, sustainability as an innovation, sustainable supply chains
- CSR (corporate social responsibility) and sustainability measurement
- implementation of a sustainability strategy, as well as costs and benefits of sustainable practices in agribusiness and the food industry
- ethical issues in supply chain management.

Intended Learning Outcomes:
After successfully completing of the module, students are able to evaluate processes of supply chains management in agribusiness and the food industry.
Specifically, students are able to
- evaluate value propositions, as well as plans for creating and capturing value
- evaluate the management of customers, suppliers, and other stakeholders
- independently choose scientific models or concepts relevant to the analysis process of agricultural and food industry supply chains and justify their choice
- evaluate the implementation of a CSR concept or sustainability strategy, and monitor its effects on operations, suppliers, associates, and customers
- identify and analyze ethical issues in supply chain management and to recommend how to apply ethical practices.

Teaching and Learning Methods:
The course Strategy, Supply Chain Management, and Sustainability in Agribusiness and the Food Industry has a seminar format based on the case study method. The seminar format is implemented based on case descriptions of problems, challenges, and innovations in agribusiness and food industry supply chains. Through individually prepared class discussions and group work, students develop the ability to critically reflect and apply concepts of strategy, supply and value chain management, and sustainability requirements in the context of agribusiness and the food industry. During class discussions and group presentations, students reflect on their experiences, prior knowledge, and assignments to develop an in-depth understanding of current challenges in supply chains and how to address the.

Media:
Reading assignments; case descriptions; presentation software; discussion facilitation support media, such as flipcharts and discussion boards; video clips and podcasts.

Reading List:
Current articles from scientific journals as appropriate.
Selected chapters from
Bouchery, Corbett, Fransoo, and Tan (2017): Sustainable Supply Chains: A Research-Based Textbook on Operations and Strategy. Springer: Berlin, Heidelberg, Germany.
Pullmann and Wu (2011): Food Supply Chain Management: Economic, Social and Environmental Perspectives. Routledge, New York, US.

Responsible for Module:
Bitsch, Vera; Prof. Dr. Dr. h.c.

Courses (Type of course, Weekly hours per semester), Instructor:
Strategy, Supply Chain Management, and Sustainability in Agribusiness and the Food Industry (WZ1921, englisch) (Seminar, 4 SWS)
Bitsch V [L], Bitsch V, Owsianowski J
For further information in this module, please click campus.tum.de or here.

Module Description

BGU38038: Urban Water-Energy-Food Nexus | Urban Water-Energy-Food Nexus [WEF Nexus]

Version of module description: Gültig ab summerterm 2021

Module Level:	Language:	Duration:	Frequency:
Master	English	one semester	summer semester
Credits:*	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**
6	180	120	60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The proof of performance will be made in the form of a project. This project will be conducted in small groups of 6-8 students, whereby an individual thematic focus will be defined for each student. It consists of a group report (70%, 3-5 pages per student) and interim and final presentations (30%, ca. 5 min per student) where individual contributions will counts for 60% and group interaction for 40% of the grade. The aim of the project is to prove understanding of basics of different technical and non-technical components of integrated urban planning and their application in the development of simple urban planning projects. The project requires an intensive analysis of the thematic focus and thus the students prove an in-depth understanding of these components and the ability to combine these in an innovative way. This understanding will be proven using planning, geographic information systems-based, calculatory and modeling methods. At the end of the course, the students prove their ability to present and explain their concepts, approaches and methods in front of an expert audience through a presentation and a short discussion. Further, students proves their ability to work scientifically on their individual content through submission of the individual parts of the report.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Water and Wastewater Treatment Engineering (BGU38014)

Content:
This module deals with concepts, approaches and methods for integrated urban planning. Good practice examples are discussed in general terms before learning to apply these to a concrete case study city. In addition, students will learn about concepts and driving forces of the topics urbanization, globalization, climate change, environmental challenges, sustainability including UN

Sustainable Development Goals (SDGs) as well as current research on water reclamation with resource recovery.

Intended Learning Outcomes:
Upon successful completion of this module, students are able
• To know and explain contextual challenges and existing concepts, approaches and methods to address these
• To understand and explain international development dynamics and implications for natural resources consumption patterns
• To choose and compare technical and non-technical components of integrated urban planning
• To evaluate technical and non-technical components of integrated urban planning in terms of their context
• To develop innovative concepts and combinations of these components
• To communicate in an interdisciplinary group and collaborate on joint results
• To present own results in a scientific manner in presentations and a report

Teaching and Learning Methods:
The module will be taught as a combination of a lecture series and a project. Major content will be explained in form of lectures with integrated discussion. In the project, students will work with the guidance of the tutor to develop solutions for selected case studies. Following an introduction into the project, they will work in groups, where every student will work on individual aspects of the project. Results will be presented in a joint group report and a final presentation.

Media:
Presentations, group work

Reading List:
1. Hoff, H. (2011). Understanding the Nexus. Background Paper for the Bonn2011 Conference: The Water, Energy and Food Security Nexus. Stockholm Environment Institute, Stockholm, pp. 52.
2. Gondhalekar, D. and T. Ramsauer (2017). Nexus City: operationalizing the urban Water-Energy-Food Nexus for climate change adaptation in Munich, Germany. Urban Climate 19: 28–40, DOI: 10.1016/j.uclim.2016.11.004 [OA]

Responsible for Module:
Keilmann-Gondhalekar, Daphne (d.gondhalekar@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:
Urban Water-Energy-Food Nexus Projekt (Projekt, 2 SWS)
Keilmann-Gondhalekar D [L], Keilmann-Gondhalekar D

Urban Water-Energy-Food Nexus Planung (Vorlesung, 2 SWS)
Keilmann-Gondhalekar D [L], Keilmann-Gondhalekar D
For further information in this module, please click campus.tum.de or here.

Module Description

LS50024: Management of Human - Wildlife - Vegetation Interactions in Protected and Unprotected Mountain Landscapes | Umgang mit Interaktionen zwischen Mensch, Tier und Vegetation in alpinen Landschaften

Version of module description: Gültig ab summerterm 2025

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 75	**Contact Hours:** 75

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The learning outcome will be examined based on a project work. The project consists of a written report (10-15 pages) and a presentation in two parts (5 min presentation of a scientific article (part A, individual) and 15 min presentation of the project work (part B, group work). In the project work, students will demonstrate their capacity to design a simple data analysis to address an applied question in wildlife conservation or management, to apply relevant methods, and to present and discuss their results and their practical implications.

The project work is a group work, where the individual contributions of the students need to be discernible for the examination. The evaluation will consist of 50% for the written report and 50% for the oral presentations (of which 30% for part B and 20% for part A). The capacity to present relevant results in a clear and concise manner will also be evaluated based on the presentation.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Basic ecological knowledge and computer skills are required to follow the course.

Content:
Students will receive and introduction on wildlife ecology, current challenges in wildlife conservation and management, and will read scientific literature on a chosen topic. During the block course in Berchtesgaden, the students will learn to apply their knowledge to specific conservation challenges in this mountain landscape.
The topics covered will include:

- Different types of wildlife management and conservation approaches (incl. protected areas, management of wildlife in managed landscapes, conflict mitigation measures)
- Basic ecology of ungulates, grouse and large carnivores in mountain landscapes
- Interactions between wildlife and vegetation, including habitat needs and impacts on forests
- Current challenges in wildlife management
- Conflicts of interest between different stakeholders in mountain landscapes regarding wildlife
- Methods for data collection on animal abundance and movement
- Data analyses methods for addressing applied questions in conservation and identifying potential conflicts with human interests
- Presentation and discussion of results

Intended Learning Outcomes:
Upon successful completion of this module, students will be able to understand current challenges in wildlife conservation and management in mountain landscapes, and tools that can be used for addressing those challenges:
- Understanding different conservation approaches (protected areas, conservation in managed landscapes)
- Basic knowledge on ecology of ungulates, alpine dwelling grouse and large carnivores in mountain landscapes and their interactions with vegetation, anthropogenic activities and different human interests
- Data collection and spatial analysis of animal movement and human-wildlife interactions
- Practical applications of spatial analyses to prioritize wildlife conservation measures and identify potential conflicts with human interests

Teaching and Learning Methods:
The course consists of an introductory seminar (blocked in Weihenstephan) and an exercise part, which will take place as a 5-day block course at the TUM research station Friedrich N. Schwarz in the Berchtesgaden National Park. In the seminar part of the course, students will receive and introduction to the topics of wildlife ecology, current challenges in conservation and wildlife management, and they will read scientific literature on a selected topic.
During the exercise part, the students will learn to apply their knowledge to specific conservation challenges in the Berchtesgaden National Park and its surroundings. Current challenges in conservation and management will be presented in the local context, and students will learn about data collection methods. In a group exercise, students will analyse data to address specific questions related to conservation and wildlife management, and they will present their results as part of a project work as a report and presentation.

Media:
PowerPoint, computer exercises, group work and group discussion

Reading List:
Apollonio, M., Belkin, V.V., Borkowski, J. et al. (2017) Challenges and science-based implications for modern management and conservation of European ungulate populations. Mamm Res 62, 209–217. https://doi.org/10.1007/s13364-017-0321-5

Storch, I. (2013) Human disturbance of grouse - why and when? Wildlife Biology, 19: 390-403. https://doi.org/10.2981/13-006
Guillaume Chapron et al. (2014) Recovery of large carnivores in Europe's modern human-dominated landscapes.Science 346, 1517-1519. https://doi.org/10.1126/science.1257553
Redpath, S. M. et al. (2013) Understanding and managing conservation conflicts. Trends in Ecology and Evolution 28, 100-109. https://doi.org/10.1016/j.tree.2012.08.021

Responsible for Module:
Mohr, Johannes johannes.mohr@tum.de Reiner, Rudolf, Dr. rudolf.reiner@tum.de

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

WZ0528: Urban Forestry | Urban Forestry

Version of module description: Gültig ab winterterm 2023/24

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The project work results in an illustrated report (max. 20 pages) prepared in small groups, which presents the results of the study on the growth and environmental performance of urban trees in a scientifically appropriate form. It includes a presentation of the problem and objective definition, theoretical foundations, methodology, results and their discussion, conclusions, bibliography. In the report, knowledge of the theory, state of knowledge in research and practice acquired in the lectures is to be demonstrated. The report comprises 80 % of the examination performance. The individual achievements of the individual students are to be marked in the report.
The results of the group work are to be presented in a PowerPoint presentation (duration: 10 minutes with subsequent discussion). The presentation comprises 20 % of the examination performance.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
Basic knowledge of plant ecology and physiology is of advantage

Content:
Urban forests are defined as the entire stock of trees in urban (and peri-urban) areas. It includes the trees in all green spaces, from woodlands, public parks, streets and squares, institutional land, private gardens, transport infrastructures to spontaneously grown vegetation on derelict land. Urban forestry is an approach for the planning, design and management of the urban forest to provide aesthetic, ecological, social, and economic benefits to people living in cities – from strategic planning at the city and city regional level to the management of individual trees. The course aims to give an introduction into urban forestry for advanced students at Master level to provide them with knowledge and skills to for sustainable planning, design and management of

urban forests. The course consists of a lecture series and a study project. Lectures cover the following topics:
• Urban forestry for sustainable urban development: an introduction the concept
• Ecophysiology of urban trees
• Urban micro-climate and soil
• Growth and ecosystem services of urban trees
• Urban phenology
• Tree growth and structure
• Meeting human needs in multifunctional management of urban woodlands
• Urban woodland design & landscape architecture
• Process oriented modelling urban tree growth and ecosystem services
• Role of urban forests and trees in moderating urban climates
• Hardy tree species for urban sites

Participants will undertake a study on urban tree growth which provides them with an opportunity to obtain in-depth knowledge on growth patterns of different species and their ecosystem services in relation to environmental conditions in urban areas. The project is carried out on tree plantings in selected urban open spaces. Depending on the topic, it may include measurements of tree structural characteristics, tree ring analyses, determination of the leaf area index (LAI) and/or micrometeorological measurements. The data collected in this way can be used to determine ecosystem services such as biomass and carbon storage, or the cooling capacity due to shading. Simulation models may be applied for this purpose.

Intended Learning Outcomes:
On successful completion of the course, students (i) understand concepts of urban forestry and how these are applied in practice, (ii) understand the role of urban trees and urban green for the climate, (iii) know methods which are necessary for analysing and planning of urban forests, (iv) are able to analyse and evaluate ecosystem services of urban trees and urban greening, and (v) are able to apply this knowledge and skills in a study project.
In the study project, the students shall show that they are able to correctly apply a methodology for recording and analysing important parameters of the growth of urban trees in order to determine ecosystem services of trees (such as carbon storage, shading) with reference to the relevant scientific literature and to draw conclusions for the management of urban trees.

Teaching and Learning Methods:
Lectures to provide advanced knowledge on theoretical principles, methods and applications in urban forest research, planning, design and management.
Student measurement campaign for data collection with subsequent data analysis, to teach scientific methods of urban forestry research.
Student presentations of the results of a project exercise, for the acquisition of competences in the scientific communication of research results.

Media:
Classroom lectures with PowerPoint and possibly other media (e.g. videos), tutorial with guidance

Reading List:
Konijnendijk, C.C. Nilsson, K., Randrup, T.B., Schipperijn, J. (Eds.). Urban Forests and Trees in Europe – A Reference Book. Springer-Verlag, New York; further literature for the different themes of lectures will be introduced during the course

Responsible for Module:
Rötzer, Thomas; Prof. Dr. agr. habil.

Courses (Type of course, Weekly hours per semester), Instructor:
Urban Forestry (Projekt, 2 SWS)
Pauleit S, Franceschi E, Parhizgar L, Pattnaik N, Reischl A, Rötzer T

Urban Forestry (Vorlesung, 2 SWS)
Pauleit S, Knoll S, Lupp G, Parhizgar L, Pattnaik N, Raum S, Reischl A, Rötzer T, Torano Caicoya A
For further information in this module, please click campus.tum.de or here.

Module Description

WZ1344: Urban Agriculture | Urban Agriculture

Version of module description: Gültig ab winterterm 2023/24

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module grade is based on a written report (approx. 20 pages; 80% of grade) complemented by an oral presentation (15 min. + 5 min. discussion; 20% of grade). In the report, the students design a strategy for ecologically oriented sustainable urban agriculture. Here, students should situate their strategy in a theoretical framework, and evaluate the relevant environmental and social context of their strategy. Written summaries measure the student's understanding and evaluation of ecological and social aspects, and ability to apply theoretical frameworks. In the presentation, the students present their strategy (PowerPoint plus any additional aides) to demonstrate understanding of an urban agriculture system, communicative competence, presentation, and discussion skills in front of an audience. Students may prepare the report and project individually or as a group (max. 3 students). In the case of group work, students must report academic contribution and their performance will be evaluated individually.

Repeat Examination:
Next semester / End of Semester

(Recommended) Prerequisites:
Basic knowledge in agriculture, landscape planning, and landscape ecology is an advantage

Content:
Urban agriculture has experienced a renaissance in recent decades. What are the possibilities for sustainable urban agriculture that supports multiple ecosystem services? This module explores ways in which urban agriculture can aid in the enhancement of food security, biodiversity, energy conservation, public health and well-being in cities. We will discuss the agro-ecological basis of urban horticultural production systems adapted for city environments. Topics include fundamentals of horticulture, soil properties and fertility, pest and pollinator management, animal agriculture, and climate change impacts. The students will learn about methods of urban agriculture and innovative approaches to ecologically-oriented and climate-resilient urban agriculture. In addition,

they will study how urban food production interacts with social, cultural, and political dimensions of urban environments (e.g. city policy, economics, human health) to foster an interdisciplinary understanding.

Intended Learning Outcomes:
On successful completion of the module, participants are able to:
1. Understand important agroecological aspects of urban agriculture such as biodiversity, soil management, and climate mitigation;
2. Relate social aspects of urban agriculture to environmental aspects such as public health and urban policy;
3. Apply interdisciplinary theoretical frameworks to urban agricultural systems;
4. Evaluate the environmental and social context of urban agriculture;
5. Create a strategy for a sustainable urban agricultural system in a project;
6. Communicate their strategy with understanding and evidence.

Teaching and Learning Methods:
The module is highly interactive and combines lectures with field trips and presentations from guests and peers. The lecture series will cover topics including: fundamentals of horticulture; soil management; pest and pollinator management; urban agriculture and climate change; challenges of urban agriculture; public health; and the business of urban agriculture. The seminars are based in experiential learning. In the seminars, we will 'see' cities as edible: in the present on field trips; in the past through films and advanced readings; and in the future through group presentations that design urban farming systems for future cities.

Media:
PowerPoint, films, virtual lectures

Reading List:
Egerer, M. & Cohen, H. (2021) Urban Agroecology: Interdisciplinary Research and Future Directions. CRC Press, Boca Raton, FL.

Carpenter, N., & Rosenthal, W. (2011). The essential urban farmer. Penguin.

Zeunert, J. (2018). Dimensions of urban agriculture. In Routledge handbook of landscape and food (pp. 160-184). Routledge.

Zimmerer, K. S., Bell, M. G., Chirisa, I., Duvall, C. S., Egerer, M., Hung, P. Y., ... & Yacamán Ochoa, C. (2021). Grand challenges in urban agriculture: ecological and social approaches to transformative sustainability. Frontiers in Sustainable Food Systems, 5, 668561.

Responsible for Module:
Egerer, Monika; Prof. Dr.

Courses (Type of course, Weekly hours per semester), Instructor:
Urban Agriculture (Vorlesung, 2 SWS)
Egerer M [L], Egerer M, Casanelles Abella J

Edible Cities (Seminar, 2 SWS)
Egerer M, Sexton A
For further information in this module, please click campus.tum.de or here.

Module Description

BGU38014: Water and Wastewater Treatment Engineering | Wasserversorgung, Wasseraufbereitung und Abwasserbehandlung

Version of module description: Gültig ab summerterm 2020

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is a written exam of 120 minutes duration.
Through theoretical questions students prove that they understand the individual stages for the elimination of wastewater constituents, the basics of water supply and wastewater management systems as well as necessity and feasibility of wastewater treatment methods, especially of municipal wastewater. Through calculation and design tasks, which are comprised of a treatment task with given input parameters, the students show that they can analyze resource management in the field of wastewater treatment, the performance of related systems, as well as location factors for water technology systems and can critically evaluate various conventional water and wastewater treatment techniques, taking into account urban and natural conditions. They also show that they are able to analyze water treatment problems in a limited time and apply the necessary procedures for the protection of public health, as well as to develop process optimization and solutions for municipal wastewater treatment considering technical and legal regulations.
The tasks often require own formulations, in some cases, multiple choice answers, the focus however being on short calculation tasks. In the exam, limited aids such as lecture handouts and personal notes are allowed. Not allowed are text books, internet and communication among themselves and with third parties.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Siedlungswasserwirtschaft Grundmodul (BGU38016)
Siedlungswasserwirtschaft Projektkurs (BGU38020)

Content:
1. Water supply resources and source protection; Character of raw water qualities
2. Regulatory and technical requirements for water and wastewater treatment; discharge standards
3. Processes to abstract, treat, store and distribute water for potable supply
4. Structure and organization of public water supply
5. Operation and maintenance of water treatment facilities
6. Character of wastewater, in particular municipal wastewater
7. Regulatory requirements and discharge standards
8. Approaches to treat municipal wastewater/resource recovery facilities
9. Fundamentals of biotechnology and microbial reactions/processes
10. Biological treatment processes
a. Activated sludge processes (aerobic, anaerobic)
b. Sequencing Batch Reactor (SBR) Technology
c. Biofilm reactors
11. Disinfection (chlorine-based; UV irridiation)
12. Biosolids stabilization and energy recovery from waste streams

Intended Learning Outcomes:
After completion of this module course the students are able to:
- understand concepts of drinking water and wastewater treatment facilities and processes
- they will be able to apply the knowledge to select proper siting for drinking water facilities considering constraints within the urban and natural environment
- to analyze critical control points and evaluate the appropriate treatment unit processes to protect public health
- to create optimized treatment processes based on regulatory and technical requirements
- to understand the need and feasibility of wastewater treatment, with special emphasis on treatment of municipal wastewater
- to apply individual unit processes and operations to remove problematic constituents from wastewater using biological processes for organic and inorganic constituents as well as pathogens
- to analyze resource management related to wastewater treatment
- to design concepts for conventional processes for wastewater treatment and evaluate their performance.

Teaching and Learning Methods:
The module consists of a lecture with integrated exercises. In the lecture, the technical and legal requirements for water and wastewater treatment as well as the theoretical principles of mechanical and biological treatment methods are presented by means of presentations. Furthermore, holistic concepts for water and wastewater treatment are presented. On the basis of the lecture, the methods for water and wastewater treatment are worked into voluntary problem-solving exercises during class exercises and via the Moodle platform.

Media:
Powerpoint presentations; Exercises in class and as voluntary homework via classworks during the lecture and via Moodle

Reading List:
Crittenden et al. (2012), Water Treatment Principles and Design , 3rd edition, John Wiley & Sons, New York, 2012
Edzwald, J. (2011), Water Quality & Treatment , 6th edition, McGraw Hill, New York, 2011
McGraw-Hill; 4th edition (2003). Wastewater Engineering Treatment and Reuse
Fourth Edition by Metcalf & Eddy, Inc.
Gujer, Willi (2007). Siedlungswasserwirtschaft. Springer, 3., bearb. Aufl.

Responsible for Module:
Prof. Dr.-Ing. Jörg Drewes (jdrewes@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:
Water and Wastewater Treatment Engineering (Vorlesung mit integrierten Übungen, 4 SWS)
Drewes J [L], Drewes J
For further information in this module, please click campus.tum.de or here.

Module Description

LS50016: Yale Field Trip with Preparatory Seminar | Yale Field Trip with Preparatory Seminar [Yale]

Version of module description: Gültig ab summerterm 2023

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 35	**Contact Hours:** 115

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination of the module is in form of a presentation (15 Minutes) during the preparatory seminar (voluntary midterm examination as course work; successful performance might improve the exam grade by 0.3; the presentation demonstrates that the students can independently familiarize themselves with and analyze one of the topics dealt with during the field trip) and a field trip report (5-10 pages), which has two parts. Part 1 presents the contents of the field trip. The students are assigned field trip topics (in groups), which they prepare scientifically in text form. In this way, the students prove that they can recognise the most important teaching contents from the presented field trip topics and prepare them scientifically. Part 2 consists of a reflection on the field trip topic against the background of the knowledge and skills acquired during the course of study and leads to a comparative analysis of the problem perceptions, solution, research and management approaches in North America and Germany, as presented by the American participants of the field trip. No repeat date is offered for the mid-term performance.

Repeat Examination:

(Recommended) Prerequisites:
WZ2706 Waldbau (German)
WZ4161 Forest Management (English)
Very good English skills

Content:
A joint field trip of approx. 2 weeks is at the centre of the module, which either takes place in Central Europe or North America. Students and lecturers from Yale University and TUM take part in the field trip. The field trips focus on
1. forest research and forest ecology (diversity and dynamics of forest ecosystems)

2. forestry and renewable resources (silvicultural methods, timber utilisation, nature conservation, society)
3. environmental policy (national park management, spatial planning).
The respective focus varies slightly depending on the field trip destination.
A preparatory seminar is held for the field trip in which the students are prepared for the field trip.

Intended Learning Outcomes:
The students are able to analyse the presented field trip topics against the background of
• forest science (especially different silvicultural approaches),
• forest ecology theories (especially the concept of potentially natural vegetation vs. natural disturbance regimes; different protection concepts like wilderness) and
• research approaches.
The students recognise how
• different historical developments (fundamental change of forest cover and forest structure in Middle Europe since the medieval period; minor influence of Native Americans on the ecosystems until the arrival of the European settlers) and
• different political systems and conditions (especially forest ownership, influence of nature protection organizations, and spatial planning systems) in Germany and North America influence the management of forest ecosystems.

Teaching and Learning Methods:
In the preparatory seminar, the students give presentations on topics relevant to the field trip in order to prepare for the field trip in terms of language and content. These presentations are also the basis for the field trip reports. During the field trip, local stakeholders present their perceptions of problems and approaches to solutions for the diverse challenges of forest management and related topics such as environmental and conservation policy. Inputs from the participating TUM and Yale lecturers and joint reflections with the students under the guidance of the lecturers (daily debriefings) serve to deepen topics and open questions.

Media:
Seminar and field trip

Reading List:
/

Responsible for Module:
Annighöfer, Peter, Prof. Dr. peter.annighoefer@tum.de https://www3.ls.tum.de/fafsys

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Transferable Skills Training | Überfachliche Qualifikationen

SOT60300: Kontextlehre WTG (former Carl von Linde-Akademie) | Kontextlehre WTG (ehem. Carl von Linde-Akademie)

SOT60301: Science & Technology | Wissenschaft & Technik

SOT603011: 1 Credit Modules | 1 Credit Module

Module Description

CLA10349: Tech-Histories Alive | Tech-Histories Alive

Version of module description: Gültig ab winterterm 2002/03

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 23	**Contact Hours:** 7

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden nehmen an dem Workshop „Oral History“ und dem Vorstellungsvortrag teil und verfassen entweder einen schriftlichen Bericht (1000 Wörter, unbenotet), indem sie die Inhalte des Vortrags wiedergeben und reflektieren, oder entwickeln ein Interviewkonzept, das anlässlich des Vorstellungsvortrags zur Anwendung gelangt.

Repeat Examination:

(Recommended) Prerequisites:

Content:
An der TU München werden seit 2007 herausragende Wissenschaftlerinnen und Wissenschaftler, die sich auch nach ihrem aktiven Dienst in besonderem Maße in Forschung und Lehre oder für die Universität im Ganzen engagieren, mit dem Ehrentitel TUM Emeriti of Excellence ausgezeichnet. Die hochkarätig besetzten Vorträge bieten Studierenden und Graduierten die Möglichkeit, an der reichhaltigen Forschungs- und Lehrerfahrung unserer Emeriti und Emeritae of Excellence teilzuhaben.

Intended Learning Outcomes:
Die Teilnehmer verfügen über Erfahrung, wissenschaftlichen Vorträgen (auch außerhalb ihrer Fachrichtung) zu folgen und die zentralen Thesen zu identifizieren. Sie sind in der Lage, sich in der Öffentlichkeit dem akademischen Rahmen gemäß zu artikulieren, persönliche Informationsdefizite durch Rückfragen zu schließen, Verbindungen zu eigenen Wissensbeständen herzustellen und Ergänzungen oder Einwände zur Sprache zu bringen.

Teaching and Learning Methods:
Vortragsreihe

Media:

Reading List:

Responsible for Module:
Prof. Dr. Daniela Zetti

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SOT603012: 2 Credits Modules | 2 Credits Module

Module Description

CLA20201: Complex Systems | Komplexe Systeme

Version of module description: Gültig ab summerterm 2012

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden zeigen in einer Präsentation zu Modellierungskonzepten oder fachspezifischen Anwendungen, dass sie die Grundbegriffe der Theorie komplexer Systeme verstehen und bei der Vermittlung fächerübergreifender Methoden adäquat anwenden können.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Die Themen Komplexität und Komplexe Systeme sind ein hochaktuelles Forschungsgebiet in Natur-, Ingenieur-, Wirtschafts- und Sozialwissenschaften. Komplexe dynamische Systeme (z.B. Materialien, Strömungen, Wetter, Organismen, Populationen, Märkte, Gesellschaften) bestehen aus vielen Elementen (z.B. Moleküle, Zellen, Menschen), aus deren Wechselwirkungen neue Ordnungen und Strukturen, aber auch Instabilität und Chaos entstehen.
Können wir aus Chaostheorien, aus der Entstehung von Ordnung und Selbstorganisation in der Natur lernen, unsere technischen und sozialen Systeme zu steuern? Wo sind grundlegende Unterschiede in der Dynamik von Natur und Gesellschaft? Welche Konsequenzen ergeben sich für unser Handeln?
1. Grundbegriffe der Systemtheorie
2. Modellierung dynamischer Systeme in Natur-, Technik- und Sozialwissenschaften (Themenfelder: Evolution, Geist und Gehirn, Wirtschaft und Gesellschaft)
3. Philosophische Implikationen in Wissenschaftstheorie und Ethik

Intended Learning Outcomes:
Die Teilnehmer sind in der Lage Grundlagen der fachübergreifenden Systemforschung zu reproduzieren und anhand exemplarischer Themenfelder der Modellierung dynamischer Systeme in Natur-, Technik- und Sozialwissenschaften darzustellen. Insbesondere können sie ihre Erfahrungen in der interdisziplinären Vermittlung und Transformation fachspezifischen Wissens ausführen.

Teaching and Learning Methods:
Vorlesung, Referate, Selbststudium

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA20704: Thinking, Perceiving, and Knowing | Denken, Erkennen und Wissen

Version of module description: Gültig ab winterterm 2010/11

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 37	**Contact Hours:** 23

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit einer Modulprüfung in Form eines Vortrags (Präsentation) abgeschlossen. Im Vortrag dokumentieren die Studierenden, dass sie zentrale Grundprobleme der Erkenntnistheorie verstanden haben und veranschaulichen können (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Das Seminar vermittelt einen historisch-systematischen Überblick der europäischen Klassiker der Erkenntnistheorie. Zentrale Fragen und Problemstellung der Erkenntnistheorie von der Neuzeit bis zur Gegenwart werden erarbeitet, zur Diskussion gestellt und bzgl. ihrer Relevanz für gegenwärtige Positionen in Wissenschaft und Gesellschaft eingeordnet.
Themenbereiche:
- neuzeitliche Erkenntnismodelle
- historisch-systematischer Überblick: Empirismus, Rationalismus, Idealismus, linguistic turn, pragmatic turn und naturalisierte Erkenntnismodelle

Intended Learning Outcomes:
Die Teilnehmer besitzen Grundkenntnisse über exemplarische Problemfelder der Erkenntnistheorie und verstehen Grundprobleme des Erkennens. Sie sind in der Lage, deren Relevanz für moderne Erkenntnis- und Wissenschaftskonzepte sowie für die Gesellschaft argumentativ einzuordnen.

Teaching and Learning Methods:
Vorlesung, textbasiertes Seminar, Referate, Gruppenarbeit, Diskussion, Selbststudium insbes. Lektüre / Erarbeitung von Texten

Media:
Skripte / Reader, Thesenpapiere, Tafelbilder, Power-Point

Reading List:

Responsible for Module:
PD Dr. Jörg Wernecke

Courses (Type of course, Weekly hours per semester), Instructor:

PD Dr. Jörg Wernecke
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21106: Emergence and Complex Systems | Emergenz und komplexe Systeme

Version of module description: Gültig ab winterterm 2009/10

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einer Präsentation stellen die Studierenden Konzepte von Emergenz dar und wenden diese auf Beispiele an (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
"More is different: das Ganze ist nicht mehr, sondern etwas Anderes als die Summe seiner Teile“ (der Physiker und Nobelpreisträger Philip W. Anderson).
In den Natur- und Ingenieurswissenschaften und der Informatik wird der Emergenzbegriff vielfach, aber oft in ganz unterschiedlicher Weise verwendet. Dieses Seminar will zum besseren Verständnis und der kompetenten, nichttrivialen Verwendung dieses facettenreichen Begriffs beitragen. Auf Basis neuerer Publikationen soll die Geschichte des Emergenzbegriffs herausgearbeitet werden sowie philosophische und naturwissenschaftliche Perspektiven dargestellt werden. Das Ziel ist die kritische Sicht auf diesen so schillernden Begriff, denn „Emergence, largely ignored just thirty years ago, has become one of the liveliest areas of research in both philosophy and science” (M. Bedeau 2008).

Das Seminar gibt eine Übersicht über den Stand der Diskussion zum Emergenzbegriff und zu Emergenztheorien. Aktuelle Beispiele aus den Einzelwissenschaften legen die Basis, sich mit diesem Begriff eigenständig auseinanderzusetzen und neue Einsichten zu gewinnen.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage emergente Phänomene auf Basis aktueller Theorien zu analysieren. Durch den interdisziplinären Ansatz können die Studierenden über Fachbereichsgrenzen hinaus relevante Fragen diskutieren.

Teaching and Learning Methods:
Textlektüre, Gruppenarbeit, Präsentation und Diskussion

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

Sabine Thürmel
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21115: Philosophy of Human-Machine Interaction | Philosophie der Mensch-Maschine-Beziehung

Version of module description: Gültig ab winterterm 2014/15

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden bereiten eine Präsentation vor (Prüfungsleistung), in welcher sie aufzeigen, dass sie die unterschiedlichen Formen der Mensch-Maschine-Interaktion verstehen.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Wie können die Interaktionen zwischen Menschen und Maschinen aussehen, wenn Letztere nicht bloße, allein vom Menschen zu steuernde Automaten sind? Welche Interaktionsformen sind – derzeit und in Zukunft – denkbar, möglich und erstrebenswert?

Zentrale Leitfragen des Seminars sind u.a.: Wie kommunizieren und interagieren Mensch und Computer/Maschine? Welche Grade und Modelle von Automatisierung, Kooperation und Autonomie menschlicher und technischer Agenten sind praktisch relevant, welche erkenntnistheoretisch begründbar, welche ergonomisch zu präferieren? Wie wird das Beziehungsgefüge von Mensch und Maschine ethisch bewertet, wie rechtlich normiert?

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme am Seminar sind die Studierenden in der Lage, unterschiedliche Formen der Mensch-Maschine-Interaktion zu verstehen. Insbesondere können sie den derzeitig zu beobachtenden Übergang von der Automatisierung zur Mensch-Maschine-Kooperation aus unterschiedlichen Perspektiven (z.B. ergonomisch, epistemologisch, ethisch) analysieren.

Teaching and Learning Methods:
Vergleichende Textanalyse und Textinterpretation, wissenschafts- und erkenntnistheoretische sowie ethische Analyse und Bewertung (methodische Elemente: Sprach- und Begriffsanalyse, Hermeneutik/Logik; problem-oriented learning

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
LLMs and Human Language Use - Philosophical Questions Concerning Contemporary AI (Seminar, 2 SWS)
Durt C

Mensch, Maschine und Interaktion (Subversive und konstruktive Beziehungen zwischen Mensch und Maschine) (Seminar, 1,5 SWS)
Tremmel S, Slanitz A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21314: Introduction to Philosophical Thinking | Einführung ins philosophische Denken

Version of module description: Gültig ab summerterm 2015

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird in Form eines Referats (Textvorbereitung) oder eines Protokolls als Nachweis für ein problemorientiertes Textverständnis abgeschlossen. Voraussetzung für den Leistungsnachweis ist das Bearbeiten einer vorbereitenden Lektüre und Mitarbeit in Gruppenübungen und Diskussionen.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Was ist Philosophie? Wie denken Philosophen? Wie argumentieren sie in ihren Texten? Wie kann man diese besser verstehen? Mittels der gemeinsamen Lektüre eines klassischen oder mehrerer Primärtexte zu einem Thema erhalten die TeilnehmerInnen einen Einblick in Probleme und Methoden der Philosophie, ihrer Bedeutung und Grenzen. Insbesondere in den Blick genommen werden dabei Probleme der modernen Natur- und Ingenieurwissenschaften wie:
- Wie ist sicheres Wissen möglich?
- Was ist Natur?
- Wo beginnt Leben?
- Wie können wir gerecht handeln?
- Wann sind wir frei?

Intended Learning Outcomes:
Nach der erfolgreichen Teilnahme an den Modulveranstaltungen sind die Studierenden in der Lage
- eine erste Antwort auf die Frage nach der Philosophie zu geben.

- verschiedene Herangehensweisen zur Erschließung eines philosophischen Textes zu gebrauchen und insbesondere ein Exzerpt des Textes anzufertigen und entsprechende Thesen aufzustellen (Problematisieren, nicht Nacherzählen)
- einen Bezug zu aktuellen Problemen der technisierten Wissensgesellschaften herzustellen.

Teaching and Learning Methods:
Seminar, Referate (Textvorbereitung) oder Protokolle, gemeinsame Lektüre und Textarbeit, Diskussionen, Selbststudium und insbesondere eigenständige Erarbeitung eines Themas, Gruppenarbeit, JiTT, Blended Learning

Media:
Tafelbilder, Präsentationen, Handouts, Moodlekurs

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Philosophische Argumente – eine Einführung in das philosophische Denken (Seminar, 1,5 SWS)
Ott M (Pereira Beloch L)
For further information in this module, please click campus.tum.de or here.

SOT603013: 3 Credits Modules | 3 Credits Module

Module Description

CLA30202: Mind - Brain - Machine | Geist - Gehirn - Maschine

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:
End of Semester

(Recommended) Prerequisites:

Content:
Smarte Maschinen und lernfähige Programme bestimmen die Infrastruktur und steuern die immer komplexer werdenden Abläufe in unserer technisierten Welt. Ingenieure interessieren sich für Wahrnehmung, Denken und Bewusstsein, um Roboter mit Fähigkeiten der Selbstorganisation auszustatten. Damit werden uralte Menschheitsfragen nach Geist, Seele und Bewusstsein berührt, welche die Philosophie seit ihren Anfängen beschäftigen.
Wo stehen wir heute im Brennpunkt von Neurophilosophie, Informatik und Robotik? Wie verstehen die Kognitionswissenschaften (Cognitive Science) Intelligenz und Bewusstsein? Und welche Konsequenzen haben diese Konzepte für die Anwendung, beispielsweise bei der Analyse von Entscheidungsprozessen Human-centered Design?

Intended Learning Outcomes:
Die Studierenden verfügen nach erfolgreicher Teilnahme über
- ein breites Verständnis von Konzepten des Geistes in verschiedenen Disziplinen wie Linguistik, Psychologie, Neurowissenschaften, Philosophie, Informatik und Anthropologie

- ein detailliertes Wissen über mindestens ein Beispiel für die Anwendung von Konzepten des Geistes, z. B. in Bezug auf die kognitiven Prozesse, die dem Nutzerverhalten im Rahmen des human-centered Design zugrunde liegen
- die Fähigkeit, akademisches Fachwissen durch den Einsatz verschiedener Präsentationstechniken zu vermitteln

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA30210: Philosophy of Technology | Technikphilosophie

Version of module description: Gültig ab summerterm 2010

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Im Rahmen einer Präsentation (30 min.) zeigen die Studierenden, dass sie in der Lage sind, auf Grundlage eines Textes ein technikphilosophisches Problem zu identifizieren und mit Bezug zum eigenen Fach sowie zu aktuellen Kontexten zu diskutieren (Prüfungsleistung 1). Durch Rekapitulationen (Zusammenfassung von Präsentation und Diskussionen) zeigen die Studierenden, dass sie Diskussionen nachvollziehen und dazu beitragen können (Prüfungsleistung 2).

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
Technikphilosophie fragt nach dem, was Technik ist, wie technische Gebilde entstehen können und welche Folgen deren Verwendung hat. Das Modul bietet eine Einführung in folgende Themenfelder:
1. Mensch - Technik - Natur
2. Wissenschaft und Technik
3. Kultur der Technik
4. Technik und Ethik

Intended Learning Outcomes:
Die Teilnehmer sind in der Lage, philosophische Probleme der Technik zu verstehen und einen Text insbesondere auf den implizierten Technikbegriff hin zu analysieren. Zudem verfügen sie über Erfahrungen in der interdisziplinären Vermittlung und Reflexion fachspezifischen Wissens. Sie

sind zudem in der Lage an Diskussionen zu technikphilosophischen Problemen in mündlicher und schriftlicher Form beizutragen und wesentliche Punkte darzustellen.

Teaching and Learning Methods:
Textbasiertes Seminar, Referate, Diskussionen, Gruppenarbeit, Selbststudium insbes. Lektüre/ Erarbeitung von Texten, Online-Forum

Media:

Reading List:

Responsible for Module:
Fred Slanitz

Courses (Type of course, Weekly hours per semester), Instructor:
Technikphilosophie - Texte zur Einführung (Seminar, 2 SWS)
Slanitz A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA31214: Classics of Natural Philosophy | Klassiker der Naturphilosophie

Version of module description: Gültig ab winterterm 2011/12

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit zwei Teilprüfungen abgeschlossen: 1) einem Referat (Textvorbereitung) oder Protokoll als Nachweis für promblemorientiertes Textverständis sowie 2) einem Essay (1000-1500 Wörter), in dem die Studierenden Aspekte des in den Natur- und Ingenieurwissenschaften vorausgesetzen Naturbegriffs analysieren

Repeat Examination:

(Recommended) Prerequisites:

Content:
Lektüre eines klassischen Werkes oder mehrerer klassischer Texte beziehungsweise Textausschnitte zur Naturphilosophie.

Die Naturwissenschaften untersuchen in einem Zusammenspiel von Empirie und Modell den Gegenstand Natur, den sie – in der Regel mehr oder weniger unreflektiert – voraussetzen. Die Naturphilosophie versucht darüber hinausgehend die Bedingungen der Möglichkeit sowie die Voraussetzungen für die Konstituierung dieses Untersuchungsgegenstandes aufzuhellen.

Intended Learning Outcomes:
Nach der erfolgreichen Teilnahme an den Modulveranstaltungen sind die Studierenden in der Lage
- mindestens eine naturphilosophische Position in ausgewählten Aspekten darzustellen.
- wesentliche naturphilosophische Aussagen eines naturphilosophischen Textes zu identifizieren.
- Beziehungen zu heutigen wissenschafts- oder technikphilosophischen Problemen herzustellen.

- Teilaspekte des in den Natur- und Ingenieurwissenschaften jeweils vorausgesetzten Naturbegriffs aus einer bestimmten naturphilosophischen Perspektive zu charakterisieren

Teaching and Learning Methods:
Seminar, Referate (Textvorbereitung) oder Protokolle, gemeinsame Lektüre und Textarbeit, Diskussionen, Selbststudium (insbesondere eigenständige Erarbeitung eines Themas, Gruppenarbeit)

Media:
Tafelbilder, Präsentationen, Handouts, Moodlekurs

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Klassiker der Naturphilosophie - für Ingenieur- und Naturwissenschaftler (Seminar)
For further information in this module, please click campus.tum.de or here.

Module Description

ED0038: Technology, Economy, Society | Technik, Wirtschaft und Gesellschaft

Version of module description: Gültig ab winterterm 2022/23

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment consists of a written assignment (7800-8200 characters) which is due at the end of the semester. Students interpret research literature with respect to sociotechnical problems to analyze the development of technology in social, economic, and political contexts.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
The course does not require any special prior knowledge.

Content:
In this course, an approach to the political, economic, social and cultural dimensions of technology development is acquired. Selected historical and current examples will be analyzed to see how technical artifacts, processes and services emerge. Under which social conditions, in which economic situations and political contexts does technology emerge? How is it discussed, implemented, changed or discarded?

Intended Learning Outcomes:
Students will be able to identify examples of the historical dimensions of processes of technifikaction and to understand the emergence and use of technical offerings in their concrete historical context.

Teaching and Learning Methods:
Lecture, self-study, case studies, writing of smaller thematic papers.

Media:
electronic lecture notes, presentations

Reading List:
- Nelly Oudshoorn and Trevor Pinch (Eds.), How Users Matter. The Co-Construction of Users and Technology. Cambridge, Mass. 2005.
- Gernot Rieder, Judith Simon and Pak-Hang Wong, Mapping the Stony Road Towards Trustworthy AI, in: Pelillo, Marcello and Scantamburlo, Teresa (Eds.), Machines We Trust: Perspectives on Dependable AI. Cambridge, Mass. 2021, http://dx.doi.org/10.2139/ssrn.3717451 .
- Philip Scranton, Urgency, Uncertainty, and Innovation: Building Jet Engines in Postwar America, in: Management & Organizational History, 2006, 1:2, 127-157, https://doi.org/10.1177/1744935906064096.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

ED00472: History of Technology in Modern Times I | Geschichte der Technik in der Moderne I

Version of module description: Gültig ab summerterm 2014

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Prüfungsdauer (in min.): 30.
Besuch der Vorlesung im Umfang von 2 SWS (2 SWS = 1 CP); Lektüre von Texten (30 h = 1 CP); mündliche Prüfung mit Vorbereitung des Vertiefungsthemas (30 h = 1 CP)

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
keine

Content:
In vier Teilen zu je einem Semester werden in dieser Vorlesung die wichtigsten Entwicklungen in der Geschichte der Technik von der Frühgeschichte bis in die Gegenwart in chronologischer Reihenfolge behandelt. Dieser Zyklus bietet sowohl unentbehrliches Grundlagenwissen wie auch eine theoretische und methodische Einführung in die Grundprobleme des Faches Technikgeschichte. Die Vorlesungen als Zyklus können auch einzeln besucht werden: Geschichte der Technik in Altertum und Mittelalter/in der Frühen Neuzeit/in der Moderne I/in der Moderne II.

Intended Learning Outcomes:
Die Teilnehmer erhalten einen Überblick zur Geschichte der Technik im Kontext der allgemeinen historischen Entwicklung. Sie sind in der Lage, Informationen und Quellen eigenständig aufzubereiten und zu bewerten. Sie können komplexe Sachverhalte und Argumentationen systematisch analysieren sowie klar und strukturiert vermitteln. Insbesondere entwickeln sie die Fähigkeit, fachspezifisches Wissen in übergreifende Zusammenhänge zu integrieren und interdisziplinär zu vermitteln.

Teaching and Learning Methods:
Vermittlung der Vorlesung mit multimedialer Unterstützung, elektronischem Skript und Literaturhinweisen zur Vertiefung

Media:
Skripte/Reader, Power-Point, Literatur zur Lektüre

Reading List:
Wird von Semester zu Semester aktualisiert bereit gestellt.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

ED00473: History of Technology in Modern Times II | Geschichte der Technik in der Moderne II

Version of module description: Gültig ab summerterm 2014

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Prüfungsdauer (in min.): 30.
Besuch der Vorlesung im Umfang von 2 SWS (2 SWS = 1 CP); Lektüre von Texten (30 h = 1 CP); mündliche Prüfung mit Vorbereitung des Vertiefungsthemas (30 h = 1 CP)

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
keine

Content:
In vier Teilen zu je einem Semester werden in dieser Vorlesung die wichtigsten Entwicklungen in der Geschichte der Technik von der Frühgeschichte bis in die Gegenwart in chronologischer Reihenfolge behandelt. Dieser Zyklus bietet sowohl unentbehrliches Grundlagenwissen wie auch eine theoretische und methodische Einführung in die Grundprobleme des Faches Technikgeschichte. Die Vorlesungen als Zyklus können auch einzeln besucht werden: Geschichte der Technik in Altertum und Mittelalter/in der Frühen Neuzeit/in der Moderne I/in der Moderne II.

Intended Learning Outcomes:
Die Teilnehmer erhalten einen Überblick zur Geschichte der Technik im Kontext der allgemeinen historischen Entwicklung. Sie sind in der Lage, Informationen und Quellen eigenständig aufzubereiten und zu bewerten. Sie können komplexe Sachverhalte und Argumentationen systematisch analysieren sowie klar und strukturiert vermitteln. Insbesondere entwickeln sie die Fähigkeit, fachspezifisches Wissen in übergreifende Zusammenhänge zu integrieren und interdisziplinär zu vermitteln.

Teaching and Learning Methods:
Vermittlung der Vorlesung mit multimedialer Unterstützung, elektronischem Skript und Literaturhinweisen zur Vertiefung

Media:
Skripte/Reader, Power-Point, Literatur zur Lektüre

Reading List:
Wird von Semester zu Semester aktualisiert bereit gestellt.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Geschichte der Technik in der Moderne II: das 20. Jahrhundert (Vorlesung, 2 SWS)
Reichenberger A (Goricki-Eickel T)
For further information in this module, please click campus.tum.de or here.

SOT603015: 5 Credits Modules | 5 Credits Module

Module Description

ED0141: Logic | Logik

Version of module description: Gültig ab winterterm 2013/14

Module Level: Master	**Language:** German	**Duration:** one semester	**Frequency:** winter semester
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 90	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Prüfungsdauer (in min.): 90.
Das Modul wird mit einer Modulprüfung in Form einer Klausur abgeschlossen. Um die Lernziele zu erreichen, ist neben theoretischem Input und Eigenstudium auch aktive Mitarbeit im Rahmen der Lehrveranstaltung notwendig. Deshalb werden Mid-Term-Leistungen angeboten, die - als Anreiz für die Studierenden - zu einer Verbesserung der Bewertung der Modulprüfung führen können. Mögliche Mid-Term-Leistungen sind: Referat, Gespräch, Protokoll/Rekapitulation, Essay, Mitarbeit in der Präsenzzeit und in Online-Foren, Übungs-/Hausaufgaben. Art und Umfang der vorgesehenen Mid-Term-Leistungen werden in der Beschreibung der Lehrveranstaltung veröffentlicht. Die Mid-Term-Leistungen werden nicht benotet. Werden die Mid-Term-Leistungen vollständig erbracht, verbessert sich die Modulnote um 0,3, wenn dies auf Grund des Gesamteindrucks den Leistungsstand des Studierenden besser kennzeichnet und die Abweichung auf das Bestehen der Prüfung keinen Einfluss hat. Bestandene Mid-Term-Leistungen werden bei der Wiederholung einer nicht bestandenen Modulprüfung berücksichtigt.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
keine

Content:
Die Logik untersucht Fragen wie: Was ist ein korrektes Argument? Was ist ein zulässiger Schluss? Was ist ein Beweis? Was ist eine formale Sprache? Was ist eine Struktur? Was ist eine Theorie und ein Modell einer Theorie? Was kann ein formales System leisten und was nicht? Was kann

algorithmisch berechnet werden und was nicht? Was sind die Grundlagen der Mathematik und der Informatik?
Das Modul bietet eine allgemeine Einführung in die Logik, die diesen Fragen exemplarisch nachgeht.

Intended Learning Outcomes:
Die Teilnehmer sind in der Lage, grundlegende Begriffe der Logik und ihre formale mathematische Darstellung zu verstehen. Sie können zwischen Syntax und Semantik unterscheiden und diese Konzepte in Problemanalysen anwenden. Sie haben ein vertieftes Verständnis von Argumentieren und Modellieren erworben und können dadurch allgemein komplexe Sachverhalte besser analysieren und darstellen.

Teaching and Learning Methods:
Vorlesung, Gruppenarbeit, Selbststudium, Übungen

Media:
Skripte/Reader, Thesenpapiere, Tafelbilder

Reading List:

Responsible for Module:
Oliver Deiser (deiser@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:
Propositional and First-Order Predicate Logic (Lecture) (Vorlesung, 2 SWS)
Centrone S

Propositional and First-Order Predicate Logic (Exercise) (Übung, 2 SWS)
Centrone S (Anishchenko M)
For further information in this module, please click campus.tum.de or here.

SOT603016: 6 Credits Modules | 6 Credits Module

Module Description

SOT56307: Philosophy of Artificial Intelligence: Key Readings | Philosophie der Künstlichen Intelligenz: Schlüsseltexte

Version of module description: Gültig ab winterterm 2023/24

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In an oral examination (30 minutes), students will demonstrate their ability to interpret philosophical texts on AI topics and discuss their approaches in relation to current debates.

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
Can machines learn and think? How do AI systems differ from human thought, speech, and action? How is AI changing knowledge and science? What are the ethical risks? And how should the basic assumptions of AI research and development be considered? Assigned courses address AI-related topics from a variety of philosophical perspectives, including logic, philosophy of language, philosophy of mind, knowledge, and science, philosophical anthropology and ethics.

Intended Learning Outcomes:
Students are able to,
- understand texts on philosophical issues in the context of artificial intelligence
- identify and exemplify philosophical concepts relevant to AI phenomena
- apply philosophical concepts to discuss current AI phenomena (selected examples).

Teaching and Learning Methods:
Seminar: readings and discussions of texts including teaching on historical and philosophical contexts and discussions to argue their relevance for current debates.

Media:
Online Reader

Reading List:
Margaret A. Boden (Ed.): The Philosophy of Artificial Intelligence, Oxford 1990

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Philosophy of Artificial Intelligence. Classical Readings in the Phenomenology of AI (Seminar, 3 SWS)
Centrone S
For further information in this module, please click campus.tum.de or here.

Module Description

SOT56401: Applied Philosophy of Quantum Theory | Applied Philosophy of Quantum Theory

Version of module description: Gültig ab summerterm 2024

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 150	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module exam consists of a written test (90 minutes) in which the students show their ability to outline certain key aspects of quantum physics and to explain how quantum computability can overcome certain challenges of classical computability in certain applications.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:

Content:
Quantum Theory is an essential part of our modern life and future. Since the growing amount of data poses difficulties for classical computability, questions arise about the possibility for quantum computability to overcome these challenges.
In this course, we will not only learn about quantum theory and its prospects but also solve concrete tasks with both classical and quantum computability methods.

Intended Learning Outcomes:
This module is organized around a set of conceptual questions presented by quantum physics and AI. By the end of the course, students will be able to explain certain key aspects of quantum physics, such as wave-particle duality, measurement, and entanglement, as well as the relation between quantic and classical computability and some application of quantum formalism to machine learning. They will be aware of the deep relationship between quantum physics and philosophical analysis and will have developed core philosophical skills.

Teaching and Learning Methods:
Lecture with integrated exercises. The course will be interactive: during the lectures, short assignments will be given that students can complete from their own computers. Weekly readings will be made available online.

Media:
Online lectures, Readings on Moodle

Reading List:
1) M.A. Nielsen, I.L. Chuang, Quantum Computation and Quantum Information. Cambridge University Press (9th Edition, 2010).
2) R. Giuntini, A.C. Granda Arango, H. Freytes, F.H. Holik, G. Sergioli (2023). Multi-class classification based on quantum state discrimination. FUZZY SETS AND SYSTEMS, 467-108509. ISSN: 1872-6801, Elsevier.
3) G. Sergioli, C. Militello, L. Rundo, L. Minafra, F. Torrisi, G. Russo, K.L. Chow, R. Giuntini (2021). A quantum-inspired classifier for clonogenic assay evaluations. SCIENTIFIC REPORTS 11-2830, ISSN 2405-2322, Nature.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SOT60302: Media & the Public | Medien & Öffentlichkeit

SOT603021: 1 Credit Modules | 1 Credit Module

Module Description

CLA10029: Writer's Lab | Writer's Lab

Version of module description: Gültig ab winterterm 2012/13

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 22	**Contact Hours:** 8

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden zeigen in einer Textprobe (3-5 Seiten) für das online Lektorat, dass sie korrekte Zitiersysteme, Literaturnachweise und Argumentationsstrukturen umsetzen können (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Ob wissenschaftliche Ausarbeitung, Exposé, oder Artikel in einer Fachzeitschrift: Schreibkompetenz ist ein Erfolgsfaktor. Die erste Sitzung des Workshops führt an das Schreiben und Strukturieren wissenschaftlicher Texte heran. In der Zeit bis zur zweiten Sitzung steht Ihnen die Referentin für ein Feedback zu individuellen Texten per E-Mail zur Verfügung. Die abschließende Sitzung dient dazu, allgemein wiederkehrende Problematiken zu besprechen sowie Tipps zum Sprachstil und Layout zu vermitteln.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage
- Zitiersysteme zu unterscheiden und Literaturnachweise im eigenen Text formal richtig aufzuschreiben
- unterschiedliche wissenschaftliche Argumentationsstrukturen anzuwenden
- wissenschaftliche Sprache hinsichtlich Stil und Lesbarkeit zu optimieren

- sich in kleinen Gruppen Feedback auf die eigenen Texte zu geben

Teaching and Learning Methods:
Dozentenvortrag, praktische Textübungen, individuelles Online-Lektorat

Media:

Reading List:
Schneider, W. (2010). Deutsch für junge Profis – wie man gut und lebendig schreibt, Berlin: Rowohlt.
Kruse, O. (2007). Keine Angst vorm leeren Blatt. Ohne Schreibblockaden durchs Studium, Frankfurt/New York: Campus.
Esselborn-Krumbiegel, H. (2002). Von der Idee zum Text. Eine Anleitung zum wissenschaftlichen Schreiben, Paderborn u. a.: Schöningh.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Writer's Lab - Scriptorium (Workshop, ,5 SWS)
Uecker K
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10269: Communication and Personality | Kommunikation und Persönlichkeit

Version of module description: Gültig ab summerterm 2011

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studierende zeigen die Bereitschaft, konkrete eigene fragliche Kommunikationssituationen einzubringen und gegebenenfalls zu inszenieren (Studienleistung). In einer Klausur zeigen die Studierenden, dass sie die verschiedenen Voraussetzungen für gelungene Kommunikation verstehen und bestimmte Kommunikationsmuster unterscheiden können (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
„Man kann nicht nicht kommunizieren" (P. Watzlawick) – Kommunikation ist also keine Kompetenz neben anderen, Kommunikation geschieht immer. In ihr kommt unsere Persönlichkeit zum Ausdruck und die unterschiedlichen Weisen, wie wir mit Menschen und auch Dingen in Beziehung stehen. Kommunikation und Beziehungsgestaltung sind zentrale Faktoren für die persönliche Lebensqualität und sie entscheiden wesentlich über den Erfolg und die Zufriedenheit in beruflichen Belangen.
Der Workshop bietet zum einen grundlegende und praxisnahe Einsichten der Kommunikationspsychologie, zum anderen ermöglicht er ein vertieftes Verständnis der eigenen Persönlichkeit in der Dynamik von Beziehungen und in Arbeitsstrukturen.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme an diesem Modul sind die Studierenden in der Lage:
- Kommunikation in ihrer Vielschichtigkeit zu verstehen
- zentrale Aspekte gelingender Beziehung und klärender Kommunikationsgestaltung anzuwenden

- eigene Kommunikationsmuster zu identifizieren
- das Entwicklungspotenzial im eigenen Kommunikationsverhalten zu erfassen und umzusetzen.

Teaching and Learning Methods:
Präsentation und Diskussion
Erlebnisaktivierende Inszenierung von Kommunikationssituationen
Supervisorisches Coaching zur Klärung von Fragen aus eigenen Kommunikationssituationen der TeilnehmerInnen
Feedback im Rahmen der Gruppe.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Standing, Voice and Communication - für Frauen (Ausgestattet mit Ausstrahlung und einer Stimme, die trägt) (Workshop, 1 SWS)
Herrmann A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10348: Become Successful Through Writing | Schreiben Sie sich erfolgreich

Version of module description: Gültig ab summerterm 2014

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 8	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einem Textentwurf zeigen die Studierenden, dass sie einen Text so aufbauen, strukturieren und formulieren können, dass er seinen Zweck erfüllt. Die Studierenden sind in der Lage zeitnah und selbstständig einen adequaten Text zu verfassen.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Eine klar strukturierte E-Mail, ein spannendes Protokoll, eine brillant formulierte wissenschaftliche Veröffentlichung. Mit souveränen Texten überzeugen Sie Professoren, Dozenten und Kollegen. Ein guter Schreibstil unterstützt Sie bei Ihrer späteren beruflichen Karriere. In diesem Workshop lernen Sie kurz schreiben, verständlich schreiben, strukturiert schreiben, schnell schreiben. Alles, worauf es beim Schreiben ankommt, ganz gleich für wen oder in welcher Situation Sie einen schriftlichen Text verfassen. Schreiben ist ein Handwerk, das auch Sie in diesen zwei Workshop-Tagen erlernen können. Ziel ist es, dass Sie mit Freude und Spaß formulieren, dann werden Sie auch Ihre Leser für sich gewinnen.

Bitte bringen Sie zu der Veranstaltung Ihr eigenes Notebook mit.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage, einen Text flüssig zu verfassen. Sie wissen, wie sie einen Text aufbauen und formulieren. Wie sie ihre Leser am besten erreichen und

für die Inhalte interessieren. Ganz gleich ob es sich um einen wissenschaftlichen Text, eine E-Mail, ein Protokoll oder ein Bewerbungsschreiben handelt.

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:
Fred Slanitz

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA10412: Technical Writing (Engineer Your Text!) | Technical Writing (Engineer Your Text!)

Version of module description: Gültig ab summerterm 2014

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
For their coursework (=immanent examination), students may choose between writing a short persuasive essay or a proposal (max. 1000 words); alternatively, they may compile a scientific abstract for a (hypothetical) paper (max. 250 words) or their thesis (max. 500 words). It is particularly important that students show sensitivity for different audiences and demonstrate their developed knowledge about argumentational structures in the chosen assignment.

Repeat Examination:

(Recommended) Prerequisites:
Students require adequate English skills (intermediate to post-intermediate).

Content:
Fuel your studies by the alternative energy of this workshop. Maximize your skills to write. Increase your writing efficiency. Use sustainable strategies and quality tools. Learn to write TUM (Technical, Understandable, Manageable) documents.

This course will focus on the fundamentals of text manufacturing: materials, processes, designs, assembly methods, quality management, and performance monitoring.

Intended Learning Outcomes:
By the end of the course, you are expected to be able to
- identify the role of psychological factors in writing and reading.
- recognize the needs of different audiences.
- show sensitivity to usability demands.
- analyze technical documents and locate features of best-practice writing.

- organize and manage your own writing.

Teaching and Learning Methods:
The workshop uses a constructivist approach to document analysis and text production based on recent academic literacy research. Cooperative learning methods like discussions, small group work, peer review, some direct instruction, and the independent work of the students ensure the diversity of knowledge transfer.

Media:
Flipcharts, exercise portfolio, Moodle

Reading List:
Gopen, G. D. and Swan, J. A. (1990). The science of scientific writing. American Scientist, 78:57-63. Please access this article in advance at: http://www.americanscientist.org/issues/feature/the-science-of-scientific-writing

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Engineer Your Text! (Technical Writing for People Who Want More) (Workshop, 1 SWS)
Balazs A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10626: Communicating Science | Wissenschaft in der Öffentlichkeit

Version of module description: Gültig ab winterterm 2002/03

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Modulprüfung besteht aus einem Essay, in dem die Studierenden die ein Beispielthema aus Wissenschaft und Technik ziegruppen- und mediengerecht darstellen und erklären.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Zeitung, Internet oder Science Center: Es gibt viele Gesichter der Kommunikation zwischen Wissenschaft und Öffentlichkeit. Welche konkreten Möglichkeiten der Vermittlung gibt es?

Welche Herausforderungen stellen sich in der Kommunikation zwischen Wissenschaft, Medien, Politik und Öffentlichkeit? Wie beschreiben Sie ihre wissenschaftliche Arbeit verständlich? Wie lassen sich komplexe Sachverhalte interessant aufbereiten? Wie wird die gesellschaftliche Relevanz wissenschaftlicher Themen dargestellt?

Intended Learning Outcomes:
Nach der erfolgreichen Teilnahme an dem Modul sind die Studierenden in der Lage, wichtige Aspekte der Wissenschaftskommunikation zu erkennen und deren Probleme zu analysieren. Zudem sind die Studierenden in der Lage Möglichkeiten zur Vermittlung von Wissenschaft und Öffentlichkeit zu diskutieren bzw. zu erklären.

Teaching and Learning Methods:
Vortrag, Präsentation, Übungen, Gruppenarbeit

Media:

Reading List:
M.-D. Weitze, W. M. Heckl: Wissenschaftskommunikation - Schlüsselideen, Akteure, Fallbeispiele. Springer-Verlag, 2016.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Wissenschaft kommunizieren (Verständliche Texte, kontroverse Dialoge und mehr) (Workshop, 1 SWS)
Weitze M
For further information in this module, please click campus.tum.de or here.

Module Description

CLA11123: How to Produce Your Own Videos | Videos selber machen

Version of module description: Gültig ab winterterm 2014/15

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden erstellen ein Filmkonzept und zeigen erlernte Fähigkeiten im drehen und schneiden von Filmsequenzen, welche schließlich zu einem Video fertiggestellt werden (Prüfungsleistung, unbenotet).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Auf YouTube werden jede Minute mehr als 100 Stunden Videomaterial hochgeladen. Auch auf klassischen Websites finden sich immer mehr Bewegtbildinhalte. Dank günstiger Consumer- und Handy-Kameras, frei zugänglicher Schnitt-Software und leistungsstarker Computer und Datenleitungen wird es immer einfacher, Videos herzustellen und zu veröffentlichen. Videos sind zu einem etablierten und zeitgemäßen Kommunikationsmittel geworden.

Wie können sich angehende Wissenschaftler diesen Trend zunutze machen? Wie gelingt es, wissenschaftliche Arbeit mit Hilfe von Videos anschaulich darzustellen? Wie kann man seine Botschaft möglichst einfach visualisieren?

Im Workshop werden die grundlegenden Anforderungen an ein erfolgreiches Video definiert: von der Idee zum Konzept, vom Dreh zum Schnitt. An konkreten Projekten erarbeiten die Studierenden ihre eigenen Filme. Der Schwerpunkt liegt dabei auf der inhaltlichen Gestaltung. Es ist den Studierenden freigestellt, welche Kamera und welches Schnittprogramm sie nutzen.

Bitte bringen Sie eine Digitalkamera oder ein Smartphone mit Videofunktion mit.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage, ein gutes von einem schlechten Video zu unterscheiden. Sie können die Bereiche Konzeptionierung, Kamera und Schnitt anwenden und wissen, wie ein erfolgreiches Video entwickelt wird. Darüberhinaus sind sie in der Lage selbst ein Video zu erstellen, welches professionellen Kriterien an Inhalt, Visualisierung und Sprache folgt.

Teaching and Learning Methods:
Erster Tag: Einführung, Vorstellung und Diskussion ausgewählter Video-Beispiele, Praxisübungen mit der Kamera, Erarbeitung von konkreten Video-Projekten
Zweiter Tag: Vorstellung und Analyse der erstellten Konzepte und Videos

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Videos selber machen (Wie Sie mit Bewegtbild sich und Ihre Inhalte besser verkaufen können) (Workshop, 1 SWS)
Fuchs M
For further information in this module, please click campus.tum.de or here.

SOT603022: 2 Credits Modules | 2 Credits Module

Module Description

CLA20267: Communication and Presentation | Kommunikation und Präsentation

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In Präsentationssequenzen (15-20 Min.) zeigen die Studierenden, dass sie in der Lage sind die erarbeiteten Aspekte überzeugender Kommunikation und Präsentation anzuwenden.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Kommunikation meint in der Regel die dialogische Kommunikation. Gemeinsam werden förderliche und hinderliche Verhaltens- und Kommunikationsweisen anhand der folgenden Inhalte erarbeitet:
- Grundlagen der Kommunikation
- Konstruktives Feedback
- Effektive und zielgerichtete Gesprächsführung

Mit ausgewählten Übungen haben Sie Gelegenheit Ihre Kommunikationskompetenz zu erproben und zu entwickeln.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage kompetenter zu kommunizieren und wirkungsvoller zu präsentieren. Sie kennen zudem die Inhalte für überzeugende Präsentationsfähigkeit:
- Aspekte der verbalen und nonverbalen Kommunikation

- Aufbau einer Präsentation
- Visualisierung der Inhalte
- Aktivierung der Zuhörer

In gezielten Präsentationssequenzen bekommen Sie die Möglichkeit, Ihre Souveränität und Überzeugungskraft konkret zu trainieren und von der Gruppe Feedback zu erhalten.

Teaching and Learning Methods:
Ausarbeitung der Präsentationsinhalte (Kurzpräsentation), Präsentationstraining mit Medieneinsatz im Plenum, Einzelarbeit, Gruppenarbeit, Trainerinput, Feedback (mündlich und schriftlich).

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Rhetoric and Argumentation. An Academic Talking Lab (Workshop, 1,5 SWS)
Martinez Gómez J

Kommunikation und Präsentation - Innenstadt (Workshop, 1,5 SWS)
Zeus R (Brea R, Rummeld-Rodenbach M)
For further information in this module, please click campus.tum.de or here.

Module Description

SOT62301: Project: Science, Art and Society - New Ways of Communicating Knowledge | Projekt: Wissenschaft, Kunst, Öffentlichkeit - Neue Formen der Wissensvermittlung

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In mündlicher und schriftlicher Projektarbeit (z. B. Projektskizzen und Konzeptpräsentationen, schriftliche Pitches) zeigen die Studierenden, dass sie in der Lage sind, komplexe wissenschaftliche Inhalte verständlich, anschaulich und zielgruppenorientiert zu vermitteln und (gestalterisch) umzusetzen, unterschiedliche Realisierungsformate hinsichtlich ihrer konkreten Tauglichkeit für ein spezifisches Thema zu bewerten und ein Konzept für die Umsetzung eines Formats hinsichtlich seiner Zielsetzung, Methoden und seiner Machbarkeit darzustellen.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:

Content:
Komplexe wissenschaftliche Inhalte spannend und verständlich an die Öffentlichkeit zu vermitteln, ist wichtiger denn je. Lernorte wie das BIOTOPIA Lab im Botanischen Garten München oder das Design Museum Die neue Sammlung geben Raum für den interdisziplinären Austausch: Mit verschiedenen Bildungs- und Vermittlungsangeboten wie Erlebnispfad, Workshop, digitalen Programmen wie Lab@Home, Podcast, Citizen Science, Science Slams und anderen Veranstaltungen mit hoher Interaktivität bieten sie die Möglichkeit, Wissen neu und anders zu kommunizieren, innovative Bildungsformate zu entwickeln und dabei Interesse für die MINT-Fächer zu wecken.

Intended Learning Outcomes:
Nach der Teilnahme haben die Studierenden ihre praktischen Kenntnisse in der Wissensvermittlung erweitert und neue methodische sowie kommunikative Kompetenzen erworben. Insbesondere sind sie in der Lage, komplexe wissenschaftliche Inhalte anschaulich, verständlich und zielgruppenadäquat zu vermitteln, unterschiedliche Formate der Wissensvermittlung an der Schnittstelle zu Kunst und Design hinsichtlich ihrer konkreten Tauglichkeit für ein spezifi-sches Thema zu bewerten und ein Konzept für die praktische Umsetzung eines Formats hinsichtlich seiner Zielsetzung, seiner Methoden und der nötigen Ressourcen professionell darzu-stellen.

Teaching and Learning Methods:
Der Kurs ermöglicht es Studierenden aus unterschiedlichen Fachdisziplinen, gemeinsam mit Expertinnen und Experten innovative Formate für die Wissensvermittlung und Bildungsarbeit zu entwickeln. Dabei werden im Kurs unterschiedliche Formate der Wissenschaftskommunika-tion erarbeitet durch:
• interdisziplinäre Projekt- und Gruppenarbeit,
• anwendungsorientierte und praxisnahes Erarbeiten von Ideen und Konzepten zur inno-vativen Wissenschaftsvermittlung/Wissenstransfer in die Gesellschaft,
• zielorientierte Entwicklung von Prototypen bzw. Vorführ-/Experimententwicklung,
• erfahrungsbasiertes Lernen und Challenge Based Learning,
• Experimentieren und Präsentieren,
• Erlernen von agilen Arbeitsmethoden,
• Feedback aus der Gruppe und durch Mentorate,
• Evaluation

Im Kick-Off Meeting werden die Themen zu den Einzelprojekten vergeben.

Media:
Expert:inneninput, Präsentationen, Teamwork, Projektarbeit

Reading List:
Ed Yong: The best American Science and Nature Writing, 2021

Reinventing the Museum: Relevance, Inclusion, and Global Responsibilities, 2023

Nicholas Thomas: The return of curiosity: what museums are good for in the 21 century, 2016

Marc-Denis Weitze, Wolfgang M. Heckl: Wissenschaftskommunikation - Schlüsselideen, Akteure, Fallbeispiele, 2016

Neil McGregor: Eine Geschichte der Welt in 100 Objekten, 2015

Wolfgang Heckl: Die Welt der Technik in 100 Objekten, 2022

ZEIT-Edition: Bibliothek des Wissens, Faszinierende Wissenschaft, leidenschaftlich erzählt

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:
Pop-up Show, DIY Lab, Infogame, Wissens-Dating: Gestalte neue Formen der Wissensvermittlung für das Science Communication Lab im Deutschen Museum! (Workshop, 2 SWS)
Rehwagen U, Passola i Lizandra E
For further information in this module, please click campus.tum.de or here.

SOT603023: 3 Credits Modules | 3 Credits Module

Module Description

MCTS0036: Moderation (RESET) | Moderation (RESET)

How to guarantee efficient group discussions and moderation

Version of module description: Gültig ab winterterm 2021/22

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 68	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Students must submit a research paper (2000 to 3000 words) in which they demonstrate that they have gained a deeper understanding of successful moderation. They do so by analysing a case or reflecting their own and other´s communication patterns and behaviour in group discussions and moderation situations. In the paper, students demonstrate that they have acquired a greater awareness for communication challenges and barriers with different stakeholders, as well as an empathic and also assertive communication attitude. Furthermore, they show that they are able to apply effective communication techniques for the creation and maintenance of respectful and results-oriented group discussions, and also to learn from experience and - if necessary or advisable - to modify critical group communication patterns.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
This Skills module is aimed at students currently enrolled in the M.A. program 'Responsibility in Science, Engineering and Technology'. Students from other English-language MA programs can apply to join the respective course provided there is sufficient space available.

Content:
It is a major challenge to communicate effectively with and to different stakeholders within the STS/RRI context (in project meetings, planning processes or field activities), especially when targeting the change of paradigms and behaviour. Involving different stakeholders such as fellow researchers and partners but also decision makers, entrepreneurs, and civil society in productive, interactive inter- and transdisciplinary meetings is a challenge and requires an informed and skilled

intervention of the moderator. Relevant concepts for these interventions will be discussed and necessary skills will be trained.

Intended Learning Outcomes:
This module is dedicated to the challenges of successful communication in multi-stakeholder environments. Participants will acquire the following skills needed to support and moderate meetings and discussions (involving 3-20 participants) effectively and guarantee consistent outcomes:
- awareness for communication challenges and barriers with different stakeholders
- empathic and at the same time assertive communication attitude in moderation situations
- application of effective moderation techniques (e.g. active listening, rephrasing, question techniques, establishing rapport)
- ability to use these techniques for the creation and maintenance of respectful and result-oriented group discussions
- ability to learn from experience and - if necessary or advisable - to modify critical group communication patterns

Teaching and Learning Methods:
Lectures to transfer knowledge about moderation and mediation; interactive exercises and simulations (role plays) to train group communication and moderation techniques

Media:
Whiteboard, flip chart, exercise sheets, exercises, role plays, films

Reading List:
MOORE, Ch. (2014). The Negotiating Process - Practical Strategies for Resolving Conflict.- 4th revised Edition; Jossey-Bass Publishers. San Francisco, CA, USA.
FISHER, R. & Ury, W. (2012). Getting To Yes: Negotiating Agreement Without Giving In. 3rd revised Edition (1st Ed. 1983). Penguin Books. New York, NY, USA.
SCHULZ v. THUN, F. (2004) Seven Tools for Clear Communication: The Hamburg Approach in English Language; Arbeitsgruppe Beratung und Training, Fachbereich Psychologie; 69 p.

Responsible for Module:
Bauer, Victoria; M.A.

Courses (Type of course, Weekly hours per semester), Instructor:
Facilitation Skills for Transdisciplinary Work Processes (Workshop, 1,5 SWS)
Schmitt S
For further information in this module, please click campus.tum.de or here.

Module Description

CLA32400: Media, Science, Technology: Digital Museum Project | Medien, Wissenschaft, Technik: Digitales Museumsprojekt

Version of module description: Gültig ab winterterm 2020/21

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 75	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In oral and written project work (including for example project sketches and presentations, written pitches and learning diaries) students show that they are able to evaluate their experiences of applied project management skills, to analyse different digital offers for a certain prototype, and to connect theoretical knowledge to real world settings.

Repeat Examination:

(Recommended) Prerequisites:

Content:
The project course offers the opportunity to discuss how science communication in museums takes place digitally and virtually, especially via formats that break with traditional ways of communication - for example podcasts, social media, augmented reality and gamification. As part of the course the students will develop small prototypes in interdisciplinary groups, supported by provided information (e.g. about science communication) as well as feedback from the course instructors.

Intended Learning Outcomes:
At the end of the module students are able to evaluate their practical firsthand experiences of applied project management skills in the context of digital formats of science communication. Students are able to compare and analyse different digital offers in informal learning situations in terms of their generic learning outcomes and draw conclusions for their own prototypes. On the basis of current science communication theory students illustrate their ability to think out of the box and connect theoretical knowledge to real world settings. Additionally, they will apply methods from design thinking approaches to practical task solving as well as plan and structure their workload

in their respective interdisciplinary groups. Students will gain a deeper understanding of the importance of feedback loops and self-reflective routines.

Teaching and Learning Methods:
Students are provided with relevant information and material for working in project teams and also for self-reflection in the context of digital formats of science communication. Additional support is provided through individual feedback sessions. Students present their project results in final presentations at the end of the course.

Media:
Formats are specified at the beginning of the course.

Reading List:
A reading list is provided at the beginning of the course.

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

MCTS0053: Intercultural Communication | Intercultural Communication

Version of module description: Gültig ab winterterm 2021/22

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Students give a 15-minute presentation, in which they demonstrate their knowledge of key intercultural communication concepts in a clear and concise manner, and their comprehension of how culture and other factors influence and shape communication Furthermore, they show their ability to analyze intercultural encounters, communication styles and critical incidents and that they are familiar with strategies and techniques to improve communication. After the presentation, the examiner/lecturer and the audience have 10 minutes to pose questions on the topic of the presentation, which the examinees are expected to answer knowledgeably and concisely

Repeat Examination:
Next semester

(Recommended) Prerequisites:
This Skills module is aimed at students currently enrolled in the M.A. program 'Responsibility in Science, Engineering and Technology'. Students from other English-language MA programs can apply to join the respective course provided there is sufficient space available.

Content:
In today's global and increasingly interdisciplinary environment, the success of ventures in almost any field requires an understanding of intercultural communication and cooperation. This module provides students with key concepts of intercultural communication and insights into how people from different backgrounds interact with each other. Based on the assumption that communication situations in international business and research settings are influenced by various factors including national, organizational and professional cultures, new media and technologies as well as the communicators' personalities, students learn to analyze and understand these factors. Furthermore, they develop greater self-awareness of their own cultural behavior and communication style and acquire strategies and techniques to improve their communication skills.

Intended Learning Outcomes:
Upon successful completion of the module, students:
- have knowledge of key concepts in Intercultural Communication Theory
- understand how culture and other factors influence and shape communication
- are able to analyze and evaluate intercultural encounters and critical incidents
- can analyze different communication styles
- have greater self-awareness of their own cultural behavior and communication style
- are familiar with strategies and techniques to improve their communication skills

Teaching and Learning Methods:
Classroom activities are tailored to the topics of the respective course and include lectures, reading activities, in-class discussions of key texts, talks and case studies, group work, simulation activities, communication exercises and student presentations. Students are expected to read and analyze key literature and case studies in order to familiarize themselves with fundamental concepts in Intercultural Communication Theory. Furthermore, they engage in discussions, simulation activities and communication exercises in order to understand how culture and other factors influence and shape communication, to analyze and evaluate intercultural encounters, and to learn about and apply strategies and techniques to improve their communication skills. Giving a presentation trains students to present their findings in a clear and concise manner.

Media:
Texts, case studies, slide presentations, videos and audio tracks, flipchart/whiteboard, worksheets, Moodle

Reading List:
A reading list will be provided at the beginning of the semester.

Responsible for Module:
Bauer, Victoria; M.A.

Courses (Type of course, Weekly hours per semester), Instructor:
Interpersonal Business Communication Skills (Workshop, 2 SWS)
Crail T
For further information in this module, please click campus.tum.de or here.

SOT603024: 4 Credits Modules | 4 Credits Module

Module Description

ED0312: Science and Technology Communication (for Lectureship) | Wissenschafts- und Technikkommunikation (für Lehramt)

Version of module description: Gültig ab winterterm 2014/15

Module Level: Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 120	**Self-study Hours:** 83	**Contact Hours:** 37

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Modulprüfung erfolgt in der Form einer wissenschaftlichen Ausarbeitung (Essay), einschließlich eines mündlichen Vortrags, in der die Studierenden das Verständnis von Problemen und Möglichkeiten der Wissenschafts- und Technikkommunikation und die Fähigkeit zur Anwendung von Techniken für eine zielgruppengerechte Kommunikation unter Beweis stellen.

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
Zeitung, Internet oder Science Center: Es gibt viele Gesichter der Kommunikation zwischen Wissenschaft und Öffentlichkeit. Immer mehr Wissenschaftler stellen sich auch dem „Dialog auf dem Marktplatz“. Welche Möglichkeiten der Vermittlung gibt es? Welche Herausforderungen stellen sich in der Kommunikation zwischen Wissenschaft, Medien, Politik und Öffentlichkeit? Wie kann ich als Wissenschaftler meine eigene Arbeit verständlich beschreiben? Wie lassen sich komplexe Sachverhalte interessant aufbereiten? Wie wird die gesellschaftliche Relevanz wissenschaftlicher Themen dargestellt?

Intended Learning Outcomes:
Nach der Teilnahme an den Modulveranstaltungen sind die Studierenden in der Lage, Probleme und Möglichkeiten der Wissenschafts- und Technikkommunikation zu verstehen und Techniken für eine effektive Kommunikation anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus Vortrag und Präsentationen des Dozenten, Einzel- und Gruppenarbeit zu praktischen Beispielen, Referaten zu historischen, didaktischen und sozialwissenschaftlichen Perspektiven. Aktive Teilnahme an den Lehrveranstaltungen.

Media:
PowerPoint, Filmausschnitte, Übungsaufgaben, Skriptum

Reading List:
Winfried Göpfert (Herausgeber): Wissenschafts-Journalismus: Ein Handbuch für Ausbildung und Praxis. Econ-Verlag, 2006.
Carsten Könneker: Wissenschaft kommunizieren, Wiley-VCH 2012.
Marc-Denis Weitze, Wolfgang Heckl: Wissenschaftskommunikation - Schlüsselideen, Akteure, Fallbeispiele, Springer 2015.

Responsible for Module:
Heckl, Wolfgang; Prof. Dr. rer. nat. habil.

Courses (Type of course, Weekly hours per semester), Instructor:
Wissenschaftskommunikation im Deutschen Museum: Texte im Museum (Seminar, 2 SWS)
Heckl W [L], Weitze M

Wissenschaftskommunikation im Deutschen Museum: Texte im Museum (Seminar, 2 SWS)
Heckl W [L], Weitze M
For further information in this module, please click campus.tum.de or here.

SOT60303: Politics & Business | Politik & Wirtschaft

SOT603031: 1 Credit Modules | 1 Credit Module

Module Description

CLA10226: Meaningful Project Management | Meaningful Project Management

Version of module description: Gültig ab winterterm 2002/03

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
After completion of the course students are able to come up with strategies for solving an existing problem and convert these strategies into a specific project. Students end the course with the formulation of a project proposal or logical framework. (ECTS:1)

Repeat Examination:

(Recommended) Prerequisites:
none

Content:
Project management and social responsibility are key issues in companies today. This course combines both topics.
Strategies for solving an existing problem are developed and converted into a specific project. The methodology of the course is based on the Impact Chain and Logical Framework approaches – tools used for the successful development and realisation of projects. These tools cover many central project management aspects ranging from the goals and individual activities of a project to budget planning and project evaluation. Relevant steps are explained by way of good-practice examples and expanded upon in the students' own project ideas. The thematic framework of the course revolves around issues of global responsibility: How can project managers in technical fields implement projects without exploiting people at home or abroad?

Intended Learning Outcomes:
After completing the course, students are able to
- plan projects professionally
- implement the main features of successful project management
- reflect on working in teams
- effectively work on achieving the planned results as well as the desired impact
- use different project management tools
... whilst taking into account relevant global issues.

Teaching and Learning Methods:
In a two-day block workshop students apply and reflect on the logic of project development. The methods are interactive.
The shorter version of the course (group 1) ends with a two-hour webinar held about one month after the block workshop. In this webinar, the results are evaluated and expanded upon.
In the longer version of the course (group 2), the acquired methods and tools are applied. Webinars help students with the implementation. In a final evaluation workshop, experiences and results are reviewed and discussed.

Media:

Reading List:
Initiative Cookbook: http://www.mitost.org/en/about-us/mitost-editions/initiative-cookbook.html
Project Management Methods: http://competendo.net/en/Project_Development
A Guide to the Project Management Body of Knowledge (PMBOK Guide). 2014
Patzak, Rattey, Projektmanagement: Leitfaden zum Management von Projekten, Projektportfolios und projektorientierten Unternehmen. 2014

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA10445: Approaches to Negotiation | Verhandlungsführung

Version of module description: Gültig ab winterterm 2012/13

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studierende analysieren und bewerten in einem (unbenoteten) Bericht im Umfang von 1000 - 1500 Worten ihre eigenen Verhandlungsstrategien.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Erfolgreich verhandeln heißt, das zu erreichen, was in einer bestimmten Situation möglich ist.
Ob es um das Gehalt im neuen Job, den Preis für einen Gebrauchtwagen oder das gemeinsame Urlaubsziel mit dem Partner geht. Oft sind wir ratlos, wenn der Verhandlungspartner geschickt ausweicht, eisern auf seiner Position beharrt oder uns einfach klare und überzeugende Argumente fehlen.

Im Workshop werden u.a. folgende Themen behandelt:
- sieben Phasen einer Verhandlung
- Hart in der Sache – Weich zur Person: Harvard Prinzipien der Verhandlung
- überzeugend argumentieren
- Chancen und Risiken unterschiedlicher Verhandlungsstrategien
- Verhandlungstaktiken
- Verhandlungsethik

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage
- ihren eigenen Gesprächsführungsstil zu reflektieren

- ihr Verhandlungsgeschick durch systematisches Vorgehen, die Berücksichtigung weicher Faktoren und den routinierten Einsatz von Gesprächstechniken zu verbessern.

Teaching and Learning Methods:
Verhandlungsübungen nach Bedarf der Teilnehmer/innen, Trainerinputs mit hohem Visualisierungsanteil, Kleingruppenarbeit, Verhandlungsübungen mit konkreten Rollenvorgaben, Soziometrie, Aktivierungsübungen, Analyse von Filmszenen.

Media:
Flipchart, Pinwand, Moderationsmaterial, Aufgabenblätter, DVD, Beamer, Fotoprotokoll; Skript

Reading List:
Das Harvard-Konzept, Roger Fisher; Verhandeln nach Drehbuch; Agnes Kunkel

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Verhandlungsführung (Verhandeln nach Drehbuch) (Workshop, 1 SWS)
Strohmeyer U
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10450: When Engineers Become Managers | Wenn aus Ingenieuren Manager werden

Version of module description: Gültig ab summerterm 2014

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 18	**Contact Hours:** 12

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Im Rahmen einer Fallstudie (3-5 Seiten)oder durch das Vorbereiten einer Präsentation (10-15 Min.) beschreiben die Studierenden, welche komplexen Problemstellungen im Management zu erwarten sind, und stellen hierzu Lösungsvorschläge vor (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
In den Ingenieur-Disziplinen gibt es für die meisten Aufgabenstellungen erprobte Theorien, Näherungsverfahren und Simulationsansätze. Im Management ist dies anders. Es gibt keine geschlossene, umfassende Theorie; allenfalls Ansätze für isolierte, begrenzte Themenbereiche.In dem Workshop werden bewährte Methoden und Instrumente für Standardsituationen vorgestellt, zusammen mit neuen, bisher nicht veröffentlichten Ansätzen zur Geschäftsoptimierung (Winning Business Models). Besonderen Raum nehmen die Themen Soft Skills und Veränderung ein. In diesem Zusammenhang wird ein neues Charakterstruktur-Ebenen Modell vorgestellt. Ausgewählte Themen werden in Arbeitsgruppen vertieft, die Ergebnisse werden von den Teilnehmern vorgetragen.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme am Seminar sind die Studierenden in der Lage Antworten auf zwei relevante Fragen zu geben:
-was erwartet mich in der Managementpraxis?
-welche Instrumente kann ich für die Lösung typischer Managementprobleme einsetzen?

Teaching and Learning Methods:
Vortrag; offener Dialog; Gruppenarbeit; Präsentation; Erfahrungsberichte von Dozenten und Teilnehmern

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Wenn aus Ingenieuren Manager werden (Workshop, ,5 SWS)
Rüll H, Schrems A (Rummeld-Rodenbach M)
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10524: The Asian Challenge | Herausforderung Asien

Version of module description: Gültig ab summerterm 2012

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einer schriftlichen Hausarbeit analysieren die Studierenden exemplarisch historische, kulturelle, soziale und politische Aspekte der dynamischen wirtschaftlichen Entwicklung einer Region.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Trotz Weltwirtschaftskrise – Asien boomt! Kein anderer Kontinent dieser Welt wird als so zukunftsträchtig gewertet wie die Region zwischen Indus und der Bucht von Tokio. Dabei werden die Vielfältigkeit des Kontinents sowie seine Risiken und Chancen oft kaum beachtet. Verallgemeinerungen überlagern zudem die teils völlig unterschiedlichen Lebenswelten im Denken, Handeln und Kommunizieren.
Dieser Kurs beleuchtet die wirtschaftliche Dynamik der Region und verbindet sie mit historischen, kulturellen und politischen Grundlagen. Demographische Entwicklungen sowie Prognosen und Trends runden das Bild ab. Einzelne Länderstudien führender Mächte des Kontinents (Japan, China, Indien) sollen darüber hinaus den Einblick in die Vielfältigkeit des Kontinents vertiefen. Unter Berücksichtigung internationaler und globaler Aspekte der Weltwirtschaft wird eine abschließende Gesamtbetrachtung der Rolle Asiens in der weltwirtschaftlichen Entwicklung vorgenommen, die den Teilnehmern auch Rückschlüsse auf die eigene europäische Entwicklung ermöglichen sollen.

Intended Learning Outcomes:
Nach der Veranstaltung sind die Teilnehmer in der Lage die Bedeutung der wirtschaftlichen Dynamik der Region zu erfassen sowie deren Entwicklung mit historischen, kulturellen und

politischen Aspekten zu verbinden. Die Kenntnis über demographische Entwicklungen sowie Prognosen und Trends ergänzt das Bild.

Teaching and Learning Methods:
Präsentationen, Gruppenarbeit, Diskussionsrunden, Länderstudien als Fallstudien

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Herausforderung Asien – ein Kontinent im Aufbruch (Workshop, 1 SWS)
Niemann I
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10555: Communication and Facilitation in Project Teams | Communication and Facilitation in Project Teams

Version of module description: Gültig ab winterterm 2013/14

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 22	**Contact Hours:** 8

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Students will write a short exam which proves that they understand various aspects of project management and are able to handle team conflicts successfully. Furthermore they are able to apply communication and facilitation skills (exam achievement).

Repeat Examination:

(Recommended) Prerequisites:
Students require adequate English skills to achieve the expected level of participation.

Content:
Team roles and team development stages (team development clock, team triangle)
How to create a good and well-structured work environment and enhance collaboration
Motivating a team with constructive feedback
How to handle conflicts successfully
Creative problem solving tools

Intended Learning Outcomes:
Here you will gain new insights into your own role within your team and gain appreciation of other roles that may appear during conflicts. By learning better ways of looking at team dynamics you will improve your ability to create a good and well-structured work environment and enhance team collaboration. After completing this workshop you will have an expanded set of useful communication and facilitation skills that will enable you to build good work relationships and deal with conflicts in a constructive manner.

Teaching and Learning Methods:
Trainer input, demonstrations, exercises, role-playing games, group discussions, feedback, etc. Each participant is encouraged to explore his/her style and thus expand their individual set of communication, dialogue facilitation and project team collaboration skills.

Media:

Reading List:
Belbin RM (1993) Team Roles At Work. Butterworth-Heinemann, Oxford

Hanlan M (2004) High-Performance Teams – How to Make Them Work. Praeger, Westport CT.

Pentland A (2012) The New Science of Building Great Teams. In: Harvard Business Review 04:2012.

Waters K (2012) All About Agile: Agile Management Made Easy! CreateSpace Independent Publishing Platform.

West MA (1990) The Social Psychology of Innovation in Groups. In: MA West, JL Farr (Eds) Innovation and Creativity at Work. Wiley, Chichester.

Yukl GA (2013) Leadership in Organizations. 8th ed. Pearson Eucation, Harlow.
"

Responsible for Module:
Monika Thiel

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA11108: Leadership | Führung übernehmen

Version of module description: Gültig ab summerterm 2012

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einer Präsentation analysieren die Studierenden die grundlegenden Konzepte/Methoden und Aufgaben der Personalführung (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Führung kann gelernt werden - sofern die Bereitschaft für diese Aufgabe besteht. Hierzu gehört Selbstreflektion, die Übernahme von Verantwortung und ein Verständnis über die grundlegenden Konzepte und Methoden der Personalführung.

Inhalte
- Management und Führung
- Wirksamkeit nachhaltiger Führung
- Führungs-Kompetenzen
- Leistungs-Pyramide
- Aufgaben einer Führungskraft
- Diversity, Interkulturelle Führung
- Kommunikation und Feedback
- Recruiting und Bewerbungsgespräche
- Situative Führung
- Persönlicher Entwicklungsplan

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme an diesem Workshop sind die Studierenden in der Lage die Wirksamkeit nachhaltiger Führung in Bezug auf die Leistungs-Pyramide zu veranschaulichen. Weiterhin identifizieren sie sich mit den erlernten Führungs-Kompetenzen und können je nach Situation den angemessenen Führungsstil demonstrieren und auch im Bereich der interkulturellen Führung angemessen reagieren.

Teaching and Learning Methods:
Praxisnahe Übungen zur Führungsübernahme, Diskussion

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA11317: Interdisciplinary Lecture Series Environment: Politics and Society | Ringvorlesung Umwelt: Politik und Gesellschaft

Version of module description: Gültig ab summerterm 2015

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
A successful accomplishment of 9 academic performances is mandatory for the examination! The examination consists of a short PowerPoint presentation at the end of the semester. The presentation can be created alone or in groups of two. Everyone has to speak one minute. The examination is ungraded.

Repeat Examination:

(Recommended) Prerequisites:

Content:
The lecture series Umwelt (environment) is an interdisciplinary, public lecture organised by the Environmental Department of the Studentische Vertretung (Student Representatives) of the TU Munich. Experts speak e.g. on technical environmental protection, health, consumer and climate protection. In the summer semester, it offers students the opportunity to learn about the political and social dimensions of current ecological topics and research results at a scientific level.

The lecture series Umwelt (environment) is offered in the winter semester in the module CLA11200 Ringvorlesung Umwelt: Ökologie und Technik (Lecture series on the environment: ecology and technology). It is only possible to gain given credits twice for the lecture series within each study program.

Intended Learning Outcomes:
Students are able to follow expert presentations on political and social dimensions of environmental problems and identify core theses and central facts.

Teaching and Learning Methods:
Lectures, presentations, discussions

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Out of Sight, Out of Mind? A Journey into the World's Hidden Realities (Ringvorlesung) (Vorlesung mit integrierten Übungen, 1,5 SWS)
Nogueira de Carvalho M, Pahl A, Recknagel F, Slanitz A
For further information in this module, please click campus.tum.de or here.

SOT603032: 2 Credits Modules | 2 Credits Module

Module Description

CLA21019: Understanding Politics 2 | Politik verstehen 2

Version of module description: Gültig ab winterterm 2002/03

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden stellen in einer Präsentation (20-30 Min.) die Struktur und Intention eines politisch-philosophischen Textes dar, identifizieren dessen ideengeschichtlichen Hintergrund und versuchen die Argumente kritisch zu hinterfragen sowie Bezüge zu aktuellen Diskursen herzustellen (Prüfungsleisung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Die Seminare thematisieren politische Selbstverständnisse und Legitimationen politischer Herrschaft.
- Mythen des Politischen
- Utopien
- Politik und Moral

Mit der kritischen Reflexion dieser Formen politischen ´Denkens` und ihrer ideengeschichtlichen Bezüge stellt sich zugleich die Frage nach den Grenzen eines nur wisschenschaftlich definierten Verständnisses von Politik.

Intended Learning Outcomes:
Die Studierenden sind nach der Teilnahme in der Lage die Struktur und Intention politisch-philosophischer Texte zu verstehen, unterschiedliche Positionen und deren ideengeschichtlichen

Hintergrund zu identifizieren, sowie Argumente kritisch zu analysieren und Bezüge zu aktuellen Diskursen herzustellen.

Teaching and Learning Methods:
Referate, Diskussion, Dozierendeninput, Gruppenarbeit

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA21102: 1914-1918: Science. Technology. War. | 1914-1918: Wissenschaft. Technik. Krieg

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit einer Modulprüfung in Form einer Präsentation abgeschlossen. Durch das abschließende Referat soll nachgewiesen werden, dass die Studierenden in der Lage sind historische Studien zum Verhältnis von Wissenschaft und Krieg zu vergleichen und zu diskutieren.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
keine

Content:
Der Ausbau kriegswichtiger Forschung seit dem 1. Weltkrieg prägte ganz entscheidend die Entwicklung der modernen Wissenschaft im 20. Jahrhundert. Die Arbeit für Militär und Rüstungsindustrie erschloss der Forschung immense Ressourcen. Es etablierten sich neue Großforschungseinrichtungen. Zugleich mussten sich Forschende aber auch mit der Politisierung der Wissenschaft ebenso auseinandersetzen wie mit den ethischen Dilemmata. Die Atombombe wurde nach 1945 zum Symbol für die verlorene Unschuld der Naturforschung im 20. Jh. und stieß eine kritische Diskussion in der Wissenschaft an. Die aktuell diskutierte Zivilklausel, mit der sich Universitäten verpflichten, keine Rüstungsforschung zu betreiben, zeigt, dass der militärisch-wissenschaftliche Komplex bis heute umstritten ist.

Die Seminarteilnehmer*innen erarbeiten sich einen Überblick über zentrale Entwicklungen des Verhältnisses von Wissenschaft und Krieg im 20. Jh. An ausgewählten historischen Beispielen diskutieren sie Bedingungen, Handlungsspielräume und Konsequenzen für die Forschung und das wissenschaftliche Selbstverständnis.

Intended Learning Outcomes:
Nach der erfolgreichen Teilnahme an diesem Modul sind die Studierenden in der Lage die Komplexität von Wissenschaft und Technik unter Berücksichtigung von politischen und gesellschaftlichen Aspekten zu erläutern. Darüberhinaus können die Studierenden anhand der erlernten Erkenntisse und den Vermittlungstechniken Argumente vertreten und Fakten beschreiben.

Teaching and Learning Methods:
Grundlage des Seminars ist die Lektüre und Diskussion historischer Studien zum Verhältnis von Wissenschaft und Krieg. Dabei können einzelne Forschende, technische Objekte oder spezifische rüstungsrelevante Forschungsfelder im Mittelpunkt stehen. Die Präsentationen und Essays der Teilnehmer*innen werden gemeinsam diskutiert und anschließend kommentiert.

Media:

Reading List:
Hachtmann, Rüdiger: "Rauher Krieg" und "friedliche Forschung"? Zur Militarisierung der Wissenschaften und zur Verwissenschaftlichung des Krieges im 19. und 20. Jahrhundert, in: Mit Feder und Schwert. Militär und Wissenschaft - Wissenschaftler und Krieg, hg. von Matthias Berg, Jens Thiel und Peter Th. Walther, Stuttgart 2009, S. 25-55.

Responsible for Module:
Désirée Schauz

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA21114: Perspectives of Technology Assessment | Perspektiven der Technikfolgenabschätzung

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einem Essay zeigen die Studierenden ihr Verständnis über die verschiedenen Dimensionen der Technikfolgenabschätzung (Prüfungsleistungen).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Innovation ist nicht ohne Risiko zu haben. Technikfolgenabschätzung (TA) versucht eine antizipierende Erkundung und Bewertung möglicher unerwünschter Technikfolgen. Was sind nun die Formen, Möglichkeiten, aber auch Grenzen von TA?

Diese Lehrveranstaltung vermittelt einen grundlegenden Einblick in die Geschichte, Ansprüche, Leistungen und Grenzen dieses umfassenden und ambitionierten Ansatzes. Dabei soll erstens auf die Etablierung von Technikfolgenabschätzung als Beratung für das Parlament eingegangen werden. Technikfolgenabschätzung versucht eine wissenschaftliche Analyse von komplexen Prozessen des Innovierens mit der Absicht, politische Entscheidungsprozesse zu beraten. Jedoch haben sich die Bedingungen politischen Entscheidens verändert, etwa dass die Laien eine größere Bedeutung zugesprochen bekommen. Wie spiegelt sich dieser Wandel von der Politik- zur Gesellschaftsberatung in der TA? Zweitens sollen deshalb die unterschiedlichen Verfahren der Technikfolgenabschätzung behandelt werden. Es gibt in der Zwischenzeit ein breites Spektrum, was der Vielfalt der beteiligten Disziplinen wie der sozialen Beteiligung geschuldet ist. Drittens werden schließlich die spezifischen wissenschaftlichen und sozialen Herausforderungen

behandelt, die mit diesem Projekt der TA einhergehen. Was sind die Risiken und Nebenwirkungen von TA selbst? Denn keine Innovation ohne Risiko - das gilt auch für die TA.

Intended Learning Outcomes:
Nach dem Besuch der Lehrveranstaltung sind Studierende in der Lage, Technikfolgenabschätzung (TA) zu beschreiben und verschiedene Formen von TA zu klassifizieren. Sie haben gelernt, diese verschiedenen Formen von TA kontextspezifisch zu veranschaulichen. Sie haben ein Grundverständnis von der besonderen Projektform von TA-Projekten entwickelt und verstehen die spezifische Berichtsform von TA-Studien. Die Studierenden können Problemstellungen für TA-Studien erklären. Sie sind in der Lage die gegenwärtigen Herausforderungen, die sich TA stellen, zu beschreiben und mittels der veränderten aktuellen Anforderungen an Expertise für politische Entscheidungsprozesse, zu demonstrieren.

Teaching and Learning Methods:
Die Lehrveranstaltung nutzt die Formate des Vortrags, der Arbeit in Kleingruppen und Kurzreferate.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Perspektiven der Technikfolgenabschätzung (Workshop, 1 SWS)
Böschen S, Brea R
For further information in this module, please click campus.tum.de or here.

Module Description

SOT62303: History and Remembrance | Geschichte und Erinnerung

Version of module description: Gültig ab winterterm 2024/25

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 36	**Contact Hours:** 24

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module is completed with a presentation (10-15 minutes, for group presentations 10 minutes longer for each additional participant) in which the students demonstrate that they can classify historical events politically, assess their individual, social and political consequences and discuss how to deal with them collectively.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:

Content:
The seminar provides insights into different aspects of the connection between history and the present:
- Historical-political: source-based thematic introduction to political, economic and social contexts of historical events (e.g. totalitarianism of National Socialism).
- Historical-biographical: classification of life stories and statements by contemporary witnesses (e.g. of prisoners and their fate).
- Present: discussion of the collective confrontation with historical events (e.g. culture of remembrance - in the Federal Republic of Germany with its own history of persecution and totalitarianism).
Thematic focuses are totalitarianism and human rights, persecution and extermination, marginalization and discrimination, tolerance and civil courage.

Intended Learning Outcomes:
Students are able to identify the political-social contexts of specific historical events, classify individual biographies and statements by contemporary witnesses in relation to the events and

their contexts and critically discuss aspects of the culture of remembrance and collective coming to terms with the past.

Teaching and Learning Methods:
Lecture, guided tour, film analysis, presentations, discussions, group work, self-study, especially reading, processing of source material

Media:
Lecture, reader, exhibitions, historical sources incl. film and photo material

Reading List:
Bundeszentrale für politische Bildung: Dossier: Geschichte und Erinnerung, online: https://www.bpb.de/themen/erinnerung/geschichte-und-erinnerung/

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Discrimination, Persecution and Extinction: Dachau Concentration Camp in History & Present (Seminar, 1,5 SWS)
Raith F, Wernecke J
For further information in this module, please click campus.tum.de or here.

Module Description

SOT62401: Intercultural Encounters | Interkulturelle Begegnungen

Version of module description: Gültig ab summerterm 2024

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination takes the form of an individual learning portfolio of 900-1200 words, including self-reflection on one's learning path. In terms of content, the portfolio refers to the experiences gained during the intercultural workshops, participation in three cultural events, and collaboration on an intercultural group project. Students demonstrate their ability to independently contextualize situations they have experienced in a culturally sensitive way and to deal critically with stereotyping. In addition, personal thought structures and action patterns are examined and (re)categorized in the learning portfolio.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Good English language skills (level B2)

Content:
Does the "international" necessarily entail differences? Let's experience fantastic diversity and still discover amazing similarities!
In our interactive learning environment, we focus on sensitivity in order to encounter each other beyond stereotypes in a curious and authentic way. German and international students collaborate in interactive workshops, experience exciting cultural events together, and work together in intercultural group projects. These practical experiences not only enable students to become aware of cultural differences but also encourage them to reflect on them. This allows you to create lasting connections and build common ground.
Find out how to strengthen your intercultural sensitivity and constructively work together in diverse teams. "Come Together!" is more than just a course - it is an invitation to come together, a space to celebrate diversity. "Come Together!", discover what we have in common, and create a world in which cultural differences are seen as an enrichment.

What questions do we deal with in this course?
- How can we face the hidden challenges of global living/intercultural encounters?
- How does person-centered interaction work?
- How may I apply diversity sensitization to my everyday life?
- How do people build trust in work environments?
- How do unconscious biases and stereotypes influence our perception and behavior?
- How can I deal with and contextualize irritating situations in intercultural settings?
- What are crucial skills regarding intercultural teamwork, and how do we develop them?
- How would I give and receive feedback well?

Intended Learning Outcomes:
After participation, students will be able to:
- identify cultural standards.
- recognize the dangers of stereotyping in an intercultural context.
- deal more constructively with cultural differences and possible conflict situations.

In addition, participants will increase their ability to work in diverse teams towards a common goal, to use cultural events as an opportunity for individual dialog, and to develop a diversity-sensitive attitude.

Teaching and Learning Methods:
In workshops, students learn to identify and reflect on cultural standards in everyday life through short presentations and interactive tasks (e.g. working on case studies, simulations, group work, peer feedback). They are also becoming aware of the dangers of stereotyping and of the potential for conflict in intercultural contexts.
By participating in cultural events in self-organized small groups lasting 3 times 2 hours, students can experience different ways of behaving, perceiving, and thinking outside of the intercultural workshops in order to experience diversity and a change of perspective in a realistic way.
In addition, the events serve to promote networking among the program participants and with the region. Therefore, the events must offer a communicative atmosphere in which the participants can interact with each other and learn new things about Munich, Bavaria, or Germany at once. Examples of suitable events could be specialty tastings, themed hikes, international cooking, interactive theater or museum visits, Bavarian dance evenings, etc. The cultural events should serve as an incentive to discover the region’s diversity and the similarities between the participants.
A group project including a presentation (10-12 min) and feedback gives the participants the opportunity to gain practical experience in working together in a diverse team and to reflect together on a specific topic. Mentoring is offered for each group in different phases of the project work.
Individual learning experiences are documented and reflected on in the learning portfolio (examination), both in relation to the cultural events and the group project, as well as other personal experiences and situational approaches.
In addition to the classroom course, online materials are provided for in-depth self-study.

Media:
Presentations, readers, moderation material, videos, online meetings

Reading List:
The following list contains texts relevant to the topic and methodology of the module that participants can use for in-depth study:
Belbin M.R. (1991): Management Teams: Why they succeed or fail.
Belbin M.R. (1993): Team Roles at Work.
Brinkmann, Ursula/ van Weerdenburg, Oscar (2014): Intercultural Readiness. Four competences for working across cultures.
Fengler, Jörg (2004): Feedback geben. Strategien und Übungen.
Gardenswartz, Lee/ Rowe, Anita (2010): Managing Diversity. A Complete Desk Reference & Planning Guide.
Morgan, Nick (2018): Can you hear me? How to connect with people in a virtual world.
Motschnig, Renate/ Nykl Ladislav (2009): Konstruktive Kommunikation. Sich und andere verstehen durch personenzentrierte Interaktion.
Schmitz, Lena (2015): Nationalkultur versus Berufskultur. Eine Kritik der Kulturtheorie und Methodik Hofstedes.
Shaules, Joseph (2007): Deep Culture. The Hidden Challenges of Global Living.
Stone, Douglas/ Heen, Sheila (2015): Thanks for the Feedback. The Science and the Art of Receiving Feedback Well.
Trisch, Oliver (2013): Der Anti-Bias Ansatz. Beiträge zur Theoretischen Fundierung und Professionalisierung der Praxis.

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:
Come Together! - Inter/Cultural Practice for Locals, Foreigners and World Inhabitants (Workshop, 2 SWS)
Eberhard M, Schliep H
For further information in this module, please click campus.tum.de or here.

SOT603033: 3 Credits Modules | 3 Credits Module

Module Description

CLA31900: Lecture Series Environment - TUM | Vortragsreihe Umwelt - TUM

Version of module description: Gültig ab winterterm 2019/20

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 67	**Contact Hours:** 23

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of a poster created in a group of 2-3 people connecting topics from at least two lectures. In order to collect material for the poster, participants have to organize themselves in discussion groups with 5-6 people.
Each discussion group will split into two groupes for the poster. At the end of the semester the poster has to be presented. Every member of the poster group has to speak one minute,
The grade will consist of the poster and its presentation.
Mandatory requirements for the examination
For the 3-ECTS course a successful accomplishment of 16 academic performances is mandatory for the examination!

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
The systematic integration of education for sustainable development at the university is an extremely complex challenge that can only be addressed through a plural and multi-perspective approach. Within the framework of the UNESCO World Programme of Action "Bildung für Nachhaltige Entwicklung“ (BNE; =Education for Sustainable Development), the interdisciplinary lecture series Umwelt - TUM takes place at the TUM Campus Garching, which deals with changing topics in the field of environmental sustainability.

It is organized by the newly founded branch of the environmental department AStA TUM at the Garching campus to promote sustainability awareness at TUM and to offer interested students the opportunity to deal with the topic in more detail.

Intended Learning Outcomes:
After successful participation in this module, students are able to understand lectures at a high scientific level and reproduce central statements. Students are able to comprehend analyses of sustainable development and are familiar with formulating their own positions and justifying them in discussions. Furthermore, they know where they can explore the topic of sustainability in more detail on campus, whether in the form of course offerings, internships, projects or thesis.

Teaching and Learning Methods:
It consists of six lectures and an organizational meeting at the beginning. Each lecture includes two 40-minute presentations, a 15-minute break and a subsequent 45-minute discussion with the speakers, which is realized in cooperation with the Zentrum for Schlüsselkompetenzen (Center for Key Competencies) of the Faculty of Mechanical Engineering.
The lectures and presentation slides will be uploaded to the online learning platform Moodle.
As homework, students will prepare a short report of the lectures and the discussion session. In addition, introductory and further literature will be addressed to enhance more detailed discussions of the lectures.

Media:

Reading List:

Responsible for Module:
Dr. phil. Alfred Slanitz (WTG@MCTS)

Courses (Type of course, Weekly hours per semester), Instructor:
Out of Sight, Out of Mind? A Journey into the World's Hidden Realities (Ringvorlesung) (Vorlesung mit integrierten Übungen, 1,5 SWS)
Nogueira de Carvalho M, Pahl A, Recknagel F, Slanitz A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA90331: TUMInspiration - Student Projects | TUMInspiriert - Studentische Projekte

Version of module description: Gültig ab winterterm 2011/12

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 70	**Contact Hours:** 20

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In Form einer Projektarbeit sollen die Studierenden nachweisen, dass sie ein gewähltes Projekt selbstständig konzipieren, bearbeiten und umsetzen können. In einer anschließenden Präsentation des Projekts und einem schriftlichen Projektbericht (Prüfungsleistung) weisen die Studierenden nach, dass sie ihr Projekt verständlich, präzise und überzeugend darlegen können.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
keine

Content:
Übergeordnete Inhalte:
- Grundlagen der Projektorganisation
- Grundlagen der Projektplanung,-durchführung und kritischen Evaluation
- Grundprinzipien der Kommunikation und der Führung und Motivation eines Teams.

Die spezifischen Inhalte hängen vom gewählten Projekt ab.

Mögliche Projektthemen sind beispielsweise:
- Organisation (Vorbereitung, Dokumentation, Nachbereitung) einer Veranstaltung
- Vorbereitung und Leitung eines Themenarbeitskreises
- Organisation einer themenspezifischen Schulung für Studies
- Organisation einer Veranstaltung
- themenspezifische Recherchen und Aufbereitung von Inhalten

Intended Learning Outcomes:
Nach der Teilnahme an dem Modul
- kennen die Studierenden die Grundprinzipien der Organisation von Projekten und sind befähigt, diese anzuwenden, indem sie kleine Projekte mit Unterstützung durch eine/n MentorIn effektiv organisieren und durchführen.
- können die Studierenden Projektmanagement-Abläufe kritisch reflektieren und evaluieren.
- kennen die Studierenden die Grundprinzipien der Führung und Motivation von Teams und können sie anwenden.

Teaching and Learning Methods:
Das Modul besteht aus einer Kickoff-Veranstaltung, drei einführenden Workshops, einer Phase der eigenständigen Projektplanung, -durchführung und -dokumentation und einer abschließenden Präsentation und Diskussion des Projektes

Die Kickoff-Veranstaltung führt in das Modul ein, klärt organisatorische Fragen und unterstützt bei der ersten Projektplanung.

In den Workshops werden die Grundlagen von Desingthinking (6h) Kommunikation und Teamführung (3h) und Projektmanagement (8h)
durch kurze Präsentationen vermittelt, insbesondere auf Basis von Einzel- und Gruppenarbeitsphasen gemeinsam erarbeitet.
Kern des Moduls ist darauf aufbauend die möglichst eigenständige Durchführung eines Projektes. Mündliche Zwischenberichte bezüglich des Standes der Projektdurchführung dienen dabei der Kontrolle des Projektfortschritts. Zugleich stehen der/ die MentorIn und die MitarbeiterInnen der betreffenden Fachschaft bzw. des AStAs sowie gegebenenfalls des WTG Studienbüros den Studierenden in diesem Rahmen in Einzelgesprächen und Gruppendiskussionen mit Feedback und Hinweisen zur Seite.
Die Studierenden sollen im Rahmen ihres konkreten Projektes angeregt werden
- auftretende Probleme möglichst eigenständig zu bearbeiten und zu lösen.
- die eigene Arbeit konstruktiv zu kritisieren.
- die konstruktive Kritik der Betreuenden produktiv umzusetzen.

Im Rahmen der konkreten Projekte
- recherchieren die Studierenden relevante Literatur bzw. Materialien.
- verfassen die Studierenden eine Projektskizze inklusive Zeitplan im Umfang von etwa zwei DIN A 4-Seiten. Die
Skizze muss zum Bestehen des Moduls spätestens zwei Wochen nach der Teilnahme am Workshop
Projektmanagement beim WTG Studienbüro eingereicht werden.
- verfassen die Studierenden einen Projektbericht im Umfang von etwa fünf DIN A 4 Seiten, der den Charakter eines
Lernportfolios haben soll.
- bereiten die Studierenden eine Projektpräsentation vor und führen diese durch.

Media:
Flipchart, Pinnwände, PowerPoint, Skripten

Reading List:
Allhoff, D.-W. & Allhoff, W. (2010). Rhetorik & Kommunikation. Ein Lehr- und Übungsbuch. München: Reinhardt.
Schulz von Thun, F. (2011). Miteinander reden 1-3. Störungen und Klärungen. Stile, Werte und Persönlichkeitsentwicklung. Das "Innere Team" und situationsgerechte Kommunikation. Reinbek: rororo.
Olfert, K. (2008). Kompakt-Training Projektmanagement. o.O.: Kiehl.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
TUMInspiriert - Studentische Projekte (Projektmanagement und Teamkommunikation in der Praxis) (Workshop, 1,5 SWS)
Kopp-Gebauer B [L], Hörtlackner R, Kopp-Gebauer B, Recknagel F, Schlesinger M, Slanitz A
For further information in this module, please click campus.tum.de or here.

Module Description

MCTS0049: Meaningful Project Management | Meaningful Project Management

Version of module description: Gültig ab summerterm 2018

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Students write a project report (3000 to 4000 words) in which they show their ability to identify the phases of a project, to plan a project in compliance with international standards, to achieve project results effectively and on time, and to reflect upon the challenges of international team work. In a 20-minute presentation, students demonstrate their ability to present project results to an audience in a clear and structured manner. The grade is weighted as follows: report 75%, presentation 25%. A student's contribution to group work which is to be assessed must be clearly identifiable and gradable.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
none

Content:
Professional project management is vital for the success of companies today. It is not only important to comply with international standards and effectively use professional project management tools but also to be aware of intercultural as well as ethical and social challenges. In this module, strategies for solving an existing problem are developed and converted into a specific project. The methodology of the course is based on the professional tools used for the successful development and realisation of projects.

Intended Learning Outcomes:
After completing the module, students are able to
- identify the phases of a project (initiation, definition, role allocation, brainstorming, decision-making, implemention, presentation, written assessment)

- plan projects in accordance with international standards by taking into account key issues (goals, activities, budget planning, evaluation) and using professional project management tools
- undertake tasks in an international team and reflect upon international team work
- effectively work on achieving the planned results as well as the desired impact
- implement projects on time
- present project results to an audience

Teaching and Learning Methods:
Students develop a project proposal in an international group using professional and established project management tools. This enables them to identify the phases of a project, and to plan a project in compliance with international standards. Principles of successful project management are analysed, applied and assessed in good-practice examples and student projects, which helps students work more effectively on achieving planned results on time. Working in an international group of students allows them to reflect on issues of international team work.

Media:
Slides, whiteboard, exercise sheets, flipcharts, videos, webinars

Reading List:
A Guide to the Project Management Body of Knowledge (PMBOK Guide) 2014.

Responsible for Module:
Bauer, Victoria; M.A.

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SOT603035: 5 Credits Modules | 5 Credits Module

Module Description

SOT55304: The Future of Data Governance | The Future of Data Governance

Version of module description: Gültig ab summerterm 2023

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 120	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
120 minutes written test at the end of the semester, in which students demonstrate that they are able to reflect on the learnings and apply the basic knowledge of data law and governance as well as the legal methods associated with it , and understand the impact of specific regulatory choices and link them to key concepts of constitutional magnitude.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:
No prior knowledge expected

Content:
The course provides a comprehensive overview over important aspects of data governance and data law.
The aim is to train students in socially responsible use of data and thus, provide them with a good understanding of the most important areas of data law. Data law includes not only the particularly important area of data protection law, but also IT security law, the emerging law of data sharing, data access and open data law. Today, data protection law has become an important and indispensable prerequisite for activities in organizations. Particularly in business, the GDPR has become a "boardroom issue" due to the relatively high fines, which can be as high as 4% of annual turnover for a data protection breach, so basic knowledge in this field is of great benefit. Likewise, IT security law is enjoying growing importance. However, modern data law goes much further than these areas. Especially in the public sector, but also in the area of research data, there are increasingly far-reaching transparency obligations and obligations to publish. Data sharing

infrastructures are also under legislative discussion, particularly as a result of the Data Governance Act. In addition, there is an intensive discussion about data access obligations.

Intended Learning Outcomes:
Upon successful completion of this module, students are able to:
• identify basic terms and important aspects of data law and data governance.
• understand specific regulatory choices and their intended and unintended impacts
• reflect on the respective choices made in a legal argument and link it to important concepts of constitutional magnitude
• develop problem awareness and the ability to express themselves.
• acquire basic impressions of law and legal methods that can also be of use to them in other contexts and that are very profitable for graduates of TUM in higher employment. However, this knowledge is to be woven into the course in such a way that students discuss central questions such as interpretation or the European theory of legal sources where they are relevant. In this way, the basic educational mandate is also fulfilled, which does justice to the guiding principle of independent-thinking human-centered engineering.

Teaching and Learning Methods:
The course is structured in two phases that interconnect and support each other. One part of the course will consist of a lecture where the students will have the chance to familiarize themselves with all the important theoretical concepts and information within the fields of data governance and regulation.
The second part of the course consists of a reoccurring tutorial. In this part of the lecture, the knowledge acquired in the lecture will be enhanced and deepened in an interactive way. The students will work on real-life cases related to the topics of the class.
• In-class discussions, including mini moot courts (small argumentative exercises with preconceived roles) and case studies of specific artefacts, will train students to display and discuss a legal issue, help to develop and argue for a solution, and to provide them with jurisprudential reflection skills
• Online videos help them to prepare for classes

Media:
input by lectures, case studies, in-class discussions, moot courts, online videos

Reading List:
Streinz, Thomas, The Evolution of European Data Law (January 18, 2021).
Paul Craig and Gráinne de Búrca (eds), The Evolution of EU Law (OUP, 3rd edn 2021), 902-936,
Available at SSRN: https://ssrn.com/abstract=3762971 or http://dx.doi.org/10.2139/ssrn.3762971

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SOT60304: Ethical & Social Issues | Ethik & Soziales

SOT603041: 1 Credit Modules | 1 Credit Module

Module Description

CLA10234: Human Rights Today | Menschenrechte in der Gegenwart

Version of module description: Gültig ab summerterm 2013

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studierende bereiten ein Referat (10-15 min.) vor, in dem sie ein Problem gegenwärtiger Konzeption der Menschenrechte aufgreifen und im Seminar erläutern.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Ontologische, historische und politische Perspektiven der westlichen Menschenrechte.
Historische und rechtliche Entwicklung der Menschenrechte.
Menschenrechte in der deutschen Geschichte als kumulative Problemlösung für konfessionelle und weltanschauliche Konflikte.
Epochaler Wettkampf zwischen westlichen individualistischen Menschenrechten und theologisch fundierten kollektiven Rechten des islamischen Kulturkreises.
Menschenrechtspolitik als außenpolitisches Instrument der westlichen Staaten.
Problem der Legitimität der humanitären Intervention.
Marx` Kritik an den Menschenrechten.
Mischverhältnisse zwischen westlichen Menschenrechten und anderen autochtonen Rechtskulturen.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage, die Menschenwürde als Fundament der Menschenrechte zu verstehen und von den historischen Ursprüngen der Menschenrechte zu unterscheiden. Sie sind ferner in der Lage, die verschiedenen Aspekte der „Humanitären Intervention“, der „Responsibility to Protect“ in Verbindung mit der Globalisierung und deren Auswirkungen zu erkennen. Die Teilnehmer sind befähigt, Menschenrechtsverletzungen wahrzunehmen und deren Ursachen zu verstehen sowie Reformvorschläge.

Teaching and Learning Methods:
Diskussion, Referat

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Die Wahrung der Menschenrechte angesichts der Schwächung der internationalen Ordnung durch Kriege und Terrorismus (Workshop, 1 SWS)
Nusser K, Pereira Beloch L
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10563: What Holds Society Together? | Was hält eine Gesellschaft zusammen?

Version of module description: Gültig ab summerterm 2010

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einem Referat stellen die Studierenden exemplarisch das Verhältnis zwischen Mensch und Gesellschaft vor und identifizieren hierzu die potentiellen Konflikte (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Ziel des Workshops ist es herauszufinden, wie vor dem Hintergrund eines tendenziell konfliktären Verhältnisses zwischen Mensch und Mitmensch eine konsensuale Basis geschaffen werden kann. Zunächst werden die natürlichen Voraussetzungen der Menschen für ein Leben in Gemeinschaft geklärt (anthropologischer Zugang). Im Anschluss sind die dynamischen Prozesse, Spannungsverhältnisse, Ambivalenzen in einer Gesellschaft herauszuarbeiten (z.B. Rivalisieren – Kooperieren, Nähe – Distanz, Inklusion – Exklusion, Eigenes – Fremdes, Intimität - Öffentlichkeit). Aktuelle Themen wie kultureller Narzissmus und Einfluss der Neuen Medien auf Interaktion und Gesellschaft werden genauso miteinbezogen wie Fragen nach der Schaffung bzw. Bedeutung von Gegenseitigkeitsverhältnissen wie Dialogizität, Vertrauen, Solidarität, Engagement und Anerkennung.
Antworten dazu liefern Sozialphilosophie, Sozialanthropologie und Sozialethik.
Skripten und Literaturangaben werden im Workshop ausgegeben.

Intended Learning Outcomes:
Die Studierenden sind nach Teilnahme am Workshop in der Lage, Wechselwirkungen von Individuum und Gesellschaft zu erkennen, Ambivalenzen und Widersprüche des menschlichen Sozialverhaltens zu identifizieren sowie dynamische Prozesse der Formation gesellschaftlicher Gruppen zu verstehen.

Teaching and Learning Methods:
Vortrag, Texterschließung, Gruppenarbeit, Diskussion, Videobeitrag

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

Andreas Belwe
For further information in this module, please click campus.tum.de or here.

Module Description

CLA11313: Conflict Management and Conducting Discussions | Konfliktmanagement und Gesprächsführung

Version of module description: Gültig ab summerterm 2015

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 8	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden dokumentieren in einem Bericht in Form einer schriftlichen Selbstreflexion (3-5 Seiten) ihr Verständnis des eigenen Konfliktverhaltens in schwierigen Gruppensituationen.

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
Wenn Menschen intensiv zusammenarbeiten, ergeben sich immer wieder Situationen, die sie als kontrovers, Stress auslösend und unproduktiv erleben. Durch das Aufeinandertreffen gegensätzlicher Interessen, Verhaltensweisen oder Einstellungen entstehen häufig Auseinandersetzungen, die es den Beteiligten erschweren, die eigentlichen Aufgaben zu erledigen und die angestrebten Ziele und Ergebnisse zu erreichen. Konflikte bergen jedoch auch viele positive Chancen und Veränderungspotenziale.
Der Workshop soll die Teilnehmenden sensibilisieren, Streitsituationen frühzeitig zu erkennen und eine konstruktive Haltung zur Situation einzunehmen. Sie lernen, Distanzfähigkeit zu entwickeln, wo sie selbst in Konflikte verwickelt sind, und ein Gespür für Verhandlungsgeschick entwickeln, wo sie als neutrale Dritte zwischen Kontrahenten vermitteln können. Der Workshop soll schließlich Strategien und (Gesprächs-)Techniken vermitteln, mit denen die Teilnehmenden Konflikte konstruktiv deeskalieren und den nachgelagerten Prozess gezielt steuern und strukturieren können.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage das persönliche Konfliktverhalten zu verstehen, Konflikte zu erkennen, zu bearbeiten und zu lösen. Die Studierenden kennen die Eskalationsstufen im Konfliktverlauf, wissen, wie sie schwierige Situation ansprechen und zwischen Konfliktparteien moderieren.

Teaching and Learning Methods:
Durch theoretischen Input erfahren die Studierenden unterschiedliche Konfliktdefinitionen, die diese im Anschluss praktisch anhand von Rollenspielen und Fallarbeiten in Kleingruppen sowie im Plenum üben können

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Kritische Kommunikationssituationen einfach lösen (Workshop, 1,5 SWS)
Hörtlackner R
For further information in this module, please click campus.tum.de or here.

SOT603042: 2 Credits Modules | 2 Credit Module

Module Description

CLA20230: Ethics and Responsibility | Ethik und Verantwortung

Version of module description: Gültig ab summerterm 2014

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einem Referat (1500-2000 Wörter) oder einer Präsentation (15-20 Min.) stellen die Studierenden eine Methode ethischer Urteilsbildung für mögliche Konfliktszenarien in den Problemfeldern Wissenschaft und Technik vor (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Wir treffen täglich Entscheidungen. Dabei spielen Fakten eine große Rolle, oft aber auch das sogenannte Bauchgefühl. In gesellschaftlichen Debatten um brisante Anwendungen von Wissenschaft und Technik kommt viel darauf an, beides voneinander zu unterscheiden und vor allem gute Gründe pro oder contra zu finden. Ethik leitet dazu an, mit Konflikten verantwortlich umzugehen. Aber welche Art von „Wissen“ wird dabei eingesetzt? Wie verhalten sich Recht und Ethik zueinander? Und wie lässt sich über angewandte Ethik sprechen, ohne Moral zu predigen?

Intended Learning Outcomes:
Die Studierenden sind in der Lage mithilfe einer Methode ethischer Urteilsbildung exemplarische Konfliktszenarien auf den Problemfeldern von Wissenschaft und Technik zu beschreiben und abzuschätzen. Nach der Teilnahme am Seminar sind sie in der Lage, ethische Argumente im Hinblick auf ihre Geltungsansprüche zu unterscheiden und verantwortliche Handlungsoptionen

in verständlicher und zugleich anwendungsnaher Sprache für ein ethisches Gutachten reflektiert aufzubereiten.

Teaching and Learning Methods:
Präsentation, Referat, Diskussion, Textanalyse

Media:

Reading List:
Fritz Allhoff, What Are Applied Ethics? http://files.allhoff.org/research/What_Are_Applied_Ethics.pdf
Lee Archie, John G. Archie, Introduction to Ethical Studies An Open Source Reader, https://philosophy.lander.edu/ethics/ethicsbook.pdf
John Deigh, An Introduction to Ethics, http://dx.doi.org/10.1017/CBO9780511750519.002

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA20420: Integration of Technology into Society | Integration of Technology into Society

Version of module description: Gültig ab summerterm 2012

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 39	**Contact Hours:** 21

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Prüfungsleistung besteht aus einer Präsentation (25-35 min) mit anschließender Diskussion, in der die Studierenden ein Problem aus dem behandelten Themenbereich anhand wissenschaflticher Konzepte beschreiben und sich an einer Diskussion über mögliche Konsequenzen beteiligen.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Angesichts des rasanten Fortschritts in Digitalisierung, Robotik oder Biotechnologie stellt sich mehr denn je die Frage, wie Technologien unser Erleben, Denken und Handeln verändern und Grenzen verschieben. Wie beeinflussen Maschinenlernen und Big Data unser Verständnis von Privatheit? Inwiefern berühren Pränataldiagnostik und synthetische Biologie unsere tradierten sozialen Normen und Werte? Wer trägt Verantwortung für autonome Systeme? Und wie dürfen wir uns ihnen gegenüber verhalten?

Anhand von aktuellen Technologien werden soziale, politische, rechtliche und ethische Probleme identifiziert, mittels sozial- und geisteswissenschaftlicher Konzepte reflektiert und Positionen aktueller Debatten diskutiert.

Intended Learning Outcomes:
Die Teilnehmer sind in der Lage, exemplarisch soziale, politische, rechtliche oder ethische Probleme der gesellschaftlichen Integration von Technologien mittels sozial- oder

geisteswissenschaftlicher Konzepte zu beschreiben und Argumente zur Bewertung möglicher Konsequenzen zu formulieren.

Teaching and Learning Methods:
Dozenteninput, Präsentationen, Diskussionen, eigenständige Lektüre

Media:

Reading List:

Responsible for Module:
Dr. Fred Slanitz

Courses (Type of course, Weekly hours per semester), Instructor:
Moderne Gesellschaften im Zeitalter der Digitalisierung (Seminar, 2 SWS)
Altmann K [L], Altmann K
For further information in this module, please click campus.tum.de or here.

Module Description

CLA20542: Media Ethics | Medienethik

Version of module description: Gültig ab summerterm 2024

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In a (group) presentation (18-22 minutes plus discussion) and responses to other presentations, the students demonstrate their capability to collaborate on complex topics, gain insights from philosophical texts, apply them to case studies, and understand the implied ethical issues and conflicts.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Digital technology is always getting more complex and more interwoven with the human lifeworld. The problems of understanding media – i.e. the nature and implications of digital technology – are expressed in radically different and often contradictory conceptions. The module examines the major conceptions of digital technology/media and the respective ethical consequences they imply. A particular emphasis is on the changes technology brings to the perception, action, and thinking of individuals and their social relations. Using selected examples, not only concepts for understanding (digital) media and models of ethical argumentation are presented, but also options for evaluating and dealing with ethical conflicts are discussed.

Intended Learning Outcomes:
Upon successful completion of this module, students will be able to:
• describe the prevalent and often implicitly presupposed conceptions of digital technology
• explain the ethical issues entailed by the respective conception
• read, analyze, and understand philosophical texts
• apply the conceptions to concrete case studies

• identify the specific ethical conflicts between these conceptions
• present and discuss academic papers on this complex interdisciplinary topic

Teaching and Learning Methods:
Methods include conceptual analysis, hermeneutic work with texts, class discussions, group work, and presentations.

Media:
Online reader

Reading List:
Coeckelbergh, Mark, and David J. Gunkel. 2023. “ChatGPT: Deconstructing the Debate and Moving It Forward.” AI & SOCIETY, June. https://doi.org/10.1007/s00146-023-01710-4.
Crane, Tim. 2021. “The AI Ethics Hoax.” IAI TV - Changing How the World Thinks. March 3, 2021. https://iai.tv/articles/the-ai-ethics-hoax-auid-1762.
Durt, Christoph. 2023. “The Digital Transformation of Human Orientation: An Inquiry into the Dawn of a New Era (Winner of the $10.000 Essay Prize).”
Esposito, Elena. 2022. Artificial Communication: How Algorithms Produce Social Intelligence. Strong Ideas Series. Cambridge, Massachusetts: The MIT Press.
Verbeek, Peter-Paul, and Robert P. Crease. 2005. What Things Do: Philosophical Reflections on Technology, Agency, and Design. 2. printing. University Park, Pa: Pennsylvania State Univ. Press.

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:
AI Ethics (Seminar, 2 SWS)
Durt C
For further information in this module, please click campus.tum.de or here.

Module Description

CLA20705: Diversity and Conflict Management | Diversität und Konfliktmanagement

Version of module description: Gültig ab summerterm 2013

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden verfassen einen Essay im Umfang von 1000 - 1500 Worten. Im Rahmen des Essays zeigen sie, dass sie Konflikte theoretisch einordnen und Methoden zur Konfliktlösung anwenden können (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Das Seminar erläutert theoretisch die Rolle von Diversität in Konflikten und die Chancen und Risiken, die sich daraus ergeben. Es wird sich dabei mit den Hintergründen von Konflikten und deren systematischen Kategorisierung als auch mit Lösungsansätzen und Konfliktstrategien beschäftigen. Theoretische Modelle werden anhand eigener Beispiele praktisch greifbar gemacht.

Intended Learning Outcomes:
Nach der Teilnahme am Workshop sind die Studierenden in der Lage, die Chancen von Diversität in einer Gruppe zu erkennen und sie konstruktiv in ihre Arbeit zu integrieren. Sie können Konflikte theoretisch einordnen und kennen praktische Methoden welche zur gelungenen Konfliktlösung führen. Zudem sind sie in der Lage diese Methoden im späteren Arbeitsleben einzusetzen.
Die Studierenden können ihr eigenes Konfliktverhalten reflektieren und gegebenenfalls verschiedene Schemata als Analysebehelfe einsetzen.

Teaching and Learning Methods:
Die Teilnehmer/innen werden an praktischen, teils auch eigenen Beispielen und mit partizipativen Methoden ihren eigenen sozio-kulturellen Hintergrund reflektieren, Konfliktmanagement erfahren und die praktische Erfahrung in theoretische Hintergründe einbetten.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Diversität und Konfliktmanagement (Streiten über Unterschiede, Unterschiede im Streiten) (Workshop, 1,5 SWS)
Haberl M
For further information in this module, please click campus.tum.de or here.

Module Description

CLA20910: Gender Competence as Core Qualification | Genderkompetenz als Schlüsselqualifikation

Version of module description: Gültig ab winterterm 2010/11

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einer schriftlichen Ausarbeitung von 5 Seiten zeigen die Studierenden anhand von aktuellen Fragestellungen, zu Themen wie Frauenquote, Vereinbarkeit und Rollenveränderung von Eltern, wie (veränderbare) Geschlechterrollen unsere Wirklichkeit prägen und wie sich durch einen konstruktiven und reflektierten Umgang damit auch persönliche Möglichkeiten erweitern lassen (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
An der Hochschule sind die Anforderungen und Ansprüche in den letzten Jahren stark gestiegen. Einhergehend mit den Veränderungen der Hochschule haben sich auch die Rollenanforderungen an ihre Mitglieder gewandelt. Auch Männer- und Frauenbilder sind in einem stetigen Veränderungsprozess. Geschlechterrollen beeinflussen unser alltägliches Verhalten und unsere Wahrnehmung. Hier setzt der Workshop an:
Welche Geschlechterrollen und Vorbilder prägen heute unsere Wirklichkeit? Welchen Einfluss haben andere Kulturen auf unser Verhalten? Und wie können wir mit den bestehenden Geschlechterrollen konstruktiv umgehen und unsere persönlichen Möglichkeiten erweitern?
Wo treffe ich in meinem Umfeld auf genderspezifische Handlungs-Muster und -Strukturen?

Intended Learning Outcomes:
Nach der erfolgreichen Teilnahme an diesem Workshop sind die Studierenden in der Lage darzustellen, welche Geschlechterrollen und Vorbilder unsere Wirklichkeit prägen. Weiterhin

können die Studierenden veranschaulichen wie sie mit den bestehenden Geschlechterrollen - nicht nur - in ihrem Umfeld konstruktiv umgehen.

Teaching and Learning Methods:
Das Seminar beinhaltet theoretische Inputs, Gruppenarbeit, Rollenspiele und kollegiales Feedback.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Genderkompetenz als Schlüsselqualifikation (Ein interaktives Lernprojekt) (Workshop, 1 SWS)
Fänderl W, Quindeau A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21005: Introduction to Diversity Management | Einführung in Diversity Management

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einer Kurzpräsentation und einer schriftlichen Ausarbeitung zeigen die Studierenden die Bedeutung von Diversity in Organisationen auf. Sie reflektieren welche Möglichkeiten und Herausforderungen durch Diversity Management geschaffen werden können (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Diversity Management und Diversity Kompetenz sind für Organisationen zu zentralen und notwendigen Aufgaben geworden.
Die Etablierung einer Wertschätzungskultur, Chancengleichheit und die Förderung kreativer und innovativer Lösungsansätze sind wesentliche Ziele des Diversity Managements: Wie kann ich mit der passenden Kombination von Vielfalt das Optimum für ein Projekt oder eine Veranstaltung herausholen? Der gelungene Umgang mit Diversity hängt nicht nur von persönlichen Fähigkeiten und Handlungsoptionen ab, sondern auch von der Kompetenz sich auf Unterschiedlichkeiten eines Teams, wie ethnische Herkunft, Hautfarbe, sexuelle Identität, Alter, Geschlecht, Religion und Behinderung einzustellen. Auch institutionelle Voraussetzungen (AGBs und Rechtsrahmen, kulturell-religiöse Vorgaben, Willkommenskultur etc.) wirken sich darauf aus.
Folgende Themen werden behandelt:
• Diversity-Management-Theorie
• Beispiele für Rahmenbedingungen an Universitäten, Unternehmen und Institutionen in unterschiedlichen Ländern

• Reflexion eigener Vielfalt, Kooperations- und Abgrenzungsmechanismen
Gemeinsame Erstellung eines TUM Diversity Magazins mit Artikeln zu Theorie und Praxis von Diversity Kompetenz in Wirtschaft und Wissenschaft.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme am Workshop verstehen die Studierenden die Grundlagen des Diversity Managements und sind für das Thema sensibilisiert. Sie können demonstrieren wie man Diversity in Organisationen schafft und sie können persönliche Stereotypen erkennen. Die Studierenden lernen die praktische Recherche und daraus resultierend die Veröffentlichung eigener Artikel.

Teaching and Learning Methods:
Anhand von theoretischen Inputs, Übungen und Gruppenarbeit wird in die Thematik des Diversity Management eingeführt.
Reader und ergänzende Literatur; Rollenspiel; Erfahrungsaustausch, Diskussion und Reflexion; kollegiales Feedback.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Project Week: Hackathon - Hacking TUM for Diversity! (Seminar, 2 SWS)
Clare A, Güner C, Lammar D

Diversity Kompetenz (Ein interaktives Lernprojekt) (Workshop, 1 SWS)
Fänderl W, Quindeau A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21601: Ethics and Responsibility II | Ethik und Verantwortung II

Version of module description: Gültig ab summerterm 2016

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit einem Referat abgeschlossen (30min), in dem die Studierenden zentrale Argumente zu einem ethischen Problem erörtern und in der Diskussion eine eigene Position vertreten.

Repeat Examination:

(Recommended) Prerequisites:
Fortgeschrittene Studierende.
Erfolgreiche Teilnahme an einer einführenden Ethikveranstaltung.

Content:
Vertiefende Behandlung von Themen aus den Bereichen Umweltethik, Wissenschaftsethik, Technikethik, Medizinethik oder Informations-/Medienethik in philosophischer Perspektive unter Berücksichtigung aktueller Forschungsfelder.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage die wichtigsten Argumente eines Bereichs der Angewandten Ethik zu verstehen und in andere Kontexte zu übertragen. Sie kennen den aktuellen Stand der Diskussion und können eine eigene Position in Diskussionen vertreten.

Teaching and Learning Methods:
Textanalyse, Webplattform, Diskussion, Präsentation

Media:

Reading List:
Wird im Rahmen der Veranstaltung zur Verfügung gestellt

Responsible for Module:
Dr. Eva Sandmann

Courses (Type of course, Weekly hours per semester), Instructor:
Ethics of Responsibility: Current Areas of Application (Seminar, 2 SWS)
Wernecke J
For further information in this module, please click campus.tum.de or here.

SOT603043: 3 Credits Modules | 3 Credit Module

Module Description

CLA30230: Ethics and Responsibility | Ethik und Verantwortung

Version of module description: Gültig ab winterterm 2010/11

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit einer wissenschaftlichen Ausarbeitung in Form eines Essays (4000-5000 Zeichen) abgeschlossen. In diesem dokumentieren die Studierenden, dass sie ethische Argumente differenziert zuordnen und i.S. von Handlungspositionen konzeptionell umsetzen, sowie sprachlich verständlich darstellen können.
In Vorbereitung der schriftl. Ausarbeitung zeigen die Studierenden in einem Referat (25-35 min), dass sie in der Lage sind, eine Methode ethischer Urteilsbildung für mögliche Konfliktszenarien in den Problemfeldern Wissenschaft und Technik darstellen können (Gewichtung 7:3).

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
Wir treffen täglich Entscheidungen. Dabei spielen Fakten eine große Rolle, oft aber auch das sogenannte Bauchgefühl. In gesellschaftlichen Debatten um brisante Anwendungen von Wissenschaft und Technik kommt viel darauf an, beides voneinander zu unterscheiden und vor allem gute Gründe pro oder contra zu finden. Ethik leitet dazu an, mit Konflikten verantwortlich umzugehen. Aber welche Art von „Wissen“ wird dabei eingesetzt? Wie verhalten sich Recht und Ethik zueinander? Und wie lässt sich über angewandte Ethik sprechen, ohne Moral zu predigen?

Intended Learning Outcomes:
Die Studierenden sind in der Lage mithilfe einer Methode ethischer Urteilsbildung exemplarische Konfliktszenarien auf den Problemfeldern von Wissenschaft und Technik zu beschreiben und

abzuschätzen. Nach der Teilnahme am Seminar sind sie in der Lage, ethische Argumente im Hinblick auf ihre Geltungsansprüche zu unterscheiden und verantwortliche Handlungsoptionen in verständlicher und zugleich anwendungsnaher Sprache für ein ethisches Gutachten reflektiert aufzubereiten.

Teaching and Learning Methods:
Präsentation, Referat, Diskussion, Textanalyse

Media:

Reading List:
Fritz Allhoff, What Are Applied Ethics? http://files.allhoff.org/research/What_Are_Applied_Ethics.pdf
Lee Archie, John G. Archie, Introduction to Ethical Studies An Open Source Reader, https://philosophy.lander.edu/ethics/ethicsbook.pdf
John Deigh, An Introduction to Ethics, http://dx.doi.org/10.1017/CBO9780511750519.002

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA30420: Integration of Technology into Society | Integration of Technology into Society

Version of module description: Gültig ab winterterm 2014/15

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 69	**Contact Hours:** 21

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
Angesichts des rasanten Fortschritts in Digitalisierung, Robotik oder Biotechnologie stellt sich mehr denn je die Frage, wie Technologien unser Erleben, Denken und Handeln verändern und Grenzen verschieben. Wie beeinflussen Maschinenlernen und Big Data unser Verständnis von Privatheit? Inwiefern berühren Pränataldiagnostik und synthetische Biologie unsere tradierten sozialen Normen und Werte? Wer trägt Verantwortung für autonome Systeme? Und wie dürfen wir uns ihnen gegenüber verhalten?

Anhand von aktuellen Technologien werden soziale, politische, rechtliche und ethische Probleme identifiziert, mittels sozial- und geisteswissenschaftlicher Konzepte reflektiert und Positionen aktueller Debatten diskutiert.

Intended Learning Outcomes:
Die Teilnehmer sind in der Lage, exemplarisch soziale, politische, rechtliche oder ethische Probleme der gesellschaftlichen Integration von Technologien zu identifizieren, mittels sozial- oder geisteswissenschaftlicher Konzepte zu analysieren und für eine Position hinsichtlich möglicher Konsequenzen zu argumentieren.

Teaching and Learning Methods:
Dozenteninput, Präsentationen, Diskussionen, eigenständige Lektüre

Media:

Reading List:

Responsible for Module:
Fred Slanitz

Courses (Type of course, Weekly hours per semester), Instructor:
MA-Spezielle Soziologie: Soziologie der Krise (Seminar, 2 SWS)
Beck S, Schönbauer S
For further information in this module, please click campus.tum.de or here.

Module Description

CLA31601: Ethics and Responsibility II | Ethik und Verantwortung II

Version of module description: Gültig ab summerterm 2018

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit einer Modulprüfung in Form eines Essays (1000-1500 Wörter) abgeschlossen, in dem die Studierenden dokumentieren, dass sie die wichtigsten Argumente eines Bereichs der angewandten Ethik verstanden haben und auf ein aktuelles Foschungsfeld übertragen können. Im Sinne einer Vorbereitung zur Modulprüfung erstellen die Studierenden eine Präsentation (Umfang 25-35 Min.), in der ein Anwendungsfeld und dessen ethische Bewertung erarbeitet und vorgestellt wird.

Repeat Examination:

(Recommended) Prerequisites:
Fortgeschrittene Studierende.
Erfolgreiche Teilnahme an einer einführenden Ethikveranstaltung.

Content:
Vertiefte Behandlung von Themen aus den Bereichen Umweltethik, Wissenschaftsethik, Technikethik, Medizinethik oder Informations-/Medienethik in philosophischer Perspektive unter Berücksichtigung aktueller Forschungsfelder.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage die wichtigsten Argumente eines Bereichs der Angewandten Ethik zu verstehen und in andere Kontexte zu übertragen. Sie kennen den aktuellen Stand der Diskussion und können eine eigene Position schriftlich formulieren und argumentativ begründen.

Teaching and Learning Methods:
Textanalyse, Webplattform, Diskussion, Präsentation, Referat

Media:

Reading List:

Responsible for Module:
Dr. rer nat. Eva Sandmann

Courses (Type of course, Weekly hours per semester), Instructor:
Ethics of Responsibility: Current Areas of Application (Seminar, 2 SWS)
Wernecke J
For further information in this module, please click campus.tum.de or here.

Module Description

SOT53200: Responsibility in the Engineering Profession | Verantwortung im Ingenieurberuf

Applied Ethics for Engineers

Version of module description: Gültig ab summerterm 2022

Module Level: Master	**Language:** German/English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The examination consists of of a presentation (15 - 20 minutes) and an essay (1000 - 1200 words) in which the students demonstrate their analytical-argumentative abilities:
- to identify different conflicting goals of their profession, which are elaborated in the course, with regard to functional, social-normative and ethical implications and classify them critically argumentatively;
- to classify and apply different models of responsibility ethics taught in the seminar with regard to divers applications (case studies);
- to present an analysis and application of different models of responsibility ethics taught in the course by means of examples from the field of activity;
- to present and discuss their results in a concise analytical-argumentative form.
The work must be accompanied by a graded presentation (15 - 20 minutes). The weighting of the marks is 70% for the essay and 30% for the presentation.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
No knowledge.

Content:
The module introduces students to the following topics:
General issues of normative and applied ethics;
Responsibility in the professional field of civil and environmental engineering;
Recognising, classifying and evaluating professional, social-normative and ethical conflicts of objectives;

models and methods of responsible problem-solving competence;
Implementation of technical solutions (models): stakeholders, social acceptance, sustainability goals (in terms of normative guard rails, responsible communication and implementation).

Intended Learning Outcomes:
On successful completion of this module students will be:
- familiar with basic social normative and ethical challenges in the field of engineers' activities;
- understand the most important topics and issues in the field of ethics of responsibility;
- are able to analyse, classify and assess activity-related conflicts of objectives;
- are able to analyse und to discuss critically models of responsible problem-solving competence with regard to the implementation of technical solution strategies.

Teaching and Learning Methods:
The module introduces students to the following topics:
General issues of normative and applied ethics;
Responsibility in the professional field of civil and environmental engineering;
Recognising, classifying and evaluating professional, social-normative and ethical conflicts of objectives;
models and methods of responsible problem-solving competence;
Implementation of technical solutions (models): stakeholders, social acceptance, sustainability goals (in terms of normative guard rails, responsible communication and implementation).

Media:
Literature, reader, presentation and discussion

Reading List:

Responsible for Module:
Jörg Wernecke

Courses (Type of course, Weekly hours per semester), Instructor:
Responsibility in the Engineering Profession. Applied Ethics for Engineers (Seminar, 2 SWS)
Wernecke J
For further information in this module, please click campus.tum.de or here.

Module Description

SOT63201: Game Jam. Reflecting Science, Technology and Society through Game Design | Game Jam. Wissenschaft, Technologie und Gesellschaft durch Spieldesign reflektieren

Version of module description: Gültig ab winterterm 2022/23

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In a group presentation (30 min, with clearly noticeable individual contributions) of a game concept students show how to transform socially relevant issues into game situations that encourage reflection about science, technology and society.

Repeat Examination:

(Recommended) Prerequisites:
The course offers an interdisciplinary setting in which the participants develop their own game prototype (no programming required) — it is therefore aimed at all students, e.g. from Science, Engineering, Social Sciences and Humanities.

Content:
The interactive and narrative character of video games can be turned into a useful tool to present the complexity of ethical and societal aspects of science and technology topics. In the development process of a game concept, the game designer has to decide on game mechanics and storytelling techniques, making her/him reflect on how to present the ethical and societal issues of a topic. This is a productive process, because various aspects of game design correspond to different dimensions of ethical and societal issues, e.g. the integration of different options the player can choose from (decision-making), the constellation of involved people and their interactions (storytelling) as well as the setting of the (societal) context (worldbuilding).

Intended Learning Outcomes:
Upon successful completion of this module students are able to identify societal dimensions of science and technology topics as well as to transfer complex relationships in appealing mechanics, narratives and activities to generate productive offers for reflection and discussion.
They have intensive experience with target oriented project work in multidisciplinary teams, facilitating the exchange and communication between a multitude of different tasks, competencies and positions.
Furthermore the participants are able to present their work-in-progress in a concise way as well as to give and receive feedback in a professional manner.

Teaching and Learning Methods:
The students will be introduced to the social science-perspective on a selection of STEM (Science, Technology, Engineering, Mathematics) topics as well as the creative potential of video games for reflection, e.g. worldbuilding, storytelling and decision-making. Based on readings and inputs of experts and supported by mentors, the students develop a game concept addressing a STEM topic while enabling the creative potential of games to integrate societal and ethical aspects. The final concept is presented in the course and discussed by all participants.

Media:

Reading List:

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:
A Different Kind of Game Jam! Reflecting Science, Technology and Society through Game Design (Workshop, 2 SWS)
Valdes Stauber C, Hajek K, Sultan A, Tsiroukis F
For further information in this module, please click campus.tum.de or here.

SOT603045: 5 Credits Modules | 5 Credits Module

Module Description

SOT65201: Developing a Game Prototype. Reflecting Science, Technology and Society through Game Design | Entwicklung eines Game Prototypen. Wissenschaft, Technologie und Gesellschaft durch Spieldesign reflektieren

Version of module description: Gültig ab winterterm 2022/23

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 5	**Total Hours:** 150	**Self-study Hours:** 120	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In a project work students show how to transform socially relevant issues into game situations that encourage reflection about science, technology and society. The students will present the game concept (30 min, with clearly noticeable individual contributions) and create a prototype (paper based or digital) incl. all necessary instructions for use (weighting 1:1). With the implementation, the students show their ability to take the perspective of the recipients in order to motivate them for advanced reflection on the respective topic. Criteria for the evaluation are accessibility, attractiveness, immersion, target group fit, complexity of the issues, diversity of perspectives.To convey project results adequately, additional assignments (e.g. prototype presentation, project report, prototype pitch, grant application, contest submission) will be announced at the beginning of the course.

Repeat Examination:

(Recommended) Prerequisites:
The course offers an interdisciplinary setting in which the participants develop their own game prototype (no programming required) — it is therefore aimed at all students, e.g. from Science, Engineering, Social Sciences and Humanities.

Content:
The interactive and narrative character of video games can be turned into a useful tool to present the complexity of ethical and societal aspects of science and technology topics. In the development

process of a game concept, the game designer has to decide on game mechanics and storytelling techniques, making her/him reflect on how to present the ethical and societal issues of a topic. This is a productive process, because various aspects of game design correspond to different dimensions of ethical and societal issues, e.g. the integration of different options the player can choose from (decision-making), the constellation of involved people and their interactions (storytelling) as well as the setting of the (societal) context (worldbuilding).

Intended Learning Outcomes:
Upon successful completion of this module students are able to identify societal dimensions of science and technology topics as well as to transfer complex relationships in appealing mechanics, narratives and activities to generate productive offers for reflection and discussion.
They have intensive experience with target oriented project work in multidisciplinary teams, facilitating the exchange and communication between a multitude of different tasks, competencies and positions.
Furthermore the participants are able to present their work-in-progress in a concise way as well as to give and receive feedback in a professional manner.
In addition, they are able to take into account the needs and abilities of users/recipients when communicating challenging topics.

Teaching and Learning Methods:
The students will be introduced to the social science-perspective on a selection of STEM (Science, Technology, Engineering, Mathematics) topics as well as the creative potential of video games for reflection, e.g. worldbuilding, storytelling and decision-making. Based on readings and inputs of experts and supported by mentors, the students develop a game concept addressing a STEM topic while enabling the creative potential of games to integrate societal and ethical aspects. The final concept, which is presented in the course and discussed by all participants, is implemented in a game prototype to enable a contribution to a competition or an exhibition (with certain specifications).

Media:

Reading List:

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:
A Different Kind of Game Jam! Reflecting Science, Technology and Society through Game Design (Workshop, 2 SWS)
Valdes Stauber C, Hajek K, Sultan A, Tsiroukis F
For further information in this module, please click campus.tum.de or here.

SOT60305: Arts & Culture | Kunst & Kultur

SOT603051: 1 Credit Modules | 1 Credit Module

Module Description

CLA11207: Understanding Art 1: Art Reception infront of Originals in Museums in Munich | Kunst verstehen 1: Kunstrezeption vor Originalen in Münchner Museen

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Prüfungsleistung wird in Form eines Referats (20-30 Minuten) erbracht, in dem die Studierenden ein Kunstwerk beschreiben, analysieren und interpretieren.

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
Die Seminare thematisieren zentrale Positionen und/oder herausragende Werke im weiten Spektrum von Kunst und Design.
Mögliche Themen und Fragen:
Wie verändert sich das Industrie-, Fahrzeug- oder IT- Design im 20 Jahrhundert? Wie unterscheiden sich Selbstportraits der Renaissance von heutigen Selfies? Brauchen wir Kunst im öffentlichen Raum? Was bedeutet "Slow-Art" oder "phänomenologische Methode"?
Über den kulturhistorischen Kontext hinaus werden exemplarisch aktuelle kulturpolitische sowie kunst- und designtheoretische Diskurse berücksichtigt.

Intended Learning Outcomes:
Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, ein Kunstwerk oder Designobjekt verständlich zu beschreiben und nachvollziehbar zu interpretieren. Darüber hinaus kennen sie Beispiele von kulturhistorischen Einordnungen.

Teaching and Learning Methods:
Beschreibung und Interpretation von Originalen. Diskussion in Münchner Museen und im öffentlichen Raum.

Media:
Seminar, Referate, Eigenstudium, Besuch von Ausstellungen

Reading List:

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:
Selfie im Pelzrock? Portraits aus fünf Jahrhunderten (Seminar, 1 SWS)
Glardon C
For further information in this module, please click campus.tum.de or here.

SOT603052: 2 Credits Modules | 2 Credits Module

Module Description

CLA20552: Self-Written, Newly Read - A Literary Writers' Lab | Selbst geschrieben, neu gelesen - Eine literarische Schreibwerkstatt

Version of module description: Gültig ab winterterm 2002/03

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Kritisches Lesen von sämtlichen Texten wird vorausgesetzt. Studierende stellen eigene literarische Texte in geschützter Öffentlichkeit vor und erhalten kreatives Feedback (unbenotete Studienleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Wer sieht, wer spricht in einem literarischen Text? Die grundlegenden Fragen sind immer einfach, im Leben wie in der Literatur. Doch wer sie genauer prüft, wird erkennen, dass mit diesen Fragen – nach der Perspektive, der Figur und der Sprache – die zentralen ästhetischen wie technischen Grundlagen eines jeden Textes gemeint sind. Sie eröffnen die Welt einer Geschichte und begrenzen ihre Möglichkeiten. Daher soll anhand dieser Themen das Handwerk des Schreibens in Lektüren wie praktischen Übungen erprobt werden.

Intended Learning Outcomes:
Eigene literarische Texte werden in einer geschützten Öffentlichkeit vorgestellt. Die Studierenden trauen sich selbst Schreibübungen auszuprobieren um ihre eigenen Stärken und Schwächen klar zu erkennen. Am Ende sind die Studierenden in der Lage aus literarische Lektüren und aus diversen praktischen Übungen Impulse für ihre eigene Ausdrucksfähigkeit und den bewussten Umgang mit sprachlichen Mitteln zu holen.

Teaching and Learning Methods:
Lesen, Übungen zum Kreativen Schreiben, Verfassen literarischer Texte, Textkritik

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Poetik und Philosophie der Freundschaft. Eine Denk- und Schreibwerkstatt (Seminar, 1,5 SWS)
Ammereller E, Lange K

Beginnen. Eine literarische Schreibwerkstatt (Workshop, 1,5 SWS)
Raich T
For further information in this module, please click campus.tum.de or here.

Module Description

CLA20701: Art in Motion. Training for Excellence | Art in Motion. Training for Excellence

Version of module description: Gültig ab summerterm 2016

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The students are actively taking part in the colloquium (Studienleistung). Furthermore they present a poster through which they show how creative strategies are more effective than simply repeating learning matter (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
T4X – Success for musicians, dancers, actors, and athletes hinges on their training practices. Current research in motor learning, music psychology and related disciplines proves that creative strategies are often more effective than mere repetition.
This symposium runs for two days at the University of Music and Performing Arts Munich, during which training methods beyond tradition and superstition are considered. With science, sense and soul this symposium aims to further define pathways to excellence.

Intended Learning Outcomes:
After attending the main lecturers, workshops and poster session of the symposium, participants know about 21st century research training methods. They are able to apply new theories of how learning takes place, what strategies lead to effective practice, and how they can stay motivated to acquire additional skills.

Teaching and Learning Methods:
Lectures, discussions

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

Adina Mornell
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21212: Visual Design for a Knowledge Society | Visuelle Gestaltung für die Wissensgesellschaft

Version of module description: Gültig ab summerterm 2013

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Prüfungsleistung wird in Form einer Übungsleistung erbracht. In dieser soll nachgewiesen werden, dass die Grundlagen der visuellen Darstellung auf Einzel- und Mehrbildfolgen umgesetzt und daraus narrative Strukturen erkannt und erstellt werden können.

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Workshop geht es um visuelle Narration als umfangreiches Medium um wissenschaftliche Inhalte zu kommunizieren. Ein Verständnis für diese Erzählmethode wird erarbeitet um selbst bildsprachliche Geschichten erstellen zu können.
Anhand von einfachen, praktischen Übungen zur Einstellung auf das Thema beginnt der Workshop. Anschließend fokusieren wir uns auf einen theoretischen Block, in welchem sowohl gestalterische Grundlagen, verschiedene Erzähltheorien als auch beispielhafte KünstlerInnen und Werke besprochen werden.
Im weiteren Ablauf wird ein an die vorangegangene Stunde angelehntes Thema in ein bis maximal vier Paneln festgehalten. Dabei kann es sich um eine bloße Zusammenfassung, eine assoziative Fortführung oder eine anknüpfende Erzählung handeln.
Dabei ist freigestellt, ob es sich beispielsweise um eine rein inhaltliche Zusammenfassung oder eine anknüpfende Erzählung handelt, auch eher assoziative Fortführungen sind dabei legitim.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme an diesem Modul sind die Studierenden in der Lage die Schnittstelle von Wissenschaft, Technik und Gesellschaft anhand von visueller Darstellung verständlich zu transferieren. Sie können die Grundlagen der Visual Literacy illustrieren und präsentieren. Darüber hinaus sind sie befähigt narrative Erzählstrukturen zu verstehen und zu skizzieren.

Teaching and Learning Methods:
Neben Vorlesungs- und Vortragsteilen zur Aneignung visuell-narrativen Grundwissens, soll vor allem auch die Vermittlung praktischer Kenntnisse im Vordergrund des Kurses stehen. Zu zeichnerischen Übungen im Kurs, mit denen Gestaltungsgrundlagen geübt werden, kommen Einzel- und Gruppenhausaufgaben, welche die Anwendung besprochener Theorien erproben, um im Anschluss gemeinsam besprochen zu werden.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Making Comics (Visuelle Erzählungen zur inhaltsorientierten Kommunikation erstellen) (Workshop, 1,5 SWS)
Wendland D
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21901: Roles. Clichés. Visions. Science and Technology in the View of Literature and Theater | Rollen. Klischees. Visionen. Wissenschaft und Technik im Blick von Literatur und Theater

Version of module description: Gültig ab summerterm 2018

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einer mündlichen Präsentation (inkl. Diskussion) zeigen die Studierenden, dass sie in der Lage sind, einen literarischen Text, Dramenausschnitt, eine Theaterszene oder Filmsequenz im Hinblick auf mögliche Rollen und Visionen von Wissenschaft und Technik zu interpretieren und über ihr Selbstverständnis als Wissenschaftlerin oder Ingenieur sowie die Bedeutung von Wissenschaft und Technik zu reflektieren (70 % der Prüfungsleistung). Zudem zeigen die TeilnehmerInnen, dass sie die in der Veranstaltung ausgehängten Texte verstehen und die dazu gestellten Aufgaben bearbeiten können (30% der Prüfungsleistung).

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
Welche Rolle spielen Forscher und Erfinder in der Literatur? Welche Klischees und Visionen zu Wissenschaft und Technik werden auf Theaterbühnen und in Kinofilmen vermittelt? Und was hat das alles mit mir als Wissenschaftlerin oder Ingenieur zu tun?
Literarische Werke thematisieren seit jeher Wissenschaft und Technik, menschliches Entdecken und Erfinden. Sie reflektieren dabei nicht nur über das Handeln des Menschen und sein Verhältnis zur Natur, sondern nehmen Meinungen, Klischees und Stimmungen des Zeitgeistes wahr, ja entwerfen darüber hinaus zukünftige Handlungsmöglichkeiten und Lebensformen. Die Beschäftigung mit Prosa und Drama, mit Erzählungen, Inszenierungen und Verfilmungen bietet so die Möglichkeit, sich mit den eigenen Einstellungen zu Rollen in und von Wissenschaft und

Technik auseinanderzusetzen, über Visionen kreativ neue Handlungsmöglichkeiten zu erkunden oder bestehende Spielräume kritisch zu hinterfragen.
Die Lehrveranstaltungen führen in literarische Werke ein, erproben deren Interpretation mittels wissenschaftlicher und pädagogischer Methoden, fördern den Austausch in multidisziplinär zusammengesetzten Gruppen und ermutigen zur orientierenden Selbstreflexion. Die aktive Teilnahme am aktuellen Kulturbetrieb (Aufführungen, Ausstellungen, Lesungen etc.) ist neben der Interpretation von Texten und Filmen ein wesentliches Element der Kurse, die die Bereitschaft zur aktiven Teilnahme voraussetzen. Somit wird die Teilnahme an gesellschaftlich relevanten Diskursen über den universitären Kontext hinaus ermöglicht.

Intended Learning Outcomes:
Die Studierenden sind nach Absolvieren des Moduls in der Lage, literarische Texte, Theaterstücke und/oder Filmausschnitte im Hinblick auf mögliche Rollen und Visionen von Wissenschaft und Technik im historischen und zeitgenössischen Kontext zu verstehen. Sie kennen Methoden zur Analyse literarischer Werke und können diese anwenden. Darüber hinaus sind sie in der Lage, anhand literarischer Werke über ihr eigenes Selbstverständnis als zukünftige Wissenschaftlerin oder Ingenieur sowie die Bedeutung von Wissenschaft und Technik in der Gesellschaft zu reflektieren.

Teaching and Learning Methods:
Impulsreferate, Interpretation von Texten, Analyse von Theaterstücken und Filmen, Besuch von Ausstellungen, Aufführungen und Lesungen, Gruppenarbeit, Gruppendiskussionen, Selbständige Lektüre

Media:

Reading List:

Responsible for Module:
Dr. phil. Alfred Slanitz (WTG@MCTS)

Courses (Type of course, Weekly hours per semester), Instructor:
From "New Atlantis" to "Blade Runner" - Utopias and Dystopias in Culture, Literature and Film (Workshop, 1,5 SWS)
Fricke S

Jules Verne: Zukunft zwischen Science und Fiction (Workshop, 1,5 SWS)
Lughofer I
For further information in this module, please click campus.tum.de or here.

Module Description

CLA90211: Art and Politics | Kunst und Politik

Version of module description: Gültig ab summerterm 2017

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden zeigen in einer Präsentation (20 min.) oder einem Essay (1500 Wörter), dass sie wissenschaftliche Literatur über die sozialen und politischen Bedingungen und Folgen künstlerischen Schaffens verstehen und anhand konkreter Werke veranschaulichen können.

Repeat Examination:
Next semester

(Recommended) Prerequisites:

Content:
Kunst entsteht nicht im leeren Raum. Wie reagieren Kunstschaffende – bewusst oder unbewusst - auf politische Ereignisse? Lassen sich gesellschaftliche Bedingungen in ihren Werken erkennen? Und wie beeinflussen einzelne Kunstwerke die gesamte Kultur?
Im Modul lernen Studierende anhand von Beispielen aus der Musik, Literatur oder bildenden Kunst, wie Kunst und Gesellschaft sich wechselseitig beeinflussen, wie höchst kreative Menschen in ihrem Schaffen Stellung nehmen und wie sich ihre Produkte auf die Situation des Menschen auswirken.

Intended Learning Outcomes:
Die Studierenden sind in der Lage, Bedingungen und Folgen künstlerischen Schaffens exemplarisch zu verstehen und in Werken der Musik, Literatur und bildenden Kunst zu identifizieren. Sie können Beispiele mittels wissenschaftlicher Literatur selbständig erarbeiten und die Ergebnisse mündlich oder schriftlich vermitteln.

Teaching and Learning Methods:
Seminar. Vorbereitende Lektüre, Referate, Bildbetrachtungen/Textinterpretationen/Werkanalysen, Exkursionen in Ausstellungen und Konzerte

Media:

Reading List:

Responsible for Module:
Fred Slanitz

Courses (Type of course, Weekly hours per semester), Instructor:
Gustav Mahler: Musik und Philosophie (Seminar, 1,5 SWS)
Mayer F, Wernecke J

MK: Campus - "Aktivismus und Kunst". Workshops im Theater (Workshop, 1,5 SWS)
Valdes Stauber C
For further information in this module, please click campus.tum.de or here.

Module Description

SOT62403: Project Week: Creative Mind Change. A Creativity Workshop | Projektwoche: Creative Mind Change. Eine Kreativitätswerkstatt

Version of module description: Gültig ab winterterm 2024/25

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 15	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit einer Prüfungsleistung in Form eines lehrveranstaltungszentrierten Lerntagesbuches (1000 – 1200 Wörter) abgeschlossen. Im Lerntagebuch zeigen die Studierenden durch die reflexive Beschreibung ihrer persönlichen Aneignung der Lehrinhalte des Workshops, dass sie in der Lage sind, künstlerische Methoden einzusetzen, um bisher latente Zusammenhänge und Lösungswege zu erkennen. Insbesondere gehen sie darauf ein, welche kreativen Methoden ihr persönlichen Denkmuster (mind set) in welcher Weise erweitert haben.

Repeat Examination:

(Recommended) Prerequisites:
Keine Voraussetzungen.

Content:
Der Workshop eröffnet Erfahrungsräume
- die Grenzen des eigenen Denkens und Handelns zu überwinden
- Potentiale des eigenen Bewusstseins zu entdecken
- Kreativität als Potenzierung von sinnhaften Verknüpfungen zu schaffen.
- Potential für Coping-Strategien hinsichtlich innovativer Erkenntnisse, Verfahren sowie Produkte etc. zu entdecken.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage …
- die eigenen kreativen Potentiale zu erkennen,
- die Abhängigkeiten von bisherigen Erfahrungs- und Denkmustern zu verstehen

- die erworbenen künstlerischen bzw. kreativen Methoden anzuwenden, um komplexe Phänomene abzubilden und hieraus konkrete Handlungsoptionen zu entwickeln.
- Coping Strategien hinsichtlich (scheinbar) divergenter Themen, Begriffe, Vorstellungen, Handlungsmodelle und Produkte zu entwickeln.

Teaching and Learning Methods:
Fünf ganztägige Workshops führen mit Experteninput und Diskussionen in Aspekte künstlerischen Arbeitens ein. In Kooperation mit der Kunstakademie Bad Reichenhall vermitteln drei Dozenierende den Teilnehmenden unterschiedliche kreative Praktiken (Werkstattcharakter vor Ort an der TUM), die praktisch erprobt (künstlerische Medien), theoretisch in Diskussion und Vortrag vermittelt und in Form von Gruppenarbeit und Präsentation vertieft werden.
Inhalt und Ziel des Projekts: Anwendung der erworbenen Kenntnisse auf KI-Modelle wie etwa DALL-2, um Möglichkeiten und Grenzen neuer Kreativitätspotentiale in der Kommunikation von Technologie und genuin humaner Kreativität auszuloten. Die Prüfungsleistung wird in Form eines Lerntagebuches (unterstützt durch Literaturvorgaben) in Form einer verschriftlichen Reflexion abschließend dokumentiert.

Media:
Vortrag, Skripte, Reader, Gestaltungsmaterial (Farben etc.), Technikmedien (u.a. Foto, Video).

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Projektwoche: Creative Mind Change. Eine Kreativitätswerkstatt (Workshop, 3 SWS)
Wernecke J [L], Passola i Lizandra E
For further information in this module, please click campus.tum.de or here.

SOT603053: 3 Credits Modules | 3 Credits Module

Module Description

CLA30257: Big Band | Big Band

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studierende zeigen, dass sie ihre eigenen Gestaltungsideen einbringen und im Ensemble gemeinsam musizieren können (Studienleistung). In einer mündlichen Prüfung werden vor allem Fähigkeiten wie Blattlesen und Intonation getestet (Prüfungsteilleistung 50%), theoretische Kenntnisse werden zusätzlich in einer schriftlichen Klausur vertieft unter Beweis gestellt (Prüfungsteilleistung 50%). Die Gesamtnote setzt sich aus der gleichwertigen Evaluation dieser drei Elemente zusammen.

Repeat Examination:

(Recommended) Prerequisites:
Musikinteressierte Studierende mit ausgeprägter Spielerfahrung

Content:
In diesem Workshop liegt der Schwerpunkt in der aktiven musikalischen Erarbeitung verschiedener Arrangements, die für die klassische Jazz-Orchester-Besetzung geschrieben sind, d.h. fünf Saxophone, vier Posaunen, vier Trompeten, Rhythmusgruppe (Klavier, Bass, Schlagzeug).
Bei der Auswahl des Notenmaterials wird nach Möglichkeit jede Stilrichtung berücksichtigt.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme sind die Studierenden in der Lage ein besonderes Augenmerk auf das bewusste (!) Zusammenspiel und die gemeinsame Gestaltung zu legen. D.h. sie können im Satzspiel eine gemeinsame Phrasierung, Intonation, Dynamik, Artikulation sowie einzelne rhythmische Details anwenden.

Teaching and Learning Methods:
In den Methoden kommen unter anderem Elemente der Körperperkussion sowie die gesangliche Umsetzung von Melodiephrasen zur Anwendung. Im Wechselspiel der verschiedenen Sätze werden kompositorische und harmonische Strukturen erläutert und erlebt. Besonders gefördert wird bei jedem Teilnehmer die Kompetenz, gleichzeitig verschiedene Anforderungen zu bewältigen, hier im Besonderen ein gesundes Gleichgewicht zu erreichen aus Aktion (Blattspiel, Notenlesen) und Reaktion (Hörvermögen und daraus resultierendes Einfühlungsvermögen in den Gesamtklang).

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Big Band (Workshop, 2 SWS)
Muskini K
For further information in this module, please click campus.tum.de or here.

Module Description

CLA30258: Jazz Project | Jazzprojekt

Version of module description: Gültig ab winterterm 2011/12

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In einer schriftlichen und mündlichen Prüfung wird geprüft inwiewiet die Teilnehmer die Grundkenntnisse der Harmonielehre, Vorspielen oder Vorsingen verschiedener rhythmischer Phrasen, einfache Gehörbildung (Bestimmen verschiedener Intervalle und Akkorde), Vorspiel eines Themas mit anschließender Improvisation beherrschen. (Gerwichtung: 1:1:1:1)

Repeat Examination:

(Recommended) Prerequisites:
Grundwissen in Harmonielehre und etwas Spielerfahrung

Content:
Erarbeitung mehrerer Musikstücke

Intended Learning Outcomes:
Die Studierenden sind in der Lage, Grundlagen der Harmonielehre, Rhythmik, Gehörbildung und Improvisation anzuwenden.

Teaching and Learning Methods:
Neben den klassischen Methoden aus der Musikpädagogik werden auch Instrumente aus dem Improvisationstheater genutzt. Dadurch wird die Kompetenz der Teilnehmer bei der persönlichen Interpretation von Themen als auch bei der solistischen Improvisation über verschiedene Akkordfolgen gefördert und die nötige Routine angebahnt.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Jazzprojekt (Workshop, 2 SWS)
Muskini K
For further information in this module, please click campus.tum.de or here.

Module Description

CLA31212: Visual Design for a Knowledge Society | Visuelle Gestaltung für die Wissensgesellschaft

Version of module description: Gültig ab summerterm 2014

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Modulprüfung besteht aus Hausaufgaben, einer Kurzpräsentation der erstellten visuellen Darstellungen und einer Projektvorstellung. Darin wird nachgewiesen, dass die Grundlagen der Visual Literacy angewendet und analysiert werden können.

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Workshop geht es um visuelle Narration als umfangreiches Medium um wissenschaftliche Inhalte zu kommunizieren. Ein Verständnis für diese Kommunikationsmethode wird erarbeitet um dann selbst bildsprachliche Darstellungen entwickeln zu können.
Anhand von einfachen, praktischen Übungen zur Einstellung auf das Thema beginnt der Workshop. Anschließend fokusieren wir uns auf einen theoretischen Block, in welchem sowohl gestalterische Grundlagen, verschiedene Erzähltheorien als auch beispielhafte KünstlerInnen und Werke besprochen werden.
Im weiteren Ablauf wird ein an die vorangegangene Stunde angelehntes Thema in ein bis maximal vier Paneln festgehalten. Dabei kann es sich um eine bloße Zusammenfassung, eine assoziative Fortführung oder eine anknüpfende Erzählung handeln.
Dabei ist freigestellt, ob es sich beispielsweise um eine bloße inhaltliche Zusammenfassung oder eine anknüpfende Erzählung handelt, auch eher assoziative Fortführungen sind dabei legitim.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme an diesem Modul sind die Studierenden in der Lage die Schnittstelle von Wissenschaft, Technik und Gesellschaft anhand von visueller Darstellung zu ermitteln und zu adaptieren. Sie können die Grundlagen der Visual Literacy analysieren und definieren.
Darüber hinaus sind sie befähigt narrative Erzählstrukturen zu skizzieren und zu bewerten.

Teaching and Learning Methods:
Neben Vorlesungs- und Vortragsteilen zur Aneignung visuell-narrativen Grundwissens, soll vor allem auch die Vermittlung praktischer Kenntnisse im Vordergrund des Kurses stehen. Zu zeichnerischen Übungen im Kurs, mit denen Gestaltungsgrundlagen geübt werden, kommen Einzel- und Gruppenhausaufgaben, welche die Anwendung besprochener Theorien erproben, um im Anschluss gemeinsam besprochen zu werden.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Grafikdesign Werkstatt: Typen, Formen & Raster oder „Das Plakat“ (Workshop, 1,5 SWS)
Wendland D

Making Comics (Visuelle Erzählungen zur inhaltsorientierten Kommunikation erstellen) (Workshop, 1,5 SWS)
Wendland D
For further information in this module, please click campus.tum.de or here.

Module Description

SOT63402: Utopias and Dystopias in Culture, Literature and Film | Utopien und Dystopien in Kultur, Literatur und Film

Version of module description: Gültig ab summerterm 2024

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 68	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The module examination takes place in the form of various exercises:
1. By answering questions on the given texts during the classes students show their ability to understand fictional texts in relation to a given subject area (graded, 20%).
2. In a short presentation (8-12 minutes) on a self-chosen topic students prove that they can analyze fictional media according to specific criteria and methods (graded, 30%).
3. By creating and presenting (8-12 minutes) a poster in group work on a self-developed utopian/dystopian society as well as a short individual elaboration (900-1000 words) on one aspect students show that they are able to take up core issues of current discourses and reflect on them in fictional transfer (graded, 50%).
4. By creating a draft for a fictional media (eg. storyline for a film) in group work the students prove their ability to communicate their ideas about relevant issues in different ways (not graded).

Repeat Examination:

(Recommended) Prerequisites:

Content:
What would an ideal society look like? What political order and what laws would this utopian state have to be based on? And when does a utopia become a dystopia?
In this interdisciplinary seminar we will look at various fictional utopian texts and discuss real-world concepts and attempts to create ideal societies. In addition to different utopias, we will also look at the representation of dystopias in different media (novels, films, computer games) and examine the role of science and technology in both genres. Additionally, participants will work in groups to design their own utopian and dystopian societies and stories.

Intended Learning Outcomes:
Students can evaluate the relevance of read literary texts from different eras, watch films and other media relevant to for the topic and analyze them according to previously discussed criteria and methods. They are able to research current discourses on the topic of the course and critically analyse them . to articulate a comprehensible position regarding core issues of a discourse. Students also learn how to can create and present various media to communicate their positions in different ways an (e.g. academic poster, storyline).

Teaching and Learning Methods:
- Independent reading and watching of texts/films
- Analysis of these texts/films using methods discussed in class
- Group discussions
- Group work
- Controversial topics can be discussed in the form of debates

Media:
Texts, films, video games, slides, posters

Reading List:
Orwell, George: 1984, Penguin Essentials, 2016, ISBN: 9780141036144

Responsible for Module:
Slanitz, Alfred; Dr. phil.

Courses (Type of course, Weekly hours per semester), Instructor:
From "New Atlantis" to "Blade Runner" - Utopias and Dystopias in Culture, Literature and Film (Workshop, 1,5 SWS)
Fricke S
For further information in this module, please click campus.tum.de or here.

Module Description

WZ0812: Cultural Competence: Choir and Orchestra | Kulturelle Kompetenz: Chor- und Orchester

Version of module description: Gültig ab summerterm 2010

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 30	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In Form einer Präsentation referieren die Teilnehmer und Teilnehmerinnen über ein gemeinsam mit den Dozierenden festgelegtes Thema aus dem Bereich Musik.

Repeat Examination:

(Recommended) Prerequisites:
Vorspiel oder Vorsingen zu beginn des Semesters

Content:
Nach einem Vorsingen oder Vorspiel zu Beginn des Semesters, welches über die Teilnahme entscheidet, wird in
regelmäßigen gemeinsamen Proben ein Konzertprogramm erarbeitet, welches am Ende des Semesters in einem oder mehreren Konzerten öffentlich dargeboten wird.

Intended Learning Outcomes:
Am Ende der Lehrveranstaltung sind die Teilnehmer und Teilnehmerinnen in der Lage, bei der Aufführung der einstudierten Werke eine hervorragende und hochkonzentrierte musikalische Darbeitung zu erbringen. Zudem können sie ein musikalisches Thema verständlich, präzise und überzeugend darlegen.

Teaching and Learning Methods:
Gemeinsame Proben

Media:

Reading List:

Responsible for Module:
Mayer, Felix; Prof. Mag.art.

Courses (Type of course, Weekly hours per semester), Instructor:
Chor am Campus Weihenstephan (Workshop, 2 SWS)
Hör S
For further information in this module, please click campus.tum.de or here.

SOT60306: Methods & Approaches | Methoden & Verfahren

SOT603061: 1 Credit Modules | 1 Credit Module

Module Description

CLA10509: Creative Problem Solving | Creative Problem Solving

Version of module description: Gültig ab summerterm 2017

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Mündlicher oder schriftlicher Bericht (10 min. bzw. 700-1000 Wörter) über die Anwendung mindestens einer Kreativitätstechnik.
Die Berichte zeigen, dass Studierenden die reflektierende Beschreibung der Technik, ihrer konkreten Anwendung, der Bewertung der Ideen sowie der tatsächlichen Umsetzung verstanden haben.

Repeat Examination:
End of Semester

(Recommended) Prerequisites:

Content:
Unterschiedliche professionelle Techniken für einfallsreiche Problemlösungen werden theoretisch besprochen und als Einzel- und Gruppenaufgaben praktisch ausprobiert. Impulsreferate beschäftigen sich u. a. mit dem kreativen Prozess, dem individuell optimalen Setting sowie dem Umgang mit schöpferischen Denkblockaden. Reflektionen helfen, Schritt für Schritt bewusst und mutig neue Wege zu gehen.
Dadurch wächst das Vertrauen in das eigene kreative Potential, das in Übungen praktisch eingesetzt wird.
Die Kurse vermitteln Methoden, um Herausforderungen in Studium, Beruf und Alltag effektiv und zielorientiert zu meistern.

Intended Learning Outcomes:
Nach der Teilnahme an der Veranstaltung sind die Studierenden in der Lage,
- Methoden und Techniken zur kreativen Arbeit für einzelne Personen, im Zweierteam und in der Gruppe anzuwenden und
- Ideen systematisch zu bewerten.

Darüber hinaus können die TeilnehmerInnen ihr kreatives Potential und ihr individuelles, optimales Setting für kreative Impulse anwenden.

Teaching and Learning Methods:
Impulsreferate, praktische Übungen, Einzel-, Partner- und Gruppenarbeiten, Reflexionen

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Abenteuer Kreativität. Methoden zur Ideenfindung und Problemlösung (Workshop, 1 SWS)
Lughofer I
For further information in this module, please click campus.tum.de or here.

Module Description

CLA10512: Getting More Effective - on My Own and in a Team | Effektiver werden - allein und im Team

Version of module description: Gültig ab summerterm 2011

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 23	**Contact Hours:** 7

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Im Rahmen einer Präsentation zeigen die Studierenden auf wie man in bestimmten Situationen die Effektivität des Einzelnen und des Teams steigern kann (Prüfungsleistung).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Wie lange und wie hart man arbeitet, sind keine Erfolgskriterien. Nur Ergebnisse zählen; Ergebnisse in Bezug auf ein gesetztes Ziel.

Der Workshop – bestehend aus drei Teilen – führt die Teilnehmerinnen und Teilnehmer in verschiedene vom Dozenten während seiner langjährigen Industrietätigkeit erprobte Methoden zur Steigerung der Effektivität ein.

Er gliedert sich wie folgt:
- Grundsätzliche Betrachtungen u.a. "effektiv" versus "effizient", "dringlich" versus "wichtig", "Stoppuhr" versus "Kompass"
- Situationsanalyse
- Rollen und Effektivitätsbereiche
- Zielfindung
- (Projekt-)Planung
- Zeitmanagement
- Arbeitsgruppe und Team (u.a. Motivation, Kommunikation, Lernen von Spitzenteams)

- Kontinuierliche Verbesserung

Intended Learning Outcomes:
Nach Abschluss sind die TeilnehmerInnen in der Lage,
- ihre Situation methodisch zu analysieren
- ihre jeweiligen "Effektivitätsbereiche" festzulegen
- sich "richtige" Ziele zu setzen und planerisch anzugehen
- die knappe Ressource Zeit besser zu managen
- sich in ein Team erfolgreich einzubringen, ggf. ein solches zu leiten
- Schwachstellen im Team zu erkennen

Teaching and Learning Methods:
Interaktive Erarbeitung des Stoffs (Teilnehmerunterlagen werden vorher ausgeteilt)
Vertiefung in Gruppenarbeiten, jeweils mit Präsentation
Erprobung der besprochenen Methoden in den Folgetagen, Erfahrungsaustausch beim nächsten Termin

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA90142: Self-Competence - Intensive Course | Selbstkompetenz - intensiv

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 12	**Contact Hours:** 18

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Prüfungsleistung besteht aus einem Bericht in Form einer schriftlichen Selbstreflexion (3-4 Seiten), in welchem zu den Themen des Kurses Stellung genommen und die diesbezügliche persönliche Entwicklung (Veränderung im Lern- und Arbeitsverhalten) nachgezeichnet wird.

Repeat Examination:
Next semester / End of Semester

(Recommended) Prerequisites:
Das persönliche Anliegen, ein bestimmtes Verhalten verändern zu wollen, um mehr Erfolg in Prüfungen und im Studium zu erzielen.

Content:
Selbstkompetenz meint die Bereitschaft, Anforderungen im Studium zu reflektieren, mit Schwierigkeiten gelassen umzugehen und eigene Begabungen zu entdecken. Immer, wenn unsere Verhaltensweisen für das Erreichen eines Ziels nicht mehr hilfreich sind, müssen wir neue Wege finden. Unsere Workshops bieten Studierenden die Möglichkeit, eigenes Verhalten zu reflektieren und neue Strategien zu entwickeln.
Das Modul "Selbstkompetenz - intensiv" dient grundsätzlich der Verbesserung der eigenen Lern- und Arbeitsfähigkeit. Folgende Themen werden innerhalb des Moduls vermittelt:
• Ziele entwickeln und erreichen
• Aktivierung eigener Ressourcen
• Umgang mit Stress und Emotionen
• Umgang mit Ängsten und Blockaden
• Zukunfts-Visionen aufbauen und Motivation stärken
• Mit der eigenen Energie haushalten

Intended Learning Outcomes:
Nach der Teilnahme an einem Kurs aus diesem Modul sind die Studierenden in der Lage, ihr eigenes Lern- und Arbeitsverhalten zu analysieren und zu verstehen, welches Verhalten zu Misserfolgen führt. Darauf aufbauend können sie eigene Lösungsansätze für ein erfolgreicheres Arbeiten entwickeln, das Leistung und Gesundheit gleichermaßen im Blick behält.

Teaching and Learning Methods:
Gruppenarbeit, Selbstreflexion, Theorie-Inputs

Media:

Reading List:

Responsible for Module:
Vierthaler, Barbara; Dipl.-Päd. (Univ.)

Courses (Type of course, Weekly hours per semester), Instructor:
Stressreduktion durch Achtsamkeit - Entspannung erleben und innere Stärke entwickeln (Workshop, 1,5 SWS)
Burkhardt S

Zeit- und Selbstmanagement. Erreichen Sie Ihre Ziele mit Freude! (Workshop, 1,5 SWS)
Firmhofer A

Schluss mit dem Aufschieben (Online-Kurs) (Workshop, 1,5 SWS)
Kronenberger U

Perfektionismus im Studium. Den eigenen Leistungsdruck loslassen. (Workshop, 1,5 SWS)
Mader S

Selbstwahrnehmung, Improvisation und Körpersprache: Raus aus dem Kopf, rein in den Körper! (Workshop, 1,5 SWS)
Molin V

Confident Presentations. Combining Science and Experience into Optimal Performance (Workshop, 1,5 SWS)
Mornell A

Ressourcentraining: Eigene Stärken erkennen und wirkungsvoll einsetzen (Workshop, 1,5 SWS)
Mühlich E

Erfolgreich durchs Studium. Selbstkompetenzen für den Lernalltag (Online-Kurs) (Workshop, 1,5 SWS)
Roßmanith M (Rummeld-Rodenbach M)

Mein innerer Kompass – Wie Werte meine Ziele und Träume stärken (Workshop, 1,5 SWS)
Schnack Q

Lernhacks. Zum eigenen Lernstil finden und smarter studieren (Workshop, 1,5 SWS)
Zeus R
For further information in this module, please click campus.tum.de or here.

SOT603062: 2 Credits Modules | 2 Credits Module

Module Description

CLA20221: Acting under Ignorance | Handeln trotz Nichtwissen

Version of module description: Gültig ab winterterm 2018/19

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 45	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Prüfungsleistung wird in Form einer Präsentation (25-30 min, einzeln oder in 2er-Teams) erbracht, in der die Studierenden Formen der Zukunftsforschung oder der Vorausschau anhand eines Beispiels diskutieren oder Konzepte der Zukunftsforschung vorstellen, einordnen und bewerten.

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
Zukunft betrifft jeden von uns. Aber was wissen wir von der Zukunft? Was kann man überhaupt wissen? Wie kann man zukünftige Situationen beeinflussen? Um Zukunft zu gestalten, müssen Unwägbarkeiten und Nichtwissen bewältigt werden.
Zunächst werden die Teilnehmer/innen mit einem geisteswissenschaftlichen / philosophischen Blick auf das Zukunftsthema vertraut gemacht – wie geht man also mit dem Paradox um: handeln und entscheiden zu müssen ohne über (ausreichendes) Zukunftswissen zu verfügen?
Darüber hinaus vermitteln Experten aus Wissenschaft und Industrie Praxiswissen im Spannungsfeld Zukunft und zum Umgang mit Zukunftswissen, Unsicherheit und Nichtwissen.
Abschließend werden aus den vermittelten Beispielen und den vorgestellten Konzepten Verfahrensregeln und Anleitungen für das Handeln von Individuen im Alltag und Institutionen/ Unternehmen unter Bedingungen der Ungewissheit und des Nichtwissens abgeleitet.

Intended Learning Outcomes:
Nach der Teilnahme an den Modulveranstaltungen sind die Studierenden in der Lage:
- Verschiedene Wissensformen zu erfassen und deren Wert zu diskutieren
- Verschiedene Formen von Zukunftswissen zu differenzieren, in der Praxis zu identifizieren und in verschiedenen Kontexten anzuwenden
- Regeln zur Orientierung und für das Handeln trotz Ungewissheit zu nennen.

Teaching and Learning Methods:
Dozenteninput, Präsentationen, Diskussionen, eigenständige Lektüre.

Media:
nach den technischen Möglichkeiten: Texte, Präsentationen, Videos, Prototypen …

Reading List:
Carleton et al (2013): Playbook for strategic foresight and innovation. (available at: http://www.innovation.io/playbook)
Pillkahn (2007): Trends und Szenarien als Werkzeuge der Strategieentwicklung. Publicis Verlag.
Wengenroth (Hrsg.), Grenzen des Wissens - Wissen um Grenzen, Velbrück Wissenschaft 2012

Responsible for Module:
Dr. Fred Slanitz

Courses (Type of course, Weekly hours per semester), Instructor:
Theorie und Praxis der Zukunftsforschung (Workshop, 1 SWS)
Pillkahn U
For further information in this module, please click campus.tum.de or here.

Module Description

CLA20710: Global Diversity Training | Global Diversity Training

Version of module description: Gültig ab winterterm 2013/14

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Students will deal with their own cultural background in a short group presentation and deeply reflect on the learning outcomes of the workshop in a learning summary (100% of grade).

Repeat Examination:

(Recommended) Prerequisites:

Content:
Collaboration in international teams is becoming a crucial everyday part of working environments. It brings numerous benefits, but can also lead to misunderstandings, confusions and conflicts that can hinder productivity.

The aim of the training is to prepare participants for teamwork from an intercultural perspective and especially to reflect the influence of diversity on the team process in international teams. To achieve this goal, we will work with science-based models, short lectures and numerous exercises with a strong focus on the relevance for your professional and daily life.

Intended Learning Outcomes:
After this workshop you will be able to individually deal with our own cultural background and its impact on intercultural collaboration
- Analyze the role and tasks of team leaders in an intercultural context.
- Develop strategies for case studies in international teams.
- be able to analyze situations of your professional life in an international team.

Teaching and Learning Methods:
The workshop will be a mix of input, case studies, discussions and group work.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Global Diversity (Successful in International Teams) (Workshop, 1,5 SWS)
Eberhard M
For further information in this module, please click campus.tum.de or here.

Module Description

CLA20817: Psychometric Diagnostics: The Human in Numbers | Psychometrische Diagnostik: Der Mensch in Zahlen

Version of module description: Gültig ab winterterm 2012/13

Module Level: Bachelor/Master	**Language:** German/English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Das Modul wird mit einer Modulprüfung in Form einer mündlichen Prüfung abgeschlossen.
Um die Lernziele zu erreichen, ist neben theoretischem Input und Eigenstudium auch aktive Mitarbeit im Rahmen der Lehrveranstaltung notwendig. Deshalb werden Mid-Term-Leistungen angeboten, die - als Anreiz für die Studierenden - zu einer Verbesserung der Bewertung der Modulprüfung führen können. Art und Umfang der vorgesehenen Mid-Term-Leistungen werden in der Beschreibung der Lehrveranstaltung veröffentlicht.
Alle Einzelleistungen werden benotet. Die Gesamtnote der Mid-Term-Leistungen ergibt sich aus den nach Workload gewichteten Einzelleistungen. Ist diese besser als die Note der Modulprüfung, wird die Gesamtnote aus dem gewichteten Mittel der Modulprüfung und der Mid-Term-Leistungen errechnet. Die Gesamtnote der Mid-Term-Leistungen wird bei der Wiederholung einer nicht bestandenen Modulprüfung berücksichtigt.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
keine

Content:
Das Diagnostizieren von Problemen ist allgegenwärtig! Wie kann ich einen Einstellungs-, Persönlichkeits-, Befindlichkeits- oder Fähigkeitstest entwickeln? Wie lassen sich unbeobachtete Typologien untersuchen? Welche Rolle können mathematisch-statistische Modelle für mentale Prozesse im Menschen spielen?

Patient in einer psychologischen Untersuchung: Feststellung des Krankheitsbildes und Bestimmung effektiver Behandlungsmaßnahmen. Schuler in einer Schulklasse: Feststellung

der Stärken und Schwächen in einem Wissensbereich und Bestimmung effektiver Bildungsmaßnahmen. Ziel ist jeweils die Erstellung eines differenzierten Profils des Individuums bzgl. der interessierenden Charakteristika: verschiedene Dispositionen der Patienten anormales Verhalten zu zeigen bzw. verschiedene Problemlösestrategien der Schuler.

Diese Veranstaltung führt in die Latent-Class-Analyse ein. Andererseits wird die Item-Response-Theorie kurz vorgestellt und die Grundannahmen der Latent-Trait-Modelle behandelt. Erweiternd dazu wird auf die Grundlagen der Wissensraumtheorie eingegangen, bevor zuletzt noch Ansätze der Cognitive-Diagnosis-Modelle thematisiert werden. Eine historische und wissenschaftstheoretische Einordnung der Konzepte in der Veranstaltung und das Philosophische Werkstattgespräch runden den Einblick ab.

Intended Learning Outcomes:
Psychometrische Denkweisen und den Umgang mit latenten Variablen kennenlernen. Multivariate diagnostische Testverfahren und Messmodelle verstehen. Multivariate kategoriale Datensätze mittels psychometrischer Modellierungsansätze analysieren.

Teaching and Learning Methods:
Diskussion, Gruppenarbeit, Übungsaufgaben, Selbststudium insbesondere Lektüre/Erarbeitung von Texten, Recherche

Media:
Präsentationen, Skripte/Reader, Tafel, Power-Point/Folien/Beamer, Overheadprojektor, weiterführende Literatur zur Lektüre, Anschauungsmaterial, Computer/Software

Reading List:
- Dayton, C.M. (1998). Latent Class Scaling Analysis. Thousand Oaks, CA: Sage.
- Falmagne, J.-Cl., & Doignon, J.-P. (2011). Learning Spaces. Berlin: Springer.
- McCutcheon, A.L. (1987). Latent Class Analysis. Newbury Park, CA: Sage.
- Rost, J. (2004). Lehrbuch Testtheorie Testkonstruktion. Bern: Hans Huber.
- Rupp, A.A., Templin, J.L., & Henson, R.A. (2010). Diagnostic Measurement: Theory, Methods, and Applications. New York: Guilford Press.
- Steyer, R., & Eid, M. (2001). Messen und Testen. Berlin: Springer.

Responsible for Module:
Ali Ünlü (ali.uenlue@tum.de)

Courses (Type of course, Weekly hours per semester), Instructor:
Psychometrische Diagnostik: Der Mensch in Zahlen (Seminar, 2 SWS)
Ünlü A
For further information in this module, please click campus.tum.de or here.

Module Description

CLA21023: Passing Exams in Relaxed Mode | Entspannt Prüfungen bestehen

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 36	**Contact Hours:** 24

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Prüfungsleistung besteht aus einem Bericht in Form einer schriftlichen Selbstreflexion (3-4 Seiten), in welchem zu den Themen des Kurses Stellung genommen und die diesbezügliche persönliche Entwicklung nachgezeichnet wird.

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Die Teilnehmenden bringen ein persönliches Anliegen zur Verbesserung ihrer Prüfungsvorbereitung und ihrer Prüfungserfolge mit.

Content:
Stellen Sie sich vor, morgen ist eine wichtige Prüfung – und Sie kommen locker durch. Obwohl Prüfungen Ihnen immer Stress und schlaflose Nächte bereiten.
Wir helfen Ihnen, die für Sie richtige Prüfungs-Strategie zu finden. Sie erfahren, wie Sie sich nach neuesten wissenschaftlichen Erkenntnissen am besten vorbereiten und wie Sie im entscheidenden Moment entspannen und Ihr Wissen präzise und umfassend wiedergeben können. Mit modernen Coaching-Techniken verwandeln wir Ihre eigenen Zweifel in eine Erfolgsstory. Dieser dreitägige Coaching-Workshop richtet sich an Studierende, die sich mehr Gelassenheit in Prüfungssituationen wünschen und ihr Studium mit gutem Erfolg abschließen wollen.

Intended Learning Outcomes:
Ziel des Moduls ist, den eigenen Umgang mit Prüfungssituationen zu reflektieren, unterschiedliche Techniken für die Vorbereitung und das Bestehen von Prüfungen zu kennen, mit belastenden

Prüfungssituationen souverän umgehen zu können und die eigene Prüfungsvorbereitung zielführend und termingerecht zu gestalten.

Teaching and Learning Methods:
Input und Vortrag, Gruppenarbeit, Selbstreflexion und Einzelarbeit

Media:

Reading List:
Baumeister/Thierney/Neubauer: Die Macht der Disziplin, 2012
Engelbrecht Sigrid: Ich müsste wollte sollte, 2011
Grüning Christian: Garantiert erfolgreich lernen, 2009
Metzig/Schuster: Prüfungsangst und Lampenfieber, 2009
Mortan/Mortan: Bestanden wird im Kopf, 2009
Hafner/Kronenberger: Entspannt Prüfungen bestehen, 2015

Responsible for Module:
Vierthaler, Barbara; Dipl.-Päd. (Univ.)

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

CLA21213: Individual Change Management | Individual Change Management

Version of module description: Gültig ab winterterm 2010/11

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 38	**Contact Hours:** 22

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Studierenden bearbeiten eine schriftliche Fallstudie, in der sie ihr Verständnis der verschiedenen Aspekte des Individual Change Management wiedergeben (Prüfungsleistung).

Repeat Examination:
Next semester

(Recommended) Prerequisites:
Die Studierenden sind bereit sich mit persönlichen Veränderungsprozessen und dem eigenen Rollenverständnis auseinanderzusetzen.

Content:
Individual Change Management (ICM) betrifft alle Herausforderungen zu der Frage, wie man Veränderungen – welcher Art auch immer – im eigenen Lebens- und Karriereplan integrieren und bei Bedarf gut meistern kann. ICM plant dabei die Veränderungsprozesse, führt den Wandel durch und stabilisiert und kontrolliert die Veränderungen.

Leben und Karriere will einerseits zwar geplant werden, Veränderungen im Privat- oder Erwerbsleben müssen andererseits aber auch bedacht sein. Damit eigene Lebens- und Karriereentwürfe umgesetzt werden können, müssen (Lebens)Ziele stets überprüft, gegebenenfalls korrigiert oder neu gesucht werden. Hier setzt der Workshop an.

Intended Learning Outcomes:
Nach der Teilnahme sind die Studierenden in der Lage
- zwischen Chancen und Gefahren bei (persönlichen) Veränderungsprozessen zu differenzieren
- das eigene Rollenverständnis zu reflektieren

- durch die Definition persönlicher Meilensteinen und die Wahrnehmung und Mobilisierung von (inneren) Ressourcen Veränderungen strukturiert anzugehen und umzusetzen.

Teaching and Learning Methods:
Jede Themeneinheit bewegt sich zwischen Selbsterfahrung, Information und Reflexion: Biographiearbeit; Interaktions-, Entspannungs-, Imaginationsübungen; Kreativarbeit; Coping bzw. Resilienzförderung (NLP) und Ressourcenaktivierung; Kollegiale Beratung (ZRM).

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Individual Change Management (Persönliche Veränderungsprozesse initiieren und erfolgreich gestalten) (Workshop, 1 SWS)
Kölbl C
For further information in this module, please click campus.tum.de or here.

SOT603063: 3 Credits Modules | 3 Credits Module

Module Description

CLA30221: Acting under Ignorance | Handeln trotz Nichtwissen

Version of module description: Gültig ab winterterm 2013/14

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 75	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Die Prüfungsleistung wird in Form einer Seminararbeit inklusive einer vorbereitenden Präsentation (25-30 min, einzeln oder in 2er-Teams) erbracht, in der die Studierenden Formen der Zukunftsforschung, der Vorausschau anhand eines Beispiels diskutieren oder Konzepte der Zukunftsforschung vorstellen, einordnen und bewerten. In der Seminararbeit (2500-3000 Wörter) stellen die Studierenden ein Konzept der Zukunftsforschung anhand eines Beispiels dar und diskutieren seine Praktikabilität für Handlungen unter Bedingungen der Ungewissheit.

Repeat Examination:

(Recommended) Prerequisites:

Content:
Zukunft betrifft jeden von uns. Aber was wissen wir von der Zukunft? Was kann man überhaupt wissen? Wie kann man zukünftige Situationen beeinflussen? Um Zukunft zu gestalten, müssen Unwägbarkeiten und Nichtwissen bewältigt werden.
Zunächst werden die Teilnehmer/innen mit einem geisteswissenschaftlichen / philosophischen Blick auf das Zukunftsthema vertraut gemacht – wie geht man also mit dem Paradox um: handeln und entscheiden zu müssen ohne über (ausreichendes) Zukunftswissen zu verfügen?
Darüber hinaus vermitteln Experten aus Wissenschaft und Industrie Praxiswissen im Spannungsfeld Zukunft und zum Umgang mit Zukunftswissen, Unsicherheit und Nichtwissen.
Abschließend werden aus den vermittelten Beispielen und den vorgestellten Konzepten Verfahrensregeln und Anleitungen für das Handeln von Individuen im Alltag und Institutionen/ Unternehmen unter Bedingungen der Ungewissheit und des Nichtwissens abgeleitet.

Intended Learning Outcomes:
Nach der Teilnahme an den Modulveranstaltungen sind die Studierenden in der Lage:
- Verschiedene Formen von Zukunftsaussagen zu erfassen und deren Wert zu diskutieren
- Verschiedene Formen von Zukunftswissen zu differenzieren, in der Praxis zu identifizieren und in verschiedenen Kontexten anzuwenden
- Regeln zur Orientierung und für das Handeln trotz Ungewissheit zu nennen
- Konzepte der Zukunftsforschung hinsichtlich ihrer Bedeutung für die Praxis zu diskutieren

Teaching and Learning Methods:
Dozenteninput, Präsentationen, Diskussionen, eigenständige Lektüre.

Media:
nach den technischen Möglichkeiten: Texte, Präsentationen, Videos, Prototypen …

Reading List:
Carleton et al (2013): Playbook for strategic foresight and innovation. (available at: http://www.innovation.io/playbook)
Pillkahn (2007): Trends und Szenarien als Werkzeuge der Strategieentwicklung. Publicis Verlag.
Wengenroth (Hrsg.), Grenzen des Wissens - Wissen um Grenzen, Velbrück Wissenschaft 2012

Responsible for Module:
Dr. Fred Slanitz

Courses (Type of course, Weekly hours per semester), Instructor:
Theorie und Praxis der Zukunftsforschung (Workshop, 1 SWS)
Pillkahn U
For further information in this module, please click campus.tum.de or here.

SZ0003: Modules TUM Language Center | Module TUM Sprachenzentrum

SZ0003-01: Arabic | Arabisch

Module Description

SZ0118: Arabic A1.1 | Arabisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level:	Language:	Duration:	Frequency:
Bachelor/Master	Language taught	one semester	winter/summer semester
Credits:*	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**
3	90	60	30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und werden in Form von kompetenz- und handlungsorientierten Portfolioaufgaben (Hilfsmittel erlaubt) sowie einem Abschlusstest abgehalten. Die Form und Bedingungen des Abschlusstests können je nach Abhaltungsformat der jeweiligen LV variieren (Online/Präsenz; mit/ohne Hilfsmittel) und werden rechtzeitig bekannt gegeben.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei: In diesem Falle beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden neben der Einübung des arabischen Schrift- und Lautsystems Grundkenntnisse des Arabischen vermittelt, die es den Studierenden ermöglichen, sich in

alltäglichen Grundsituationen - z.B. beim sich Begrüßen, beim Einkaufen, im Restaurant, und im öffentlichen Verkehr etc. - trotz geringer Sprachkenntnisse zurechtzufinden. Sie lernen/üben grundlegendes Vokabular zu Themen wie Gesundheit, Familie, Beruf, einfache Fragen zur Person/zur Familie zu stellen und zu beantworten, Zahlen und Uhrzeiten zu verstehen und zu benutzen und in einfach strukturierten Hauptsätzen Alltägliches zu berichten. Entsprechende grammatikalische Themen werden behandelt. Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 des GER. Der/Die Studierende erlangt Grundkenntnisse in Arabisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung interkultureller und landeskundlicher Aspekte. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Nach Abschluss dieses Moduls kann der/die Studierende alltägliche Ausdrücke und sehr einfache Sätze verwenden, die auf die Befriedigung konkreter Bedürfnisse des alltäglichen Bedarfs zielen: Er/Sie kann sich und andere vorstellen und Fragen zu ihrer Person stellen und auf Fragen dieser Art Antwort geben, in einfacher Weise Tagesabläufe beschreiben und einfache schriftliche Mitteilungen zur Person machen. Er/Sie ist in der Lage, Wünsche zu kommunizieren, wenn die Gesprächspartner deutlich und langsam sprechen und bereit sind zu helfen.
Sowohl im schriftlichen als auch im mündlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat, bzw. der A1.1-Stufe entsprechend, Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft. Freiwillige Hausaufgaben zur Vor-und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch wird in der LV bekannt gegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Arabisch A1.1 (Seminar, 2 SWS)
Aboelgoud E, Köpfler I

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0119: Arabic A1.2 | Arabisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und werden in Form von kompetenz- und handlungsorientierten Portfolioaufgaben (Hilfsmittel erlaubt) sowie einem Abschlusstest abgehalten. Die Form und Bedingungen des Abschlusstests können je nach Abhaltungsformat der jeweiligen LV variieren (Online/Präsenz; mit/ohne Hilfsmittel) und werden rechtzeitig bekannt gegeben.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei: In diesem Falle beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Prüfung A1.1 bzw. gesicherte Kenntnisse der Stufe A1.1

Content:
In diesem Modul lernen die Studierenden Wortschatz und Alltagssituationen zum sich Begrüßen, beim Einkaufen, im Restaurant etc. Sie lernen/üben grundlegendes Vokabular zu Themen wie Gesundheit, Familie, Beruf, einfache Fragen zur Person/zur Familie zu stellen und zu beantworten, Zahlen und Uhrzeiten zu verstehen und zu benutzen und in einfach strukturierten Hauptsätzen Alltägliches zu berichten. Entsprechende grammatikalische Themen werden behandelt. Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten.

Intended Learning Outcomes:
Nach der Teilnahme an der Modulveranstaltung A1.2 sind die Studierenden in der Lage, vertraute, alltägliche Ausdrücke und sehr einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Er/Sie kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen, bzw. Fragen dieser Art beantworten. Der/Die Studierende kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind, zu helfen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft. Freiwillige Hausaufgaben zur Vor-und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch wird im Kurs bekannt gegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Arabisch A1.2 (Seminar, 2 SWS)
Köpfler I
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0120: Arabic A2.1 | Arabisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und werden in Form von kompetenz- und handlungsorientierten Portfolioaufgaben (Hilfsmittel erlaubt) sowie einem Abschlusstest abgehalten. Die Form und Bedingungen des Abschlusstests können je nach Abhaltungsformat der jeweiligen LV variieren (Online/Präsenz; mit/ohne Hilfsmittel) und werden rechtzeitig bekannt gegeben.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei: In diesem Falle beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Prüfung A1.2 bzw. gesicherte Kenntnisse der Stufe A1.2

Content:
In diesem Modul werden Grundkenntnisse in Arabisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Situationen zurechtzufinden, z.B. auf Reisen, beim Arzt, auf dem Markt, unter Kollegen, Freunden und Nachbarn. Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Sie lernen/üben grundlegendes Vokabular/ Ausdrucksmöglichkeiten zu Themen wie Ausbildung, Beruf, Gesundheit, Wohnen und Reisen.

Sie lernen/üben, einfach strukturierte Haupt- und Nebensätze zu benutzen und entsprechende grammatikalische Themen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2.1 des GER. Der/Die Studierende erlangt Grundkenntnisse in Arabisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung interkultureller und landeskundlicher Aspekte. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen. Nach Abschluss dieses Moduls kann er/sie im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte. Er/Sie kann beispielsweise sich und andere Personen, persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation beschreiben. Der/die Studierende kann längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft. Freiwillige Hausaufgaben zur Vor-und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Material wird im Unterricht bekannt gegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Arabisch A2.1 (Seminar, 2 SWS)
Aboelgoud E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0121: Arabic A2.2 | Arabisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und werden in Form von kompetenz- und handlungsorientierten Portfolioaufgaben (Hilfsmittel erlaubt) sowie einem Abschlusstest abgehalten. Die Form und Bedingungen des Abschlusstests können je nach Abhaltungsformat der jeweiligen LV variieren (Online/Präsenz; mit/ohne Hilfsmittel) und werden rechtzeitig bekannt gegeben.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei: In diesem Falle beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Prüfung A2.1 bzw. gesicherte Kenntnisse der Stufe A2.1

Content:
In diesem Modul werden Grundkenntnisse in Arabisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Situationen zurechtzufinden, z.B. auf Reisen, Beim Einkaufen, auf dem Markt, unter Kollegen, Freunden und Nachbarn. Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Sie lernen/üben grundlegendes Vokabular/ Ausdrucksmöglichkeiten zu Themen wie Ausbildung, Beruf, Gesundheit, Wohnen und Reisen,

Geschäftsleben etc. Sie lernen/üben, einfach strukturierte Haupt- und Nebensätze zu benutzen und entsprechende grammatikalische Themen wie Präsens, Imperativ und Vetitiv.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2.2 des GER. Der/Die Studierende erlangt Grundkenntnisse in Arabisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung interkultureller und landeskundlicher Aspekte. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen. Nach Abschluss dieses Moduls kann er/sie im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte. Er/Sie kann beispielsweise sich und andere Personen, persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation beschreiben. Der/die Studierende kann längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft. Freiwillige Hausaufgaben zur Vor-und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Material wird im Unterricht bekanntgegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0123: Arabic Communication A1 | Arabisch Kommunikation A1

Version of module description: Gültig ab winterterm 2024/25

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 1	**Total Hours:** 45	**Self-study Hours:** 30	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse (hier: mündliche Kommunikationsfähigkeiten) überprüft. Format: Audiodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A1

Content:
In diesem Modul steht die mündliche Kommunikation in der Fremdsprache Arabisch im Vordergrund. Es werden Kenntnisse vermittelt, die es den Studierenden ermöglichen, im einfachen Kontext, d. h. in verschiedenen alltäglichen Situationen und zu Themen von allgemeinem Interesse zusammenhängend und verständlich zu kommunizieren. Dabei wird ein Spektrum an Vokabular, Redewendungen und Dialogmustern erarbeitet; interkulturelle und landeskundliche Aspekte berücksichtigt; Schwerpunkte der Grammatik gemäß der Niveaustufe wiederholt bzw. vertieft und gefestigt. Die aktive Mitarbeit der Studierenden wird erwartet und gefördert.

Intended Learning Outcomes:
Nach Abschluss des Moduls können die Studierenden entsprechend der Niveaustufe A1 sich an leichteren Gesprächen im Alltag beteiligen, einfach und zusammenhängend in alltäglichen Kommunikationssituationen verstehbar reagieren, sofern sie in klarer Standardsprache vorgetragen werden und die Thematik vertraut ist.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Sprechübungen; Einzel-Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenem Material.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Arabisch A1 - Kommunikation (Seminar, 1 SWS)
Aboelgoud E
For further information in this module, please click campus.tum.de or here.

SZ0003-02: Chinese | Chinesisch

Module Description

SZ0209: Chinese A1.1 | Chinesisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Klausur beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin
und wird in Form von Präsenzprüfungen oder (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Interesse an der chinesischen Sprache und Kultur ist empfehlenswert

Content:
Dieses Modul umfasst die Einführung in die chinesische Phonetik, elementare Vokabeln und Grammatik sowie die Einführung in die chinesischen Schriftzeichen. Mitgeteilt werden die Besonderheit der vier Töne im Hochchinesischen, der Aufbau der Schriftzeichen und die elementare Grammatikstruktur. Alltägliche Begrüßungsformen, Basisredewendungen und einfache Satzelemente sind Bestandteile dieses Moduls.

Intended Learning Outcomes:
Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, einen Überblick über die chinesische Sprache zu gewinnen. Sie haben auch den Grundwortschatz in chinesischen Schriftzeichen erworben.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit. Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Hör-, Lese- und Sprechübungen. Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch wird in der LV bekanntgegeben,
Vom Kursleiter selbst erstellte Materialien/Übungen

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Chinesisch A1.1 (Seminar, 2 SWS)
Kralle J, Lee M, Shih-Skalden Y, Zhou H

Blockkurs Chinesisch A1.1 (Seminar, 2 SWS)
Wang Z
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0210: Chinese A1.2 | Chinesisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Klausur beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird in Form von Präsenzprüfungen oder (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur A1.1 oder gleichwertige Vorkenntnisse

Content:
In diesem Modul werden die Kenntnisse über die Fragepartikeln, Eigenschaftswörter und Zahleneingaben vermittelt. Mit den Kommunikations-möglichkeiten zu den Alltagssituationen wird das Gelernte realitätsnah erprobt.

Intended Learning Outcomes:
Die Studierenden sind nach dem Abschluss des Moduls in der Lage, weitere Verben zu beherrschen, verschiedene Fragepartikeln, Eigenschaftswörter und Zahleneingaben anzuwenden. Sie können sich an leichteren Gespräche im Alltag, der A1.2-Stufe entsprechend, beteiligen.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit
Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Audio-CD, multimedial gestützte Lehr- und Lernmaterialien

Reading List:
Lehrbuch wird in der Veranstaltung bekanntgegeben,
Vom Kursleiter selbst erstellte Materialien/Übungen

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Chinesisch A1.2 (Seminar, 2 SWS)
Lee M, Zhou H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0211: Chinese A2.1 | Chinesisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Klausur beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird in Form von Präsenzprüfungen oder (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestanden Abschlussklausur A1.2 oder gleichwertige Vorkenntnisse

Content:
Der Schwerpunkt dieses Moduls liegt in der Verfeinerung der Sprachkenntnisse. Kombination von verschiedenen Satzelementen wie Orts- und Zeitangaben sowie Äußerung von persönlichen Meinungen werden in diesem Modul erarbeitet.

Intended Learning Outcomes:
Die Studierenden sind nach der Teilnahme an der Modulveranstaltung in der Lage, genauere Aussagen zu machen und komplexere Äußerungen zu zu formulieren.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit

Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Audio-CD und multimedial gestützte Lehr- und Lernmaterialien

Reading List:
wird in der Veranstaltung bekanntgegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Chinesisch A2.1 (Seminar, 2 SWS)
Kralle J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0212: Chinese A2.2 | Chinesisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Klausur beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird in Form von Präsenzprüfungen oder (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Abschlussklausur A2.1 oder gleichwertige Vorkenntnisse

Content:
In diesem Modul werden komplexere Satzstrukturen erarbeitet. Die Studierenden erlernen weitere Vokabeln. Die Satzteile werden durch Einbindung modaler Erläuterungen zu Subjekt, Prädikat und Objekt in den Aussagesätzen erweitert.
Die Studierenden beschäftigen sich mit Themen, die relevant für die chinesische Kultur, ihre Sitten und Gebräuche sind.

Intended Learning Outcomes:
Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, ihre Meinungen in längerer, durchdachter und fein strukturierter Form zu formulieren. Sie können längere Sätze analysieren.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit, Referate
Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Audio-CD und multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch wird in der Veranstaltung bekanntgegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Chinesisch A2.2 (Seminar, 2 SWS)
Kralle J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0213: Chinese B1.1 | Chinesisch B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Klausur beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird in Form von Präsenzprüfungen oder (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestanden Abschlussklausur A2.2 oder gleichwertige Vorkenntnisse

Content:
In diesem Modul erlernen die Studierenden komplexere Grammatikstrukturen. Sie lesen komplexe Texte über spezielle Themen, Landeskunde und Kultur. Die Übungen umfassen Textanalyse und Satzumformulierung.

Intended Learning Outcomes:
Die Studierenden können nach Abschluss komplexe Satzstrukturen verwenden und die richtige Wortwahl treffen. Sie sind in der Lage, über spezielle Themen zu referieren. Sie erreichen das Niveau von HSK 3 (standardisierte chinesische Sprachprüfung).

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit, Referate
Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Audio-CD und multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch wird in der Veranstaltung bekanntgegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0214: Chinese B1.2 | Chinesisch B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Klausur beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird in Form von Präsenzprüfungen oder (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur B1.1 oder gleichwertige Vorkenntnisse

Content:
In diesem Modul werden weitere Kenntnisse über komplexe Grammatikstrukturen, Textanalyse und Landeskunde vermittelt. Die Studierenden besprechen spezielle Themen und erarbeiten sie in Form von schriftlicher Arbeit und verbaler Präsentation. Sie diskutieren in Gruppen über aktuelle Themen in chinesischer Sprache, z.B. Studentenleben in Deutschland, Auslandsstudium in China, Reisebericht, Buchpräsentation, besondere Erlebnisse usw.

Intended Learning Outcomes:
Die Studierende erlangen die notwendigen Kenntnisse, um komplexe Satzstrukturen zu verwenden. Sie sind in der Lage, schwierigere Texte zu analysieren, zusammenfassen und sie verbal ausdrücken. Sie erreichen das Niveau von HSK 4 (standardisierte chinesische

Sprachprüfung). Sowohl im mündlichen als auch im schriftlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit, Referate. Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Audio-CD, multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch wird in der Veranstaltung bekanntgegeben
Vom Kursleiter selbst angefertigte Übungen, Auszüge aus kopierbaren Lehrmaterialien, Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0217: Chinese B2.1 | Chinesisch B2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Klausur beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird in Form von Präsenzprüfungen oder (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur B1.2 oder gleichwertige Vorkenntnisse

Content:
In dieser Modulveranstaltung werden Kenntnisse über schwierige Grammatikstrukturen, fachspezifische Begriffe und Themen vermittelt. Dabei werden historische, landeskundliche und interkulturelle Aspekte Chinas und Deutschlands berücksichtigt. Die Termini werden durch mündliche und schriftliche Übungen erworben.

Intended Learning Outcomes:
Die Studierenden erlangen Kenntnisse in der Fremdsprache Chinesisch auf standardsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Sie sind sicher im allgemeinen Gespräch und können über fachspezifische Themen diskutieren. Zudem sind sie in der Lage, einige chinesische Sprichwörter zu beherrschen. Das Modul

ermöglicht ihnen, den Unterschied zwischen deutscher und chinesischer Kultur zu erkennen und darüber hinaus in chinesischer Sprache präziser zu formulieren.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit, Referate.
Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Online-Materialien, Zeitungsartikel, Kurzfilme

Reading List:
Lehrbuch wird in der Veranstaltung bekanntgegeben
Vom Kursleiter selbst angefertigte Übungsmaterialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0219: Chinese A2.1 - Communication at Work | Chinesisch A2.1 - Kommunikation am Arbeitsplatz

Version of module description: Gültig ab winterterm 2022/23

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0220: Chinese B2.1 - Chinese in Science | Chinesisch B2.1 - Wissenschaftliches Chinesisch

Version of module description: Gültig ab winterterm 2022/23

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Prüfungsaufgaben beinhalten Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird entweder in Form von einer Präsenzprüfung oder Portfolioprüfungsaufgaben abgehalten. Hilfsmittel sind erlaubt.
Die mündliche Reaktionsfähigkeit wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen und/oder in Form einer Audio-/Videodatei überprüft. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur B1.2 oder Ergebnis Einstufungstest B2.1

Content:
Der Wissenschaftliches Chinesisch-Kurs hat den Schwierigkeitsgrad B2.1 nach dem Gemeinsamen Europäischen Referenzrahmen für Sprachen (GER). In diesem Modul werden Sprachkenntnisse, die in Stufe B1.2 erworben wurden, vertieft. Kenntnisse über schwierige Grammatikstrukturen, fachspezifische Begriffe und Themen werden vermittelt, die es den Studierenden ermöglichen, sich in einem chinesischsprachigen Studium mit einem gewissen Fachsprachenniveau zu orientieren.
Zudem lernen sie weitere 300 Vokabeln und deren Funktionen im Satzbau sowie Erweiterungen von Satzteilen. Die Studierenden machen Übungen zur Textanalyse und Satzumformulierung. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Chinesisch

effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Schließlich nehmen sie an einer Projektarbeit teil und halten eine Präsentation auf Chinesisch.

Intended Learning Outcomes:
Nach der Teilnahme an dem Modul sind die Studierenden in der Lage, sich einfach und zusammenhängend über ihre eigenen Studienfächer und allgemeinen wissenschaftliche Themen zu äußern und sind in der Lage, auf einfache Art zu diskutieren, zu bewerten, zu erklären usw. Das Modul ermöglicht ihnen darüber hinaus, ihre Diskussionsbeiträge präziser zu formulieren. Sie sind in der Lage, ca. 300 Wörter (chinesische Schriftzeichen) für Studium zu verstehen und zu verwenden.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit, Referate.
Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Online-Materialien, Zeitungsartikel, Kurzfilme

Reading List:
Lehrbuch wird in der Veranstaltung bekanntgegeben
Vom Modul-Leiter*innen selbst angefertigte Übungsmaterialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0221: Chinese A2.2 - Communication at Work | Chinesisch A2.2 - Kommunikation am Arbeitsplatz

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.

Die Prüfungsaufgaben beinhalten Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird entweder in Form von einer Präsenzprüfung oder Portfolioprüfungsaufgaben abgehalten. Hilfsmittel sind erlaubt.

Die mündliche Reaktionsfähigkeit wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen und/oder in Form einer Audio-/Videodatei überprüft. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur Chinesisch A2.1 oder A2.1 Berufskommunikation oder gleichwertige Vorkenntnisse

Content:
In diesem Modul werden berufliche Situationen simuliert wie z.B. im Team kommunizieren/ Teamarbeit, Visum beantragen, Dienstreise planen, E-Mails schreiben, Telefonate führen, Meetings und Geschäftsessen organisieren bzw. durchführen und einfache Konzepte verfassen. Die Studierenden erarbeiten ein Spektrum an berufsbezogenem Vokabular, Redewendungen und Dialogmustern und benutzen Diskursmuster eines Meetings wie z.B. Vor- und Nachteile angeben,

Vorschläge machen, Höflichkeitsfloskeln am Arbeitsplatz verwenden, Lösungen anbieten und widersprechen.

Eine Kombination von verschiedenen Satzelementen wie Orts- und Zeitangaben sowie Äußerung von persönlichen Meinungen wird in diesem Modul erarbeitet. Kenntnisse des Chinesischen werden vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Bürosituationen zurechtzufinden.

Zudem lernen sie weitere 200 Vokabeln und deren Funktionen im Satzbau sowie die Modifikation von Satzteilen. Außerdem werden Teile der chinesischen Kultur und chinesische Gewohnheiten in der Berufskommunikation erläutert.

Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Chinesisch eigenverantwortlich und effektiv zu gestalten.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln.

Intended Learning Outcomes:
Nach der Teilnahme an dem Modul sind die Teilnehmer in der Lage, die gelernte Grammatik anzuwenden und sich an leichteren Gesprächen im Alltag und im Büro zu beteiligen.

Die Studierenden sind nach der Teilnahme an der Modulveranstaltung in der Lage, genauere Aussagen zu machen und komplexere Äußerungen zu formulieren.

Die Teilnehmer werden auch in der Lage, sein auf einer digitalen Lernplattform Kommentare zu schreiben, einfache Fragen zu stellen und kurze SMS-Konversationen auf Mandarin-Chinesisch zu führen.

Teaching and Learning Methods:
Einzelarbeit, Partnerarbeit, Gruppenarbeit
Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Audio-CD und multimedial gestützte Lehr- und Lernmaterialien

Reading List:
wird in der Veranstaltung bekanntgegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Chinesisch A2.2 - Kommunikation am Arbeitsplatz (Seminar, 2 SWS)
Zhou H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0222: Cantonese A1.1 | Kantonesisch A1.1

Version of module description: Gültig ab summerterm 2024

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.

Die Prüfungsaufgaben beinhalten Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird entweder in Form von einer Präsenzprüfung oder Portfolioprüfungsaufgaben abgehalten.

Hilfsmittel sind erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Die Teilnehmer sollten vor allem Interesse an der kantonesischen Sprache und Kultur mitbringen. Vorkenntnisse im Chinesischen oder im Umgang mit chinesischen Schriftzeichen sind von Vorteil, jedoch nicht zwingend erforderlich.

Content:
In dem Kurs wird zunächst eine kurze Einführung in die Geschichte und Kultur der kantonesischen Sprache geboten. Nachdem die Teilnehmenden dann ein erstes Verständnis für die Phonologie und Tonregeln des Kantonesischen entwickelt haben, werden thematisch geordnete Vokabeln und Grammatikstrukturen präsentiert.

Die Sitzungen selbst konzentrieren sich auf die gesprochene Sprache und das Führen von einfachen Gesprächen im Alltag.Die behandelten Themen sind sorgfältig ausgewählt und spiegeln Alltagssituationen wider. Zum Beispiel Begrüßungen, Selbstvorstellung, Zahlen, Zeitangaben, Einkaufen, Hobbys, Essenbestellungen in Restaurants und das Erfragen von Wegbeschreibungen. Darüber hinaus bietet der Kurs zahlreiche Übungen und Wiederholungen, um den Teilnehmenden zu helfen, die Vokabeln rasch zu erlernen und die Ausdrücke aktiv anzuwenden.

Intended Learning Outcomes:
Nach erfolgreich abgeschlossenem Modul sind die Teilnehmer und Teilnehmerinnen in der Lage, den grundlegenden Wortschatz und die Grammatik des modernen Kantonesisch zu vermitteln, und ihre Studien selbständig fortzusetzen. Durch eine Einführung in die kantonesischen Schriftzeichen und Ausspracheregeln erhalten die Studenten auch ein besseres Verständnis für die Entwicklung der chinesischen Sprachen.

Teaching and Learning Methods:
Einzelarbeit zum individuellen sowie Partner- und Gruppenarbeit zum kommunikativen und handlungsorientierten Erarbeiten der Inhalte; Referate können gehalten werden. Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Online-Materialien, Zeitungsartikel, Kurzfilme

Reading List:
Vom Kursleiter selbst angefertigte Übungsmaterialien. Weitere Lehrmaterialien/Lehrbuch werden in der LV bekanntgegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Kantonesisch A1.1 (Seminar, 2 SWS)
Cai J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0224: Chinese B2.2 - Chinese in Business | Chinesisch B2.2 - Wirtschaftschinesisch

Version of module description: Gültig ab winterterm 2024/25

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.

Die Prüfungsaufgaben beinhalten Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion in Schriftzeichen/Pinyin und wird entweder in Form von einer Präsenzprüfung oder Portfolioprüfungsaufgaben abgehalten.

Hilfsmittel sind erlaubt.

Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. In diesem Fall beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe B2.1, Wirtschaftschinesisch 1 oder vergleichbare Kenntnisse. Die Teilnehmer sollen Interesse an dem Thema und Fachbereich Wirtschaft mitbringen.

Content:
Der Kurs Wirtschaftschinesisch 2 hat den Schwierigkeitsgrad B2.2 nach dem Gemeinsamen Europäischen Referenzrahmen für Sprachen (GER).
In dieser LV werden Kenntnisse über schwierige Grammatikstrukturen, fachspezifische Begriffe und Themen vermittelt. Sprachkenntnisse in Mandarin-Chinesisch werden erarbeitet, die es den Studierenden ermöglichen, sich in der Arbeit, zu Themen wie das Marketing, das Käuferverhalten,

die Finanzverwaltung, die Finanzabrechnung, sowie unterschiedliche Firmenkulturen selbständig in der Zielsprache zu verständigen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Chinesisch effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern.

Intended Learning Outcomes:
Nach der Teilnahme an dieser Veranstaltung sind die Studierenden in der Lage, sicher an allgemeinen Gesprächen teilzunehmen, über spezielle Themen zu diskutieren und Präsentationen zu Themen wie Marketingstrategien und Unternehmenskulturen zu halten.
Die Studierenden sind außerdem in der Lage, mündlich und schriftlich einfach und zusammenhängend über Erfahrungen und Ereignisse zu berichten. Sie können etwa 250 chinesische Wörter des Wirtschaftsvokabulars für die Berufskommunikation verstehen und anwenden.
Darüber hinaus kennen sie etwa 10 bekannte chinesische Marken und Unternehmen und verfügen über grundlegende Kenntnisse im Umgang mit aktuellen chinesischen Apps.

Teaching and Learning Methods:
Einzelarbeit zum individuellen sowie Partner- und Gruppenarbeit zum kommunikativen und handlungsorientierten Erarbeiten der Inhalte; Referate können gehalten werden. Hausaufgaben zur Vor- und Nachbearbeitung sind freiwillig und fördern die Beherrschung der Zielsprache.

Media:
Lehrbuch, Übungsblätter, Online-Materialien, Zeitungsartikel, Kurzfilme

Reading List:
Vom Kursleiter selbst angefertigte Übungsmaterialien. Weitere Lehrmaterialien/Lehrbuch werden in der LV bekanntgegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Chinesisch B2.2 - Wirtschaftschinesisch (Seminar, 2 SWS)
Shih-Skalden Y
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0225: Chinese - China Digital | Chinesisch - China Digital

Version of module description: Gültig ab winterterm 2024/25

Module Level:	Language:	Duration:	Frequency:
Credits:* 1	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-03: German as a Foreign Language | Deutsch als Fremdsprache

Module Description

SZ0303: German as a Foreign Language A2.1 | Deutsch als Fremdsprache A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Aids are permitted.
The examination performances are designed in their entirety to test the use of vocabulary and grammar, reading and/or listening comprehension, and free text production.
Oral communication skills will be tested via the use of appropriate idioms in written dialogue examples and/or in the form of an audio/video file. For this purpose, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
assured knowledge of level A1.2; placement test with result A2.1

Content:
This module teaches basic knowledge of German as a Foreign Language, taking into account intercultural and cultural aspects of the country, enabling students to cope in simple, routine situations, e.g. when traveling, at the doctor's, looking for an apartment, in the department store, among colleagues, friends and neighbors.
They will learn/practice vocabulary/expressions on topics such as study and training, work, housing, media, and travel. They learn/practice using basic main and subordinate clauses (e.g. dass, weil, und, denn, etc.), reporting in the past tense (modal verbs) and perfect tense, the use

of the comparative and superlative forms, and the declension of the adjective. They review and expand the use of prepositions in the accusative and dative.

Intended Learning Outcomes:
The module is oriented towards level A2 of the CEFR.
After completing this module, students will be able to understand and use simple sentences, phrases and idiomatic expressions in conversations on an extended range of familiar topics, such as basic information on everyday topics or topics relevant to studies or work, including cultural aspects of the country.
They can, for example, describe themselves and other people, personal living situation, state of health, leisure activities and basic work-related situations.
Students can understand longer texts and letters on familiar topics using common but simple everyday or work-related language and containing predictable information. They can write short, informative texts or messages on basic situations in everyday life and study.

Teaching and Learning Methods:
The module consists of a seminar in which students study the learning content with targeted listening, reading, writing and speaking exercises. The communicative and action-oriented approach is implemented by combining these exercises in individual, partner and group exercises. Online material for controlled self-study of basic grammatical phenomena and communication patterns is provided to deepen and intensify the content taught during the course. Voluntary homework (for preparation and revision) consolidates what has been learned.

Media:
Textbook; multimedia-supported teaching and learning material, also online.

Reading List:
Textbook: will be announced in the course

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A2.1 (Seminar, 4 SWS)
Comparato G, Dechant S, Detcheva-Knippelmeyer I, Feistle C, Grigorieva A, Hanke C, Kostial M, Kummer-Rock A, Lebling-Gemaljevic J, Mielert A, Schlüter J, Schmidt-Bender S, Sohlbach M, Stiebeler H

Blockkurs Deutsch als Fremdsprache A2.1 (Seminar, 4 SWS)
Hanke C, Hoff L, Koch K, Kostial M

Deutsch als Fremdsprache A2.1 - EuroTeQ (Seminar, 4 SWS)

Lechle K
For further information in this module, please click campus.tum.de or here.

Module Description

SZ03031: Intensive Course German as a Foreign Language A2.1 | Blockkurs Deutsch als Fremdsprache A2.1

Version of module description: Gültig ab winterterm 2015/16

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 120	**Self-study Hours:** 60	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
1 final exam 90 min. (100%) - no learning aids permitted
The midterm exam is intended to monitor students' learning progress and reduce the amount of material covered in the final exam. Written exams will assess students level of acquisition of the learning outcomes specified in the module description. Specifically, exam questions focus on the usage of vocabulary and grammar, as well as reading comprehension and text production. Listening comprehension is tested by posing questions based on audio samples to which students respond in writing.
Verbal skills are evaluated using appropriate prompts from sample print dialogs.

Repeat Examination:

(Recommended) Prerequisites:
Firm knowledge of level A1.2; placement test with the achievement A2.1

Content:
In this module, students acquire basic knowledge of the German language, including intercultural and regional aspects, that will enable them to express themselves in everyday situations, such as traveling, at the doctor’s office, searching for an apartment, in a department store, among colleagues, friends or neighbors.

Students learn and practice basic vocabulary and expressions on topics such as education, profession, health and traveling. Students learn and practice using simply structured main and subordinate clauses (that, because, and, than, etc.), employing the preterit (modal verbs) and perfect, as well as the comparative, the superlative and the declination of the adjective. They reinforce and expand the usage of the prepositions in the accusative and dative case.

Students learn strategies for successful verbal and written communication despite minimal language skills. Opportunities will be made available for effective, self-motivated, independent learning. Students acquire teamwork skills through collaborative work in multinational mixed groups.

Intended Learning Outcomes:
The module is based on level A2 of GER.
Upon completion of this module, students are able to understand and use simple sentences and expressions in conversations on a broad spectrum of familiar topics. These conversations are based on basic information concerning everyday life and subjects relevant to studying or working, including sociocultural aspects of German-speaking countries.
For example, students are able to describe themselves and other people, their living situation, state of health, leisure time activities and job situation.
Students are able to understand longer texts and letters about familiar topics that include foreseeable information and are written in simple language about everyday life or job related topics. Students are able to compose short, informative texts or notifications about basic situations in everyday life or situations related to studying.

Teaching and Learning Methods:
The module consists of a seminar covering material appropriate to desired learning outcomes and encompassing relevant listening, reading, writing and speaking exercises. These exercises may take the form of individual, partner or group work, implementing a communicative and activity-oriented approach. Students have the opportunity to deepen basic knowledge conveyed in the seminar through independent study and work, using specified (online) materials covering fundamental grammar and communication patterns of the foreign language.
Voluntary homework (preparation and follow-up work) reinforces classroom and structured learning.

Media:
Textbook; multimedia-based teaching and learning materials (black board, overheads, exercise sheets, image, film, etc.) also online

Reading List:
to be announced in the Class

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Deutsch als Fremdsprache A2.1 (Seminar, 4 SWS)
Hanke C, Hoff L, Koch K, Kostial M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0304: German as a Foreign Language A2.2 | Deutsch als Fremdsprache A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A2.1; Einstufungstest mit Ergebnis A2.2

Content:
In diesem Modul werden Grundkenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich in einfachen, routinemäßigen Situationen zurechtzufinden, z.B. auf Reisen, beim Arzt, auf Wohnungssuche, im Kaufhaus, unter Kollegen, Freunden und Nachbarn.
Sie wiederholen und ergänzen grundlegendes Vokabular /Ausdrucksmöglichkeiten zu Themen wie Ausbildung, Beruf, Wohnen, Freizeit und Mobilität. Sie lernen/üben ein erweitertes Spektrum an Haupt- und Nebensätzen (z.B. indirekte Frage, temporaler Nebensatz) sowie den Konjunktiv II zu benutzen und sie wiederholen bzw. erweitern den Gebrauch der Präpositionen.

Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und zu gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte.
Sie können beispielsweise sich und andere Personen, die persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation im Präsens oder Perfekt beschreiben. Sie können Vorschläge machen und reagieren, Informationen austauschen und Ratschläge geben.
Die Studierenden können längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Sie sind in der Lage kurze, informative Texte oder Mitteilungen zu grundlegenden Situationen in Alltag und Studium zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A2.2 (Seminar, 4 SWS)
Dechant S, Detcheva-Knippelmeyer I, Hanke C, Hartkopf D, Knirsch M, Kovacs O, Kummer-Rock A, Schneider S, Steidten R, Thiessen E, Zendath I

Blockkurs Deutsch als Fremdsprache A2.2 (Seminar, 4 SWS)
Hanke C, Schneider S, Steidten R

For further information in this module, please click campus.tum.de or here.

Module Description

SZ03041: Intensive Course German as a Foreign Language A2.2 | Blockkurs Deutsch als Fremdsprache A2.2

Version of module description: Gültig ab winterterm 2015/16

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 120	**Self-study Hours:** 60	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
1 final exam 90 min. (100%) - no learning aids permitted
The midterm exam is intended to monitor students' learning progress and reduce the amount of material covered in the final exam. Written exams will assess students level of acquisition of the learning outcomes specified in the module description. Specifically, exam questions focus on the usage of vocabulary and grammar, as well as reading comprehension and text production. Listening comprehension is tested by posing questions based on audio samples to which students respond in writing.
Verbal skills are evaluated using appropriate prompts from sample print dialogs.

Repeat Examination:

(Recommended) Prerequisites:
Firm knowledge of level A2.1; placement test with the achievement A2.2

Content:
In this module, students acquire basic knowledge of the German language, including intercultural and regional aspects, that will enable them to express themselves in everyday situations, such as traveling, at the doctor’s office, searching for an apartment, in a department store, among colleagues, friends or neighbors.
Students reinforce and augment basic vocabulary and expressions on topics such as education, profession, living and traveling. Students learn and practice classifying and using an extended spectrum of main and subordinate clauses (final clause, indirect questions, temporal subordinate clause, causal sentence). They also learn to employ the preterit (modals verbs) and perfect and will repeat and expand the usage of the prepositions and the declination of the adjective.

Students learn strategies for successful verbal and written communication despite minimal language skills. Opportunities will be made available for effective, self-motivated, independent learning. Students acquire teamwork skills through collaborative work in multinational mixed groups.

Intended Learning Outcomes:
The module is based on level A2 of GER.
Upon completion of this module, students are able to understand and use simple sentences and expressions in conversations on a broad spectrum of familiar topics. These conversations are based on basic information concerning everyday life and subjects relevant to studying or working, including sociocultural aspects of German-speaking countries.
For example, students are able to describe themselves and other people, their living situation, state of health, leisure time activities and job situation. Students are able to communicate in various situations, for example, when searching for an apartment, traveling or on holiday, and are able to report about their experiences in simple standard language.
Students are able to understand longer texts and letters about familiar topics that include foreseeable information and are written in simple language about everyday life or job related topics. Students are able to compose short, informative texts or notifications about basic situations in everyday life or situations related to studying.

Teaching and Learning Methods:
The module consists of a seminar covering material appropriate to desired learning outcomes and encompassing relevant listening, reading, writing and speaking exercises. These exercises may take the form of individual, partner or group work, implementing a communicative and activity-oriented approach. Students have the opportunity to deepen basic knowledge conveyed in the seminar through independent study and work, using specified (online) materials covering fundamental grammar and communication patterns of the foreign language.
Voluntary homework (preparation and follow-up work) reinforces classroom and structured learning.

Media:
Textbook; multimedia-based teaching and learning materials (black board, overheads, exercise sheets, image, film, etc.) also online

Reading List:
Textbook (to be announced in class)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Deutsch als Fremdsprache A2.2 (Seminar, 4 SWS)
Hanke C, Schneider S, Steidten R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ03042: Intensive Course German as a Foreign Language A2.2: Guided Self-Study | Blockkurs Deutsch als Fremdsprache A2.2: Guided Self-Study

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 4	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A2.1; Einstufungstest mit Ergebnis A2.2

Content:
In dieser LV werden Grundkenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich in einfachen, routinemäßigen Situationen zurechtzufinden, z.B. auf Reisen, beim Arzt, auf Wohnungssuche, im Kaufhaus, unter Kollegen, Freunden und Nachbarn.
Sie wiederholen und ergänzen grundlegendes Vokabular /Ausdrucksmöglichkeiten zu Themen wie Ausbildung, Beruf, Wohnen, Freizeit und Mobilität.

Sie lernen/üben ein erweitertes Spektrum an Haupt- und Nebensätzen (z. B. indirekte Frage, temporaler Nebensatz) sowie den Konjunktiv II zu benutzen und sie wiederholen bzw. erweitern den Gebrauch der Adjektivdeklination und der Präpositionen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 des GER. Nach Abschluss dieses Moduls sind die Studierenden in der Lage im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte.
Sie können beispielsweise sich und andere Personen, persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und die berufliche Situation im Präsens und Perfekt beschreiben. Sie können Vorschläge machen und reagieren, Informationen austauschen und Ratschläge geben.
Die Studierenden können längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Sie sind in der Lage kurze, informative Texte oder Mitteilungen zu grundlegenden Situationen in Alltag und Studium zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte von den Studierenden im Selbststudium erarbeitet werden. Es werden Materialien zu Hör-Lese- und Schreibfertigkeiten sowie zum Verständnis grammatischer Strukturen auf der Moodle-Plattform bereitgestellt, auf der Lerninhalte auch in Partner- und Gruppenarbeit erarbeitet werden können. Der Lernprozess wird fortlaufend online moderiert und durch regelmäßiges online-Feedback unterstützt. E-Tests ermöglichen die punktuelle Überprüfung der Lernfortschritte. Präsenztermine dienen der Sicherung des Erarbeiteten und dessen Anwendung beim Sprechen in Partner- und Gruppenarbeit.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Ergänzende Literatur wird im Kurs bekannt gegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0314: German as a Foreign Language B2+C1: Communication at Work: German for Internship and Job | Deutsch als Fremdsprache B2+C1: Kommunikation am Arbeitsplatz: Deutsch für Praktikum und Beruf

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 1	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Deutschkenntnisse der Stufe B2.1, Einstufungsergebnis B2.2

gesicherte Deutschkenntnisse der Stufe C.1.1, Einstufungsergebnis C.1.1

Content:
Im Modul B2 werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden ermöglicht, im beruflichen Kontext aktiv und annähernd flüssig zu kommunizieren.
Die Studierenden verfassen E-Mails, simulieren Telefonate, Meetings und Small Talk sowie andere relevante Kommunikationssituationen.

Sie setzen Strategien und angemessenen Wortschatz ein, die effizientes Sprechen und Hören unterstützen.
Zusätzlich vertiefen sie ihre Kenntnisse zu Diskursmustern eines Meetings wie z.B. Vor- und Nachteile angeben, Vorschläge machen, Lösungen anbieten, widersprechen, vergleichen.

Im Modul C1 werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden ermöglicht, im beruflichen Kontext aktiv und flüssig zu kommunizieren.
Die Studierenden verfassen E-Mails, simulieren Telefonate, Meetings und Small Talk sowie andere relevante Kommunikationssituationen.
Sie setzen Strategien und differenzierten Wortschatz ein, die effizientes Sprechen und Hören unterstützen.
Zusätzlich vertiefen sie ihre Kenntnisse zu Diskursmustern eines Meetings wie z.B. Vor- und Nachteile angeben, Vorschläge machen, Lösungen anbieten, widersprechen, vergleichen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2 des GER. Im Anschluss an die Teilnahme an die Modulveranstaltungen können die Studierenden auf formelle und informelle Kommunikationssituationen im Büroalltag mündlich spontan und zusammenhängend und schriftlich angemessen und in jeder Hinsicht verstehbar reagieren.
Sie sind in der Lage, anhand realitätsnaher Szenarien einem Meeting bzw. Telefonat in einer Firma zu folgen, sowie die wichtigen Punkte zu protokollieren und bei Bedarf nachzufragen.
Sie können annähernd flüssig argumentieren und auf die Argumente anderer eingehen, sofern sie in der Standardsprache vorgetragen werden.

Die Studierenden können formelle und informelle Redewendungen in E-Mails unterscheiden und je nach Situation ihren Stil anpassen.

Das Modul orientiert sich am Niveau C1 des GER. Im Anschluss an die Teilnahme an die Modulveranstaltungen können die Studierenden auf formelle und informelle Kommunikationssituationen im Büroalltag mündlich spontan und zusammenhängend und schriftlich kompetent reagieren.
Sie sind in der Lage, anhand realitätsnaher Szenarien einem Meeting bzw. Telefonat in einer Firma zu folgen, sowie die wichtigen Punkte strukturiert zu protokollieren und bei Bedarf gezielt nachzufragen.
Sie können flüssig argumentieren, auf die Argumente anderer eingehen und sie gegebenenfalls widerlegen.
Die Studierenden können formelle und informelle Redewendungen in E-Mails in differenzierter Weise einschätzen und je nach Situation ihren Stil anpassen.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und

handlungsorientiert erarbeitet werden. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Deutsch als Fremdsprache B2+C1 - Kommunikation am Arbeitsplatz - Deutsch für Praktikum und Beruf (Seminar, 2 SWS)
Schmidt-Bender S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0321: German as a Foreign Language A1.1 plus A1.2 | Deutsch als Fremdsprache A1.1 plus A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 8	**Total Hours:** 270	**Self-study Hours:** 180	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich trotz geringer Sprachkenntnisse z.B. beim Einkaufen, im Restaurant, im öffentlichen Verkehr etc. zurechtzufinden.

Sie lernen/üben grundlegendes Vokabular zu Themen wie Familie, Beruf, Freizeit, Einkaufen, Wohnen, Reisen und Gesundheit, einfache Gespräche in alltäglichen Situationen zu führen und in Hauptsätzen Alltägliches im Präsens und Perfekt zu berichten, unter Verwendung von Nomen,

Verben, Pronomen und Possessivartikeln, Modalverben, Imperativ und grundlegender lokaler und temporaler Präpositionen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage alltägliche Ausdrücke und einfache Sätze zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen:
Sie können einfache Fragen in alltäglichen Situationen stellen und beantworten, Tagesabläufe in Vergangenheit und Gegenwart beschreiben und einfache schriftliche Mitteilungen zur Person machen, Verabredungen treffen und in grundlegenden alltäglichen Situationen beispielsweise beim Einkauf oder im Restaurant ihre Wünsche erfolgreich kommunizieren, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A1.1 plus A1.2 (Seminar, 6 SWS)
Nierhoff-King B, Schlömer A, Schlüter J, Steidten R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0322: German as a Foreign Language A2.1 plus A2.2 | Deutsch als Fremdsprache A2.1 plus A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 8	**Total Hours:** 270	**Self-study Hours:** 180	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A1.2; Einstufungstest mit Ergebnis A2.1

Content:
In diesem Modul werden Grundkenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich in einfachen, routinemäßigen Situationen zurechtzufinden, z.B. auf Reisen, beim Arzt, auf Wohnungssuche, im Kaufhaus, unter Kollegen, Freunden und Nachbarn.
Sie lernen/üben grundlegendes Vokabular/Ausdrucksmöglichkeiten zu Themen wie Ausbildung, Beruf, Gesundheit und Reisen. Sie lernen/üben ein erweitertes Spektrum an Haupt- und Nebensätzen zu klassifizieren und zu benutzen (Finalsatz, Infinitivsatz, indirekte Frage, temporaler Nebensatz, Kausalsatz), im Präteritum, Perfekt und Plusquamperfekt zu berichten, den Gebrauch

des Komparativ und des Superlativ, die Deklination des Adjektivs (im Nominativ, Akkusativ und Dativ) und Sie wiederholen und erweitern den Gebrauch der Präpositionen im Akkusativ und Dativ. Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 des GER. Nach Abschluss dieses Moduls sind die Studierenden in der Lage im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte.
Sie können beispielsweise sich und andere Personen, persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation beschreiben. Sie können sich bei der Wohnungssuche und in wesentlichen Situationen im Urlaub oder auf Reisen verständigen und von daraus resultierenden Erfahrungen und Erlebnissen in einfacher Standardsprache berichten. Die Studierenden können längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Sie sind in der Lage kurze, informative Texte oder Mitteilungen zu grundlegenden Situationen in Alltag und Studium zu verfassen.

Teaching and Learning Methods:
Die LV besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A2.1 plus A2.2 (Seminar, 6 SWS)
Reulein C, Schlüter J

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0323: German as a Foreign Language B1.1 plus B1.2 | Deutsch als Fremdsprache B1.1 plus B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 8	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A2.2; Einstufungstest mit Ergebnis B1.1

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller, landeskundlicher, und studienbezogener Aspekte erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Film, Musik, Sport etc. selbständig und sicher in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird.
Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiv zu gestalten und damit die eigene Lernfähigkeit zu verbessern.

Die Studierenden erarbeiten ein erweitertes Spektrum an Vokabular, Redewendungen und Dialogmustern, erfassen und benutzen ein grundlegendes Repertoire an logischen Haupt- und Nebensatz-Strukturen (z.B. Temporalsatz, Kausalsatz, Infinitiv-Satz, Finalsatz, Konsekutivsatz, Relativsatz). Sie erarbeiten den Gebrauch reflexiver Verben sowie den Gebrauch von Verben und Nomen mit Präpositionalergänzung. Sie lernen/üben die Funktion und den Gebrauch des Konjunktiv II, des Futur I und des Passiv. Sie wiederholen und ergänzen elementare Aspekte der Grammatik wie den Gebrauch der Zeiten, der Präpositionen, der Deklination des Adjektivs und der Komparation.
Die Studierenden beschäftigen sich mit kulturspezifischen Besonderheiten, beispielsweise in Bezug auf Feste und Gebräuche, Ausbildungssysteme, Berufswelt, Lebensformen und Freizeitverhalten und gewinnen Einblicke in die zeitgenössischen Kulturszene Deutschlands.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:

Das Modul orientiert sich am Niveau B1 des GER.
Nach Abschluss des Moduls sind die Studierenden in der Lage sich in den meisten Situationen, denen man in Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher zu verständigen. Sie können Aspekte des schulischen und beruflichen Werdegangs referieren, Pläne, Wünsche und Hoffnungen äußern, Einladungen aussprechen, annehmen oder ablehnen, Ratschläge und Anweisungen erteilen, Meinungen äußern und argumentieren.
Sie können wesentliche Inhalte in einfachen, authentischen Sachtexten, Fernseh- oder Radiosendungen und literarischen Texten verstehen und wiedergeben und sich spontan an Gesprächen zu Themen von allgemeinem Interesse beteiligen Sie können einfache formelle Briefe und längere persönliche Briefe verfassen und von persönlichen Erfahrungen berichten. Sie können strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Anhand vorgegebener Kriterien und Kommunikationsmuster werden Grundlagen des Referierens und des Diskutierens zu alltäglichen Themen vermittelt.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B1.1 plus B1.2 (Seminar, 6 SWS)
Hartkopf D, Heiligensetzer M, Kraut-Schindlbeck S, Niehaus B, Stoephasius J, Zerfass A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0324: German for Bachelor's Students - Informatics: Understanding and Writing Scientific Texts | Deutsch im Bachelorstudium - Informatik: Wissenschaftliche Texte verstehen und schreiben

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor	**Language:** German	**Duration:** one semester	**Frequency:** winter semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Deutschkenntnisse Niveau C1
(TestDaf Stufe 4, DSH Stufe 2 oder Feststellungsprüfung Studienkolleg)

Content:
Die Studierenden erarbeiten relevante Fachlexik sowie Strategien im Umgang mit unbekanntem Fachwortschatz. Sie üben fachspezifische Nomen-Verbverbindungen und die Bildung von Komposita. Sie analysieren Strukturen, die in Fachtexten und fachlicher Kommunikation häufig auftreten wie z.B. Nominalisierungen, Partizipialkonstruktionen und komplexe Satzstrukturen.
Die Studierenden üben das schnelle Lesen, Verstehen und Bearbeiten von Klausuraufgaben und Vorlesungsfolien. Sie üben das Sprechen und Schreiben über fachliche Inhalte und beschäftigen sich mit studienrelevanten Sprachhandlungen (beschreiben, nachfragen, Folien schreiben,

präsentieren u.ä). Grundlage der Erarbeitung der genannten Lerninhalte sind authentische Texte wie Vorlesungsunterlagen und Klausurbeispiele.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme an dem Modul haben Bachelorstudierende der Fächer Informatik, Wirtschaftsinformatik und Informatik: Games Engineering ihre Kenntnisse in Deutsch als Fremdsprache in Bezug auf fachsprachlich relevante Mittel erweitert. Sie können authentischen Lesetexten wichtige Informationen in der für das Fachstudium erforderlichen Geschwindigkeit entnehmen und diese in Form von Notizen festhalten. Sie sind in der Lage, Aufgaben in Klausuren angemessen zu bearbeiten. Sie können fachliche Inhalte unter Verwendung relevanten Fachwortschatzes in klarer und strukturierter Form präsentieren und sind dabei auch in der Lage, komplexe Satzstrukturen anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte mit gezielten Übungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Eine fachbezogene Präsentation zu Studieninhalten des ersten Semesters im Rahmen der Lehrveranstaltung ist obligatorisch. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch im Bachelorstudium C1 - Informatik - Wissenschaftliche Texte verstehen und schreiben (SZ0324) (Seminar, 2 SWS)
Bauer-Hutz B
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0325: German for Master's Students: Electrical and Computer Engineering (EI) | Deutsch im Masterstudium: Elektrotechnik und Informationstechnik (EI)

Version of module description: Gültig ab summerterm 2022

Module Level: Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Deutschkenntnisse Niveau C1

Content:
In diesem Modul wird relevante Fachlexik hinsichtlich des Faches Elektrotechnik und Informationstechnik sowie seiner Grundlagenwissenschaften erarbeitet. Es werden Kenntnisse vermittelt, die es den Studierenden ermöglichen, unbekannten Fachwortschatz eigenständig zu entschlüsseln. Die Studierenden analysieren Strukturen, die in Fachtexten und fachlicher Kommunikation häufig auftreten. Sie verwenden Strategien, die effizientes Hören und Lesen im Fach unterstützen. Die Studierenden verbalisieren fachliche Inhalte und beschäftigen sich mit relevanten Diskursmustern im Fach (beschreiben, erklären, nachfragen, …). Grundlage der Erarbeitung der genannten Lerninhalte sind in erster Linie authentische Fachtexte.

Intended Learning Outcomes:
Im Anschluss an die Teilnahme an die Modulveranstaltungen können die Studierenden relevanten Fachwortschatz verwenden und dabei auch komplexe Satzstrukturen produzieren. Sie können authentischen Lese- und Hörtexten wichtige Informationen in der für das Fachstudium erforderlichen Schnelligkeit entnehmen und diese in Form von Notizen festhalten. Sie können darüber hinaus die erarbeiteten Strategien hinsichtlich ihrer Relevanz für verschiedene Verwendungssituationen einschätzen. Sie verfügen über sprachliche Mittel, die erfolgreiche Kommunikation innerhalb der Lehrveranstaltungen und im weiteren Sinne im Rahmen des Studiums (z.B. in Arbeits- und Lerngruppen) sowie Kommunikation über das Fach ermöglichen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Die Studierenden analysieren dabei auch Strategien und vergleichen und evaluieren diese. Die Teilnehmenden erstellen online Glossare. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrwerk: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch im Masterstudium C1 - Elektrotechnik und Informationstechnik (EI) (Seminar, 2 SWS)
Gröbl J, Hartkopf D
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0328: German for Studying - Informatics: Writing, Presenting and Discussing Scientific Texts | Deutsch im Studium - Informatik: Schreiben, Präsentieren und Diskutieren im Fach

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor	**Language:** German	**Duration:** one semester	**Frequency:** summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Deutschkenntnisse Niveau C1
(TestDaf Stufe 4, DSH Stufe 2 oder Feststellungsprüfung Studienkolleg)

Content:
Bachelorstudierende der Fächer Informatik, Wirtschaftsinformatik und Informatik: Games Engineering und bei vorhandenen Kapazitäten auch Masterstudierende der Fakultät Informatik vertiefen in diesem Modul schriftlich wie mündlich die Anwendung relevanten Fachwortschatzes. Sie analysieren Fachtexte im Hinblick auf Wortschatz und Darstellungskonventionen und entwickeln Strategien im Erfassen unterschiedlicher Textsorten. Sie überprüfen Möglichkeiten des überzeugenden Präsentierens wissenschaftlicher Fragestellungen und Forschungsergebnisse in einem Fachvortrag oder einem Fachaufsatz.

Intended Learning Outcomes:
Nach erfolgreicher Teilnahme an dem Modul können die Studierenden ihre Kenntnisse in Deutsch als Fremdsprache in Bezug auf fachsprachlich relevante Mittel sowohl mündlich als auch schriftlich sicherer und präziser verwenden. Sie können innerhalb des eigenen Faches Zusammenhänge und Forschungsergebnisse kompetent darstellen. Sie können einen Fachvortag weitgehend fehlerfrei halten und Forschungsergebnisse in flüssigem Deutsch zur Diskussion stellen. Die Studierenden sind in der Lage, komplexe Zusammenhänge im Fach strukturiert zu diskutieren. Sie können fachliche Texte schlüssig und weitgehend fehlerfrei verfassen und dabei auch schriftlich eine überzeugende Argumentation entwickeln.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte mit gezielten Übungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Eine fachbezogene Präsentation zu aktuellen Studieninhalten der Teilnehmenden nach deren Wünschen und Bedürfnissen ist obligatorisch. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0330: German for Engineers B2 | Deutsch für Ingenieur/innen B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Deutschkenntnisse Niveau B2/gesicherte Deutschkenntnisse der Stufe B1.2

Content:
Das Modul orientiert sich am Niveau B2 des GER. In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden in ingenieurwissenschaftlichen Fächern ermöglichen, in Studium und Beruf aktiv und annähernd flüssig über Themen ihres Fachgebietes zu kommunizieren. Die Studierenden erarbeiten die Anwendung eines allgemeinen technischen Fachwortschatzes sowie einen differenzierteren Wortschatz zu einem Thema im eigenen Fach. Sie verwenden Strategien, die effizientes Hören und Lesen unterstützen, vertiefen ihre Kenntnisse zu grundlegenden fachsprachlichen Strukturen und Diskursmustern (wie z.B. Funktionen beschreiben, Vor- und Nachteile angeben, vergleichen). Die Studierenden präsentieren Gegenstände ihres Faches, erweitern ihr Wissen durch gezieltes Nachfragen und diskutieren über Fachthemen.

Intended Learning Outcomes:
Im Anschluss an das Modul können die Studierenden relevanten Fachwortschatz verwenden und Zusammenhänge des eigenen Faches und Interessengebietes selbstständig und nachvollziehbar darstellen. Sie sind in der Lage, Fachpräsentationen zu folgen, sofern sie gut vorgetragen sind, und nach Bedarf das eigene Wissen durch gezieltes Nachfragen zu erweitern. Sie können annähernd flüssig argumentieren und auf die Argumente anderer eingehen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Eine fachbezogene Präsentation zu Studieninhalten im Rahmen der Lehrveranstaltung ist obligatorisch. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrwerk: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch für Ingenieur/innen B2 (Seminar, 2 SWS)
Endraß E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0331: German for Engineers C1 | Deutsch für Ingenieur/innen C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Deutschkenntnisse Niveau C1/gesicherte Deutschkenntnisse der Stufe B2.2

Content:
Das Modul orientiert sich am Niveau C1 des GER. In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es den Studierenden ermöglichen, in Studium und Beruf flüssig über ingenieurwissenschaftliche Themen des eigenen und eines fremden Fach- und Interessengebiets zu kommunizieren. Die Studierenden erarbeiten einen umfangreichen und differenzierten Wortschatz zu einem breiten Spektrum an technischen Themen. Sie verwenden Strategien, die effizientes Hören und Lesen im Fach unterstützen, vertiefen ihre Kenntnisse zu relevanten Strukturen wie z.B. zum Nominalstil und erweitern ihr Repertoire an fachsprachlichen Diskursmustern (z.B. Ursachen und Wirkungen beschreiben, definieren etc.). Im Seminar präsentieren sie einen komplexen Gegenstand ihres Faches und diskutieren aktuelle Themen mit ingenieurwissenschaftlichem Bezug.

Intended Learning Outcomes:
Im Anschluss an das Modul können die Studierenden relevanten Fachwortschatz kompetent verwenden und dabei auch komplexe Satzstrukturen produzieren. Sie können authentischen Lese- und Hörtexten wichtige Informationen in der für Studium und Beruf erforderlichen Schnelligkeit entnehmen. Sie verfügen über sprachliche Mittel, die erfolgreiche Kommunikation über ingenieurwissenschaftliche Zusammenhänge in interkulturellen sowie interdisziplinären Teams ermöglichen. Die Studierenden sind in der Lage, zu kontroversen Themen mit ingenieurwissenschaftlichem Bezug ausführlich und logisch nachvollziehbar Stellung zu beziehen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Eine fachbezogene Präsentation zu Studieninhalten im Rahmen der Lehrveranstaltung ist obligatorisch. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch für Ingenieur/innen C1 (Seminar, 2 SWS)
Hartkopf D
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0332: German as a Foreign Language B2+C1 - Intercultural Communication Skills - "Working as an Engineer in Germany" | Deutsch als Fremdsprache B2+C1: Interkulturelle Kommunikation - Als IngenieurIn in Deutschland arbeiten

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 1	**Total Hours:** 45	**Self-study Hours:** 30	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
1 schriftlicher Test 90 min. (100%), Hilfsmittel sind erlaubt.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Dabei lösen die Kandidaten Aufgaben, die Faktenwissen zu Besonderheiten des deutschen Arbeitsmarktes und zu interkulturellen Modellen abfragen. Ferner wird die interkulturelle Reflexionskompetenz durch die schriftliche Analyse von Critical Incidents geprüft. 25% der Note besteht aus der Bewertung des sprachlichen Ausdrucks in der Fremdsprache Deutsch.

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Deutschkenntnisse mindestens der Stufe B2.1

Content:
Das Modul orientiert sich am Niveau B2/C1 des GER. Im Seminar werden Kenntnisse in interkultureller Kommunikation erarbeitet, die es Studierenden in ingenieurwissenschaftlichen Fächern ermöglichen, interkulturell kompetent und zielführend in multinationalen Projektteams und im deutschen Arbeitskontext zu kommunizieren. Die Studierenden erarbeiten die Anwendung interkultureller Modelle zur Analyse komplexer, interkulturell anspruchsvoller Situationen im beruflichen Umfeld. Ferner erhalten Sie Faktenwissen über die Besonderheiten des deutschen Arbeitsmarktes, wie Sozialpartnerschaft, betriebliche Mitbestimmung, Inhalt und Aufbau eines Arbeitsvertrages, Unternehmensstrukturen, etc. Dazu erarbeiten sie sich den entsprechenden wirtschaftsdeutschen Fachwortschatz.

Intended Learning Outcomes:
Die Studierenden können erkennen, inwiefern und auf welche Weise die interkulturelle Komponente in der konkreten Zusammenarbeit in multikulturellen Teams eine Rolle spielt. Sie haben sich Tools zur Analyse und zielführenden Interpretation interkulturell komplexer Situationen erarbeitet und verfügt über die sprachlichen Mittel, diese kommunikativ umzusetzen, um eine gegenseitige Verständigung zu ermöglichen. Sie können nach Bedarf das eigene Wissen über abweichende kulturelle Werte und Standards durch gezieltes Nachfragen erweitern und die eigene Sichtweise darlegen. Sie können annähernd flüssig argumentieren und auf die Argumente anderer sowohl mündlich als auch schriftlich eingehen.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte anhand von Selbsterfahrungsübungen, Videomaterial, Critical Incidents und theoretischem Input in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung und zur Vertiefung des eigenen Hintergrundwissens) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2+C1 - Interkulturelle Kommunikation - "Als Ingenieur/in in Deutschland arbeiten" (Seminar, 2 SWS)
Koch H, Nierhoff-King B
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0333: German as a Foreign Language B1 - Communikation in Companies | Deutsch als Fremdsprache B1 - Kommunikation im Unternehmen

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:**	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B1.1; Einstufungstest mit Ergebnis B1.2

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden ermöglichen, im einfachen beruflichen Kontext zusammenhängend und verständlich zu kommunizieren.
Anhand von Fallstudien (Case Studies) werden berufliche Situationen simuliert wie z.B. E-Mails schreiben, Telefonate führen, Präsentationen halten, Meetings organisieren bzw. durchführen und einfache Konzepte verfassen.

Die Studierenden erarbeiten ein Spektrum an berufsbezogenem Vokabular, Redewendungen und Dialogmustern und benutzen Diskursmuster eines Meetings wie z.B. Vor- und Nachteile angeben, Vorschläge machen, Lösungen anbieten und widersprechen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 des GER.
Im Anschluss an die Teilnahme an der Modulveranstaltung können die Studierenden auf B1-Niveau einfach und zusammenhängend in mündlichen und schriftlichen Kommunikationssituationen im Büroalltag verstehbar reagieren.
Sie sind in der Lage anhand realitätsnaher einfacher Szenarien einem Meeting bzw. Telefonat in einer Firma zu folgen, sowie die wichtigen Punkte zu verstehen und bei Bedarf nachzufragen.
Sie können über berufliche Erfahrungen und Ereignisse berichten, im beruflichen Kontext Ziele und Pläne beschreiben, Ratschläge erteilen, Ansichten kurz begründen oder erklären, sofern sie in klarer Standardsprache vorgetragen werden und die berufliche Thematik vertraut ist.
Sie können zu einem Unternehmensthema aus der Case Study einfache Konzepte präsentieren und dazu schriftlich eine Stellungnahme verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Anhand vorgegebener Kriterien und Kommunikationsmuster werden Grundlagen des Referierens und des Diskutierens in der Fremdsprache zu beruflichen Themen vermittelt. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0334: German as a Foreign Language A2.2 plus B1.1 | Deutsch als Fremdsprache A2.2 plus B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 8	**Total Hours:** 270	**Self-study Hours:** 180	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A2.1; Einstufungstest mit Ergebnis A2.2

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Sport, Musik, Umwelt etc. selbständig und sicher in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird.
Die Studierenden erarbeiten ein grundlegendes Repertoire an Satz-Strukturen (Kausalsatz, Temporalsatz, Finalsatz, Konsekutivsatz, Relativsatz etc.). Sie lernen/ üben grammatische Konzepte, wie z.B. die Funktionen und den Gebrauch des Konjunktiv II und des Futur I. Sie

wiederholen und ergänzen elementare Aspekte der Grammatik wie den Gebrauch der Zeiten und der Präpositionen.
Sie erarbeiten und benutzen Wortschatz und Ausdrucksmöglichkeiten zu Themen von allgemeinem Interesse und vertrauten Situationen (z.B. Studium, Freizeit, Arbeit, Familie).
Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 und B1 des GER.
Nach Abschluss des Moduls sind die Studierenden in der Lage sich in den meisten Situationen, denen man in Studium, Beruf und Freizeit im Sprachgebiet begegnet, sicher zu verständigen. Sie können Vorschläge machen und reagieren, Informationen austauschen und Ratschläge geben, sich zur Berufswelt und Bewerbungen äußern sowie über umweltrelevante Themen diskutieren.
Sie können wesentliche Inhalte in einfachen, authentischen Texten aus alltäglichen Bereichen verstehen und wiedergeben und sich spontan an Gesprächen zu vertrauten Themen beteiligen.
Sie können längere persönliche E-Mails und Texte zu eigenen Erfahrungen verfassen.
Sie können selbständig und kooperativ Lerninhalte erarbeiten/ üben und verfügt über Strategien, um in alltäglichen Situationen handlungsfähig zu sein.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A2.2 plus B1.1 (Seminar, 6 SWS)
Karsten-Ott M, Schimmack B, Schmid P
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0335: German as a Foreign Language A1.2 + A2.1 | Deutsch als Fremdsprache A1.2 + A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 8	**Total Hours:** 270	**Self-study Hours:** 180	**Contact Hours:** 90

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A1.1; Einstufungstest mit Ergebnis A1.2

Content:
In diesem Modul werden Grundkenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen - z.B. in Studium oder Beruf, beim Arzt, beim Einkauf, auf Reisen, unter Kolleg*innen und Freund*innen - trotz geringer Sprachkenntnisse zurechtzufinden.
Sie lernen/üben grundlegendes Vokabular/Ausdrucksmöglichkeiten zu Themen wie Ausbildung, Beruf, Gesundheit, Wohnen, Kleidung, Feiern und Reisen. Sie lernen/üben, einfach strukturierte Haupt- und Nebensätze (z.B. aber, denn, dass, weil, etc.) zu benutzen, im Präsens und Perfekt zu berichten, den Gebrauch der Modalverben, des Imperativ, der Präpositionen mit Dativ und

Akkusativ, den Gebrauch des Komparativ und Superlativ und die Deklination des Adjektivs. Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 und A2 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte.
Sie können beispielsweise sich und andere Personen, persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation im Präsens oder Perfekt beschreiben.
Die Studierenden können längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Sie sind in der Lage kurze, informative Texte oder Mitteilungen zu grundlegenden Situationen in Alltag und Studium zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A1.2 plus A2.1 (Seminar, 6 SWS)
Bakker S, Meuschel G, Stiebeler H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0337: German as a Foreign Language A1.1 | Deutsch als Fremdsprache A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 135	**Self-study Hours:** 90	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Aids are permitted.
The examination performances are designed in their entirety to test the use of vocabulary and grammar, reading and/or listening comprehension, and free text production.
Oral communication skills will be tested via the use of appropriate idioms in written dialogue examples and/or in the form of an audio/video file. For this purpose, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
none

Content:
This module teaches basic knowledge of German as a Foreign Language, taking into account intercultural and cultural aspects of the country, which will enable students to find their way around despite their limited knowledge of the language, e.g. when shopping, in restaurants, on public transport, etc.
They will learn/practice basic vocabulary on topics such as family, work, leisure and food, ask and answer simple personal/family questions, understand and use numbers, prices and times and report everyday activities in simple structured main sentences in the present tense, using verbs, nouns, personal pronouns, possessive articles and negation forms.
Students practice teamwork skills by collaborating on tasks in multinational groups.

Intended Learning Outcomes:
The module is oriented towards level A1 of the CEFR. After completing this module, students will be able to use everyday expressions and very simple sentences aimed at meeting specific needs of everyday life: They can introduce themselves and others and ask other people questions about themselves and give answers to questions of this kind. They can describe daily routines in basic structures and give basic information about themselves in writing. They can communicate their needs if interlocutors speak clearly and slowly and are supportive. Students learn how to organize their own learning process of the foreign language independently and effectively.

Teaching and Learning Methods:
The module consists of a seminar in which students study the learning content with targeted listening, reading, writing and speaking exercises. The communicative and action-oriented approach is implemented by combining these exercises in individual, partner and group exercises. Online material for controlled self-study of basic grammatical phenomena and communication patterns is provided to deepen and intensify the content taught during the course. Voluntary homework (for preparation and revision) consolidates what has been learned.

Media:
Textbook, multimedia-supported teaching and learning material, also online

Reading List:
Textbook: will be announced in the course

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A1.1 (Seminar, 3 SWS)
Bakker S, Burmasova S, Endraß E, Grgic T, Hanke C, Huber D, Keza I, Koch H, Kraut-Schindlbeck S, Lechle K, Pinskaia I, Pletschacher T, Schmidt-Bender S, Selent D, von Caprivi Caprara de Montecucculi A, von Egloffstein A, Witzig B

Blockkurs Deutsch als Fremdsprache A1.1 (Seminar, 3 SWS)
Comparato G, Kretschmann A, Schlüter J, von Egloffstein A, Zerfass A

Deutsch als Fremdsprache A1.1 - EuroTeq Programm (Seminar, 3 SWS)
Lechle K
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0338: German as a Foreign Language A1.2 | Deutsch als Fremdsprache A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 135	**Self-study Hours:** 90	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A1.1; Einstufungstest mit Ergebnis A1.2

Content:
In diesem Modul werden Grundkenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich trotz geringer Sprachkenntnisse z.B. beim Einkaufen, im Restaurant, im öffentlichen Verkehr etc. zurechtzufinden.
Sie lernen/üben grundlegendes Vokabular zu Themen wie Familie, Studium und Beruf, Freizeit, Wohnen, Gesundheit, Einkaufen und Reisen zu benutzen und in einfach strukturierten Hauptsätzen Alltägliches im Präsens und Perfekt zu berichten, unter Verwendung von

Modalverben, trennbaren Verben, Imperativ und grundlegender lokaler und temporaler Präpositionen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage alltägliche Ausdrücke und einfache Sätze zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen:
Sie können einfache Fragen in alltäglichen Situationen stellen und beantworten, Tagesabläufe in Vergangenheit und Gegenwart beschreiben und einfache schriftliche Mitteilungen zur Person machen, Verabredungen treffen und in grundlegenden alltäglichen Situationen beispielsweise beim Einkauf oder im Restaurant ihre Wünsche erfolgreich kommunizieren, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A1.2 (Seminar, 3 SWS)
Comparato G, Grgic T, Jennert J, Keza I, Khvintelani N, Pinskaia I, Reulein C, Schimmack B, von Egloffstein A

Blockkurs Deutsch als Fremdsprache A1.2 (Seminar, 3 SWS)
Kretschmann A, Menck-Zwick C, Meuschel G
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0339: German as a Foreign Language B2.1 | Deutsch als Fremdsprache B2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe B1.2; Einstufungstest mit Ergebnis B2.1

Content:
Das Modul orientiert sich am Niveau B2 des GER. In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die den Studierenden eine mündliche Diskurspartizipation zu aktuellen und wissenschaftlichen Themen ermöglicht. Die Studierenden behandeln Themen des Satzbaus und vertiefen ihre Kenntnisse zum Passiv sowie Strukturen, die für das Vergleichen relevant sind. Sie erweitern ihr Repertoire an Nomen, Verben und Präpositionen sowie an festen Verbindungen. Ein umfangreicher und differenzierter Wortschatz zu interkulturellen, sprachlichen und studienrelevanten Themen wird erarbeitet. Die Studierenden lernen den Gebrauch von

spezifischen Redemitteln für Meinungsäußerung, vergleichende Argumentation und persönliche Erfahrungsberichte.

Intended Learning Outcomes:
Im Anschluss an die Teilnahme an den Modulveranstaltungen können die Studierenden wesentliche Inhalte von authentischen Artikeln und Berichten aus dem eigenen Fach- und Interessensgebiet selbständig verstehen und wiedergeben. Sie sind in der Lage, in einer Diskussion oder Präsentation Standpunkte darzulegen, wobei sie komplexe Satzstrukturen und fachspezifisches Vokabular benutzen. Sie können begründen, warum sie einer bestimmten Meinung sind, und die Standpunkte anderer kommentieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen sollen von den Studierenden eigenständig Grammatikthemen und Wortschatzübungen mit vorgegebenen (Online-) Materialien erarbeitet werden. Freiwillige Hausaufgaben (zur Vor- und Nachbereitung der Lehrveranstaltung) festigen das Gelernte.

Media:
Lehrbuch, multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2.1 (Seminar, 2 SWS)
Comparato G, Huber D, Kraut-Schindlbeck S, Mielert A, Sabel B, Thiessen E

Blockkurs Deutsch als Fremdsprache B2.1 (Seminar, 2 SWS)
Kromer V, Temel C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0340: German as a Foreign Language B2.2 | Deutsch als Fremdsprache B2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe B2.1; Einstufungstest mit Ergebnis B2.2

Content:
Das Modul orientiert sich am Niveau B2 des GER. In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden ermöglichen, über allgemeine und berufsbezogene Themen aktiv und annähernd flüssig zu kommunizieren. Anhand von Lese- und Hörtexten zu verschiedenen Themen lernen die Studierenden, Inhalte mündlich und schriftlich kohärent zusammenzufassen und Vor- und Nachteile abzuwägen und Stellung zu nehmen. Die Studierenden erarbeiten sich ein Spektrum an themenbezogenem Vokabular, Redemitteln und Textbausteinen, die sie für das Zusammenfassen von Texten und den Austausch von Argumenten benötigen. Sie analysieren den Satzbau in komplexen Sätzen, setzen sich mit den entsprechenden

grammatischen Strukturen (wie z.B. Konnektoren, Kohäsionsmitteln und Partizipien) auseinander und vertiefen ihre Kenntnisse zur Wortbildung und den Nominalisierungsmöglichkeiten.

Intended Learning Outcomes:
Im Anschluss an die Teilnahme an den Modulveranstaltungen können die Studierenden den Inhalt von Texten zu allgemeinen und berufsbezogenen Themen verstehen und mündlich und schriftlich kohärent wiedergeben. Sie sind in der Lage, mündlich und schriftlich Argumente zu verschiedenen, mitunter auch kontrovers diskutierten Themen zu formulieren, gegeneinander abzuwägen und Stellung zu beziehen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen sollen von den Studierenden eigenständig Grammatikthemen und Wortschatzübungen mit vorgegebenen (Online-) Materialien erarbeitet werden. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung der Lehrveranstaltung) festigen das Gelernte.

Media:
Lehrbuch, multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Deutsch als Fremdsprache B2.2 (Seminar, 2 SWS)
Grigorieva A, Sabel B

Deutsch als Fremdsprache B2.2 (Seminar, 2 SWS)
Hanke C, Huber D, Schmidt-Bender S, Stoephasius J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0341: German as a Foreign Language C1.1 | Deutsch als Fremdsprache C1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe B2.2; Einstufungstest mit Ergebnis C1.1

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache auf gehobenem schriftsprachlichen Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte erarbeitet.
Die Studierenden überprüfen und vertiefen anhand komplex aufgebauter und anspruchsvoll formulierter Hör- und Lesetexte zu Themen von gesamtgesellschaftlichem Interesse ihre Fähigkeiten, ohne große Mühe und überwiegend flüssig in der Fremdsprache zu agieren.

Sie lernen, Textsorten und Schreibstile zu unterscheiden und situationsadäquat anzuwenden.
Sie üben, komplexe Sachtexte auch außerhalb des eigenen Fachgebietes zu analysieren, zu komprimieren und kritisch mündlich sowie schriftlich zu kommentieren.
Sie üben, längeren Redebeiträgen, Vorträgen, Reportagen etc. detaillierte Informationen zu entnehmen. Sie lernen, Bedeutungsnuancen verwandter Ausdrücke zu differenzieren und Redewendungen zu verstehen, und sie vertiefen ein differenziertes Repertoire an Ausdrucksvarianten anhand verschiedener aktueller Themen. Positionen des öffentlichen Diskurses werden dabei auch nach ihrer kulturellen Bedingtheit hinterfragt.
Parallel beschäftigen sich die Studierenden mit ausgewählten grammatischen Phänomenen. Dabei liegt der Schwerpunkt auf Konnektoren, sowie den Unterschieden bei Nominal- und Verbalstil.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau C1 des GER.
Die Studierenden können den Inhalt von komplexen Artikeln und Berichten auch außerhalb des eigenen Fach- und Interessengebiets selbstständig und vielfach mühelos verstehen und Standpunkte identifizieren.
Sie können längeren Redebeiträgen und Vorträgen zu aktuellen Themen wie auch Fachvorträgen innerhalb und außerhalb ihres Fachgebietes folgen, sofern sie klar vorgetragen werden.
Sie sind in der Lage, zu aktuellen Themen aus Wissenschaft und Sozialleben ausführlich und logisch nachvollziehbar Stellung zu beziehen, sowie zu Themen aus ihrem Interessen- oder Fachgebiet klar strukturiert und verständlich zu referieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Ergänzend sollen die Teilnehmenden durch kontrolliertes Selbstlernen ausgewählte Grammatikthemen und Wortschatzübungen mit vorgegebenen Materialien eigenständig erarbeiten.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Seminar bekannt gegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache C1.1 (Seminar, 2 SWS)
Sabel B, Steidten R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0343: German as a Foreign Language B2.2 - Communication in Companies | Deutsch als Fremdsprache B2.2 - Kommunikation im Unternehmen

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.1; Einstufungstest mit Ergebnis B2.2

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden ermöglichen, im beruflichen Kontext aktiv und annähernd flüssig zu kommunizieren.
Anhand verschiedener beruflicher Themenfelder werden Situationen aus dem Arbeitsleben simuliert, wie z.B. E-Mails schreiben, Telefonate führen, Präsentationen halten, Meetings und Small Talks.

Die Studierenden erarbeiten ein Spektrum an berufsbezogenem Vokabular, Redewendungen und Dialogmustern und benutzen Diskursmuster eines Meetings wie z.B. Vor- und Nachteile angeben, Vorschläge machen, Lösungen anbieten und widersprechen.
Sie analysieren den Satzbau in komplexen Sätzen und setzen sich mit den entsprechenden Konnektoren auseinander.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2 des GER. Nach Abschluss dieses Moduls können die Studierenden auf B2-Niveau auf formelle und informelle Kommunikationssituationen im Büroalltag mündlich spontan und zusammenhängend und schriftlich angemessen und in jeder Hinsicht verstehbar reagieren.
Sie sind in der Lage, anhand realitätsnaher Szenarien einem Meeting bzw. Telefonat in einer Firma zu folgen und bei Bedarf nachzufragen. Die Studierenden können formelle und informelle Redewendungen in E-Mails unterscheiden und je nach Situation ihren Stil anpassen.
Sie können annähernd flüssig argumentieren und auf die Argumente anderer eingehen, sofern sie in der Standardsprache vorgetragen werden. In Konfliktsituationen können sie mit geeigneten Redemitteln moderieren.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Anhand vorgegebener Kriterien und Kommunikationsmuster werden Grundlagen des Referierens und des Diskutierens in der Fremdsprache zu beruflichen Themen vermittelt.
Durch kontrolliertes Selbstlernen grammatischer Phänomene und Kommunikationsmuster mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Inhalte ergänzt.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2.2 - Kommunikation im Unternehmen (Seminar, 2 SWS)
Schmidt-Bender S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0344: German as a Foreign Language B2.2: Controversial Topics in Science and Society | Deutsch als Fremdsprache B2.2 - Kontrovers: Was Wissenschaft und Gesellschaft bewegt

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Sehr gute Kenntnisse der Stufe B2.1; Einstufungstest mit Ergebnis C1.1 oder C1.2

Content:
In dieser LV stehen Diskurse in mündlicher und schriftlicher Kommunikation im Vordergrund. Die Studierenden setzen sich mit kontroversen Themenbereichen der deutschsprachigen Gesellschaft, Wissenschaft und Kulturszene auseinander, in denen zentrale Aspekte des gesellschaftlichen Zusammenlebens verhandelt werden. Thematische Schwerpunkte sind die Bereiche Wirtschaft, Umwelt, Technik und Nachhaltigkeit. Konkrete Inhalte orientieren sich an den Interessen der Studierenden.

Die Studierenden erweitern ihre sprachlichen Fertigkeiten durch die Entfaltung und Differenzierung ihres Wortschatzes zu den kontroversen Themen (argumentative Strukturen, Redemittel). Sie erarbeiten Diskursmuster und wenden diese in kommunikativen Settings an. Dabei vertiefen sie auch ihre grammatikalischen Kenntnisse. Sie erarbeiten kurze mündliche Präsentationen zu den Themen von persönlichem Interesse und leiten im Anschluss eine Diskussion. Auch interkulturelle Unterschiede hinsichtlich entsprechender Diskurs-Konventionen werden hierbei reflektiert. Grammatischen Themen des Niveaus B2.2 sowie schriftlicher Kommunikation wird in dieser LV vor allem asynchron nachgekommen. Den Schwerpunkt der synchronen Unterrichtszeit bilden mündliches Argumentieren, Darstellen und Präsentieren in formellen und informellen Situationen; ergänzt durch die Rezeption kürzerer Texte, Audios und Videos. Die schriftliche Ausdrucksfähigkeit wird insbesondere durch ergänzende freiwillige Hausaufgaben gefestigt.

Intended Learning Outcomes:
Das Seminar orientiert sich am Niveau B2 des GER. Studierende erweitern ihre diskursbezogenen Kenntnisse in schriftlicher und gesprochener Kommunikation. Sie können den eigenen Standpunkt zu persönlich relevanten Themen und aktuellen kontroversen Fragestellungen erläutern und begründen. Sie können in authentischen Lese- und Hörtexten kontroverse Standpunkte auch impliziter Art erkennen und damit verknüpfte Argumente einordnen und bewerten. Sie können kontroverse Themen präsentieren und eine Diskussion über ein Thema persönlichen Interesses leiten. Sie verfügen über sprachliche Mittel, die eine erfolgreiche Teilnahme an mündlichen und schriftlichen Diskussionen unterschiedlicher Art ermöglichen. Sie sind sensibilisiert für interkulturelle Unterschiede beim Umgang mit Diskursen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die Studierenden sowohl eigenständig als auch kooperativ arbeiten. Die angestrebten Lerninhalte werden mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet und erprobt. Durch kontrolliertes Selbststudium ausgewählter Aspekte der Grammatik und des Wortschatzes mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Inhalte vertieft. Die Teilnehmer erarbeiten eigenständig oder in Team- bzw. Projektarbeit vorgegebene Themen und überarbeiten ihre Ergebnisse nach Feedback.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0345: German as a Foreign Language C1: Controversial Topics in Science and Society | Deutsch als Fremdsprache C1 - Kontrovers: Was Wissenschaft und Gesellschaft bewegt

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel schriftlich überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Sehr gute Kenntnisse der Stufe B2.2; Einstufungstest mit Ergebnis C1.1 oder C1.2

Content:
In diesem Modul liegt der Schwerpunkt auf dem Meinungsaustausch zu kontrovers diskutierten Themen aus den Schnittstellen von Wissenschaft/Technik, Gesellschaft und Nachhaltigkeit/ Umwelt. Die konkreten Themen orientieren sich an den Interessen der Studierenden.
Techniken, Strukturen und Redemittel des Argumentierens, Diskutierens und Moderierens in unterschiedlichen Kontexten werden reflektiert und praktisch erprobt. Die Studierenden tauschen sich dabei auch über kulturelle Unterschiede in Diskurs-Konventionen aus.

Die sprachlichen Fertigkeiten werden insbesondere durch den Ausbau von Wortschatz zu den behandelten Themen, sowie argumentativer Strukturen und Redemittel gefestigt und erweitert. Den Schwerpunkt der gemeinsamen Unterrichtszeit bilden mündliches Darstellen, Argumentieren und Diskutieren in verschiedenen Formaten. Dies wird ergänzt durch die Rezeption und Analyse von Texten, Audios und Videos. Die schriftliche Ausdrucksfähigkeit wird insbesondere durch ergänzende freiwillige Hausaufgaben gefestigt.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau C1 des GER.
Im Anschluss an das Modul können die Teilnehmenden Diskussionen vorbereiten und moderieren. Sie können in authentischen Lese- und Hörtexten kontroverse Standpunkte auch impliziter Art erkennen und damit verknüpfte Argumente einordnen/bewerten. Sie verfügen über sprachliche Mittel, die eine erfolgreiche Teilnahme an mündlichen und schriftlichen Diskussionen unterschiedlicher Art ermöglichen. Die Studierenden sind in der Lage, zu kontroversen Themen kontextadäquat und logisch nachvollziehbar Stellung zu beziehen. Sie sind sensibilisiert für kulturelle Unterschiede in der Führung von Diskursen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Die Teilnehmenden erarbeiten eigenständig oder in Team- bzw. Projektarbeit vorgegebene oder selbstgewählte Themen und überarbeiten ihre Ergebnisse nach Feedback. Insbesondere wird die diskursorientierte Auseinandersetzung in der Gruppe intensiv erprobt.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Aktuelle authentische Lesetexte, Audios und Videos

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache C1 - Kontrovers: Was Wissenschaft und Gesellschaft bewegt (Seminar, 2 SWS)
Steidten R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0346: German as a Foreign Language C1.2: Communicating Professionally in Science and Business | Deutsch als Fremdsprache C1.2 - Professionell kommunizieren in Wissenschaft und Beruf

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt. Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe C1.1; Einstufungstest mit Ergebnis C1.2

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache auf anspruchsvollem schriftsprachlichen Niveau und unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte erarbeitet.
Die Studierenden beschäftigen sich mit komplex aufgebauten und anspruchsvoll formulierten Hör- und Lesetexten auf wissenschaftssprachlichen Niveaus zu aktuellen Themen aus Bereichen wie z.B. Ökologie, Ökonomie und Soziologie. Sie überprüfen und vertiefen dabei ihre Fähigkeiten, mühelos und flüssig in der Fremdsprache zu agieren.

Sie erweitern ihre Fertigkeit, Textsorten und Schreibstile zu unterscheiden und implizit formulierte Meinungen zu identifizieren. Sie üben, komplexe Sachtexte auch außerhalb des eigenen Fachgebietes zu analysieren, strukturiert zu komprimieren und ausführlich Stellung zu beziehen. Sie üben, längeren Redebeiträgen, Vorträgen, Reportagen etc. detaillierte Informationen zu entnehmen. Sie lernen Bedeutungsnuancen verwandter Ausdrücke zu differenzieren und eine Vielzahl von Redewendungen zu verstehen. Sie vertiefen ein differenziertes Repertoire an Ausdrucksvarianten zu aktuellen Themen wissenschaftlicher und populärwissenschaftlicher Fragestellungen. Sie beschäftigen sich mit ausgewählten grammatischen Besonderheiten wie z.B. Nominalisierungsmöglichkeiten und Nominalstil, Textkohärenz, den verschiedenen Formen der Indirekten Rede, Wortbildungsvarianten und der Funktion des Pronomens „es“.
Die Studierenden hinterfragen Positionen des öffentlichen Diskurses auch nach ihrer kulturellen Bedingtheit. Sie setzten sich mit ausgewählten Aspekten der Arbeitskultur in Deutschland auseinander.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau C1 des GER.
Die Studierenden können den Inhalt von komplexen Artikeln und Berichten auch außerhalb des eigenen Fach- und Interessengebiets selbstständig und vielfach mühelos verstehen und Standpunkte identifizieren.
Sie können längeren Redebeiträgen und Vorträgen zu aktuellen Themen wie auch Fachvorträgen innerhalb und außerhalb ihres Fachgebietes folgen, sofern sie klar vorgetragen werden.
Sie sind in der Lage, zu aktuellen Themen aus Wissenschaft und Sozialleben ausführlich und logisch nachvollziehbar Stellung zu beziehen, sowie zu Themen aus ihrem Interessen- oder Fachgebiet klar strukturiert und verständlich zu referieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Ergänzend sollen die Teilnehmenden durch kontrolliertes Selbstlernen ausgewählte Grammatikthemen und Wortschatzübungen mit vorgegebenen Materialien eigenständig erarbeiten.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch wird im Seminar bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache C1.2 - Professionell kommunizieren in Wissenschaft und Beruf
(Seminar, 2 SWS)
Koch H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0347: German as a Foreign Language Training C1 - Writing and Grammar Skills | Deutsch als Fremdsprache C1 - Sicherheit in Wortschatz und Grammatik

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten können anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen und/oder in Form einer Audio-/Videodatei überprüft werden. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.2; Einstufungstest mit Ergebnis C1.1

Content:
In diesem Modul vertiefen die Studierenden ihr Verständnis für ausgewählte Bereiche des Wortschatzes und der Grammatik auf dem Niveau C1.1 bis zu Niveau C1.2.
Die Studierenden entwickeln differenzierte Wortschatzkenntnisse, die es ihnen ermöglichen, ihre Ausdrucksfähigkeit in der Fremdsprache Deutsch mündlich wie schriftlich zu perfektionieren.

Ausgehend von exemplarischen Lesetexten werden thematisch zugeschnittene Grammatik-Übungen eingesetzt, und die Studierenden erarbeiten anhand solcher Texte selbstständig ein Verständnis grammatischer Problemfälle, die anschließend gemeinsam diskutiert werden.
Ein Fokus liegt auf komplexen grammatischen Strukturen, wie z.B. der Umwandlung von Partizipialkonstruktionen, festen Nomen-Verb-Verbindungen und Funktionsverbgefügen sowie möglichen Ersatzformen und subjektivem Gebrauch der Modalverben. Die Studierenden erarbeiten auch Strategien zur Vermeidung häufiger grammatischer Fehler.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau C1 des GER.
Nach der Teilnahme an diesem Modul sind die Studierenden in der Lage, anspruchsvolle Texte zu verfassen und dabei auch feine Bedeutungsnuancen verwandter Ausdrücke und Redewendungen zu differenzieren. Die Studierenden können komplexe Redemittel und erlernte grammatische Strukturen sinnvoll und sicher anwenden und entwickeln dabei ein Repertoire an Ausdrucksvarianten unter Verwendung komplexer grammatischer Strukturen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die Teilnehmenden eigenständig und kooperativ vorgegebene Themen hauptsächlich schriftlich erarbeiten. Durch Übungen in Einzel-, Partner- und Gruppenarbeit, sowie durch angeleitete Selbst-, Partner- und Lehrerkorrektur werden die angestrebten Lerninhalte entwickelt. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Seminar bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache C1 - Sicherheit in Wortschatz und Grammatik (Seminar, 2 SWS)
Willy P
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0348: German as a Foreign Language A1.1: Dive into the grammar and apply it in practice | Deutsch als Fremdsprache A1.1: Dive into the grammar and apply it in practice

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in Deutsch als Fremdsprache vermittelt, die es den Studierenden ermöglichen, sich trotz geringer Sprachkenntnisse in alltäglichen Situationen zurechtzufinden.
Sie lernen grundlegende Strukturen der Wortbildung und des Satzbaus (Verben, Personalpronomen, Nomen, Präpositionen und Satzstrukturen), die es ermöglichen, Fragen und Antworten zu verstehen und zu formulieren und in einfach strukturierten Sätzen Informationen über sich und andere zu geben.

Es werden Möglichkeiten aufgezeigt grundlegendes Vokabular zu Themen wie Familie, Beruf, Freizeit und Essen eigenverantwortlich zu lernen sowie Zahlen, Preise und Uhrzeiten zu verstehen und zu benutzen. Auf der Basis der erworbenen Kenntnisse werden kommunikative Fertigkeiten in alltagstypischen Situationen angewendet.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 (GER). Nach Abschluss dieses Moduls sind die Studierenden in der Lage, Strukturen der Wortbildung und des Satzbaus zu verstehen und anzuwenden.
Sie können sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen und auf Fragen dieser Art Antwort geben, in einfacher Weise Tagesabläufe beschreiben und einfache schriftliche Mitteilungen zur Person machen. Sie können ihre Wünsche kommunizieren, wenn die Gesprächspartner deutlich und langsam sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Die LV besteht zum Teil aus Seminaren, zum Teil aus Tutorien. In den Seminaren werden Grammatik und Strukturen präsentiert und von den Studierenden in der Regel schriftlich angewendet. In den Tutorien werden erlernte Strukturen und Vokabular interaktiv eingeübt und in alltagstypischen Situationen angewendet und so die kommunikativen Fertigkeiten entwickelt. Materialien zur Anwendung der erlernten Inhalte werden auf Moodle bereitgestellt. Empfohlene Inhalte des begleitenden Lehrmaterials werden von den Studierenden im Selbststudium erlernt und vertieft. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache A1.1 - Dive into the grammar and apply it in practice (Seminar, 1 SWS)
Anders D, Nierhoff-King B, Schlüter J, Steidten R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0349: German as a Foreign Language C1 - Communication in Companies | Deutsch als Fremdsprache C1 - Kommunikation im Unternehmen

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft.
Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt. Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden. Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Deutschkenntnisse Niveau C1/gesicherte Kenntnisse der Stufe B2.2

Content:
Das Modul orientiert sich am Niveau C1 des GER. In dieser Lehrveranstaltung werden Kenntnisse in Deutsch als Fremdsprache erarbeitet und vertieft, die den Studierenden ermöglichen, im beruflichen Kontext sprachlich souverän und flüssig zu kommunizieren. Anhand ausgewählter beruflicher Themenfelder (wie z. B. Karriereentwicklung, Unternehmensleitbilder, ‚Digitale Transformation‘, Kreativität und Innovation sowie Projektarbeit und Unternehmenspräsentation) werden Teilprozesse und Situationen aus dem Berufsalltag simuliert und aktiv trainiert, wie z.B. Leitbild eines Unternehmens verstehen, E-Mails kontextbezogen schreiben, Präsentationen halten und proaktiv an Meetings teilnehmen.

Die Studierenden vertiefen ein Spektrum an berufs- und branchenbezogenem Vokabular.
Sie trainieren entsprechende Mehrwortverbindungen und Dialogmuster und vertiefen ihre Grammatikkenntnisse in Bezug auf indirekte Aufforderungen (Imperativ, wichtige Verben mit Vorsilben) sowie den Verbal- und Nominalstil.

Intended Learning Outcomes:
Im Anschluss an das Modul kann der/die Studierende das Unternehmensleitbild eines Unternehmens verstehen und mögliche Fragen an das Unternehmen per E-Mail formulieren, einer Podiumsdiskussion die Hauptaussagen entnehmen und zusammenfassen, einen Kommentar per E-Mail verfassen, ein Produkt präsentieren und auf mögliche Fragen souverän reagieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert im jeweiligen Berufskontext erarbeitet werden.
Anhand ausgewählter Themenschwerpunkte und Kommunikationsmuster werden Grundlagen des monologischen und dialogischen Sprechens in der Fremdsprache zu beruflichen Themen vermittelt.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folien, Übungsblätter, Bilder, Grafiken, Filme, etc.), auch online

Reading List:
Baier, Gabi/Karagiannakis, Evangelia/Merkelbach, Matthias/ Schappert, Petra/ Weimann, Gunther: Fokus Deutsch C1 – Erfolgreich im Alltag und Beruf, Berlin: Cornelsen 2022 (freiwillig)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache C1 - Kommunikation im Unternehmen (Seminar, 2 SWS)
Häusler A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0350: German as a Foreign Language B1.1 | Deutsch als Fremdsprache B1.1

Version of module description: Gültig ab winterterm 2022/23

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 135	**Self-study Hours:** 90	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe A2.2; Einstufungstest mit Ergebnis B1.1

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Konsum, Zukunft, Umwelt etc. selbständig und sicher in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird.
Die Studierenden erweitern und benutzen ein grundlegendes Repertoire an logischen Haupt- und Nebensatz-Strukturen (z.B. Konsekutivsatz, Finalsatz und Relativsatz) und an Verben und Nomen mit Präpositionalergänzung. Sie lernen/üben den Genitiv, die Funktion und den Gebrauch des

Konjunktiv II und des Futur I. Sie wiederholen und ergänzen elementare Aspekte der Grammatik wie den Gebrauch der Zeiten und der Präpositionen.
Die Studierenden beschäftigen sich mit kulturspezifischen Besonderheiten, beispielsweise in Bezug auf Reiseverhalten, Berufswelt und Bewerbung sowie individuelle Zukunftskonzepte. Sie gewinnen Einblicke in aktuelle Themen wie Umwelt und Naturschutz.
Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 des GER.
Nach Abschluss des Moduls sind die Studierenden in der Lage sich in den meisten Situationen, denen man in Studium, Beruf und Freizeit im Sprachgebiet begegnet, sicher zu verständigen. Sie können über Vorlieben und Zukunftsvorstellungen sprechen, von Veränderungen berichten und Folgen ausdrücken, sich zur Berufswelt und Bewerbungen äußern sowie über umweltrelevante Themen diskutieren und eigene Ziele formulieren.
Sie können wesentliche Inhalte in einfachen, authentischen Texten aus alltäglichen Bereichen verstehen und wiedergeben und sich spontan an Gesprächen zu vertrauten Themen beteiligen.
Sie können längere persönliche E-Mails, Blog-Einträge und Texte zu eigenen Erfahrungen verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Durch kontrolliertes Selbstlernen grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B1.1 (Seminar, 3 SWS)
Grgic T, Grigorieva A, Lechle K, Mielert A, Oelmayer J, Schmid P, Sohlbach M, Werkhausen R

Blockkurs Deutsch als Fremdsprache B1.1 (Seminar, 3 SWS)
Oelmayer J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0351: German as a Foreign Language B1.2 | Deutsch als Fremdsprache B1.2

Version of module description: Gültig ab winterterm 2022/23

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 135	**Self-study Hours:** 90	**Contact Hours:** 45

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe B1.1; Einstufungstest mit Ergebnis B1.2

Content:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller, landeskundlicher, und studienbezogener Aspekte erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Gesundheit, soziales Engagement, Kunst etc. selbständig und sicher in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird.
Die Studierenden erarbeiten ein erweitertes Spektrum an Vokabular, Redewendungen und Dialogmustern, erfassen und benutzen ein grundlegendes Repertoire an logischen Haupt-

und Nebensatz-Strukturen (Temporalsatz, Relativsatz, Vergleichssatz) und an zweiteiligen Konnektoren. Sie lernen/üben den Gebrauch reflexiver Verben und das Passiv. Sie wiederholen und ergänzen elementare Aspekte der Grammatik wie den Gebrauch der Zeiten, der Präpositionen, der Deklination des Adjektivs und der Komparation.
Die Studierenden beschäftigen sich mit kulturspezifischen Besonderheiten, beispielsweise in Bezug auf Freundschaft und Beziehungen, Großstadtleben und soziale Projekte, und sie gewinnen Einblicke in die zeitgenössischen Kulturszene Deutschlands.
Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 des GER.
Nach Abschluss des Moduls sind die Studierenden in der Lage sich in den meisten Situationen, denen man in Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher zu verständigen. Sie können z.B. Informationen aus Zeitungstexten weitergeben, über lebenswerte Städte diskutieren, Personen und Dinge genauer beschreiben, Meinungen äußern und argumentieren.
Sie können wesentliche Inhalte in einfachen, authentischen Sachtexten, literarischen Texten und in Fernseh- oder Radiosendungen verstehen und wiedergeben und sich spontan an Gesprächen zu Themen von allgemeinem Interesse beteiligen. Sie können einfache formelle E-Mails und längere persönliche Briefe verfassen und von persönlichen Erfahrungen berichten. Sie können strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache unter Berücksichtigung interkultureller, landeskundlicher, und studienbezogener Aspekte erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Gesundheit, soziales Engagement, Kunst etc. selbständig und sicher in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird.
Die Studierenden erarbeiten ein erweitertes Spektrum an Vokabular, Redewendungen und Dialogmustern, erfassen und benutzen ein grundlegendes Repertoire an logischen Haupt- und Nebensatz-Strukturen (Temporalsatz, Relativsatz, Vergleichssatz) und an zweiteiligen Konnektoren. Sie lernen/üben den Gebrauch reflexiver Verben und das Passiv. Sie wiederholen und ergänzen elementare Aspekte der Grammatik wie den Gebrauch der Zeiten, der Präpositionen, der Deklination des Adjektivs und der Komparation.
Die Studierenden beschäftigen sich mit kulturspezifischen Besonderheiten, beispielsweise in Bezug auf Freundschaft und Beziehungen, Großstadtleben und soziale Projekte, und sie gewinnen Einblicke in die zeitgenössischen Kulturszene Deutschlands.

Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Deutsch als Fremdsprache B1.2 (Seminar, 3 SWS)
Aristakesyan V

Deutsch als Fremdsprache B1.2 (Seminar, 3 SWS)
Aristakesyan V, Bauer-Hutz B, Endraß E, Körner C, Kraut-Schindlbeck S, Niehaus B, Oelmayer J, Willy P
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0354: German as a Foreign Language B1 - Get for B2 | Deutsch als Fremdsprache B1 Brückenkurs - Werden Sie fit für die B2

Version of module description: Gültig ab winterterm 2022/23

Module Level:	Language:	Duration:	Frequency:
Credits:* 4	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0355: German as a Foreign Language B2 - Grammar compact | Deutsch als Fremdsprache B2 - Grammatik Kompakt

Version of module description: Gültig ab summerterm 2023

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2 - Grammatik Kompakt (Seminar, 2 SWS)
Selent D
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0356: German as a Foreign Language B2.1 - Start at Companies | Deutsch als Fremdsprache B2.1 - Einstieg ins Unternehmen

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
gesicherte Kenntnisse der Stufe B1.2; Einstufungstest mit Ergebnis B2.1

Content:
Das Modul orientiert sich am Niveau B2.1 des GER. In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden ermöglichen, im beruflichen Kontext aktiv und annähernd flüssig zu kommunizieren.
Anhand verschiedener Themenfelder des Berufseinstiegs wie z.B. Stellensuche, Bewerbung und der erste Arbeitstag werden Situationen aus dem Arbeitsleben simuliert. Dazu gehört über die eigene Branche und Berufsziele sprechen, einen Lebenslauf schreiben, Telefonate führen, sich im Vorstellungsgespräch präsentieren, Small Talk, Einstand und Kennenlernen der Kolleg:innen.

Die Studierenden erarbeiten ein Spektrum an Vokabular für den Berufseinstieg, Redewendungen und Dialogmuster und benutzen Diskursmuster eines Vorstellungsgesprächs wie z.B. Selbstpräsentation, über Stärken und Schwächen sprechen, über Karriereziele sprechen.
Sie analysieren den Satzbau in komplexen Sätzen, setzen sich mit den entsprechenden Konnektoren auseinander und vertiefen Grammatikthemen wie z.B. den Gebrauch des Konjunktiv II für den höflichen Umgang im Gespräch oder Nominalisierungsstrategien für den Lebenslauf.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Im Anschluss an die Teilnahme an die Modulveranstaltungen können die Studierenden auf B2.1-Niveau auf formelle und informelle Kommunikationssituationen beim Berufseinstieg mündlich spontan und zusammenhängend und schriftlich angemessen und gut verstehbar reagieren.
Sie sind in der Lage, anhand realitätsnaher Szenarien eine Bewerbung zu schreiben, ein Telefonat mit einer Firma zu führen und bei Bedarf nachzufragen. Die Studierenden können sich im Vorstellungsgespräch präsentieren und auf Nachfragen angemessen reagieren. Sie unterscheiden formelle und informelle Redewendungen in E-Mails und können je nach Situation ihren Stil anpassen.
Sie können bezogen auf das eigene Fach annähernd flüssig sprechen und auf die Fragen anderer eingehen, sofern sie in der Standardsprache vorgetragen werden. In Konfliktsituationen können sie mit geeigneten Redemittel mitdiskutieren.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Anhand vorgegebener Kriterien und Kommunikationsmuster werden Grundlagen des Referierens und des Diskutierens in der Fremdsprache zu beruflichen Themen vermittelt. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch, multimedial gestütztes Lehr- und Lernmaterial, auch online

Reading List:
Lehrbuch: wird im Kurs bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2.2 - Einstieg ins Unternehmen (Seminar, 2 SWS)
Reulein C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0357: German as a Foreign Language B1.1 - Start at Companies | Deutsch als Fremdsprache B1.1 - Einstieg ins Unternehmen

Version of module description: Gültig ab winterterm 2023/24

Module Level:	Language:	Duration:	Frequency:
Credits:* 4	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B1.1 - Einstieg ins Unternehmen (Seminar, 3 SWS)
Karsten-Ott M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0359: German as a Foreign Language B2.2 - Start at Companies | Deutsch als Fremdsprache B2.2 - Einstieg ins Unternehmen

Version of module description: Gültig ab summerterm 2024

Module Level: Bachelor/Master	**Language:** German	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Erlaubte Hilfsmittel werden jeweils definiert.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.1; Einstufungstest mit Ergebnis B2.2

Content:
Das Modul orientiert sich am Niveau B2.2 des GER. In diesem Modul werden Kenntnisse in Deutsch als Fremdsprache erarbeitet, die es Studierenden ermöglichen, im beruflichen Kontext aktiv und flüssig zu kommunizieren.
Anhand verschiedener Themenfelder des Berufseinstiegs wie z.B. Stellensuche, Bewerbung und der erste Arbeitstag werden Situationen aus dem Arbeitsleben simuliert. Dazu gehört über die eigene Branche und Berufsziele sprechen, einen Lebenslauf schreiben, Telefonate führen, sich im Vorstellungsgespräch präsentieren, Small Talk, Einstand und Kennenlernen der Kolleginnen und Kollegen.

Die Studierenden erarbeiten ein Spektrum an Vokabular für den Berufseinstieg, Redewendungen und Dialogmuster und benutzen Diskursmuster eines Vorstellungsgesprächs wie z.B. Selbstpräsentation, über Stärken und Schwächen sprechen, über Karriereziele sprechen.
Sie analysieren den Satzbau in komplexen Sätzen, setzen sich mit den entsprechenden Konnektoren auseinander und vertiefen Grammatikthemen wie z.B. den Gebrauch des Konjunktiv II für den höflichen Umgang im Gespräch oder Nominalisierungsstrategien für den Lebenslauf.
Die Studierenden üben Teamkompetenz durch kooperatives Handeln in multinational gemischten Gruppen.

Intended Learning Outcomes:
Im Anschluss an die Teilnahme an die Modulveranstaltungen können die Studierenden auf B2.2-Niveau auf formelle und informelle Kommunikationssituationen beim Berufseinstieg mündlich spontan und zusammenhängend und schriftlich angemessen und gut verstehbar reagieren.
Sie sind in der Lage, anhand realitätsnaher Szenarien eine Bewerbung zu schreiben, ein Telefonat mit einer Firma zu führen und situationsgerecht zu interagieren. Die Studierenden können sich im Vorstellungsgespräch in einer Firma ausführlich und strukturiert präsentieren und auf Nachfragen angemessen reagieren. Sie unterscheiden formelle und informelle Redewendungen in E-Mails und können je nach Situation ihren Stil anpassen.
Sie können bezogen auf das eigene Fach flüssig sprechen und auf die Fragen anderer eingehen, sofern sie in der Standardsprache vorgetragen werden. In Konfliktsituationen können sie mit geeigneten Redemittel mitdiskutieren.

Teaching and Learning Methods:
Das Modul besteht aus einer Lehrveranstaltung, in der die angestrebten Lerninhalte mit gezielten Hör-, Lese- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Anhand vorgegebener Kriterien und Kommunikationsmuster werden Grundlagen des Referierens und des Diskutierens in der Fremdsprache zu beruflichen Themen vermittelt. Freiwillige Hausaufgaben (zur Vor- und Nacharbeitung) festigen das Gelernte.

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2.2 - Einstieg ins Unternehmen (Seminar, 2 SWS)
Reulein C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0360: German as aForeign Language B1 – Crossover German: Communication at University and in daily Life | Deutsch als Fremdsprache B1 – Crossover German: Kommunikation an der Uni und im öffentlichen Leben

Version of module description: Gültig ab summerterm 2024

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B1 – Crossover German: Kommunikation an der Uni und im öffentlichen Leben (Seminar, 2 SWS)
Gröbl J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0361: Projekt Weeks: German as a Foreign Language B2.2 - Sustainability using the example of a national park | Projektwochen: Deutsch als Fremdsprache B2.2 - Nachhaltigkeit am Beispiel eines Nationalparks

Version of module description: Gültig ab winterterm 2024/25

Module Level:	Language:	Duration:	Frequency:
Credits:* 6	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben und E-Tests erbracht. Hilfsmittel sind erlaubt. Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie schriftliche Textproduktion geprüft werden. Wenn im Rahmen einer (Portfolio)Prüfungsaufgabe eine schriftlich ausgearbeitete Präsentation mit mündlichem Anteil erfolgt, z.B. auch in Form einer Audio- oder Videoaufnahme, werden einzelne Aspekte der Mündlichkeit zur Bewertung mit hinzugezogen. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Dieses Modul richtet sich an alle Bachelor- und Master-Studierende der TUM, vor allem aber an Studierende der naturwissenschaftlichen Fächer sowie an Studierende der Management-Studiengänge. Sie haben Kenntnisse der Stufe B2.1, mindestens aber gesicherte Kenntnisse der Stufe B1.2 und bringen Interesse an projektorientiertem Fremdsprachenunterricht mit. Sie verfügen bereits über Methoden und Strategien des selbstgesteuerten Lernens von Fremdsprachen und möchten an fachorientierten, aktuellen Diskursen mit (natur)wissenschaftlichen Bezügen, die nicht unbedingt mit ihrem Studienfach zu tun haben, teilnehmen können. Sie sind darüber hinaus an das Arbeiten in multinational zusammengesetzten Teams gewöhnt und interessieren sich für interkulturelle Fragestellungen.

Content:
In dieser semesterbegleitenden Lehrveranstaltung setzen sich die Studierenden mit dem Thema Nachhaltigkeit am Beispiel eines Nationalparks auseinander. Sie erweitern ihre zielsprachliche Projektkompetenz, indem sie Informationen zu einem selbst gewählten Unter-Thema recherchieren und in Gruppenarbeit und mithilfe von KI weiterführende Fragen für Interviews entwickeln, z.B. mit Personen mit entsprechender Expertise innerhalb und außerhalb der Universität, auf Zoom oder vor Ort im Nationalpark. Dabei trainieren sie wichtige Gesprächstechniken und verbessern ihre mündlichen Fähigkeiten wie auch ihre Mediationskompetenzen, wobei Wortschatz und Redemittel sowie Strukturen der Niveaustufe B2.2 zur Anwendung kommen und gefestigt werden.
Die Inhalte der Recherchen sind interdisziplinär angelegt, so dass die Studierenden über ihr eigenes Studienfach hinaus Einblick in allgemeinsprachliche Diskurse mit (natur)wissenschaftlichen Bezügen bekommen, z.B. der Biologie, der Geographie oder auch des Managements. Als konkrete Unter-Themen bieten sich an: Wasserwirtschaft, Tiermonitoring, Besuchermanagement usw.
Am Ende werten die Studierenden ihre Rechercheergebnisse aus und reflektieren ihre Vorgehensweise und Methoden. Sie vernetzen sich mit einer Arbeitsgruppe aus einem anderen Sprachbereich des TUM Sprachenzentrums, die zu ähnlichen Fragestellungen und zu einem Nationalpark eines anderen Landes recherchiert hat, und erarbeiten gemeinsam eine Präsentation, bei der neben interkulturellen Aspekten auch Mehrsprachigkeit eine Rolle spielt.

Intended Learning Outcomes:
Die Studierenden können zu einem selbst gewählten Nachhaltigkeitsthema im Kontext eines Nationalparks selbständig und in Gruppen recherchieren sowie Fragen für ein Interview mit Personen mit entsprechender Expertise - auch unter Nutzung von KI - vorbereiten. Sie können die Interviews eigenverantwortlich durchführen und auswerten und ihre Vorgehensweise reflektieren, wobei ausgewiesener Wortschatz, Redemittel und Strukturen der Niveaustufe B2.2 ebenso zur Anwendung kommen wie eigenständig erarbeiteter Wortschatz und Strukturen mithilfe von KI. Und sie sind in der Lage, ihre Ergebnisse mit einer Lerngruppe aus einem anderen Sprachbereich zu teilen, sie gemeinsam ansprechend aufzubereiten und dann vor einem breiteren Publikum zu präsentieren. Dabei können sie nicht nur Strategien und Methoden der Mehrsprachigkeit anwenden, sondern auch interkulturelle Fragestellungen mit in den Blick nehmen.

Teaching and Learning Methods:
Die angestrebten Lernergebnisse sollen anhand von gezielten Inputs sowie von Partner- und Gruppenarbeitsphasen, in denen kooperative Lernformen überwiegen, erreicht werden. Dabei werden die Studierenden ermutigt, ihren eigenen Themenwünschen nachzugehen und eigenverantwortlich zu arbeiten. Ein Schwerpunkt des Moduls liegt auf der Vermittlung von kommunikativen Kompetenzen mithilfe von handlungsorientierten Aufgaben, die auch außerhalb des Kursraums zu bewältigen sind. Im Kursraum selbst dienen Simulationen und Rollenspiele dazu, Neu-Erarbeitetes und Gelerntes zu erproben und/ oder weiter zu festigen. Die regelmäßige Reflexion von Lernwegen und Methoden soll schließlich dazu führen, dass die Studierenden im Kontext von Fremdsprachenlernen selbständiger und souverän agieren können.

Media:
Für die Stufe B2.2 entwickeltes Lehr- und Lernmaterial sowie weiteres, multimedial gestütztes Lernmaterial mit Informationstexten, Audios und Videos, z.B. von den Webseiten eines Nationalparks oder von anderen ausgewählten Internetseiten.

Reading List:

Responsible for Module:
Christina Thunstedt Heide Stiebeler

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2.2 – Projektwochen: Nachhaltigkeit am Beispiel eines Nationalparks (Seminar, 4 SWS)
Stiebeler H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0362: German as a Foreign Language B1.1 - Communication in everyday life and internships | Deutsch als Fremdsprache B1.1 - Kommunikation im Alltag und Praktikum

Version of module description: Gültig ab winterterm 2024/25

Module Level:	Language:	Duration:	Frequency:
Credits:* 4	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B1.1 - Kommunikation im Alltag und Praktikum (Seminar, 3 SWS)
Reulein C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0363: German as a Foreign Language C1.2 - Quickly grasping and commenting on complex texts | Deutsch als Fremdsprache C1.2 - Komplexe Texte schnell erfassen und kommentieren

Version of module description: Gültig ab winterterm 2024/25

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache C1.2 - Komplexe Texte schnell erfassen und kommentieren (Seminar, 2 SWS)
Koch H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0364: German as a Foreign Language B2.1 with Grammar | Deutsch als Fremdsprache B2.1 mit Grammatik

Version of module description: Gültig ab winterterm 2024/25

Module Level:	Language:	Duration:	Frequency:
Credits:* 4	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Deutsch als Fremdsprache B2.1 mit Grammatik (Seminar, 3 SWS)
Schlömer A
For further information in this module, please click campus.tum.de or here.

SZ0003-04: English | Englisch

Module Description

SZ0403: English - Academic Presentation Skills C1 - C2 | Englisch - Academic Presentation Skills C1 - C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include four different graded extemporaneous speeches, three informative and one persuasive. Each graded speech contributes to 25% of the overall course grade. Aspects of proper delivery include proper oral citations, use of language, and implementation of rhetorical skills.

Students are evaluated on their ability to prepare and deliver speeches with the help of audio or visual aids and a handout. Depending on the course format, the presentations are delivered either live in person or via a video recording.

Where audio or video is recorded, the Basic Data Protection Regulation (DSGVO, Art. 12 -21) is observed.

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C2 level as evidenced by a placement test score of at least 75 percent.

Content:
This course allows students to practice and improve ability to carry out formal speaking tasks in English such as a class presentation, dissertation defense, department colloqium, conference talk or project proposals. All forms of presentations replicate academic speaking situations and include sections for question and answer or a debate format.

Intended Learning Outcomes:
This course helps students to gain practical experience in a range of both graded and non-graded presentation scenarios designed to build confidence and improve delivery in English. The acquired techniques and skill set can be successfully transferred to a number of academic and professional presentation scenarios. Students learn how to effectively write, practice and evaluate presentations in addition to giving and receiving constructive peer feedback.

Teaching and Learning Methods:
This course makes use of recording and/or classroom evaluation to help students develop their public speaking skill and uses a variety of training techniques such as extemporaneous speaking and PechaKucha to hone specific skills.

Media:
Text material, online platform, recordings. Videos and in-class modeled presentations and examples.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Academic Presentation Skills C1 - C2 (Seminar, 2 SWS)
Davies A, Field B, Ritter J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0404: English - English for Architects C1 | Englisch - English for Architects C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include two written assignments (one of which comprising of multiple drafts), a visually supported presentation and a final written examination. Students are graded on their ability to present content clearly and succinctly taking the audience's needs and written/ spoken conventions into consideration.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12-21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this module grammatical forms are reviewed and practiced with a focus on topics of interest to students preparing for their further studies and a professional life in architecture. A key component is the requirement for student autonomy and collaboration within the framework of the module, which includes opportunities for students to practice both written and oral communication needed in academic and professional life. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
After completion of this module, students will be able to understand complex texts on architecturally-relevant topics, critically analyse these and effectively communicate their ideas in English to an international audience.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops with peer review, listening exercises, and pair work, etc. to allow students to effectively communicate as future professionals in their field.

Media:
Text materials, use of online learning platform such as www.moodle.tum.de, presentations, film viewings and audio practice.

Reading List:
Handouts.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English for Architects C1 (Seminar, 2 SWS)
Eden C, Jacobs R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ04041: English - Basic English for Architects B2 | Englisch - Basic English for Architects B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include two written assignments (one of which comprising of multiple drafts), a visually supported presentation and a final written examination. Students are graded on their ability to present content clearly and succinctly taking the audience's needs and written/ spoken conventions into consideration.

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this module grammatical forms are reviewed and practiced with a focus on topics of interest to students preparing for their further studies and a professional life in architecture. A key component is the requirement for student autonomy and collaboration within the framework of the module, which includes opportunities for students to practice both written and oral communication needed in academic and professional life. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
After completion of this module, students will be able to understand complex texts on architecturally-relevant topics, critically analyse these and effectively communicate their ideas in English to an international audience.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops with peer review, listening exercises, and pair work, etc. to allow students to effectively communicate as future professionals in their field.

Media:
Text materials, use of online learning platform such as www.moodle.tum.de, presentations, film viewings and audio practice.

Reading List:
Handouts.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ04043: English - English in Action - What is Art? from B2 | Englisch - English in Action - What is Art? ab B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. A presentation (including visual aids, 30%); Writing assignments (40%); A final written examination (30%) in which students prove they can express themselves clearly and concisely.

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this module grammatical forms are reviewed and practiced with a focus on topics of interest to students preparing for their further studies and a professional life in areas requiring a keen awareness of the conventions of art and art history. A key component is the requirement for student autonomy and collaboration within the framework of the module, which includes opportunities for students to practice both written and oral communication needed in academic and professional life. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
After completion of this module students will possess an awareness of English language public speaking conventions and will be able to put them into practice. In terms of their writing, they will improve their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work, etc. to allow students to effectively communicate as future professionals in their field.

Media:
Printed materials, use of online learning platform such as www.moodle.tum.de, presentations, film viewings and visits to art museums.

Reading List:
Handouts.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0406: English - Writing Academic Research Papers C2 | Englisch - Writing Academic Research Papers C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:**	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include a 350-word abstract for an academic research paper (15%); a 15-minute oral “academic-conference-style” presentation of research and findings (35%); and complete an academic research paper of up to 5,000 words including references (APA/MLA style, 50%), in which they demonstrate an ability to critically engage in academic discourse, making use of rhetorical devices and conventions appropriate for their audience. The major assignment is based on multiple iterations of the academic research paper on which critical feedback has been given by the instructor.

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at at least the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This is a process writing course during which students will study effective organization of written academic English incorporating discourse markers, topic sentences, and good paragraphing; study effective use of rhetorical structures appropriate to academic English: e.g. theme and rheme, nominalisation, use of passive, as well as register and style appropriate to target audience; and choose a topic commensurate with their interests/area of study and produce an abstract, a presentation and an academic research paper with the support of peers and tutor.

Intended Learning Outcomes:

Teaching and Learning Methods:
Students will:
a) Research a topic and gather information pertinent to a self-chosen thesis/research question
b) Prepare a presentation outlining their chosen research question or thesis which they will have to defend orally
c) Work on their chosen topic with tutor support and regular tutorials
The tutor will:
a) Give short input presentations with accompanying language based activities (pair work, group work) at the beginning of each sessions in the first half of the course
b) Give regular tutorial support

Media:
Powerpoint presentations (student and lecturer generated); Audio and visual recordings from a variety of sources; printed handouts.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Writing Academic Research Papers C2 (Seminar, 2 SWS)
Davies A, Hughes K
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0407: English - Advanced Business Communication C2 | Englisch - Advanced Business Communication C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks which include:
- 2 assignments for a total of 50%
- presentation on a current business related topic (including visual aids) 25%
- final written examination 25% based on topics and materials discussed in class.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C2 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course focuses on professional communication skills and integrates reading, listening, speaking and writing with vocabulary and grammar, as needed by the specific group. The subject matter consists of a wide range of current issues in the business world, ranging from ethics and sustainability to leadership and diversity. Students will have many opportunities to explore, critically discuss, present, and write about these topics and other business- and industry-relevant topics that are most interesting to them.

Intended Learning Outcomes:
After completion of this module, students will be able to understand complex texts on current business-related topics, critically analyse these and effectively communicate their ideas based on these in English to an international audience.

Corresponds to C2 of the CER.

Teaching and Learning Methods:
Communicative and skills-oriented approach to topics with use of group discussion, reading and listening exercises, pair and group tasks, presentations etc. Students will need to complete regular assignments.

Media:

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Advanced Business Communication C2 (Seminar, 2 SWS)
Jansen van Rensburg P
For further information in this module, please click campus.tum.de or here.

Module Description

SZ04100: English - Selected Readings in Popular Science B2 | Englisch - Selected Readings in Popular Science B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined in the form of a cumulative portfolio of competence and action-oriented tasks. These include three graded tasks: an oral assessment (including visual aids and a handout), a written assignment, and a final examination. The oral assessment may include either an original recording or live “presentation” in the video-blog style, followed by group facilitation of a class discussion.

The original written assignment requires one English Writing Center appointment, which serves as extra support in drafting and revising the text. Ungraded tasks such as the EWC appointment and the review forum submissions are required to pass the course.The final exam may be co-created by students from weekly mandatory (ungraded) submissions to the examination review questions forum, which allows students to take ownership of their learning process and contribute their original ideas to the final examination.

Unless exams are offered online (in open-book format), no aids will be allowed in exams and tests. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).T

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the B2 level of the GER as evidenced score in the range of 40 – 60 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
What is popular science, how does this genre look today, and how does it generate enthusiasm for scientific discoveries? This course explores these questions while examining the constellation of conversations that popular science texts create. We read texts by popular science writers in order to understand how an author's writing style can change from one format to the next. In addition to discussing style, persuasive techniques and target audiences, we analyze these texts as a means to improving our own language and writing skills.

Intended Learning Outcomes:
After completion of this module, students will have better grasp of how an author's writing style can change to follow the conventions of a genre. By reading popular science texts, students will learn strategies for making their writing clearer and more interesting. They will also analyze the techniques authors use to draw the reader in, to hold the reader's attention, and to make persuasive arguments. Students will recognize that many of these techniques and strategies can not only be applied across popular science genres, but also when writing academic texts.

Corresponds to B2 of the CER.

Teaching and Learning Methods:
This course takes a communicative approach to topics including the use of pair and group tasks, group discussion, and short collaborative writing exercises. Students will need to complete regular preparation for the lessons.

Media:
Book chapters, handouts, presentations, audio-visual material

Reading List:
Text selections may include book reviews, press releases, chapters from bestselling books, social media posts, newsletters, blog posts, video-blogs and obituaries, as well as newspaper and magazine articles. These may vary each semester to include recent publications, to provoke thought about current events, discoveries or research techniques, and to reflect student research interests.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ04102: English - Great Minds in Science and Technology C1 | Englisch - Great Minds in Science and Technology C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Assessment is based on one to three short written assignments, e.g. a review of an article, short research papers (total of 1000-1200 words) - 40%; presentations (including visual aids and a handout), group or individual - 40%; final exam, including reading and listening comprehension, 20%.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course content is comprised of 6 to 8 articles, book chapters, books in the particular field (see above), along with student presentations on related topics. The students will discuss topics, argue for and/or against perspectives, debate, peer review the texts of each other, evaluate texts based on various criteria.

Intended Learning Outcomes:
Upon completion of this module, students will be better able to discuss and write texts about their specific area of study (maths, biology, chemistry, physics, history/philosophy of science, and more). They will be more confident engaging in discussions in English.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Class discussions, group work. presentations, and more.

Media:
Books, book chapters, essays, handouts, videos, Moodle, etc.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ04103: English - English for Computer Science and the Tech Industry C1 | Englisch - English for Computer Science and the Tech Industry C1

Version of module description: Gültig ab summerterm 2023

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ04104: English - English for Nerds: Learning with Sci-fi and Fantasy C1 | Englisch - English for Nerds: Learning with Sci-fi and Fantasy C1

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks including: written assignments in the form of a group presentation (50%), a written assignment (25%), and a final written examination (25%).
Resources that may be used to aid the completion of the abovementioned portfolio-components will be determined as per the nature of the individual task.
As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER based on the placement test at www.moodle.tum.de.

Content:
In this module communicative skills are practiced with a focus on topics of interest to students preparing for professions in science and technology branches which will be extrapolated from short works or excerpts taken from the work writers in the genres of science fiction and fantasy. The works used will be selected to correspond with sci-fi/fantasy topics that students choose in a needs analysis.

Intended Learning Outcomes:
After completion of this module students can understand a wide range of demanding, medium-length texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices. In particular, students will be able to describe future events and speculative outcomes in a highly differentiated manner.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback.

Media:
Use of online learning platform such as www.moodle.tum.de, presentations, short films and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Students do not need to acquire any texts as these will be provided in class.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ04105: English - English Grammar Advanced C1 | Englisch - English Grammar Advanced C1

Version of module description: Gültig ab summerterm 2023

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ04106: English - Poetry for Engineers C1 | Englisch - Poetry for Engineers C1

Version of module description: Gültig ab summerterm 2024

Module Level:	Language: English	Duration: one semester	Frequency: irregularly
Credits:* 3	Total Hours: 90	Self-study Hours: 60	Contact Hours: 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ04107: English - Key Issues in Business and Technology B2 + C1 | Englisch - Key Issues in Business and Technology B2 + C1

Version of module description: Gültig ab winterterm 2024/25

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
This course assesses reading, listening, speaking and writing abilities based on:
- 2 graded assignments for a total of 50%
- presentation on a current topic related to the themes dealt with in the course (including visual aids) 25%
- final written examination 25% based on topics and materials discussed in class.
Duration of the final examination: 60 – 90 minutes minutes.
Resources that may be used to aid the completion of the abovementioned portfolio-components will be determined as per the nature of the individual task.

Repeat Examination:

(Recommended) Prerequisites:
This is course is taught at the B2 and C1 levels. Students need to complete the placement test before the first lesson.

Content:
This course focuses on improving communication skills and integrates reading, listening, speaking and writing with vocabulary and grammar, as needed by the specific group. The subject matter consists of a wide range of current issues, for example sustainability and AI. Students will have many opportunities to explore, critically discuss, present, and write about these, as well as other business- and technology related topics that are most interesting to them.

Intended Learning Outcomes:
After completion of this course, students will be able to understand complex texts and audio-material on current business and technology related topics, critically analyse these and effectively communicate their ideas based on these in English to an international audience.

Teaching and Learning Methods:
Communicative and skills-oriented approach to topics with use of group discussion, reading and listening exercises, pair and group tasks, presentations etc. Students will need to complete regular homework tasks.

Media:
moodle.tum.de

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Key Issues in Business Today: From AI to Sustainability B2 (Seminar, 2 SWS)
Bhar A

Englisch - Key Issues in Business Today: From AI to Sustainability C1 (Seminar, 2 SWS)
Bhar A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ04108: English - Professional English for Business and Technology C1 | Englisch - Professional English for Business and Technology C1

Version of module description: Gültig ab winterterm 2024/25

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks which include:
- 2 assignments for a total of 50%
- presentation on a current business related topic (including visual aids) 25%
- final written examination 25% based on topics and materials discussed in class.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course focuses on professional communication skills and integrates reading, listening, speaking and writing with vocabulary and grammar, as needed by the specific group. The subject matter consists of a wide range of current issues in the business world, ranging from ethics and sustainability to leadership and diversity. Students will have many opportunities to explore, critically discuss, present, and write about these topics and other business- and industry-relevant topics that are most interesting to them.

Intended Learning Outcomes:
After completion of this module, students will be able to understand complex texts on current business-related topics, critically analyse these and effectively communicate their ideas based on these in English to an international audience.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills-oriented approach to topics with use of group discussion, reading and listening exercises, pair and group tasks, presentations etc. Students will need to complete regular assignments.

Media:
Textbook, use of www.moodle.tum.de, online learning resources, presentations, film viewings and audio practice.

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Professional English for Business and Technology C1 (Seminar, 2 SWS)
Lemaire E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0411: English - Management and Shakespeare C1 | Englisch - Management and Shakespeare C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. In addition to reading all the work on the syllabus, students will lead a lesson on one of Shakespeare's plays (with support from fellow students and the instructor), as well as complete written assignments and an exam demonstrating familiarity with the plays and material covered in lectures.

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level as evidenced by a placement test score in the range of 60 – 80 percent. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course will use four Shakespeare plays to help students understand and practice principles of management as well as become more sensitive to interpersonal issues. It will focus on aspects of leadership vs management, decision making, risk, conflict management, personal/cultural identity, and will familiarize students with language and ideas that have shaped the contemporary world.

Intended Learning Outcomes:
After completion of this module students can understand a wide range of demanding, longer texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text

on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion and lecture.

Media:
Texts material and video.

Reading List:
Four Shakespeare plays, all available online and in bookshops and libraries. Additional reading material provided on Moodle.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Management and Shakespeare C1 (Seminar, 2 SWS)
Jacobs R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0413: English - Professional English for Business and Technology - Management and Finance Module C1 | Englisch - Professional English for Business and Technology - Management and Finance Module C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:**	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks which include:
- 2 assignments for a total of 50%
- presentation on a current business related topic (including visual aids) 25%
- final written examination 25% based on topics and materials discussed in class.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course focuses on professional communication skills and integrates reading, listening, speaking and writing with vocabulary and grammar, as needed by the specific group. The subject matter consists of a wide range of current issues in the business world, ranging from ethics and sustainability to leadership and diversity. Students will have many opportunities to explore, critically discuss, present, and write about these topics and other business- and industry-relevant topics that are most interesting to them.

Intended Learning Outcomes:
After completion of this module, students will be able to understand complex texts on current business-related topics, critically analyse these and effectively communicate their ideas based on these in English to an international audience.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills-oriented approach to topics with use of group discussion, reading and listening exercises, pair and group tasks, presentations etc. Students will need to complete regular assignments.

Media:
Textbook, use of www.moodle.tum.de, online learning resources, presentations, film viewings and audio practice.

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0414: English - Intercultural Communication C1 | Englisch - Intercultural Communication C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks consisting of: A classroom presentation (including a handout and visual aids) (50%) and a final exam (50%). In the presentations and final exam students demonstrate a critical awareness of various dimensions and theories of cultural difference and show that they can apply them in situations where intercultural communication occurs.

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course, taught in English, should familiarize you with some dimensions of cultural variation and theories of culture and communication. While learning to understand and appreciate cultural difference, you will improve your ability to communicate effectively in a global context.

Intended Learning Outcomes:
After completion of this module, students will be able to communicate more effectively with partners from other cultures. Specifically, they can recognize cultural differences when they occur, understand some specific ways in which cultures can differ, and have developed self-awareness of their own cultural behaviors and values, which will help them be more effective in cross-cultural communication situations.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback.

Media:
Textbook, use of online learning platform, presentations, film viewings, podcasts and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Intercultural Communication C1 (Seminar, 2 SWS)
Balton-Stier J, Hughes K
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0417: English - Introduction to English Pronunciation B2 | Englisch - Introduction to English Pronunciation B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined using a cummulative portfolio of competence and action-oriented tasks by means of two assignments (each 25%) and two written assessments - a midterm exam and a final exam (each 25%). The assignments may consist of recording exercises in order to determine areas for improvement and to provide individual feedback.

Repeat Examination:

(Recommended) Prerequisites:
Students should have a minimum course entry level equivalent to CER B1/B2

Content:
The course will cover the following aspects of English pronunciation: production of speech sounds; short vowels; long vowels ; diphthongs; voicing & consonants; the relationships between spelling and pronunciation and grammar and pronunciation; word level and sentence level stress; aspects of connected speech; introduction to intonation.

Intended Learning Outcomes:
Upon completion of this module, students' pronunciation of English will have improved in accuracy and they will have developed a better understanding of the production and linking of English sounds. This course prepares students for the English Pronunciation C1 course.

Corresponds to B2 of the CER.

Teaching and Learning Methods:
Via short lectures at the start of each session and accompanying exercises, the course will provide students with a foundation in English phonetics and phonology in order to enable them to identify and analyse areas of weakness and improve pronunciation. Class work will incorporate active discussion of theoretical aspects of pronunciation based on the reading material together with practical exercises to improve actual production in pairs, groups and individually. Homework wil be assigned by the instructor.

Media:
Powerpoint presentations to accompany lectures; Printed handouts; Audio and video recordings from a variety of sources; Written and spoken exercises from a variety of sources

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Introduction to English Pronunciation B2 (Seminar, 2 SWS)
Schenk T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0418: English - English Through Cinema C1 | Englisch - English Through Cinema C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Students must demonstrate familiarity with the films viewed by being able to summarize main plots, and be able to put them into the context of the culture or topic of focus in a written paper of at least 5 pages to achieve a pass grade.

In the event that audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the upper B2 level of the GER or higher as evidenced by a score over 50 percent on the placement test at www.moodle.tum.de.

Content:
Sessions will include film screenings and in-depth discussion of various aspects of culture and communication.

Intended Learning Outcomes:
Upon completion of this course, students will have an increased understanding of the English-speaking world through viewing of films. They will be able to discuss films critically with spoken and written accuracy and range of vocabulary around specified topic areas. Students will have developed greater fluency in interactive communication in English through guided and freer discussion of issues related to topic areas. They will be familiar with key critical concepts in cultural studies.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion and film viewing.

Media:
Film viewings, handouts, use of online learning platform such as www.moodle.tum.de.

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English through Cinema C1 (Seminar, 2 SWS)
Linetsky A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0420: English - Focus on the USA C1 | Englisch - Focus on the USA C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks consisting of: An oral presentation (including a handout and visual aids, 25%), written assignments in the form of two entries in an online journal (25% each, in which students are assessed on their abililty to accurately summarize the content of textural and documentary evidence and analyze how it applies to principles discussed in class) and a final written examination with short essay questions (25%, in which students are expected to demonstrate a critical awareness of life in the United States).

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This module helps students prepare for studying or working in the United States, and increases their awareness of cultural differences they can expect to encounter in their dealings with US Americans.
Common stereotypes about U.S. such as exceptionalism will be critically examined.

Intended Learning Outcomes:
After completion of this module, students can understand a wide range of demanding, longer texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices; They are prepared for studying or working in the United States. Corresponds to C1 of the CER.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback.

Media:
Textbook, use of online learning platform at www.moodle.tum.de, presentations, film viewings, podcasts and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Focus on the USA C1 (Seminar, 2 SWS)
Schrier T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0421: English - English Writing for Social Scientists C2 | Englisch - English Writing for Social Scientists C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks.

Students will submit seven assignments (based on their current current study program) in which they demonstrate that they are able to express themselves with greater clarity and precision in written English and that they are familiar with and can apply strategies for effective academic writing in English.

Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the upper C1 or C2 level of the GER. Basic understanding of grammatical terms (e.g., parts of speech, subject, verb, object, active, passive, nominalization).

Content:
This course is aimed at students currently writing research papers and theses. It combines group seminars with individual consultations. The group sessions go beyond mere questions of “correct” grammar and word choice and emphasize instead stylistic guidelines for forceful and clear English writing at a high academic level. Discussions have a slight emphasis on strategies for German speakers but are appropriate to students from any language background. The individual sessions are tailored to the needs of each student.

Intended Learning Outcomes:
After completion of this module, students are able to express themselves with greater clarity and precision in written English. They are more familiar with strategies for effective academic writing in English specifically, while gaining a sense for potential contrasts with their own native languages. Students develop techniques to implement compelling sentence constructions, create cohesion within and between sentences, and render paragraphs coherent through specific semantic and syntactic choices.

Corresponds to C2 of the CER.

Teaching and Learning Methods:
Class sessions adopt a communicative and skills-oriented approach. Students become familiar with strategies for effective academic writing through group discussions, case studies, presentations, group work, etc. Individual sessions use students' texts as the primary learning materials, hence enabling them to reflect upon and to improve their academic writing skills.

Media:
Handouts, presentations, audio-visual material, students’ own texts

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English Writing for Social Scientists C2 (Seminar, 2 SWS)
Balton-Stier J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0422-1: English - Jobline B2 | Englisch - Jobline B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks including exercises and written assignments (75%), and a final written test (25%).

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
B2/C1 level according to the online placement test

Content:
This blended-learning course consists of sessions of face-to-face tuition in the classroom and self-study accessing the Jobline web-site (www.jobline-lmu.de) and doing the online activities.
You will 'learn by doing'. You will gain practice in describing job advertisements and company requirements, writing CVs and cover-letters, practising for face-to-face and telephone job interviews.

Intended Learning Outcomes:
Upon completion of this module, students will have greater confidence in applying for jobs with international companies and have improved their fluency in spoken English in the job interview situation.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Pair- & groupwork, role-playing (interviewer-interviewee/job candidate)

Media:
Internet web-site: www.jobline.lmu.de

Reading List:
Internet web-site: www.jobline.lmu.de

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0423: English - English for Technical Purposes - Industry and Energy Module C1 | Englisch - English for Technical Purposes - Industry and Energy Module C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks including an oral presentation (including a handout and visual aids, 25%), multiple drafts of two assignments to allow students to develop written skills by means of a process of drafting and revising texts (25% each), and a final written examination (25%).

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this module grammatical forms are reviewed and practiced with a focus on topics of interest to students preparing for professions in business and technology branches. The module includes opportunities for students to practice both written and oral communication needed in professional life, with emphasis on career skills such as questioning techniques, negotiating, prioritizing, problem solving, and persuading, as well as aspects of intercultural communication needed

for achieving professional success. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
After completion of this module students can understand a wide range of demanding, longer texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

Students will develop an awareness of Anglo-American public speaking conventions and will be able to put these into practice. In written and spoken contexts they will be able to differentiate accurately between situations requiring formal or familiar registers and select the correct form. Further, the will impove their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback

Media:
Textbook, use of www.moodle.tum.de, online learning resources, presentations, film viewings and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0424: English - English for Technical Purposes - Environment and Communication Module C1 | Englisch - English for Technical Purposes - Environment and Communication Module C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks including an oral presentation (including a handout and visual aids, 25%), multiple drafts of two assignments to allow students to develop written skills by means of a process of drafting and revising texts (25% each), and a final written examination (25%).

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this module grammatical forms are reviewed and practiced with a focus on topics of interest to students preparing for professions in business and technology branches. The module includes opportunities for students to practice both written and oral communication needed in professional life, with emphasis on career skills such as questioning techniques, negotiating, prioritizing, problem solving, and persuading, as well as aspects of intercultural communication needed

for achieving professional success. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
After completion of this module students can understand a wide range of demanding, longer texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

Students will develop an awareness of Anglo-American public speaking conventions and will be able to put these into practice. In written and spoken contexts they will be able to differentiate accurately between situations requiring formal or familiar registers and select the correct form. Further, the will impove their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback.

Media:
Textbook, use of www.moodle.tum.de, online learning resources, presentations, film viewings and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0425: English - Introduction to Academic Writing C1 | Englisch - Introduction to Academic Writing C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. This includes three writing assignments (each 30%) covering various essay genres such as process description, comparison/contrast, problem/solution, requiring argumention, persuasion and analysis, as well as a final exam (10%). Students will be graded on their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by the placement test at www.moodle.tum.de.

Content:
This course will help students learn to express themselves more correctly and persuasively in written English. There will be a focus on forming correct sentences and paragraphs, working towards the production of longer texts of the type students will be expected to write during their academic studies. They will also learn to evaluate and interpret the written texts of others.

Intended Learning Outcomes:
After completion of this module students will be able to write academic texts with greater fluency and accuracy and with fewer grammatical errors. They will be able to engage the rules of composition to construct logical and mature descriptions, explanations, and claims of the sort they will need throughout their academic years and beyond.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
This course makes use of peer group revision (students give each other feedback on their texts), working through multiple drafts, and evaluation of model texts to help students develop their academic writing skills.

Media:
Peer groups, handouts, textbook, online resources.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Introduction to Academic Writing C1 (Seminar, 2 SWS)
Field B, Lemaire E, Schenk T, Schrier T, Starck S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0426: English - Professional English for Business and Technology - Marketing Module C1 | Englisch - Professional English for Business and Technology - Marketing Module C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks which include:
- 2 assignments for a total of 50%
- presentation on a current business related topic (including visual aids) 25%
- final written examination 25% based on topics and materials discussed in class.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course focuses on professional communication skills and integrates reading, listening, speaking and writing with vocabulary and grammar, as needed by the specific group. The subject matter consists of a wide range of current issues in the business world, ranging from ethics and sustainability to leadership and diversity. Students will have many opportunities to explore, critically discuss, present, and write about these topics and other business- and industry-relevant topics that are most interesting to them.

Intended Learning Outcomes:
After completion of this module, students will be able to understand complex texts on current business-related topics, critically analyse these and effectively communicate their ideas based on these in English to an international audience.

Students will develop an awareness of Anglo-American public speaking conventions and will be able to put these into practice. In written and spoken contexts they will be able to differentiate accurately between situations requiring formal or familiar registers and select the correct form. Further, the will impove their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills-oriented approach to topics with use of group discussion, reading and listening exercises, pair and group tasks, presentations etc. Students will need to complete regular assignments.

Media:
Textbook, use of www.moodle.tum.de, online learning resources, presentations, film viewings and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0427: English - Academic Writing C2 | Englisch - Academic Writing C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks consisting of multiple iterations of three texts (each 400-500 words) in various genres.

Students will also demonstrate the ability to produce texts spontaneously in a final in-class writing assignment (exam).

The drafts of each text, as well as the final in-class assignment will count equally toward the final grade.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C2 level as evidenced by a placement test score in the range of 75 – 100 percent. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this course students write and revise essays of various genres including description, evaluation, explanation, argument and analysis, while learning how to evaluate and interpret written texts of others in regular workshop sessions.

In each essay, students will show that they are familiar with and can apply conventions of Anglo-American academic writing such as beginning a text with an introduction, supplying a transparent, coherent set of supporting paragraphs, and ending with a succinct conclusion. They will be able to apply conventions of grammar and mechanics consistently, and will demonstrate a sensitivity to readers' needs by responding to feedback given by fellow students in workshops and by the instructor in consultations and in writing.

Students will receive both peer and teacher feedback on each draft and will revise their texts to demonstrate a command of the conventions of each genre (e.g. in an evaluative essay they will be able to respond to readers' needs for information, state a clear judgment, provide evidence for it, use appropriate strategies such as comparing and contrasting, citing sources responsibly, anticipating and acknowledging counterarguments, and adopting a credible voice).

Intended Learning Outcomes:
After completion of this module, students have improved their ability to communicate clearly and powerfully in formal written English, become familiar with some common forms of expository writing, increased academic, professional and everyday vocabulary, developed regular habits to continue this learning process, and generally have increased their self-confidence with regard to written text production.

In addition, students can understand formal texts with increased ease, summarize information from different written sources, reconstructing arguments and accounts in a coherent presentation; they can express themselves spontaneously very fluently and precisely, differentiating finer shades of meaning even in more complex situations.

Corresponds to C2 of the CER.

Teaching and Learning Methods:
In this workshop-style course we explore a range of topics through short readings and essay-length composition writing. Students will participate in writing workshops in which they demonstrate an ability to analyze texts of fellow students and provide appropriate feedback.Techniques for evaluating one's own writing will be practiced, with opportunities to revise drafts. Oral and written peer evaluations will form a regular component of the class sessions including use of an online peer forum and online instructor feedback.

Media:
Text material, online platform with forum and text archive allow students to develop writing ability in a process-oriented manner.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Academic Writing C2 (Seminar, 2 SWS)
Schrier T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0429: English - English for Scientific Purposes C1 | Englisch - English for Scientific Purposes C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks consisting of multiple drafts of two assignments to allow students to develop written skills by means of a process of drafting and revising texts (25% each assignment), as well as an oral presentation (including a handout and visual aids, 25%) , and a final written examination (25%).

Repeat Examination:

(Recommended) Prerequisites:
C1 level according to the online placement test

Content:
This course enables students to practise scientific and technical English through active group discussions and delivery of subject-related presentations.

Students will develop an awareness of Anglo-American public speaking conventions and will be able to put these into practice. In written and spoken contexts they will be able to differentiate accurately between situations requiring formal or familiar registers and select the correct form. Further, the will impove their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

Intended Learning Outcomes:
On completion of this module/course students will have expanded their knowledge of vocabulary related to science and technology. The student's reading, writing and listening skills as well as oral fluency will improve.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
This course involves pair-work and group-work enabling students to develop their verbal and written skills in scientific and technical environment.

Media:
Internet sources, handouts contributed by course tutor/students, e-learning platform

Reading List:
Internet articles, Journals such as Nature and Scientific American

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English for Scientific Purposes C1 (Seminar, 2 SWS)
Hanson C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0430: English - English in Science and Technology C1 | Englisch - English in Science and Technology C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks consisting of multiple drafts of two assignments to allow students to develop written skills by means of a process of drafting and revising texts (25% each assignment), as well as an oral presentation (including a handout and visual aids, 25%) , and a final written examination (25%).

Repeat Examination:

(Recommended) Prerequisites:
C1 level according to the online placement test

Content:
This course enables students to practise scientific and technical English through active group discussions and delivery of subject-related presentations.

Students will develop an awareness of Anglo-American public speaking conventions and will be able to put these into practice. In written and spoken contexts they will be able to differentiate accurately between situations requiring formal or familiar registers and select the correct form. Further, the will impove their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

Intended Learning Outcomes:
On completion of this module/course students will have expanded their knowledge of vocabulary related to science and technology. The student's reading, writing and listening skills as well as oral fluency will improve.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
This course involves pair-work and group-work enabling students to develop their verbal and written skills in scientific and technical environment.

Media:
Internet sources, handouts contributed by course tutor/students, e-learning platform

Reading List:
Internet articles, Journals such as Nature and Scientific American

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English in Science and Technology C1 (Seminar, 2 SWS)
Bhar A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ04311: English - Basic English for Academic Purposes B2 | Englisch - Basic English for Academic Purposes B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks including: Two/three written assignments for a total of 60% (based on multiple drafts to encourage learning by means of revision) in which students are able to produce clear, detailed text on a topic related to their fields of study and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options; a presentation (including a handout and visual aids, 20%) in which oral fluency is demonstrated and an ability to conduct technical discussions in their fields of specialization; a final written examination (20%) in which they demonstrate that they understand the main ideas of complex text in their field on both concrete and abstract topics, including technical discussions, and can express their opinions using a wide range of grammatical structures and collocations accurately.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the B2 level of the GER as evidenced score in the range of 40 – 60 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course includes practice with note-taking, practising tutorial participation, academic writing and presenting a topic on a related field of study. Common verb forms such as present simple vs continuous, future forms, present perfect and past simple as well as conditionals will be reviewed and practiced. Other grammatical structures covered include: modal verbs of likelihood, comparatives and superlatives and uses of articles. Oral and written communication skills needed in academic life will be introduced and practiced, as well as aspects of intercultural communication needed for achieving professional success. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
On completion of this module students will have gained some of the study skills required for participating in an English-speaking academic environment. Students are able to produce some academic level work in degree courses held in English. They can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in their fields of specialization; they can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party; they can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

Corresponds to B2 of the CER.

Teaching and Learning Methods:
This course involves practising study situations (participating in seminars, tutorials, note-taking), communicative and skills-oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work encourage active use of language, as well as opportunities for feedback.

Media:
Texts from a variety of sources, presentations, videos and listening practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Basic English for Academic Purposes B2 (Seminar, 2 SWS)
Bhar A, Davies A, Lemaire E, Schenk T, Xu M

Blockkurs Englisch - Basic English for Academic Purposes B2 (Seminar, 2 SWS)
Schenk T

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0438: English - Transatlantic Relations: Current Affairs in the U.S. and the E.U. C1 | Englisch - Transatlantic Relations: Current Affairs in the U.S. and the E.U. C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks including: assignments (50%), an oral presentation (including handout and visual aids, 25%) and a final written examination (25%).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level as evidenced by a placement test score.

Content:
This course allows students to improve their English skills by speaking and writing about the current events and social/political issues which are of interest to them. Classes are organised thematically around diverse contemporary topics selected by students . Presentations introduce a topic each week (these will be made by the lecturer in the first classes and subsequently by the students) before group and pair speaking tasks allow students to explore issues in greater depth. Importantly, the activities allow students to develop practical English skills which will be of use in both professional and social contexts, e.g. discussion, information exhange, argumentation, negotiation etc.

Students will also develop their English writing skills for a report and examination.

Intended Learning Outcomes:
After completion of this course students can understand a wide range of demanding, longer texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without

much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, listening exercises, and pair work, etc.

Media:
Course handouts, online platform, recordings

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0442: English - The Science of Science Fiction C1 | Englisch - The Science of Science Fiction C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks including: written assignments in the form of a group presentation (50%), a written assignmentResources that may be used to aid the completion of the abovementioned portfolio-components will be determined as per the nature of the individual task. (25%), and a final written examination (25%).

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER based on the placement test at www.moodle.tum.de.

Content:
In this module communicative skills are practiced with a focus on topics of interest to students preparing for professions in science and technology branches which will be extrapolated from short works or excerpts taken from the work writers in the genre of science fiction. The works used will be selected to correspond with sci-fi topics that students choose in a needs analysis.

Intended Learning Outcomes:
After completion of this module students can understand a wide range of demanding, medium-length texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices. In particular, students will be able to describe future events and speculative outcomes in a highly differentiated manner.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback.

Media:
Use of online learning platform such as www.moodle.tum.de, presentations, short films and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - The Science of Science Fiction C1 (Seminar, 2 SWS)
Clark R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0443: English - English Grammar Compact B1 | Englisch - English Grammar Compact B1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Written assignments (in which students are given the opportunity revise drafts of short texts to improve accuracy of written expression) and a final written examination (in which students demonstrate the ability to communicate spontaneously in everyday situations) contribute equally to the final grade.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the B1 level of the GER as evidenced score in the range of 25 to 40 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course is intended for international students who need to review basic structures of English with a focus on listening and speaking.

Intended Learning Outcomes:
After completing this module, students can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple

connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.

Corresponds to B1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback.

Media:
Textbook, online learning platform such as www.moodle.tum.de or Macmillan English Campus online resources (www.mec-3.com/tum), presentations, audio-visual material.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English Grammar Compact B1 (Seminar, 2 SWS)
Balton-Stier J, Candappa R, Xu M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0452: English - Critical Thinking and Science Writing C2 | Englisch - Critical Thinking and Science Writing C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 4	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. The course includes, as its graded components, a short paper, a written final project (evaluating a debate), and a final presentation (including visual aids and a handout).

Repeat Examination:

(Recommended) Prerequisites:
Students should have a minimum course entry level equivalent to upper CER C1 or C2, as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course develops both critical thinking and scientific writing skills. Critical thinking has always been central to intellectual pursuits, and is a dsciplined process of analyzing and applying information. Rather than merely receiving information, students in this course will learn to question and critique scientific writing before applying key concepts to their own fields. To this end, the students will encounter a variety of critical thinking models and techniques. The course will also enhance the students' comprehension of the main components of academic writing.

Intended Learning Outcomes:
The students will be able to: critically evaluate and apply information taken from scientific writing, structure their writing according to the conventions of English-language scientific texts, and write scientific texts according to the principles of good grammar, structure, rhetoric, etc.

Corresponds to C2 of the CER.

Teaching and Learning Methods:
This course takes a communicative approach to topics including the use of pair and group tasks, group discussion, and short collaborative writing exercises. Students will need to complete regular preparation for the lessons.

Media:
Book chapters, handouts, presentations, audio-visual material

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0453: English - Scientific Presentation and Writing C2 | Englisch - Scientific Presentation and Writing C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. An oral presentation including a handout and visual aids (25%), written assignments (50%), and a final exam (25%) contribute to the final course grade. Students are expected to complete a presentation, an argumentative research essay, five forum entries, and a final exam for the final grade.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C2 level as evidenced by a placement test score in the range of 80 – 100 percent. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course allows students to practice for formal speaking tasks in English such as a class presentation, dissertation defense or conference talk, and for completing formal written tasks such as a journal article, report, project proposal or a literature summary.

Intended Learning Outcomes:
After completion of this module students can understand with increased ease virtually everything heard or read; they can summarize information from different spoken and written sources,

reconstructing arguments and accounts in a coherent presentation, and they can express themselves spontaneously very fluently and precisely, differentiating finer shades of meaning even in more complex situations.

Corresponds to C2 of the CER.

Teaching and Learning Methods:
Techniques for evaluating one's own presenting and writing will be practiced, with opportunities to revise drafts. Oral and written peer evaluations will form a regular component of the class sessions including use of an online peer forum and online instructor feedback.

Media:
Course handouts, online platform

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Scientific Presentation and Writing C2 (Seminar, 2 SWS)
Field B, Hughes K
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0454: English - Basic English for Scientific Purposes B2 | Englisch - Basic English for Scientific Purposes B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Grades for an oral presentation (including a handout and visual aids, 25%) , multiple drafts of two assignments to allow students to develop written skills by means of a process of drafting and revising texts (25% each assignment), and a final written examination (25%) contribute to the final course grade.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
B2 level according to the online placement test

Content:
This course enables students to practise scientific and technical English through active group discussions and delivery of subject-related presentations.

Intended Learning Outcomes:
On completion of this module/course students will have expanded their knowledge of vocabulary related to science and technology. The student’s reading, writing and listening skills as well as oral fluency will improve.

Students will develop an awareness of Anglo-American public speaking conventions and will be able to put these into practice. In written and spoken contexts they will be able to differentiate accurately between situations requiring formal or familiar registers and select the correct form. Further, the will impove their ability to present content clearly and succinctly taking readers' needs and writing conventions into consideration.

Corresponds to B2 of the CER.

Teaching and Learning Methods:
This course involves pair-work and group-work enabling students to develop their verbal and written skills in scientific and technical environment.

Media:
Internet sources, handouts contributed by course tutor/students, e-learning platform

Reading List:
Internet articles, Journals such as Nature and Scientific American

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Basic English for Scientific Purposes B2 (Seminar, 2 SWS)
Hanson C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0455: English - English for Political Science C1 | Englisch - English for Political Science C1

Version of module description: Gültig ab summerterm 2017

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:**
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Students are expected to complete a presentation, a few short essays, and a final exam which count equally toward the final grade.

Repeat Examination:

(Recommended) Prerequisites:
Ability to work at the C1 level, as demonstrated through the placement test in Moodle

Content:
This course prepares students to read and understand political science texts in English. The texts will primarily be from the fields of political theory, comparative politics, and international relations. Additional learning materials related to current affairs will be selected by the students.

Intended Learning Outcomes:
On completion of this course, students will be able to fluently read and discuss political science academic texts in English.

Teaching and Learning Methods:
presentations, discussions, debates, videos & news articles

Media:
Class time will be largely dedicated to presentations, discussions, and debates. The course emphasizes vocabulary, spoken fluency, and persuasive writing skills.

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English for Political Science C1 (Seminar, 2 SWS)
Starck S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0456: English - English Grammar Intermediate B2 | Englisch - English Grammar Intermediate B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks: These include weekly home study tasks and a written exam at the end of the course.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the B2 level of the GER as evidenced score in the range of 40 – 60 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
Lessons will address areas of English grammar which commonly present students with difficulties at the B2 and C1 levels, such as tenses, quantifiers, the definite article, relative clauses, phrasal verbs, punctuation, and commas. The classes will emphasize practical, realistic use of English grammar by having students communicate with one another, both orally and in writing, using the grammatical structure(s) of the day.

Intended Learning Outcomes:
Students will refresh and become comfortable with using the gramatical structures that commonly give problems to intermediate learners.

Corresponds to B2 of the CER.

Teaching and Learning Methods:
Communicative and skills-oriented approach to topics with use of group discussion, reading and listening exercises, pair and group tasks, presentations etc. Students will need to complete regular preparation for the lessons.

Media:

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English Grammar Intermediate B2 (Seminar, 2 SWS)
Candappa R, Clark R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0458: English - Literature, Technology and Society C1 | Englisch - Literature, Technology and Society C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 5	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. In addition to reading the books on the syllabus, students must participate in online forums, complete multiple drafts of two essays, and take a final exam testing their familiarity with the books read and other material from class.

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
Throughout human history, advances in science and technology have gone hand-in-hand with social change, from early developments in the stone to metal ages, through the industrial revolution, all the way to the digital age and beyond. In this team-taught seminar, six instructors choose works of literature to spark discussions about the interaction betweeen technology and society. Students will read five works (these may include graphic novels, narrative non-fiction or collections of short stories) and use this experience to probe how technology changes our experience of the world. Class sessions include presentations, group discussion, individual exercises, and multi-media experiences.

Intended Learning Outcomes:
Students will be able to analyze complex literary texts, speak with fluency and subtlety about literature, write with precision and evidence about their opinions of the texts, and discuss what authors from hundreds of years ago to today have to say about the role of technolgy in society.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Through group discussions, writing seminars, presentations and exercises, students are supported in learning to read literature analytically, and share their opinions of it with subtlety and force both in writing and orally. Communicative and skills-oriented treatment of topics with use of group discussion, games, presentations, videos, writing workshops, and pair work all encourage active use of language, as well as opportunities for peer and instructor feedback.

Media:
Five books, all readily available at libraries or for purchase. Some material on the syllabus may be posted in Moodle. Students must also plan on logging into Moodle between sessions in order to participate in forums.

Reading List:
Students are expected to read English-language editions of all five books on the syllabus.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Literature, Technology and Society C1 (Seminar, 2 SWS)
Jacobs R, Jansen van Rensburg P
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0460: English - English for Automotive Engineers C1 | Englisch - English for Automotive Engineers C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Grades for an oral presentation (including a handout and visual aids, 25%), multiple drafts of two assignments to allow students to develop written skills by means of a process of drafting and revising texts (25% each assignment), and a final written examination (25%) contribute to the final course grade.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this module grammatical forms are reviewed and practiced with a focus on topics of interest to students preparing for professions in business and technology branches. The module includes opportunities for students to practice both written and oral communication needed in professional life, with emphasis on career skills such as questioning techniques, negotiating, prioritizing, problem solving, and persuading, as well as aspects of intercultural communication needed for achieving professional success. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
After completion of this module students can understand a wide range of demanding, longer texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes, and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work to encourage active use of language, and provide opportunities for ongoing feedback.

Media:
Textbook, use of online learning platform such as www.moodle.tum.de, presentations, film viewings and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English for Automotive Engineers C1 (Seminar, 2 SWS)
Clark R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0471: English - Intensive Thesis Writers' Workshop C2 | Englisch - Intensive Thesis Writers' Workshop C2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Students' thesis-writing ability will be assessed based on their demonstration of clear improvements over the course of the workshop, showing that an effort has been made to implement the material discussed in class and the individual consultations with the instructor.

Repeat Examination:

(Recommended) Prerequisites:
For students currently writing theses or dissertations in English. Ability to begin work at the upper C1 or C2 level of the GER, as demonstrated by a score above 75% on the English placement test at www.moodle.tum.de. Basic understanding of grammatical terms (e.g., parts of speech, subject, verb, object, active, passive, nominalization).

Content:
This course is aimed at students currently writing theses or dissertations. It combines group seminars with individual consultations. All sessions go beyond mere questions of "correct" grammar and word choice and emphasize instead stylistic guidelines for compelling and clear English writing at a high academic level. Discussions have a slight emphasis on strategies for German speakers but are appropriate to students from any language background. The individual sessions are tailored to the needs of each student.

Intended Learning Outcomes:
After completion of this module, students will be able to express themselves with greater clarity and precision in written English. They will become more familiar with strategies for effective

academic writing in English specifically, while gaining a sense for potential contrasts with their own native languages. Students will develop techniques to implement compelling sentence constructions, create cohesion within and between sentences, and render paragraphs coherent through specific semantic and syntactic choices.

Corresponds to C2 of the CER.

Teaching and Learning Methods:
Seminars adopt a communicative and skills-oriented approach through group discussion, case studies, presentations, group work, etc. Individual sessions use students' texts as the primary learning materials.

Media:
Handouts, presentations, audio-visual material, students' own texts.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Intensive Thesis Writers' Workshop C2 (Workshop, 2 SWS)
Jacobs R, Ritter J, Wellershausen N

Blockkurs Englisch - Intensive Thesis Writers' Workshop C2 (Seminar, 2 SWS)
Wellershausen N
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0479: English - Introduction to Critical Thinking and Science Writing B2 | Englisch - Introduction to Critical Thinking and Science Writing B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include the completion of moodle tests, a group presentation (with visual aids and a handout), a report on a topic of the students' choosing, and a final written exam.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C2 level as evidenced by a placement test score in the range of 80 – 100 percent. (Please check current announcements as the exact percentages may vary each semester.)

Content:
This course develops both critical thinking and scientific writing skills. Critical thinking has been central to intellectual pursuits since Socrates elaborated the method 2,500 years ago and is a disciplined process of actively conceptualizing, analysing and applying information. Rather than merely understanding information, students on this course will learn to question and critique scientific writing before applying concepts to their own fields. To this end, students will encounter a variety of critical thinking models and techniques. The course also familiarises students with the formats and conventions of English-language scientific texts, e.g. articles, reports and theses, and

enhances their mastery of key components of academic writing, e.g. style, grammar, register and argumentation.

Intended Learning Outcomes:
Upon completing the module students will be able to:
• critically evaluate and apply information taken from scientific writing,
• structure their writing according to the conventions of English-language scientific texts, and
• write scientific texts according to principles of style, grammar, rhetoric etc.

Corresponds to B2 of the CER.

Teaching and Learning Methods:
Online videos will introduce theories and concepts before Moodle tests reinforce students' knowledge of what they have learned. Class time will be devoted to applying theories and concepts through discussion, communicative pair and group work, analysing texts, and workshopping students' own writing.

Media:
Course handouts, online platform, recordings

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0480: English - Controversial Topics in Science and Technology C1 | Englisch - Controversial Topics in Science and Technology C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Tasks include an oral presentation including visual aids (30%), assignments (40%), and a final written examination (30%) contributing to the final course grade.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level as evidenced by a placement test score.

Content:
In this course, students will improve their English through studying and discussing controversial issues in science and technology. The specific topics will be determined by the students themselves, but they might include some of these areas
- cloning & stem-cell research
- artificial intelligence
- the nature of consciousness
- climate change
- drones
- overpopulation
- GMO foods

- the future of energy
- biodiversity
- animal ethics
- paranormal phenomena

Class time will be largely dedicated to presentations, discussions, and debates. The course emphasizes building vocabulary and spoken fluency but will also help students improve their writing skills.

Intended Learning Outcomes:
After completion of this course students can understand a wide range of demanding, longer texts, and recognize implicit meaning; they can express themselves fluently and spontaneously without much obvious searching for expressions; they can use language flexibly and effectively for social, academic and professional purposes and they can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, listening exercises, and pair work, etc.

Media:
Course handouts, online platform, recordings

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Controversial Topics in Science and Technology C1 (Seminar, 2 SWS)
Balton-Stier J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0488: English - Gateway to English Master's C1 | Englisch - Gateway to English Master's C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include multiple drafts of an argumentative research paper (alternatively: two assignments) to allow students to develop written skills by means of a process of drafting and revising texts (50% total), an oral presentation (including a handout and visual aids 25%), and a final written examination (25%). No aids may be used during the examination.

Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
C1 level according to the online placement test

Content:
This course includes note-taking, discussions, academic writing and presenting a topic on a related field of study focusing on skills such as avoiding plagiarism, ethics, hedging language, and formulating research questions.

Intended Learning Outcomes:
Upon finishing this course you will be able to follow lectures in English with little difficulty and summarize the main ideas. You will be sufficiently comfortable with English as to be able to write longer papers and critical essays in English, making use of general argumentation and rhetorical conventions.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
This course involves practising study situations (participating in seminars, tutorials, note-taking in lectures), pair-work & group-work in an English-speaking academic environment.

Media:
Internet, handouts, online material

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English for Academic Purposes: Gateway to English Master's C1 (Seminar, 2 SWS)
Bhar A, Clark R, Ritter J, Schrier T, Stapel M, Starck S, Wellershausen N

Englisch - English for Environmental Engineering: Gateway to English Master's C1 (Seminar, 2 SWS)
Clark R

Englisch - English for Geodesy: Gateway to English Master’s C1 (Seminar, 2 SWS)
Clark R

Blockkurs Englisch - English for Academic Purposes: Gateway to English Master's C1 (Seminar, 2 SWS)
Clark R

Englisch - English for Civil Engineering: Gateway to English Master's C1 (Seminar, 2 SWS)
Clark R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0489: English - English Pronunciation C1 | Englisch - English Pronunciation C1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks by means of students' weekly tasks (50%) and a final exam (50%). The tasks includes recording exercises in order to determine areas of weakness, so the instructor can provide individual feedback and exercises.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
The students' English pronunciation should be understandable by native and non-native English speakers. They should have a general understanding of the correlation between spelling and individual vowel and consonant sounds. For students who do not meet these criteria, the course Introduction to English Pronunciation is more appropriate. Students should have a minimum course entry level equivalent to CER C1 (evidenced by the score on the placement test at www.moodle.tum.de)

Content:
The first part of the course introduces students to a variety of English accents, resources for the independent study of pronunciation and the differences between pronunciation in slow and fast speech. The second part of the course concerns pronunciation in words and phrases, including consonant clusters and stressed and unstressed syllables, and the pronunciation of foreign words. The next section of the course is about pronunciation in conversation, including how intonation

contributes to meaning. The final section deals with pronunciation in formal settings, including professional contexts such as giving business or conference presentations.

Intended Learning Outcomes:
The focus of this course is on improving pronunciation in communication rather than practising individual sounds or words. Students will be able to understand a variety of English accents; identify correct stress in words and phrases; identify and use features of fluent speech in conversation such as linking sounds, omitting sounds, and using intonation to convey meaning. Students will also be able to use understandable pronunciation in formal settings.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Using the course book as a guide, the course instructor gives short lectures and explanations regarding content, and then works together with the students to put the information into practice. The course instructor works together with the students in order to determine individual areas of weakness. The emphasis of this course is spoken English; therefore, the students have plenty of opportunities to speak in order to practice new skills. The students engage in conversation pairs, group discussions, and individual spoken exchanges with the course instructor. Although the focus of the course is spoken pronunciation, the students are given the opportunity to practise listening to speech at conversational speed and in a variety of English accents.

Media:

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0495: English - English Conversation Partners Program B1-C1+ | Englisch - English Conversation Partners Program B1-C1+

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 2	**Total Hours:** 60	**Self-study Hours:** 30	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. In this class where the emphasis is on seizing the opportunity for regular discourse in English, students are required to evidence their participation in group discussions through a conversation diary. In addition, a group task to be delivered in class is also required to pass the course.

Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the B1 (minimum) evel as evidenced by the placement test.

Content:
This course gives students opportunities to practice speaking tasks in an informal environment through weekly class meetings. In addition, students will be organised into smaller groups (typically campus based) which will meet privately on a weekly basis for more conversation on self-directed topics.

Intended Learning Outcomes:
After completion of this module, students will be able to speak with ease in a variety of social situations, especially on topics of special interest to them and will show only little hesitation and need to search for expressions or self-correct grammar. They will be able to express complex ideas by paraphrasing and may need to fill gaps by using a dictionary or asking for help. They

will be aware of cultural differences and be able to analyze features of their own culture they may previously have taken for granted.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of small group discussion, listening exercises, and pair work encourage active use of language, as well as opportunities for feedback.

Media:
Materials shared via Moodle.

Reading List:
Materials shared via Moodle.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - English Conversation Partners Program B1 - C1+ (Seminar, 2 SWS)
Eden C, Stapel M, Wellershausen N
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0497: English - Creative Writing C1: Introduction to Narrative Strategies and Literary Forms | Englisch - Creative Writing C1: Introduction to Narrative Strategies and Literary Forms

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include a presentation (including visual aids and/or a handout) on a topic relevant to the focus of the course and completion of original creative writing, collaborative writing and reflective texts. Together these will showcase students' acquisition, assimilation and implementation of the various storytelling tools and rhetorical methods acquired during the course.

Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
The course provides students with a stimulating overview of a range of narrative forms, tools and rhetorical devices. Some of the forms covered include contemporary nature writing, games narrative design and hybrid narrative essays. In the course, students will have the opportunity to experiment with some of these forms and try out many of the storytelling instruments and concepts first-hand. Critical reading assignments focusing on the interplay between language, form and content will aid students in exploring the rules and strategies of composition used in both fiction

and non-fiction genres and enable them to engage more closely with the English language to develop linguistic dexterity therein.

Intended Learning Outcomes:
Upon completion of the course students will have acquired enhanced rhetorical and composition skills. Practicing and analyzing a variety of narrative forms will aid STEM students in developing an aptitude for creative problem solving and help them learn how to tolerate uncertainty in process and outcome whilst embracing creative and intellectual risk as well as develop their critical vocabulary in feedback sessions.The model texts chosen will introduce them to the cultural diversity of the global English language canon.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Presentations, group discussions, and technique specific writing exercises will require participants to study and analyse stylistic and structural approaches employed by authors, which will help deepen their writing abilities to achieve well-organized, rhetorically effective English prose. Students are required to read the assigned texts. In-class discussions based on the assigned readings are to be expected. Current theories of literary and cultural criticism will be introduced and students will be expected to critically evaluate model texts as well as their own writing whilst being encouraged to appraise, support and critique the writing of their peers in a guided workshop environment.

Media:
Books, book chapters, essays, handouts, videos, Moodle, etc.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Creative Writing C1: Introduction to Narrative Strategies and Literary Forms (Seminar, 3 SWS)
Jansen van Rensburg P
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0498: English - Creative Writing C1: The Art of Craft - Toward Publication: Critical Revision Techniques | Englisch - Creative Writing C1: The Art of Craft - Toward Publication: Critical Revision Techniques

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. These include a presentation (including visual aids and/or a handout) on a topic relevant to the focus of the course and completion of original creative writing, collaborative writing and reflective texts. Together these will showcase students' acquisition, assimilation and implementation of the various storytelling tools and rhetorical methods acquired during the course.

Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the C1 level of the GER as evidenced by a score in the range of 60 – 80 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
Students who are already familiar with the basics of narratology can further explore other fiction and non-fiction genres, the interplay between form and content and further deepen their writing abilities to achieve well-organized, rhetorically effective English prose. Students will also appraise, support and critique the literary and reflective writing of their peers in a guided workshop environment. Critical revision techniques will be covered and a component on manuscript preparation for publication will help prepare students for both academic and non-fiction publishing.

Intended Learning Outcomes:
Upon completion of the course students will be able to demonstrate an understanding of the following elements of basic rhetorical theory and storytelling: Employing ethos, pathos and logos to captivate an audience, and plot, scene, summary, point of view, flashback (analepsis) and flash-forward (prolepsis). Course participants will identify these elements in the reading assignments and attempt to utilize these components in their own writing assignments.

Corresponds to C1 of the CER.

Teaching and Learning Methods:
Presentations, group discussions, and technique specific writing exercises will require participants to study and analyse stylistic and structural approaches employed by authors, which will help deepen their writing abilities to achieve well-organized, rhetorically effective English prose. Students are required to read the assigned texts. In-class discussions based on the assigned readings are to be expected. Current theories of literary and cultural criticism will be introduced and students will be expected to critically evaluate model texts as well as their own writing whilst being encouraged to appraise, support and critique the writing of their peers in a guided workshop environment.

Media:
Books, book chapters, essays, handouts, videos, Moodle, etc.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Creative Writing C1: The Art of Craft - Toward Publication: Critical Revision Techniques (Seminar, 2 SWS)
Jansen van Rensburg P
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0499: English - Basic English for Technical Purposes B2 | Englisch - Basic English for Technical Purposes B2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Performance, testing the learning outcomes specified in the module description, is examined by a cumulative portfolio of competence and action-oriented tasks. Assessement is based on: two written assignments for a total of 50% (based on multiple drafts to encourage learning by means of revision) in which students are able to produce clear, detailed text on a topic related to their fields of study and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options; a presentation (including a handout and visual aids) 25% in which oral fluency is demonstrated and an ability to conduct technical discussions in their fields of specialization; a final written examination 25% which they demonstrate that they understand the main ideas of complex text in their field on both concrete and abstract topics, including technical discussions, and can express their opinions using a wide range of grammatical structures and collocations accurately.

As the course may be offered in various formats (online or classroom) the form and conditions of the final exam (with or without aids) will vary. Where audio or video is recorded, we observe the Basic Data Protection Regulation (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Ability to begin work at the B2 level of the GER as evidenced score in the range of 40 – 60 percent on the placement test at www.moodle.tum.de. (Please check current announcements as the exact percentages may vary each semester.)

Content:
In this module selected verb forms and grammatical structures will be reviewed and practiced, as necessary and tailored to the class's needs. These may include: gerunds and infinitives, reported

speech, passives, modal verbs, present simple vs continuous, future forms, present perfect and past simple as well as all types of conditionals. Grammatical structures such as comparatives and superlatives, uses of articles, compound nouns and prefixes and suffixes. Oral and written communication skills needed in professional life will be introduced and practiced, as well as aspects of intercultural communication needed for achieving professional success. Emphasis is placed on developing strategies for continued learning.

Intended Learning Outcomes:
After completion of this module, students can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in their fields of specialization; they can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party; they can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

Corresponds to B2 of the CER.

Teaching and Learning Methods:
Communicative and skills oriented treatment of topics with use of group discussion, case studies, presentations, writing workshops, listening exercises, and pair work encourage active use of language, as well as opportunities for feedback.

Media:
Textbook, online learning platform such as www.moodle.tum.de, presentations, film viewings and audio practice.

Reading List:
Handouts and selected extracts from published sources will be used in the course. Key literature will be advised by the teacher and/ or listed in the course description.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Englisch - Basic English for Technical Purposes B2 (Seminar, 2 SWS)
Stapel M
For further information in this module, please click campus.tum.de or here.

SZ0003-05: French | Französisch

Module Description

SZ0501: French A1.1 | Französisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
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Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Französisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz noch geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die Studierenden lernen und üben einfache Fragen zur Person zu stellen und zu beantworten, sich in einer Stadt zu orientieren, Interessen auszudrücken und Formulare auszufüllen. Es werden u.a. folgende grammatische Themen behandelt, wie z.B. Präsensformen regelmäßiger und einiger unregelmäßiger Verben, Personalpronomen, bestimmte, unbestimmte und Teilungs-Artikel, Fragesätze, Angleichung der Adjektive. Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse in alltäglichen Grundsituationen ermöglichen.

Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch effektiver zu gestalten und die eigene Lernfähigkeit zu verbessern.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „A1 – Elementare Sprachverwendung“ des GER. Der/die Studierende ist nach der Teilnahme an der Modulveranstaltung in der Lage, einfache Fragen über vertraute Themen zu stellen und zu beantworten. Er/sie kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/sie kann einfache schriftliche Mitteilungen zur Person machen.
Sowohl im mündlichen als auch im schriftlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat, bzw. der A 1-Stufe entsprechend, Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Kurs bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch A1.1 (Seminar, 2 SWS)
Bartanus J, Bruel J, Cuneo M, Delavigne C, Gommeringer-Depraetere S, Kirchhoff A, Neumaier-Giacinti E, Suek C

Blockkurs Französisch A1.1 (Seminar, 2 SWS)
Cuneo M, Neumaier-Giacinti E, Paul E

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0502: French A1.2 | Französisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe A1.1
- Einstufungstest mit Ergebnis A1.2

Content:
In diesem Modul werden die Grundkenntnisse in französischer Lexik und Grammatik für einfache, mündliche und schriftliche Kommunikationssituationen im Alltag erweitert. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Der/Die Studierende lernt z.B., einfache Fragen zu Person und Familie zu stellen und zu beantworten, Verabredungen zu treffen, Reservierungen von Hotel zu tätigen, über Freizeit und Ferien zu berichten, vergangene Erlebnisse zu erzählen. Es werden u.a. folgende grammatische Themen behandelt: Passé Composé, Futur proche, Mengenangaben, Possessivbegleiter, direkte und indirekte Objektpronomen.
Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse in alltäglichen Grundsituationen ermöglichen. Außerdem werden Möglichkeiten aufgezeigt,

den Lernprozess in der Fremdsprache effektiver zu gestalten und die eigene Lernfähigkeit zu verbessern.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „A1 – Elementare Sprachverwendung“ des GER. Der/Die Studierende ist nach Abschluss dieses Moduls in der Lage, alltägliche Ausdrücke und sehr einfache Sätze zu verstehen und zu verwenden. Er/sie kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/sie kann einfache schriftliche Mitteilungen zur Person machen.
Sowohl im mündlichen als auch im schriftlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat, bzw. der A 1-Stufe entsprechend, Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Unterricht bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch A1.2 (Seminar, 2 SWS)
Bartanus J, Bruel J, Cuneo M, Neumaier-Giacinti E, Perconte-Duplain S

Blockkurs Französisch A1.2 (Seminar, 2 SWS)
Suek C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0503: French A2.1 | Französisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe A1
- Einstufungstest mit Ergebnis A2.1

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Französisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden, z.B. auf Reisen, beim Arzt, bei der Wohnungssuche, unter Kollegen, Freunden und Nachbarn. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die grammatischen Strukturen werden weiter aufgebaut. Folgende grammatischen Themen werden behandelt, wie z.B. Verwendung von Passé Composé und Imparfait, Konditional, Relativpronomen, „en + y“ Pronomen, Komparativ und Superlativ.
Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Ferner

werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern.

Intended Learning Outcomes:
Das Modul orientiert sich am „A2 – Elementare Sprachverwendung“ des GER. Nach Abschluss dieses Moduls kann der/die Studierende einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Er/Sie kann beispielsweise sich und andere Personen, persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten beschreiben. Er/Sie ist in der Lage, sich bei der Wohnungssuche und in wesentlichen Situationen im Urlaub oder auf (Geschäfts)Reisen zu verständigen und von daraus resultierenden Erfahrungen und Erlebnissen zu berichten. Er/Sie kann standardsprachliche Ausdrücke in vertrauten Kommunikationssituationen sowohl in mündlicher als auch in schriftlicher Form verstehen und verwenden und dabei Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch, multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Kurs bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch A2.1 (Seminar, 2 SWS)
Delavigne C, Kirchhoff A, Neumaier-Giacinti E, Paul E, Suek C

Blockkurs Französisch A2.1 (Seminar, 2 SWS)
Perconte-Duplain S, Suek C

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0504: French A2.2 | Französisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe A2.1
- Einstufungstest mit Ergebnis A2.2

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Französisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Das Hör- und Leseverstehen sowie das Sprechen werden anhand verschiedener Hörübungen und Texten aus verschiedenen Bereichen des Alltagslebens und der Arbeitswelt trainiert. Die Wiederholung und Vertiefung der Grammatik orientiert sich an den kommunikativen Lernzielen. Es werden u.a. folgende grammatische Themen behandelt: Zukunft, Gerundium, indirekte Rede, Vergangenheitszeiten, Angleichung des Partizips, Subjonctif. Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „A2 – Elementare Sprachverwendung“ des GER.
Nach Abschluss dieses Moduls kann der/die Studierende im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte.
Der/die Studierende kann Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Er/Sie ist in der Lage kurze, informative Texte oder Mitteilungen zu grundlegenden Situationen in Alltag und Studium zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch, multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Kurs bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch A2.2 (Seminar, 2 SWS)
Bruel J, Comte-Maillard C, Paul E, Suek C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0505: French B1.1 | Französisch B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe A2
- Einstufungstest mit Ergebnis B1.1

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Französisch erarbeitet, die es den Studierenden ermöglichen, (sich) in vertrauten Situationen, z.B. im Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse selbständig und sicher in der Zielsprache zu operieren/bewegen/verständigen, wenn Standardsprache verwendet wird. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt.
Die Studierenden vertiefen Ihre Kenntnisse anhand verschiedenster aktueller Themen des französischen Lebens. Sie erweitern Ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatischen Schwerpunkte der französischen Sprache.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau "B 1- Selbständige Sprachverwendung" des GER. Der/die Studierende kann sich in den ihm/ihr vertrauten Situationen, denen man in Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher verständigen.
Er/sie kann wesentliche Inhalte in einfachen authentischen Texten aus alltäglichen Bereichen verstehen und sich an Gesprächen zu vertrauten Themen beteiligen. Er/sie ist in der Lage, persönliche Erfahrungen und Eindrücke schriftlich in eine längere Stellungnahme zum Ausdruck zu bringen.
Sowohl im mündlichen als auch im schriftlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat, bzw. der B 1-Stufe entsprechend, Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Kurs bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch B1.1 (Seminar, 2 SWS)
Bartanus J, Roubille A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ05061: French B1.2 | Französisch B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B1.1
- Einstufungstest mit Ergebnis B1.2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Französisch erarbeitet, die es den Studierenden ermöglichen, (sich) in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Film, Musik, Sport u.a. selbständig und sicher in der Zielsprache zu operieren/bewegen/verständigen, wenn Standardsprache verwendet wird. Die Studierenden vertiefen Ihre Kenntnisse anhand verschiedenster aktueller Themen des französischen Lebens. Sie erweitern Ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatischen Schwerpunkte der französischen Sprache.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 des GER. Der/Die Studierende erlangt Kenntnisse in der Fremdsprache Französisch auf standardsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher, und studienbezogener Aspekte.
Nach Abschluss des Moduls kann der/die Studierende sich in den meisten Situationen, denen man in Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher verständigen. Er/Sie kann wesentliche Inhalte in einfachen, authentischen Sachtexten, Fernseh- oder Radiosendungen und literarischen Texten verstehen und wiedergeben und sich spontan an Gesprächen zu vertrauten Themen von allgemeinem Interesse beteiligen. Er kann einfache formelle und längere persönliche Briefe und Texte verfassen, strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Kurs bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch B1.2 (Seminar, 2 SWS)
Comte-Maillard C, Cuneo M, Gaulon A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0507: French B2 - French for the profession | Französisch B2 - Le français pour la profession

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Kumulative Tests: 50%
Präsentation: 30%
Hausarbeit: 20%
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehören eine kurze Präsentation auf Französisch zu einem kulturbezogenen, gesellschaftlichen oder wissenschaftlichen Thema im Zusammenhang mit der Arbeitswelt. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können. Die Hausarbeit (Form, Umfang und Thema) wird am Anfang des Semesters genau mit den Studierenden abgesprochen.

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B1
- Einstufungstest mit Ergebnis B2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Französisch aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv und mit einem gewissen Grad an Flüssigkeit über Themen

von allgemeinen oder beruflichen Interesse mit einem Muttersprachler zu diskutieren und eine Argumentation gut verständlich ausführen.
Das Modul gibt einerseits eine Einleitung in das Französisch der Arbeitswelt und bereitet andererseits die Studierenden auf einen Studienaufenthalt oder ein Praktikum im frankophonen Sprachraum. Besonderes Augenmerk wird auf die Entwicklung kommunikativer Fähigkeiten und interkultureller Kompetenz gelegt. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik wiederholt und vertieft. In diesem Modul bildet das Thema „Bewerben in Frankreich“ eine zentrale Rolle.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „B2- Selbständige Sprachverwendung“ des GER. Der/die Studierende ist in der Lage, durch situationsrelevantes interkulturelles Wissen über Universitäten und Berufswelt im französischen Sprachraum angemessen zu kommunizieren und einen Studien-, Projekt- oder Forschungsaufenthalt, ein Praktikum oder Weiterbildungsmaßnahmen im französischen Sprachraum zu absolvieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
wird in der Lehrveranstaltung bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch B2 Le francais pour la profession (Seminar, 2 SWS)
Gaulon A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0511: French B2/C1 - France currently | Französisch B2/C1 - La France actuelle

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Kumulative Tests: 80%
Präsentation: 20%
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehört auch eine kurze Präsentation auf Französisch zu einem kulturbezogenen, gesellschaftlichen oder wissenschaftlichen Thema im Zusammenhang mit Frankreich oder dem französischen Sprachraum. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können.

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B1
- Einstufungstest mit Ergebnis B2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Französisch aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv und mit einem gewissen Grad an Flüssigkeit über Themen von allgemeinem Interesse oder von vertrautem Fachgebiet mit einem Muttersprachler zu

diskutieren und eine Argumentation gut verständlich ausführen. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik wiederholt und vertieft.
Dieses Modul bietet einen Querschnitt durch die gegenwärtige Kultur Frankreichs, indem gesellschaftliche Tendenzen anhand von Zeitungsartikeln, Radio- und Fernsehausschnitten, diskutiert werden. Auf individuelle Themenvorschläge wird gerne eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „B2-C1 “ des GER, je nach Wissenstand der Studierenden. Nach Abschluss des Moduls kann der/die Studierende auf sehr hohem Niveau über aktuellen Themen detaillierte, zusammenhängende Texte berichten, Informationen zusammenfassen, seine/ ihre Erfahrungen und Eindrücke wiedergeben, seinen/ihren Standpunkt vertreten. Er/sie kann Inhalte von Lektüren, Gespräche oder Sendungen wiedergeben und seine/ihre Meinung vertreten. Er/sie kann sich spontan und fließend ausdrücken, ohne öfter deutlich erkennbar nach Worten suchen zu müssen. Er/sie ist in der Lage, zu vielen Themen aus seinen/ihren Interessen- oder Fachgebieten klar und strukturiert in mündlicher und schriftlicher Form zu kommunizieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
internes Material

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch B2/C1 La France actuelle (Seminar, 2 SWS)
Gommeringer-Depraetere S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0512: French B1/B2 - Conversation Course: French Society | Französisch B1/B2 - Cours de conversation: La société française

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Kumulative Tests: 80%
Präsentation: 20%
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehört auch eine kurze Präsentation auf Französisch zu einem kulturbezogenen, gesellschaftlichen oder wissenschaftlichen Thema im Zusammenhang mit Frankreich. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können.

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B1
- Einstufungstest mit Ergebnis B1

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Französisch erarbeitet, die es den Studierenden ermöglichen, (sich) in verschiedenen Situationen, z.B. in Studium, Arbeit und Freizeit, und zu Themen von allgemeinem Interesse selbständig und sicher in der Zielsprache zu operieren/bewegen/verständigen. Dabei werden interkulturelle, landeskundliche und

studienbezogene Aspekte berücksichtigt. Je nach Bedarf werden Schwerpunkte der französischen Grammatik wiederholt und vertieft.
Presseartikel, Nachrichten aus dem Internet, etc. bieten einen Querschnitt durch die gegenwärtige französische Gesellschaft an und bilden somit die Grundlage für die mündliche Kommunikation. Die aktive Mitarbeit der Studierenden z. B. mittels Kurzvorträgen, Diskussionen wird erwartet und gefördert. Ziel dieses Moduls ist außerdem die Studierenden auf einen Studienaufenthalt im frankophonen Sprachraum (Kanada, ERASMUS, etc.) vorzubereiten.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „B1 - B2“ des GER. Nach der Teilnahme an der Modulveranstaltung können die Studierenden, je nach Wissenstand, über verschiedene Themen detaillierte, zusammenhängende Texte berichten, Informationen zusammenfassen, ihre Erfahrungen und Eindrücke wiedergeben, ihren Standpunkt vertreten. Sie können Inhalte von Lektüren, Gesprächen oder Sendungen wiedergeben und ihre Meinung vertreten.
Nach Abschluss des Moduls sind sie in der Lage, zu vielen Themen aus ihren Interessen- oder Fachgebieten klar und strukturiert in mündlicher und schriftlicher Form zu kommunizieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
wird in der Lehrveranstaltung bekannt gegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0514: French B2 - Communication Course | Französisch B2 - Cours de conversation

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 90	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Kumulative Tests: 80%
Präsentation: 20%
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehört auch eine kurze Präsentation auf Französisch zu einem kulturbezogenen, gesellschaftlichen oder wissenschaftlichen Thema im Zusammenhang mit Frankreich oder dem französischen Sprachraum. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können.

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B1
- Einstufungstest mit Ergebnis B2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Französisch aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv und mit einem gewissen Grad an Flüssigkeit über

Themen von allgemeinem Interesse oder von vertrautem Fachgebiet mit einem Muttersprachler zu diskutieren und eine Argumentation gut verständlich ausführen.
Ein besonderes Merkmal wird in diesem Modul auf die Entwicklung von Lesestrategien von allgemeinen und fachbezogenen Texten, auf Wortschatzarbeit und die Entwicklung von Hörstrategien gelegt. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik wiederholt und vertieft.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „B2- Selbständige Sprachverwendung“ des GER. Der/die Studierende kann den wesentlichen Inhalt von Artikeln und Berichten sowie Texte aus dem eigenen Fach- und Interessengebiet selbständig verstehen.
Er/sie kann längere Redebeiträge und Vorträge zu aktuellen Themen folgen, sofern sie klar vorgetragen werden.
Er/sie ist in der Lage Texte zu aktuellen Themen zu schreiben und dabei auch zu einem gewissen Grad komplexe Satzstrukturen zu benutzen.
Er/sie kann zu vielen Themen aus seinen/ihren Interessen- oder Fachgebieten klar in mündlicher Form kommunizieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Kurs bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch B2 - Cours de conversation (Seminar, 2 SWS)

Roubille A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0515: French C1 - Upper Conversation Course | Französisch C1 - Cours de conversation supérieure

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Kumulative Tests: 60%
Präsentation: 20%
Hausarbeit: 20%
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehört auch eine kurze Präsentation auf Französisch zu einem kulturbezogenen, gesellschaftlichen oder wissenschaftlichen Thema im Zusammenhang mit Frankreich oder dem französischen Sprachraum. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können. Die Hausarbeit (Form, Umfang und Thema) wird am Anfang des Semesters genau mit den Studierenden abgesprochen.

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B2
- Einstufungstest mit Ergebnis C1

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Französisch erarbeitet, die es den Studierenden ermöglichen, mündlich wie schriftlich in Themenbereichen aus Alltag, Beruf und Kultur situationsadäquat zu handeln (agieren und reagieren). Anhand von Literatur, aktuellen Presseartikeln, Radio- und Fernsehausschnitten werden soziokulturelle Zusammenhänge aktueller Themen reflektiert. Auf individuelle Themenvorschläge wird gerne eingegangen. Es werden Kenntnisse in den benannten Bereichen vertieft und Aspekte der Grammatik wiederholt und ergänzt.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau "C1-Kompetente Sprachverwendung" des GER. Nach der Teilnahme an der Lehrveranstaltung kann der/die Studierende auf sehr hohem Niveau in unterschiedlichsten Situationen mündlich und schriftlich kommunizieren. Er/Sie ist in der Lage, die Fremdsprache mündlich und schriftlich sowohl im Auslandsstudium als auch im Beruf wirksam und flexibel zu gebrauchen. Er/Sie kann ein breites Spektrum anspruchsvoller, längerer Texte verstehen und auch implizite Bedeutungen erfassen. Er/Sie kann sich spontan und fließend ausdrücken, ohne öfter deutlich erkennbar nach Worten suchen zu müssen. Er/Sie kann sich klar, strukturiert und ausführlich zu komplexen Sachverhalten äußern und dabei verschiedene Mittel zur Textverknüpfung angemessen verwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Presseartikel, multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
wird in der Lehrveranstaltung bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0517: French B2 - Preparation Course for University Exchange | Französisch B2 - Cours de préparation à un échange universitaire

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B1
- Einstufungstest mit Ergebnis B2

Content:
Das Modul bereitet auf ein ausländisches Studium oder Praktikum in einem frankophonen Land vor, indem es verschiedene Aspekte der Kultur und der Gesellschaft aufgreift. und somit die interkulturelle Kompetenz und Performanz erhöht werden.
Im Vordergrund stehen folgende Komponenten:
- Sprachliche und praktische Vorbereitung auf einen Studienaufenthalt an einer frankophonen Universität
- Vermittlung von Umgangsstrategien mit fremden Strukturen und Formen (Hochschullandschaft, Lehr-und Lernformen, Kommunikationsformen)
- Schärfung des Bewusstseins für interkulturelle Aspekte
- Bewerbung

- Entwicklung von Hörstrategien
- Einführung in die Praxis schriftlicher akademischer Arbeit

Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik wiederholt und vertieft.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „B2- Selbständige Sprachverwendung“ des GER. Der/die Studierende ist in der Lage, durch situationsrelevantes interkulturelles Wissen über Universitäten und Berufswelt im französischen Sprachraum angemessen zu kommunizieren und einen Studien-, Projekt- oder Forschungsaufenthalt, ein Praktikum oder Weiterbildungsmaßnahmen im französischen Sprachraum zu absolvieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
wird in der Lehrveranstaltung bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch B2 - Cours de préparation à un échange universitaire (Seminar, 2 SWS)
Paul E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0518: French B2 Technical French | Französisch B2 Technisches Französisch

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
- kumulative Tests (75%)
- Präsentation (25%)

In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehört auch eine kurze Präsentation auf Französisch zu einem studienrelevanten fachbezogenen Thema. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können.

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B1
- Einstufungstest mit Ergebnis B2

Content:
Das Modul führt einerseits in die französische Fachsprache im technischen Bereich und andererseits bereitet auf ein ausländisches Studium im einem frankophonen Land vor, indem es verschiedene Aspekte der Kultur und der Gesellschaft aufgreift. und somit die interkulturelle Kompetenz und Performanz erhöht werden.
Im Vordergrund stehen folgende Komponenten:

- Vermittlung einer Fachterminologie zu einzelnen studienrelevanten fachbezogenen Schwerpunkten
- Übung und Anwendung des Gelernten in relevanten interaktiven Kontexten
- Schärfung des Bewusstseins für interkulturelle Aspekte
- Erweiterung der Handlungsfähigkeit in der Fremdsprache auf komplexe Sprechsituationen mit fachsprachlichem Inhalt
- Entwicklung von Lesekompetenz von wissenschafts- u. fachbezogenen Texten
- Entwicklung von Hörstrategien
- Einführung in die Praxis schriftlich akademischer Arbeit

Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik wiederholt und vertieft.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „B2- Selbständige Sprachverwendung“ des GER. Der/die Studierende kann den wesentlichen Inhalt von Artikeln und Berichten sowie Texte aus dem eigenen Fach- und Interessengebiet mühelos verstehen. Er/sie kann längere Redebeiträge und Vorträge sowohl zu aktuellen Themen als auch innerhalb seines/ihres Fachgebietes folgen, sofern sie klar vorgetragen werden. Er/sie ist in der Lage Texte im Kontext seines /ihres Studienfaches zu schreiben und dabei auch zu einem gewissen Grad komplexe Satzstrukturen und fachspezifisches Vokabular zu benutzen. Er/sie kann zu vielen Themen aus seinen/ihren Interessen- oder Fachgebieten klar und strukturiert in mündlicher Form kommunizieren. Er/Sie ist in der Lage, die Fremdsprache sowohl im Auslandsstudium als auch im Beruf wirksam und flexibel zu gebrauchen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
internes Material

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0522: French A1.1 + A1.2 | Französisch A1.1 + A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Französisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz noch geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Der/Die Studierende lernt z.B., einfache Fragen zu Person und Familie zu stellen und zu beantworten sowie über Themen wie Studium, Beruf, Freizeit, in einfachen Sätzen im Präsenz und Perfekt zu berichten. Es werden u.a. folgende grammatische Themen behandelt: Präsenz, Passé Composé, Futur proche, Artikel, Possessivbegleiter, direkte und indirekte Objektpronomen, Präpositionen, Fragesätze. Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse in alltäglichen Grundsituationen ermöglichen.
Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch effektiver zu gestalten und die eigene Lernfähigkeit zu verbessern.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau „A1 – Elementare Sprachverwendung“ des GER. Der/die Studierende erlangt nach der Teilnahme an der Modulveranstaltung Grundkenntnisse in der Fremdsprache Französisch mit allgemeiner Orientierung unter Berücksichtigung interkultureller und landeskundlicher Aspekte. Er/sie ist in der Lage, einfache Fragen über vertraute Themen zu stellen und zu beantworten. Er/sie kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/sie kann einfache schriftliche Mitteilungen zur Person machen.
Sowohl im mündlichen als auch im schriftlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat, bzw. der A 1-Stufe entsprechend, Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
Lehrbuch (wird im Kurs bekanntgegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch A1.1 + A1.2 intensiv (Seminar, 4 SWS)
Bartanus J, Delavigne C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0523: French C1 - French in Business | Französisch C1 - Le français des affaires

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
- kumulative Tests (70%)
- Präsentation (30%)

In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehört eine kurze Präsentation auf Französisch zu einem politischen oder wirtschaftlichen Thema im Zusammenhang mit Frankreich oder dem französischen Sprachraum. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können.

Repeat Examination:

(Recommended) Prerequisites:
- gesicherte Kenntnisse der Stufe B2
- Einstufungstest mit Ergebnis C1
- Vorkenntnisse in BWL und/oder VWL sind keineswegs erforderlich.

Content:
In dieser LV werden Kenntnisse in der Fremdsprache Französisch aufgebaut und vertieft, die es den Studierenden ermöglichen, spontan und fließend über Themen von politischen, wirtschaftlichen oder gesellschaftlichen Interesse mit einem Muttersprachler zu diskutieren und

eine Meinung strukturiert und überzeugend zu vertreten, ohne öfter deutlich erkennbar nach Worten suchen zu müssen.
Die LV gibt einerseits eine Einleitung in das Französisch des Wirtschaftslebens und bereitet andererseits die Studierenden auf einen (Studien-)Aufenthalt im frankophonen Sprachraum vor. Besonderes Augenmerk wird auf die Entwicklung kommunikativer Fähigkeiten und interkultureller Kompetenz gelegt. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden bei Bedarf Schwerpunkte der Grammatik wiederholt und vertieft.
In dieser LV bilden ausgewählte volkswirtschaftliche Themen (Konsum, Rolle des Staates, diverse betriebliche Funktionen, Globalisierung, Nachhaltigkeit u. a.) eine zentrale Rolle.

Intended Learning Outcomes:
Die LV orientiert sich am Niveau C 1 Fachkundige Sprachkenntnisse des GER. Der/die Studierende ist in der Lage, durch relevantes interkulturelles Wissen über Berufs- und Wirtschaftswelt im französischen Sprachraum angemessen zu kommunizieren und einen Studienaufenthalt, ein Praktikum oder Weiterbildungsmaßnahmen im französischen Sprachraum anzustreben.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Französisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.
Moderierte Diskussionen.

Media:
Presseartikel, multimedial gestütztes Lehr- und Lernmaterial (Tafel, Folie, Übungsblätter, Bild, Film, etc.), auch online.

Reading List:
wird in der Lehrveranstaltung bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0526: French B1.1 + B1.2 | Französisch B1.1 + B1.2

Version of module description: Gültig ab summerterm 2023

Module Level:	Language:	Duration:	Frequency:
Credits:* 6	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0527: French A2.1 + A2.2 | Französisch A2.1 + A2.2

Version of module description: Gültig ab winterterm 2023/24

Module Level:	Language:	Duration:	Frequency:
Credits:* 6	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch A2.1 + A2.2 (Seminar, 4 SWS)
Perconte-Duplain S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0528: French C1 - oral and written expression | Französisch C1 - s'exprimer à l'écrit comme à l'oral

Version of module description: Gültig ab winterterm 2023/24

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Französisch C1 - s'exprimer à l'écrit comme à l'oral (Seminar, 2 SWS)
Perconte-Duplain S
For further information in this module, please click campus.tum.de or here.

SZ0003-06: Italien | Italienisch

Module Description

SZ0601: Italian A1.1 + A1.2 - Intensive | Italienisch A1.1 + A1.2 - Intensiv

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Italienisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Situationen zurechtzufinden, wie z.B. sich und andere vorstellen, Auskünfte über sich selbst geben und Auskünfte über den Gesprächspartner erfragen, Weginformationen erfragen und geben, über vergangene Aktivitäten und Ereignisse kurz berichten etc.
Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die Studierenden werden in die italienische Phonetik eingeführt; sie erlernen grundlegendes Vokabular zu Themen wie Studium/Beruf, Freizeit, Tagesablauf. Es werden u. a. folgende grammatische Kapitel gelernt und geübt: Bestimmte und unbestimmte Artikel, Nomen- und Adjektivdeklination, Präpositionen, Präsens regelmäßiger und unregelmäßiger Verben, Passato prossimo, direkte und indirekte Objektpronomen.

Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 – Elementare Sprachverwendung des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Die Studierenden erlangen Grundkenntnisse in der Fremdsprache Italienisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung interkultureller und landeskundlicher Aspekte.
Nach Abschluss des Moduls sind die Studierenden in der Lage, sehr einfache Ausdrücke und Sätze zu verwenden, die auf die Befriedigung konkreter Bedürfnisse des alltäglichen Bedarfs zielen. Sie können
persönliche Auskünfte über sich geben sowie persönliche Auskünfte über den Gesprächspartner erfragen, in einfacher Weise Tagesabläufe beschreiben und schriftliche Mitteilungen zur Person machen, Vorlieben nennen, Verabredungen treffen. Zudem können sie in einfach strukturierten Sätzen von vergangenen Ereignissen und Aktivitäten erzählen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien. Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch A1.1+A1.2 - Intensiv (Seminar, 4 SWS)
Aquaro M, Finzi A, Mainardi D
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0602: Italian A1.1 | Italienisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Italienisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.

Die Studierenden werden in die italienische Phonetik eingeführt; sie lernen und üben den Grundwortschatz; sie lernen und üben einfache Fragen zur Person zu stellen und zu beantworten, Interessen auszudrücken, Wünsche zu nennen, über die eigenen Gewohnheiten kurz zu berichten und Formulare auszufüllen. Es werden dabei grammatische Themen wie z.B. Präsensformen regelmäßiger und einiger unregelmäßiger Verben, Personalpronomen, bestimmte, unbestimmte Artikel, Fragesätze, Angleichung der Adjektive behandelt.
Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 – Elementare Sprachverwendung des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls sind die Studierenden in der Lage, sich auf sehr einfache Art in der Fremdsprache Italienisch zu verständigen, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Sie können einfache Ausdrücke und Sätze verwenden, die auf die Befriedigung konkreter Bedürfnisse des alltäglichen Bedarfs zielen wie z. B. sich und andere vorstellen, Auskünfte über sich selbst geben und Auskünfte über die anderen erfragen, Wünsche äußern, über Tagesablauf und Vorlieben sprechen bzw. schreiben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien. Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch A1.1 (Seminar, 2 SWS)
Aquaro M, Bertolini S, Cappellari C, Mainardi D, Nalin S, Perfetti Braun L, Taddia E, Togni M, Villadei M, Zangrilli D

Blockkurs Italienisch A1.1 (Seminar, 2 SWS)
Nalin S, Schmidt C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0604: Italian C1 - Italian Communication: Language and Conversation | Italienisch C1 - Comunicare in italiano: lingua e conversazione

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Content:
Das Modul orientiert sich am Niveau C1, „Kompetente Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, aktiv und situationsadäquat über aktuelle gesellschaftliche Themen Italiens oder von einem vertrauten Fachgebiet mit einem Muttersprachler zu diskutieren. Er/sie kann sich spontan und fließend ausdrücken, ohne öfter deutlich erkennbar nach Worten suchen zu müssen.

Er/sie kann klar und gut strukturierte Texte wie Briefe, Aufsätze oder Berichte über komplexe Sachverhalte verfassen.
Er/sie kann längeren Redebeiträgen folgen, auch wenn diese nicht klar strukturiert sind und wenn Zusammenhänge nicht explizit ausgedrückt sind. Ohne allzu große Mühe kann er/sie Fernsehsendungen und Spielfilme verstehen.
Darüber hinaus ist er/sie in der Lage, lange, komplexe Sachtexte und literarische Texte zu verstehen und Stilunterschiede wahrzunehmen. Wesentliche Inhalte von Fachartikeln und längeren technischen Anleitungen kann er/sie aufnehmen, auch wenn sie nicht in seinem/ihrem Fachgebiet liegen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau C1, „Kompetente Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, aktiv und situationsadäquat über aktuelle gesellschaftliche Themen Italiens oder von einem vertrauten Fachgebiet mit einem Muttersprachler zu diskutieren. Er/sie kann sich spontan und fließend ausdrücken, ohne öfter deutlich erkennbar nach Worten suchen zu müssen.
Er/sie kann klar und gut strukturierte Texte wie Briefe, Aufsätze oder Berichte über komplexe Sachverhalte verfassen.
Er/sie kann längeren Redebeiträgen folgen, auch wenn diese nicht klar strukturiert sind und wenn Zusammenhänge nicht explizit ausgedrückt sind. Ohne allzu große Mühe kann er/sie Fernsehsendungen und Spielfilme verstehen.
Darüber hinaus ist er/sie in der Lage, lange, komplexe Sachtexte und literarische Texte zu verstehen und Stilunterschiede wahrzunehmen. Wesentliche Inhalte von Fachartikeln und längeren technischen Anleitungen kann er/sie aufnehmen, auch wenn sie nicht in seinem/ihrem Fachgebiet liegen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Wird im Unterricht bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0605: Italian A1.2 | Italienisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls A1.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis A1.2

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Italienisch unter Berücksichtigung landeskundlicher und interkultureller Aspekte weitervermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz geringer Sprachkenntnisse zurechtzufinden.
Der/Die Studierende lernt bzw. erweitert grundlegendes Vokabular zu vertrauten Themen wie Alltag und Freizeit, Studium und Studentenleben, Stadt und öffentlicher Verkehr.
Er/sie lernt u.a. über sich selbst und über die eigenen Gewohnheiten im Alltag zu berichten; auf der Straße um Auskunft zu bitten und darauf zu reagieren; einen Weg zu beschreiben; Verabredungen zu treffen; von vergangenen Erlebnissen und Erfahrungen zu erzählen. Es werden u.a. folgende grammatische Themen behandelt: Direkte und undirekte Objektpronomen, Präpositionen mit und ohne Artikel, Passato prossimo. Die italienische Phonetik wird weitergelernt und geübt.

Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 – Elementare Sprachverwendung - des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, sich auf sehr einfache Art in der Fremdsprache Italienisch zu verständigen, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/sie kann den Grundwortschatz zu Themen wie Alltag und Freizeit, Universität, Stadt und öffentlicher Verkehr verstehen und in sehr einfach strukturierten Sätzen verwenden. Außerdem kann er/sie über sich selbst, die eigenen Gewohnheiten und Vorlieben kurz berichten; auf der Straße um Auskunft bitten und darauf reagieren; Verabredungen treffen; von Erfahrungen in der Vergangenheit in sehr elementarer Form erzählen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien. Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch A1.2 (Seminar, 2 SWS)
Bertolini S, Mainardi D, Nalin S, Togni M, Villadei M

Blockkurs Italienisch A1.2 (Seminar, 2 SWS)
Taddia E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0606: Italian A2.1 | Italienisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls A1.2 (bestandene Klausur) oder Einstufungstest mit Ergebnis A2.1.

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Italienisch aufgebaut, die den Studierenden –trotz noch geringer Sprachkenntnisse- erlauben, sich in Alltagssituationen wie z. B. beim Einkaufen oder auf Reisen, in der Konversation und dem Austausch unter Kollegen, Freunden und Nachbarn zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Der/die Studierende lernt u.a. über vergangene Ereignisse mündlich und schriftlich zu berichten; Ratschläge und Anweisungen zu geben; kurze formelle oder informelle E-Mails zu schreiben, sich telefonisch über etwas zu erkundigen. Wortschatz und Grammatik werden weiter aufgebaut. U.a. werden grammatische Themen, wie z.B. Passato prossimo mit unregelmäßigen Partizipien; direkte Objektpronomen und „ne“ in Verbindung mit dem Passato prossimo; Bildung und Gebrauch des Adverbs; Imperativ und Stellung der Pronomen. Ferner werden Möglichkeiten und Strategien aufgezeigt, die den Lernprozess in der Fremdsprache Italienisch effektiver gestalten sollen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 –„Elementare Sprachverwendung“ des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, beim Hören bzw. Lesen die wichtigsten Informationen zu bekannten Themen und in routinemäßigen Situationen zu verstehen. Mündlich und schriftlich kann er/sie u.a. Ereignisse und Erlebnisse in der Vergangenheitsform in sehr einfacher Form schildern; er kann kurze formelle und informelle E-Mails verfassen sowie Informationen am Telefon erfragen; er/sie kann Ratschläge und Anweisungen geben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Italienisch A2.1 (Seminar, 2 SWS)
Aquaro M

Italienisch A2.1 (Seminar, 2 SWS)
Bonomini F, Mainardi D, Noch nicht bekannt N
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0607: Italian A2.1 + A2.2 - Intensive | Italienisch A2.1 + A2.2 - Intensiv

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls A1.2 (bestandene Klausur) oder Einstufungstest mit Ergebnis A2.1.

Content:
Abschlussmodul des A-Niveaus des Gemeinsamen Europäischen Referenzrahmens für Sprachen (Grundstufe)
In diesem Modul werden Grundkenntnisse in der Fremdsprache Italienisch aufgebaut, die es den Studierenden – trotz noch geringer Sprachkenntnisse - ermöglichen, sich in Alltagssituationen wie z.B. beim Einkaufen oder bei der Wohnungssuche zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Der/die Studierende lernt u.a. von Geschehnissen, Situationen und Gewohnheiten in der Vergangenheitsform zu erzählen; Personen physisch und charakterlich zu beschreiben; über die Familie zu sprechen; eine höfliche Aufforderung, einen Wunsch, eine Vermutung auszudrücken; Ratschläge bzw. Anweisungen zu geben; eine Entscheidung zu begründen und die eigene Meinung zu äußern.

Grammatische Themen wie z.B. Passato prossimo, Imperfetto, Adverbien, Imperativ, Konditional Präsens, Relativpronomen, Adverbien werden behandelt. Grundlegendes Wortschatz zu vertruaten Themen wie z.B. Einkaufen, Familie, Freunde, Wohnen, Kleidung wird gelernt und geübt.
Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz geringer Sprachkenntnisse erlauben. Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 „Elementare Sprachverwendung“ des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, beim Hören bzw. Lesen die wichtigsten Informationen zu bekannten und allgemeinen Themen zu verstehen. Mündlich und schriftlich kann er/sie u.a. auf elementare Weise von Geschehnissen, Situationen und Gewohnheiten in der Vergangenheitsform erzählen; Personen beschreiben (Charakter- und Körpereigenschaften); höfliche Aufforderungen, Wünsche, Vermutungen ausdrücken; Ratschläge bzw. Anweisungen geben; Entscheidungen kurz begründen; die eigene Meinung äußern. Er/sie kann grundlegendes Vokabular zu Themen wie Familie und Verwandtschaft, Kleidung, Wohnen, Ernährung verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch A2.1+A2.2 - Intensiv (Seminar, 4 SWS)
Mainardi D, Soares da Silva D
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0608: Italian A2.2 | Italienisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls A2.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis A2.2.

Content:
Abschlussmodul des A-Niveaus des Gemeinsamen Europäischen Referenzrahmens für Sprachen (Grundstufe)
In diesem Modul werden Grundkenntnisse in der Fremdsprache Italienisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Der/die Studierende lernt und übt u.a. eine höfliche Aufforderung, einen Wunsch, eine Vermutung auszudrücken; eine Entscheidung kurz zu begründen; die eigene Meinung in elementarer Form zu äußern. Gewohnheiten und Zustände in der Vergangenheit zu schildern. Grammatische Themen wie u.a. Konditional Präsens; Imperfetto; Relativpronomen werden gelernt und geübt. Grundlegendes Vokabular zu vertrauten Themen wie z. B. Familie, Freunde, Wohnen, Internet und soziale Netzwerke wird gelernt, geübt und gefestigt.

Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz geringer Sprachkenntnisse erlauben. Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 „Elementare Sprachverwendung“ des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls kann der/die Studierende im Gespräch elementare Sätze und Ausdrücke zu einem erweiterten Spektrum an vertrauten Themen wie z.B. Wohnen, Familien, Freunden verstehen und gebrauchen. Er/sie kann längere Texte zu bekannten und allgemeinen Themen verstehen, in denen gängige bzw. einfache, alltagsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Er/sie ist zudem in der Lage, kurze, informative Texte schriftlich zu verfassen sowie höfliche Aufforderungen, Wünsche, Vermutungen auszudrücken; Entscheidungen kurz zu begründen; die eigene Meinung in einfacher Form zu äußern.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch A2.2 (Seminar, 2 SWS)
Soares da Silva D, Togni M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ06081: Italian A2.2/B1.1 for Medicines | Italienisch für Medizinstudierende A2.2/B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Fundierte Kenntnisse des Moduls A2.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis A2.2

Content:
Das Modul besteht aus einem Seminar, das sich an alle Medizinstudierende richtet, insbesondere an diejenigen, die an einem Austauschprogramm (Erasmus, Praktikum, Famulatur etc.) teilnehmen wollen.
Es werden Grundkenntnisse in der Fremdsprache Italienisch aufgebaut und vertieft, die es den Studierenden ermöglichen, sich in alltäglichen medizinischen Situationen mit italophonen Patienten, Kollegen und Krankenhauspersonal zu verständigen.
Folgende Themen werden u.a. behandelt:
- Einführung in die italienische Fachterminologie der Medizin
- Grundlagen der menschlichen Anatomie
- Anamneseerhebung anhand ausgewählter Fallbeispiele
- Führen von Arzt-Patienten Gesprächen

- Diagnosestellung und Therapieverschreibung
Anhand von Reportagen, Filmausschnitten, Auszügen aus der Fachliteratur wird der/die Studierende einen Einblick in das Gesundheits- und Medizinwesen im italienischen Sprachgebiet gewinnen.
Zur Festigung der mündlichen und schriftlichen Fertigkeiten werden einige Strukturen der Allgemeinsprache wiederholt bzw. ergänzt und der Wortschatz erweitert.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2, „Elementare Sprachverwendung“, und am Niveau B1, „Selbständige Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls kann der/die Studierende sich in den meisten Grundsituationen der Medizinwelt, denen man in Studium und Beruf im Sprachgebiet begegnet, sicher verständigen, wenn Standardsprache verwendet wird. Er/Sie kann wesentliche Inhalte in kurzen, authentischen Fachtexten aus dem Bereich der Medizin aufnehmen und in einfacher Form mündlich und schriftlich wiedergeben; er/sie kann das Grundvokabular der medizinischen Fachsprache adäquat verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte..

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Wird im Unterricht bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0609: Italian B1.1 | Italienisch B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.2 (bestandene Klausur) oder Einstufungstest mit Ergebnis B1.1

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Aktualität, Gesellschaft, Sport sicherer in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die Studierenden festigen und vertiefen die bisher erlernten Sprachstrukturen des A-Niveaus und lernen/üben u.a. längere Berichte über vergangene Erfahrungen in mündlicher und schriftlicher Form zu verfassen; längere authentische Texte zusammenzufassen; Meinungen präziser zu äußern und zu widersprechen; für und gegen etwas zu argumentieren. Dazu werden entsprechende, hierfür notwendige grammatische Themen bzw. Wortschatz behandelt, gefestigt und vertieft. Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 „Selbständige Sprachverwendung“ des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls sind die Studierenden in der Lage, sich in den meisten Situationen, denen man in Studium oder in der Freizeit im Sprachgebiet begegnet, sicherer zu verständigen und zu alltäglichen Themen eine persönliche Meinung zu äußern und zu widersprechen bzw. für und gegen etwas zu argumentieren.
Die Studierenden können wesentliche Inhalte in einfachen, authentischen Texten aus alltäglichen Bereichen verstehen und in einfacher Form wiedergeben und sich spontan an Gesprächen zu vertrauten Themen beteiligen. Sie können längere Texte zu Alltagsthemen oder zu eigenen Erfahrungen verfassen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch B1.1 (Seminar, 2 SWS)
Finzi A, Talpo F
For further information in this module, please click campus.tum.de or here.

Module Description

SZ06091: Italian B1.2 | Italienisch B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls B1.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis B1.2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Aktualität, Gesellschaft, Film, Musik selbständiger und sicherer in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird. Dabei werden landeskundliche und interkulturelle Aspekte berücksichtigt.
Die Studierenden lernen/üben u.a. Personen, Orte, Situationen präziser in mündlicher und schriftlicher Form zu beschreiben und zu vergleichen; Zweifel, Vorbehalt, Gegenmeinung zu äußern; Pläne, Ziele sowie persönliche Ansichten zu formulieren. Dazu werden entsprechende, hierfür notwendige grammatische Themen bzw. Wortschatz behandelt, gefestigt und vertieft. Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1, „Selbständige Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls können die Studierenden die meisten Situationen bewältigen, denen man im Sprachgebiet begegnet. Sie können ohne Vorbereitung an Gesprächen über Themen teilnehmen, die ihnen vertraut sind, die sie persönlich interessieren oder die sich auf Themen des Alltags wie Familie, Hobbys, Studium/Beruf, Film, Musik, aktuelle Ereignisse beziehen.
Sie sind in der Lage, mündlich wie schriftlich über Erfahrungen und Ereignisse einfach und zusammenhängend zu berichten; Personen, Orte und Situationen genau zu beschreiben und zu vergleichen; Eindrücke, Gefühle sowie Ziele und Wünsche zu formulieren; den eigenen Standpunkt zu vertreten. Beim Hören von Beiträgen über aktuelle Ereignisse und über Themen aus eigenem Studium- oder Interessensgebiet können sie die Hauptinformationen verstehen.
Beim Lesen können sie wesentliche Inhalte in längeren und authentischen Sachtexten wie Zeitungsartikeln oder Auszügen aus der zeitgenössischen italienischen Literatur aufnehmen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch B1.2 (Seminar, 2 SWS)
Aquaro M, Finzi A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0616: Italian B2/ C1 - Communication in Italy: language and conversation | Italienisch B2/ C1 - Comunicare in italiano: lingua e conversazione

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls B2.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis B2.2.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch aufgebaut und vertieft, die es den Studierenden ermöglichen, auf schriftsprachlichem Niveau aktiv und weitgehend flüssig über Themen von allgemeinem Interesse oder in vertrauten Fachgebieten mit einem Muttersprachler zu kommunizieren und eine Argumentation klar und gut strukturiert auszuführen. Dabei werden landeskundliche, interkulturelle und studienbezogene Aspekte berücksichtigt. Neben der alltagsbezogenen Kommunikation werden auch Themenbereiche aus Kultur, Aktualität und Beruf anhand von Literatur, Presseartikeln, Filmausschnitten reflektiert.
Ein besonderes Augenmerk wird im Modul auf die mündliche Interaktion gelegt, indem Wortschatz und Idiomatik in typischen Gesprächssituationen gelernt und geübt werden. Interaktionsstrategien (z.B. Sprecherwechsel, Rückfragen stellen, auf Einwände reagieren, um Klärung bitten) werden

aufgezeigt und durch Rollenspielen, Impulsübungen, themenbezogene Diskussionen gefördert. Der/die Studierende trainiert und verbessert den mündlichen Ausdruck sowie die Fertigkeit, sprachlich spontan und situationsadäquat zu reagieren.
Ferner hat der/die Studierende die Möglichkeit, durch eine kurze Präsentation auf Italienisch zu einem vorgegebenen Thema, seine/ihre persönlichen Ausdrucksmöglichkeiten zusätzlich zu erweitern, indem differenzierter Wortschatz und Sprachbausteine erarbeitet werden, die typisch für Präsentationen sind.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2/C1, „Selbständige und Kompetente Sprachverwendung“ des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, aktiv und situationsadäquat über aktuelle gesellschaftliche Themen Italiens oder von einem vertrauten Fachgebiet mit einem Muttersprachler zu diskutieren. Er/sie kann sich spontan und fließend ausdrücken, ohne öfter deutlich erkennbar nach Worten suchen zu müssen.
Er/sie kann über eine Vielzahl von Themen klare und detaillierte Texte schreiben und in einem Aufsatz oder Bericht Informationen wiedergeben oder Argumente und Gegenargumente für oder gegen einen bestimmten Standpunkt darlegen.
Darüber hinaus ist er/sie in der Lage, längeren Redebeiträgen und Vorträgen zu folgen sowie komplexe Sachtexte, Artikel, Berichte und zeitgenössische literarische Prosatexte zu lesen und verstehen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte..

Media:
multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Wird im Unterricht bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0618: Italian B2.1 | Italienisch B2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B1.2 (bestandene Klausur) oder Einstufungstest mit Ergebnis B2.1

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv, selbständig und mit einem gewissen Grad an Flüssigkeit über Themen von allgemeinem Interesse oder von vertrautem Fachgebiet mit einem Muttersprachler zu diskutieren und eine Argumentation gut verständlich auszuführen. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt.
Die Studierenden erarbeiten umfangreichen und differenzierten Wortschatz zu einem breiten Spektrum an aktuellen und soziokulturellen Themen. Sprachliche Handlungsformen wie z.B. Beschreiben, Vergleichen, Gegenüberstellen, Stellungnehmen, Kommentieren, Kritisieren werden mündlich und schriftlich intensiv trainiert.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2 – selbstständige Sprachverwendung des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls können die Studierenden den wesentlichen Inhalt von authentischen Artikeln und Texten sowie von längeren Redebeiträgen zu allgemeinen soziokulturellen Themen oder aus ihrem Interessens- und Fachgebiet aufnehmen und darüber in klarer und strukturierter Form berichten; schriftlich und mündlich sind sie in der Lage, zu verschiedenen Themen aus ihren Interessensgebieten eine klare Darstellung zu geben sowie einen Standpunkt zu einer aktuellen Frage zu erläutern und Vor- und Nachteile verschiedener Möglichkeiten anzugeben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch B2.1 (Seminar, 2 SWS)
Talpo F
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0619: Italian B1/B2 - Modern Italian Society | Italienisch B1/B2 - La società italiana oggi

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls B1.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis B1.2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch aufgebaut und vertieft, die es den Studierenden ermöglichen, sich mündlich und schriftlich zu Themenbereichen aus Alltag, Beruf, Politik und Kultur des heutigen Italiens zu äußern. Anhand von authentischen Materialien (Presseartikeln, Filme, Radiosendungen, Beiträge aus dem Internet etc.) werden die Studierenden einen Einblick in die aktuelle italienische Gesellschaft gewinnen und soziokulturelle Aspekte reflektieren. Besonderes Augenmerk wird auf die Entwicklung kommunikativer Fähigkeiten und interkultureller Kompetenz gelegt.
Zur Festigung der mündlichen und schriftlichen Fertigkeiten werden einige Sprachstrukturen wiederholt bzw. ergänzt und der Wortschatz erweitert.
Ferner hat der/die Studierende die Möglichkeit, durch eine kurze Präsentation auf Italienisch zu einem vorgegebenen Thema, seine/ihre persönlichen Ausdrucksmöglichkeiten zusätzlich zu

erweitern, indem differenzierter Wortschatz und Sprachbausteine erarbeitet werden, die typisch für Präsentationen sind.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1/B2, „Selbständige Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Der/Die Studierende erlangt Kenntnisse in der Fremdsprache Italienisch auf standardsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, komplexe mündliche oder schriftliche Texte zu aktuellen und kulturellen Themen aus italienischen Medien zu verstehen, sie zusammenzufassen und darüber zu berichten. Außerdem kann er/sie zu diesen Themen eine persönliche Meinung äußern und widersprechen bzw. für und gegen etwas argumentieren.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
wird im Unterricht bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0620: Italian B2.2 | Italienisch B2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls B2.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis B2.2

Content:
Abschlussmodul des B-Niveaus –selbstständige Sprachverwendung des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch erarbeitet, die es den Studierenden ermöglichen, auf schriftsprachlichem Niveau aktiv und weitgehend flüssig über Themen von allgemeinem Interesse oder in vertrauten Fachgebieten mit einem Muttersprachler zu kommunizieren und eine Argumentation strukturiert auszuführen. Die Studierenden erarbeiten umfangreichen und differenzierten Wortschatz zu einem breiten Spektrum an aktuellen Themen. Sie lernen/wiederholen und vertiefen grammatische Kapitel wie z.B. „periodo ipotetico“, „discorso indiretto“ concordanza die tempi“.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2 – Selbständige Sprachverwendung des GER

Die Studierenden können den wesentlichen Inhalt von authentischen und komplexeren Texten aus dem eigenen Fach- und Interessengebiet selbständig und fast mühelos verstehen sowie Standpunkte identifizieren. Sie sind in der Lage längeren Redebeiträgen sowohl zu aktuellen Themen als auch im Studienkontext zu folgen.
Sie können detaillierte Darstellungen zu aktuellen Themen und im Kontext des Studienfaches verfassen und dabei kohärent argumentieren und fachspezifisches Vokabular benutzen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch B2.2 (Seminar, 2 SWS)
Talpo F
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0623: Italian A1.2 + A2.1 - Intensive | Italienisch A1.2 + A2.1 - Intensiv

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls A1.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis A1.2

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Italienisch unter Berücksichtigung landeskundlicher und interkultureller Aspekte weitervermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen -trotz geringer Sprachkenntnisse - zurechtzufinden.
Der/Die Studierende lernt bzw. erweitert grundlegendes Vokabular zu vertrauten Themen wie Alltag und Freizeit, Studium und Studentenleben, Stadt und öffentlicher Verkehr, Reisen, Einkaufen.
Er/sie lernt u.a. über sich selbst und die eigenen Gewohnheiten im Alltag zu berichten; auf der Straße um Auskunft zu bitten und darauf zu reagieren; einen Weg zu beschreiben; von Ereignissen, Situationen und Gewohnheiten in der Vergangenheit zu erzählen; Ratschläge und Anweisungen zu geben.

Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1/A2, „Elementare Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls kann der/die Studierende den Grundwortschatz zu Themen wie Alltag und Freizeit, Universität, Stadt und öffentlicher Verkehr, Einkaufen verstehen und in sehr einfach strukturierten Sätzen verwenden. Außerdem kann er/sie über sich selbst, die eigenen Gewohnheiten und Vorlieben berichten; auf der Straße um Auskunft bitten und darauf reagieren; einen Weg und einen Ort beschreiben; von Ereignissen und Erlebnissen in der Vergangenheit erzählen. Er/sie ist in der Lage, sowohl in formellen als auch in informellen Kontexten sprachlich zu interagieren, indem er/sie Fragen und Antworten zu bekannten und vorhersehbaren Themen in elementarer Form formuliert.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0624: Italian A2.2 + B1.1 - Intensive | Italienisch A2.2 + B1.1 - Intensiv

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.1(bestandene Klausur) oder Einstufungstest mit Ergebnis A2.2

Content:
Das Modul führt zum Abschluss des Kompetenzniveaus A (Grundstufe) und ermöglicht einen leichten Einstieg ins B-Niveau (Mittelstufe) des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Es werden Grundkenntnisse in der Fremdsprache Italienisch aufgebaut, die es den Studierenden ermöglichen, sich in Alltagssituationen wie z.B. beim Arzt oder bei der Wohnungssuche zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Der/die Studierende lernt und übt u.a. eine höfliche Aufforderung, einen Wunsch, eine Vermutung auszudrücken; Ratschläge bzw. Anweisungen zu geben; jemanden um Rat zu bitten; Meinungen zu formulieren und zu widersprechen; für und gegen etwas zu argumentieren; Grundlegendes Vokabular zu Themen wie Familie, Wohnen, Gesundheit, Studium/Beruf wird gelernt bzw. erweitert.

Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2, „Elementare Sprachverwendung“ und am Niveau B1 – Selbständige Sprachverwendung des GER.
Nach Abschluss des Moduls kann der/die Studierende sich in den meisten Situationen, denen man in Studium, Beruf und Freizeit im Sprachgebiet begegnet, sicher verständigen, wenn Standardsprache verwendet wird. Er/sie ist in der Lage, höfliche Aufforderungen, Wünsche und Vermutungen auszudrücken; Ratschläge bzw. Anweisungen zu geben; um Rat zu bitten; Meinungen zu formulieren und zu widersprechen; für und gegen etwas zu argumentieren. Er/Sie kann wesentliche Inhalte in einfachen, authentischen Texten aus alltäglichen Bereichen verstehen und wiedergeben und sich spontan an Gesprächen zu vertrauten Themen beteiligen. Er/Sie kann längere persönliche Texte zu eigenen Erfahrungen verfassen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte..

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0630: Italian B1/B2 Conversation | Italienisch B1/B2 - Corso di conversazione

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21)..

Repeat Examination:

(Recommended) Prerequisites:
Fundierte Kenntnisse des Moduls B1.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis B1.2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch vermittelt/aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv und mit einem gewissen Grad an Flüssigkeit über Themen von allgemeinem Interesse oder von vertrautem Fachgebiet mit einem Muttersprachler zu diskutieren und eine Argumentation gut verständlich auszuführen. Dabei werden landeskundliche und interkulturelle Aspekte berücksichtigt.
Presseartikeln, Filme, Radio- und Fernsehsendungen sowie Blogs und Beiträgen aus den sozialen Netzwerken bilden die Grundlage für den interaktiven Unterricht. Der/die Studierende lernt die bisher erworbenen Sprachkenntnisse durch eine intensive Kommunkationspraxis zu aktivieren bzw. auszubauen. Er/sie verbessert die eigene mündliche Ausdrucksfähigkeit, indem er/sie differenzierteren Wortschatz und Idiomatik in verschiedenen Gesprächssituationen erarbeitet. Typische sprachliche Interaktionsstrategien wie z.B. Sprecherwechsel, Rückfragen stellen,

um Klärung bitten, auf Einwände und schwierige Fragen reagieren, werden durch gezielte Übungssequenzen trainiert. Je nach Bedarf werden Schwerpunkte der Grammatik wiederholt und vertieft.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1/B2, „Selbständige Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls ist der/die Studierende in der Lage, mündliche Beiträge oder schriftliche Texte zu aktuellen und kulturellen Themen aus italienischen Medien zu verstehen, sie zusammenzufassen und darüber zu berichten. Außerdem kann er/sie zu diesen Themen eine persönliche Meinung äußern und widersprechen bzw. für und gegen etwas argumentieren. Er/sie kann in einer Diskussion über allgemeine und aktuelle Themen wie z.B. Film, Musik, Umwelt, Politik adäquat interagieren.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
wird im Unterricht bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0631: Italian B1.1 + B1.2 - intensive | Italienisch B1.1 + B1.2 - intensiv

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:**	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.2 (bestandene Klausur) oder Einstufungstest mit Ergebnis B1.1

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch unter Berücksichtigung interkultureller und landeskundlicher Aspekte erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Aktualität, Sport, Film, Musik selbständiger und sicherer in der Zielsprache zu verständigen, wenn Standardsprache verwendet wird. Die Studierenden festigen und vertiefen die bisher erlernten Sprachstrukturen des A-Niveaus und lernen/üben u.a. Meinungen zu äußern und zu widersprechen; für und gegen etwas zu argumentieren; über Lese- und Filmvorlieben sowie über Musikgeschmack zu sprechen bzw. zu schreiben; eine kurze Zusammenfassung eines Buchs/Films zu verfassen; Personen, Orte, Situationen exakt zu beschreiben und zu vergleichen; Pläne und Ziele zu formulieren. Dazu werden entsprechende, hierfür notwendige grammatische Themen bzw. Wortschatz behandelt, gefestigt und vertieft.

Außerdem werden Möglichkeiten aufgezeigt, wie man den Lernprozess in der Fremdsprache Italienisch eigenverantwortlich und effektiv gestalten kann.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1, „Selbständige Sprachverwendung“, des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls können die Studierenden die meisten Situationen bewältigen, denen man im Sprachgebiet begegnet. Sie können ohne Vorbereitung an Gesprächen über Themen teilnehmen, die ihnen vertraut sind, die sie persönlich interessieren oder die sich auf Themen des Alltags wie Aktualität, Studium/Beruf, Reisen, Film und Musik beziehen. Sie sind in der Lage, mündlich wie schriftlich über Erfahrungen und Ereignisse einfach und zusammenhängend zu berichten; Personen, Orte und Situationen genau zu beschreiben und zu vergleichen; Eindrücke, Gefühle sowie Ziele und Wünsche zu formulieren; den eigenen Standpunkt zu vertreten. Beim Hören von Beiträgen über aktuelle Ereignisse und über Themen aus eigenem Studium- oder Interessensgebiet können sie die Hauptinformationen verstehen. Beim Lesen können sie wesentliche Inhalte in längeren und authentischen Sachtexten wie Zeitungsartikeln oder Auszügen aus der zeitgenössischen italienischen Literatur aufnehmen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0632: Italian B1/B2 – Grammar Compact | Italienisch B1/B2 – Grammatica compatta

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft). Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse des Moduls B1.1 (bestandene Klausur) oder Einstufungstest mit Ergebnis B1.2

Content:
In diesem Modul werden relevante grammatische Strukturen der italienischen Sprache in komprimierter Form gelernt, vertieft und durch schriftliche und mündliche Aufgaben intensiv trainiert.
Ziel ist die Verbesserung der schriftlichen und mündlichen Ausdrucksfähigkeit.
Darüber hinaus werden Strategien zur Vermeidung häufiger grammatischer Fehler erarbeitet.
Auf einzelne Wünsche der Studierende kann in einem gewissen Umfang eingegangen werden.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1/B2 „Selbständige Sprachverwendung“ des Gemeinsamen Europäischen Referenzrahmens für Sprachen und ist für Studierende konzipiert worden, die mehr Sicherheit im Gebrauch der italienischen Grammatik gewinnen möchten.
Nach Abschluss des Moduls können die Studierenden erlernte grammatische Strukturen korrekt und sinnvoll anwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
wird im Unterricht bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch B1/B2 - Grammatica compatta (Seminar, 2 SWS)
Mainardi D
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0633: Italian B2.1 + B2.2 - intensive | Italienisch B2.1 + B2.2 - Intensiv

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B1.2 (bestandene Klausur) oder Einstufungstest mit Ergebnis B2.1

Content:
Abschlussmodul des B-Niveaus des Gemeinsamen Europäischen Referenzrahmens für Sprachen (Mittelstufe).
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv, selbständig und mit einem gewissen Grad an Flüssigkeit über Themen von allgemeinem Interesse oder von vertrautem Fachgebiet mit einem Muttersprachler zu diskutieren und eine Argumentation gut verständlich auszuführen. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt.
Die Studierenden erarbeiten umfangreichen und differenzierten Wortschatz zu einem breiten Spektrum an aktuellen und soziokulturellen Themen und setzen sich mit zeitgenössischen literarischen Prosatexten auseinander. Sprachliche Handlungsformen wie z.B. Beschreiben, Vergleichen, Gegenüberstellen, Stellungnehmen, Kommentieren, Kritisieren werden mündlich und schriftlich intensiv trainiert.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2, „Selbständige Sprachverwendung“, des GER
Nach Abschluss des Moduls kann der/die Studierende längere Redebeiträge und Vorträge sowohl zu Themen von allgemeinen Interesse als auch innerhalb seines/ihres Fachgebietes folgen, sofern sie klar vorgetragen werden; er/sie kann wesentliche Inhalte von authentischen Artikeln, Berichten und Texten zu allgemeinen soziokulturellen Themen oder aus dem eigenen Interessens- und Fachgebiet aufnehmen und darüber in klarer und strukturierter Form berichten; er/sie kann zeitgenössische literarische Prosatexte verstehen; schriftlich und mündlich ist er/sie in der Lage, zu vielen Themen aus seinen/ihren Interessensgebieten eine klare und detaillierte Darstellung zu geben sowie einen Standpunkt zu einer aktuellen Frage zu erläutern und Vor- und Nachteile verschiedener Möglichkeiten anzugeben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Lehrwerk; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrwerk (wird im Unterricht bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0635: Italian C1.1 | Italienisch C1.1

Version of module description: Gültig ab summerterm 2022

Module Level:	Language:	Duration:	Frequency:
Bachelor/Master	Language taught	one semester	irregularly
Credits:*	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**
3	90	60	30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).)

Repeat Examination:

(Recommended) Prerequisites:
Fundierte Kenntnisse des Moduls B2.2 (bestandene Klausur) oder Einstufungstest mit Ergebnis C1.1

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Italienisch aufgebaut und vertieft, die es den Studierenden ermöglichen, kommunikative Kompetenzen auf gehobenem sprachlichem Niveau zu entwickeln. Dabei werden landeskundliche, interkulturelle und studienbezogene Aspekte berücksichtigt.
Die Studierenden überprüfen und vertiefen anhand komplex aufgebauter und anspruchsvoll formulierter Hör- und Lesetexte zu Themen von gesamtgesellschaftlichem Interesse ihre Fähigkeiten, ohne große Mühe und überwiegend flüssig in der Fremdsprache zu agieren.
Sie lernen, Textsorten und Schreibstile zu unterscheiden, implizit formulierte Meinungen zu identifizieren und moderne literarische Texte nach Interpretationshinweisen zu untersuchen.
Sie üben, komplexe Sachtexte auch außerhalb des eigenen Fachgebietes zu analysieren, zu komprimieren und kritisch zu kommentieren.

Strategien zur Erschließung anspruchsvoller Texte wie z.B. Fachartikel, journalistische Beiträge, zeitgenössische Literatur werden aufgezeigt.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau C1 – Kompetente Sprachverwendung des Gemeinsamen Europäischen Referenzrahmens für Sprachen.
Nach Abschluss des Moduls können die Studierenden, die Sprache im gesellschaftlichen und beruflichen Leben ziemlich wirksam und flexibel gebrauchen. Sie können den Inhalt von komplexen Artikeln und Berichten, auch außerhalb des eigenen Fach- und Interessengebiets, fast mühelos verstehen und Standpunkte identifizieren; Sie sind in der Lage, moderne literarische Texte zu interpretieren; Sie können die eigenen Gedanken und Meinungen präzise ausdrücken sowie die eigenen Beiträge geschickt mit denen anderer Personen verknüpfen; Sie können klar und gut strukturierte Texte wie Briefe, Aufsätze oder Berichte über komplexe Sachverhalte verfassen und dabei den Stil wählen, der für die jeweiligen Leserinnen und Leser angemessen ist.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Wird im Unterricht bekannt gegeben

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Italienisch C1.1 (Seminar, 2 SWS)
Bonomini F
For further information in this module, please click campus.tum.de or here.

SZ0003-07: Japanese | Japanisch

Module Description

SZ0705: Japanese A1.1 | Japanisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Den Teilnehmern wird empfohlen, sich vor Kursbeginn mit der Hiragana-Silbenschrift vertraut zu machen. Hierfür werden Unterlagen im jeweiligen Moodle-Kurs bereitgestellt.

Content:
In dieser LV werden neben der Einübung des japanischen Schrift- und Lautsystems (v.a. Hiragana) Grundkenntnisse des Japanischen vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Um dieses Ziel zu erreichen, wird Kommunikation im Kontext folgender Situationen eingeübt: sich vorstellen; einkaufen gehen; Öffnungszeiten/Telefonnummer erfragen etc. Dazu werden u.a. folgende Themen der Grammatik behandelt: Nominalaussage und Partikeln, Demonstrativpronomen, Zahlen und Zeitangaben.
Die Studierenden lernen, mit dem grundlegenden Vokabular zu Themen wie Familie, Beruf,

Freizeit und Wohnen einfach strukturierte Hauptsätze zu formulieren und Alltägliches zu berichten/ erfragen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls sind die Studierenden in der Lage, vertraute, alltägliche Ausdrücke und sehr einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen, bzw. Fragen dieser Art beantworten. Er/Sie kann die japanischen Silbenschriften Hiragana selbstständig lesen, schreiben und aussprechen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter und (online-)Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A1.1 (Seminar, 2 SWS)
Bauer K, Gottschalk H, Koide I, Miyayama-Sinz M, Murakami N, Stinner-Hasegawa Y

Blockkurs Japanisch A1.1 (Seminar, 2 SWS)
Gottschalk H, Murakami N
For further information in this module, please click campus.tum.de or here.

Module Description

SZ07052: Japanese A1.1 + A1.2 | Japanisch A1.1 + A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Den Teilnehmern wird empfohlen, sich vor Kursbeginn mit der Hiragana-Silbenschrift vertraut zu machen. Hierfür werden Unterlagen im jeweiligen Moodle-Kurs bereitgestellt.

Content:
In dieser LV werden neben der Einübung des japanischen Schrift- und Lautsystems (Hiragana, Katakana und elementare Kanji) Grundkenntnisse des Japanischen vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Um dieses Ziel zu erreichen, wird Kommunikation im Kontext folgender Situationen eingeübt: sich vorstellen; einkaufen gehen; Einladungen aussprechen und annehmen/ablehnen etc. Dazu werden u.a. folgende Themen der Grammatik behandelt: Verben und Partikeln, Zahlen und Zeitangaben, zwei Arten von Adjektiven (i-Adjektiv u. na-adjektiv) und Existenzverben. Die Studierenden lernen, mit dem grundlegenden Vokabular zu Themen wie Familie, Beruf, Freizeit und Wohnen einfach strukturierte Hauptsätze zu formulieren und Alltägliches zu berichten/erfragen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls sind die Studierenden in der Lage, vertraute, alltägliche Ausdrücke und sehr einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen, bzw. Fragen dieser Art beantworten. Außerdem kann er/sie neben den japanischen Silbenschriften Hiragana und Katakana ca. 20 für den Alltag relevante Kanji (chinesische Schriftzeichen) verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter und (online-)Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A1.1 + A1.2 (Seminar, 4 SWS)
Ishikawa-Vetter M, Murakami N
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0706: Japanese A1.2 | Japanisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A 1.1 oder vergleichbare Kenntnisse

Content:
In dieser LV werden Grundkenntnisse des Japanischen vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Das Erlernen der Schriftzeichen (Kanji) ist ebenfalls grundlegend. Um dieses Ziel zu erreichen, wird Kommunikation im Kontext folgender Situationen eingeübt: Verabredungen treffen; jemanden besuchen; nach dem Weg fragen etc. Dazu werden u.a. folgende Themen der Grammatik behandelt: transitive Verben und Partikeln, zwei Arten von Adjektiven (i-Adjektiv u. na-adjektiv) und Existenzverben. Die Studierenden lernen, mit dem grundlegenden Vokabular zu Themen wie Familie, Beruf, Freizeit und Wohnen einfach strukturierte Hauptsätze zu formulieren und Alltägliches zu berichten/erfragen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls sind die Studierenden in der Lage, vertraute, alltägliche Ausdrücke und ganz einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen, bzw. Fragen dieser Art beantworten. Er/Sie kann ein sehr kurzes Kontaktgespräch führen (begrüßen, danken, entschuldigen, Einladungen aussprechen). Außerdem kann er/sie neben den japanischen Silbenschriften Hiragana und Katakana ca. 20 für den Alltag relevante Kanji (chinesische Schriftzeichen) verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A1.2 (Seminar, 2 SWS)
Koide I, Miyayama-Sinz M

Blockkurs Japanisch A1.2 (Seminar, 2 SWS)
Stinner-Hasegawa Y
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0707: Japanese A1.3 | Japanisch A1.3

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A 1.2 oder vergleichbare Kenntnisse

Content:
In dieser LV werden die Grundkenntnisse des Japanischen erweitert, die es den Studierenden ermöglichen, sich in alltäglichen Situationen mit Basissprachkenntnissen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Das Erlernen der Schriftzeichen (Kanji) ist ebenfalls grundlegend. Um dieses Ziel zu erreichen, wird Kommunikation im Kontext folgender Situationen eingeübt: im Restaurant; mit dem Taxi fahren; über Ferien und Freizeit berichten etc. Dazu werden u.a. folgende Themen der Grammatik behandelt: Ausdrücke für Zahlen und Mengen, Wunschformen, te-Form der Verben. Die Studierenden lernen, mit dem grundlegenden Vokabular zu Themen wie Familie, Beruf, Freizeit und Wohnen einfach strukturierte Hauptsätze zu formulieren und Alltägliches zu berichten/erfragen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls sind die Studierenden in der Lage, vertraute, alltägliche Ausdrücke und ganz einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen, bzw. Fragen dieser Art beantworten. Er/Sie kann in einfacher Weise Tagesabläufe beschreiben und Wünsche kommunizieren. Außerdem kann er/sie neben den japanischen Silbenschriften Hiragana und Katakana ca. 60 für den Alltag relevante Kanji (chinesische Schriftzeichen) verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A1.3 (Seminar, 2 SWS)
Miyayama-Sinz M, Stinner-Hasegawa Y

Blockkurs Japanisch A1.3 (Seminar, 2 SWS)
Taguchi-Roth Y
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0709: Japanese A1.4 | Japanisch A1.4

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A 1.3 oder vergleichbare Kenntnisse

Content:
In dieser LV werden die Grundkenntnisse des Japanischen erweitert, die es den Studierenden ermöglichen, sich in alltäglichen Situationen mit Basissprachkenntnissen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Das Erlernen der Schriftzeichen (Kanji) ist ebenfalls grundlegend. Um dieses Ziel zu erreichen, wird Kommunikation im Kontext folgender Situationen eingeübt: in der Bank; beim Arzt; Gespräche unter Freunden etc. Dazu werden u.a. folgende Themen der Grammatik behandelt: Verbindung von zwei oder mehr Sätzen, nai-Form, Wörterbuchform sowie ta-Form der Verben und Dialoge im „einfachen Stil“. Die Studierenden lernen, mit dem grundlegenden Vokabular zu Themen wie Familie, Beruf, Freizeit und Wohnen einfach strukturierte Hauptsätze zu formulieren und Alltägliches zu berichten/erfragen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls sind die Studierenden in der Lage, vertraute, alltägliche Ausdrücke und ganz einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen, bzw. Fragen dieser Art beantworten. Er/Sie kann schriftliche Mitteilungen im „einfachen Stil“ machen. Außerdem kann er/sie neben den japanischen Silbenschriften Hiragana und Katakana ca. 100 für den Alltag relevante Kanji (chinesische Schriftzeichen) verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A1.4 (Seminar, 2 SWS)
Abe M

Blockkurs Japanisch A1.4 (Seminar, 2 SWS)
Abe M, Bauer K
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0711: Japanese A2 Communication Course | Japanisch A2 Kommunikation

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.2

Content:
Im Modul A2 Kommunikation liegt der Schwerpunkt auf dem modernen gesprochenen Japanisch, und die Unterschiede zum Schriftjapanisch werden vermittelt. In verschiedenen alltagsnahen Situationen werden natürliche Sprechmuster gemeinsam erarbeitet und eingeübt. Dabei wird nicht nur der „höfliche Stil“, sondern auch der „einfache Stil“ aktiv verwendet. In diesem Kurs bekommt jeder Gelegenheit, über Themen seines Interesses zu diskutieren und sich sein eigenes, situations¬ge¬rech¬tes Sprechniveau zu erarbeiten.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls kann der/die Studierende zu alltäglichen Themen eine persönliche Meinung äußern bzw. für und gegen etwas argumentieren. Er/sie kann durch die Teilnahme an einfachen Diskussionen und Alltags¬ge¬sprächen Sicherheit in vorhersehbaren Alltagssituationen

gewinnen und das Vertrauen in die eigenen (bereits erworbenen) Kenntnisse stärken. Der/die Studierende ist in der Lage, unterschiedliche Kontexte und Höflichkeitsniveaus des Gesprächspartners zu erkennen und adäquat zu reagieren.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Eigenständiges Referieren; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, leicht leserliche Texte, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A2 Kommunikation (Seminar, 2 SWS)
Miyayama-Sinz M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0716: Japanese A2.3 + A2.4 | Japanisch A2.3 + A2.4

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A 2.2 oder vergleichbare Kenntnisse

Content:
In dieser LV werden Sprachkenntnisse in Japanisch erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen, z.B. im Studium, in der Arbeit, in der Freizeit und mit der Familie, und zu Themen von allgemeinem Interesse wie Film, Musik, Sport etc. selbständig und sicher in der Zielsprache zu verständigen. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Das Erlernen der Schriftzeichen (Kanji) ist ebenfalls grundlegend.
Dazu werden u.a. folgende Themen der Grammatik behandelt: Intentionalform, Imperativ- und Verbotsform und Konditionalform der Verben sowie Passivverben. Die Studierenden erweitern und überprüfen ein grundlegendes Repertoire an logischen Haupt- und Nebensatz-Strukturen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls kann der/die Studierende sich in den meisten Situationen, denen man in Studium, Beruf und in der Freizeit begegnet, sicher verständigen. Er/Sie kann sich einfach

und zusammenhängend über vertraute Themen und persönliche Interessengebiete äußern und ist in der Lage, Ratschläge und Anweisungen zu erteilen. Außerdem kann er/sie neben den japanischen Silbenschriften Hiragana und Katakana ca. 260 für den Alltag relevante Kanji (chinesische Schriftzeichen) verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A2.3 + A2.4 (Seminar, 4 SWS)
Abe M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0717: Japanese B1 Communication | Japanisch B1 Kommunikation

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.4

Content:
Im Modul B1 Kommunikation werden Kenntnisse in der Fremdsprache Japanisch vertieft, die es den Studierenden ermöglichen, aktiv und mit einem gewissen Grad an Flüssigkeit über Themen vom allgemeinem Interesse oder von vertrautem Fachgebiet zu diskutieren und eine Argumentation gut verständlich auszuführen. Der/die Studierende lernt die bisher erworbenen Sprachkenntnisse durch eine intensive Kommunikationspraxis zu aktivieren bzw. auszubauen. Er/sie verbessert die situationsgerechte Ausdrucksfähigkeit, indem er/sie differenzierte Höflichkeitsformen (sonkei-go / kenjo-go) erarbeitet.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls kann der/die Studierende über verschiedene Themen aus seinen/ihren Interessen- oder Fachgebieten mündlich wie schriftlich detailliert und zusammenhängend berichten, Informationen zusammenfassen und seinen/ihren Standpunkt vertreten. Er/sie ist in der

Lage, unterschiedliche Kontexte und Höflichkeitsniveaus des Gesprächspartners zu erkennen und mit ihm klar und strukturiert zu kommunizieren.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Eigenständiges Referieren; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch B1 Kommunikation (Seminar, 2 SWS)
Ishikawa-Vetter M, Miyayama-Sinz M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0718: Japanese A1.3 + A1.4 | Japanisch A1.3 + A1.4

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A 1.2 oder vergleichbare Kenntnisse

Content:
In dieser LV werden die Grundkenntnisse des Japanischen erweitert, die es den Studierenden ermöglichen, sich in alltäglichen Situationen mit Basissprachkenntnissen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Das Erlernen der Schriftzeichen (Kanji) ist ebenfalls grundlegend. Um dieses Ziel zu erreichen, wird Kommunikation im Kontext folgender Situationen eingeübt: im Restaurant; über Ferien und Freizeit berichten; Gespräche unter Freunden etc. Dazu werden u.a. folgende Themen der Grammatik behandelt: Wunschformen, te-Form , nai-Form sowie Wörterbuchform der Verben und Dialoge im „einfachen Stil“. Die Studierenden lernen, mit dem grundlegenden Vokabular zu Themen wie Familie, Beruf, Freizeit und Wohnen einfach strukturierte Hauptsätze zu formulieren und Alltägliches zu berichten/ erfragen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls sind die Studierenden in der Lage, vertraute, alltägliche Ausdrücke und ganz einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen, bzw. Fragen dieser Art beantworten. Er/Sie kann nicht nur im „höflichen Stil“, sondern auch im „einfachen Stil“ Gespräche unter vertrauten Leuten führen. Außerdem kann er/sie neben den japanischen Silbenschriften Hiragana und Katakana ca. 100 für den Alltag relevante Kanji (chinesische Schriftzeichen) verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A1.3 + A1.4 (Seminar, 4 SWS)
Taguchi-Roth Y
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0719: Japanese A2.1 + A2.2 | Japanisch A2.1 + A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A 1.4 oder vergleichbare Kenntnisse

Content:
In dieser LV werden die Grundkenntnisse des Japanischen erweitert, die es den Studierenden ermöglichen, sich in alltäglichen Situationen mit Basissprachkenntnissen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Das Erlernen der Schriftzeichen (Kanji) ist ebenfalls grundlegend. Um dieses Ziel zu erreichen, wird Kommunikation im Kontext folgender Situationen eingeübt: einfache Meinungen äußern; Abläufe/Zustand erklären; mit Freunden/der Familie im „einfachen Stil“ (nicht im „höflichen Stil“) sprechen etc. Dazu werden u.a. folgende Themen der Grammatik behandelt: direkte u. indirekte Rede, Konditionalsätze, Potenzialverben und Verbenpaare (transitiv/intransitiv). Die Studierenden lernen, in einfach strukturierten Haupt- und Nebensätzen Alltägliches zu berichten/erfragen.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls kann der/die Studierende im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen Themen unter Einbeziehung landeskundlicher Aspekte. Der/die Studierende ist in der Lage, Pläne, Wünsche und Hoffnungen zu äußern, Einladungen auszusprechen, anzunehmen oder abzulehnen. Außerdem kann er/sie neben den japanischen Silbenschriften Hiragana und Katakana ca. 180 für den Alltag relevante Kanji (chinesische Schriftzeichen) verstehen und verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens. Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben)
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Japanisch A2.1 + A2.2 (Seminar, 4 SWS)
Bauer K
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0720: Japanese B1.1 | Japanisch B1.1

Version of module description: Gültig ab summerterm 2023

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0722: Japanese B2 Communication | Japanisch B2 Kommunikation

Version of module description: Gültig ab summerterm 2024

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Aufgaben zur Anwendung von Schriftzeichen, Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten (Portfolio-)Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B1

Content:
Im Modul B2 Kommunikation haben die Studierenden die Möglichkeit, gemeinsam mit japanischen Studierenden der Partneruniversität über aktuelle Themen zu diskutieren und ihre sprachlichen sowie interkulturellen Fähigkeiten auszubauen. Dabei werden sowohl Mediationskompetenzen als auch Lernerautonomie gefördert. Darüber hinaus werden anhand der aktuellen Materialien fachspezifische Begriffe und Themen vermittelt, die es den Studierenden ermöglichen, auf wissenschaftlicher Ebene Diskussionen zu führen und Präsentationen zu halten.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls kann der/die Studierende über verschiedene Themen aus seinen/ihren Interessens- oder Fachgebieten Präsentationen halten und seinen/ihren Standpunkt vertreten. Er/sie ist in der Lage, mit Gesprächspartnern aus anderen Kulturräumen adäquat und verständnisvoll zu kommunizieren.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Eigenständiges Referieren; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben (zur Vor- und Nachbearbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Vom Kursleiter selbst angefertigte/zusammengestellte Arbeitsblätter, (online-) Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-08: Portuguese | Portugiesisch

Module Description

SZ0801: Portuguese A1 | Portugiesisch A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in Fremdsprache Portugiesisch unter Berücksichtigung plurikultureller, plurilingualer und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich in vertrauten und alltäglichen Grundsituationen trotz noch geringer Sprachkenntnisse zurechtzufinden.
Sie lernen/üben grundlegendes Vokabular zu Themen wie Familie, Beruf, Freizeit, Einkaufen, Wohnen, Reisen und Gesundheit, einfache Gespräche in alltäglichen Situationen zu führen und in Hauptsätzen Alltägliches in Gegenwart und Zukunft zu äußern, unter Verwendung von

Nomen, Verben, Pronomen und Possessivartikeln, Modalverben und grundlegenden lokalen und temporalen Präpositionen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage Ausdrücke und einfache Sätze zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen.
Sie können einfache Fragen in alltäglichen Situationen stellen und beantworten, Tagesabläufe in Präsenz beschreiben, Absichten ausdrücken und einfache schriftliche Mitteilungen zur Person machen, Verabredungen treffen und in grundlegenden alltäglichen Situationen beispielsweise beim Einkauf oder im Restaurant ihre Wünsche erfolgreich kommunizieren, sofern die Gesprächspartner langsam und deutlich sprechen und Wiederholungen anbieten, wenn es erforderlich ist.
Die Studierenden können einfache, vorhersehbare Informationen von unmittelbarem Interesse übermitteln, die in kurzen, einfachen Texten wie Schildern und Notizen, Postern und Programmen enthalten sind. Die Kommunikation kann mit Hilfe von Internationalismen und verwandten Wörtern/ Gebärden aus anderen Sprachen erfolgen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert.
Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Portugiesisch A1 (Seminar, 2 SWS)
de Sena Lang J

Portugiesisch A1 (Seminar, 2 SWS)
de Sena Lang J, Paiva Pissarra R, Viegas Cunha R, Werkhausen R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0806: Portuguese A2.1 | Portugiesisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur oder gesicherte Kenntnisse der Niveau A1.

Content:
In diesem Modul werden Grundkenntnisse in Portugiesisch unter Berücksichtigung plurikultureller, plurilingualer und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, sich einfachen, routinemäßigen Situationen zurechtzufinden, z.B. auf Reisen, beim Arzt, auf Wohnungssuche, im Kaufhaus, unter Kollegen, Freunden und Nachbarn.
Die Studierenden lernen/üben u.a.: Vergleiche anzustellen, über Erfahrungen zu sprechen und sie zu bewerten, über Alltagsaktivitäten zu berichten und diese zu planen, über vergangene Ereignisse zu berichten und Zustände und Probleme zu beschreiben und vergleichen. Dazu werden entsprechende, hierfür notwendige grammatische Themen bzw. Wortschatz behandelt.
Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess

eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 des GER.
Nach Abschluss des Moduls sind die Studierenden in der Lage, im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte.
Sie können beispielsweise sich und andere Personen, persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation beschreiben. Sie können die vergangenen Ereignisse in Perfekt verstehen und schriftlich und mündlich ausdrucken.
Die Studierenden können längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Sie können kurze, informative Texte oder Mitteilungen zu grundlegenden Situationen in Alltag und Studium verfassen.
Die Studierenden können erkennen, wenn Schwierigkeiten auftreten und in einfacher Sprache andeuten, welcher Art das Problem offenkundig ist. Sie können die Hauptpunkte kurzer, einfacher Gespräche oder Texte zu alltäglichen Themen von unmittelbarem Interesse übermitteln, sofern diese klar in einfacher Sprache ausgedrückt sind.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch A2.1 (Seminar, 2 SWS)
de Sena Lang J, Paiva Pissarra R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0807: Portuguese A2.2 | Portugiesisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur oder gesicherte Kenntnisse der Niveau A2.1

Content:
In diesem Modul werden Grundkenntnisse in Fremdsprache Portugiesisch unter Berücksichtigung plurikultureller, plurilingualer und landeskundlicher Aspekte, die es den Studierenden ermöglichen, sich in einfachen, routinemäßigen Situationen zurechtzufinden, z. B. Studium und Ausbildung, Beruf, Wohnen, Medien und Reisen.
Die Studierenden lernen/üben in komplexerer Struktur u.a. wie man Meinungen äußert und darauf reagiert; wie man über die Ursachen und Folgen von etwas spricht; wie man Anweisungen gibt; wie man Situationen und Ereignisse in der Vergangenheit schildert; wie man Geschichten erzählt. Wie man einfache Diskussionen führen kann, eine Auswahl treffen und begründen. Dazu werden entsprechende, hierfür notwendige grammatische Themen bzw. Wortschatz bearbeitet.

Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch eingegangen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und zu gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte.
Sie können beispielsweise sich und andere Personen, die persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation im Präsens oder Perfekt beschreiben. Sie können Vorschläge machen und reagieren, Informationen austauschen und Ratschläge geben.
Sie sind in der Lage, mit Hilfe feststehender Wendungen kurze, informative Texte oder Mitteilungen zu verfassen. Es werden Haupt- und Nebensätze verwendet, die durch eine Reihe von Bindewörtern kontextadäquat verbunden werden.
Die Studierenden können in Gesprächen eine unterstützende Rolle übernehmen, sofern andere Teilnehmer/innen an Gesprächen langsam sprechen und einer oder mehrere von ihnen einem dabei helfen, etwas beizutragen und Vorschläge zu machen. Sie können wichtige Informationen aus klar strukturierten, kurzen, einfachen Informationstexten übermitteln, sofern die Texte konkrete, vertraute Themen betreffen und in einfacher Alltagssprache verfasst sind.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben);

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch A2.2 (Seminar, 2 SWS)
Werkhausen R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0808: Portuguese B1.2 | Portugiesisch B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur oder gesicherte Kenntnisse der Niveau B1.1.

Content:
In diesem Modul werden Kenntnisse in Portugiesisch gefestigt und erweitert, unter Berücksichtigung plurikultureller, plurilingualer und landeskundlicher, studienbezogener Aspekte, die es den Studierenden ermöglichen, sich in vertrauten Situationen (Studium, Arbeit, Freizeit und Familie) und zu Themen von allgemeinem Interesse wie z. B. Kunst, Geschichte, soziales Engagement, selbständig und sicher in der Zielsprache zu äußern und zu verstehen, wenn Standardsprache der verschiedenen Varietäten des Portugiesisch verwendet wird.
Die Studierenden erarbeiten ein erweitertes Spektrum an Vokabular und Redewendungen, erfassen und benutzen ein grundlegendes Repertoire an logischen Haupt- und Nebensatz-Strukturen mit Konjunktiv. Sie lesen selbständiger Texte über Ihrem Studienumfeld und weitere globale, wissenschaftliche und literarische Texte und äußern sich schriftlich und mündlich

darüber. Dazu werden entsprechende hierfür notwendige grammatikalische Themen erlernt und angewendet.
Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiv zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 des GER.
Nach Abschluss des Moduls sind die Studierenden in der Lage sich in den meisten Situationen, denen man in Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher zu verständigen. Sie können z.B. Informationen aus Zeitungstexten weitergeben, über lebenswerte Städte diskutieren, Personen und Dinge genauer beschreiben, Meinungen äußern und argumentieren.
Sie können wesentliche Inhalte in einfachen, authentischen Sachtexten, literarischen Texten und in Fernseh- oder Radiosendungen verstehen und wiedergeben und sich spontan an Gesprächen zu Themen von allgemeinem Interesse beteiligen. Sie können einfache formelle E-Mails und längere persönliche Briefe verfassen und von persönlichen Erfahrungen berichten. Sie können die wesentlichen Punkte langer Texte übermitteln, die in unkomplizierter Sprache zu Themen von persönlichem Interesse formuliert sind, sofern man die Bedeutung einzelner Wendungen überprüfen kann.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
angefertigte/zusammengestellte Lehrmaterialianen; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen und Materialien; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch B1.2 (Seminar, 2 SWS)
Werkhausen R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0809: Portuguese B1.1 | Portugiesisch B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur oder gesicherte Kenntnisse der Niveau A2.

Content:
In diesem Modul werden Kenntnisse in Fremdsprache Portugiesisch unter Berücksichtigung plurikultureller, plurilingualer, landeskundlicher und studienbezogener Aspekte, die es den Studierenden ermöglichen, sich in vertrauten Situationen (Studium, Arbeit, Freizeit und Familie) und zu Themen von allgemeinem Interesse wie z. B. Konsum, Zukunft, Umwelt und Gesellschaft, selbständig und sicher in der Zielsprache zu verständigen, wenn Standardsprache der verschiedenen Varietäten des Portugiesisch verwendet wird.
Die Studierenden wiederholen und ergänzen elementare Aspekte der Grammatik wie den Gebrauch der Zeiten und der Präpositionen. Es werden auch gängige Redemittel bei Argumentation vermittelt und geprobt. Sie lernen/üben den Gebrauch reflexiver Verben und das Passiv, wie man bestimmte Haltungen, Kenntnisse, Warnungen, Meinungen, Ziele und

Bewertungen ausdrückt; wie man Empfehlungen und Ratschläge gibt; wie man die persönliche Auslegung eines Gedankens erklärt; wie man in der Gruppe über ein Thema diskutiert, um Erklärungen bittet und sich auf das Gesagte bezieht.
Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1.1 des GER.
Nach Abschluss des Moduls sind die Studierenden in der Lage sich in den meisten Situationen, denen man in Studium, Beruf und Freizeit im Sprachgebiet begegnet, sicher zu verständigen und zu alltäglichen Themen eine persönliche Meinung äußern und widersprechen bzw. für und gegen etwas argumentieren.
Sie können sich über kulturelle Unterschiede und Sprache austauschen; Ratschläge, Warnungen und Meinungen aussprechen und schreiben; die meisten Situationen bewältigen, denen man auf Reisen und im Sprachgebiet begegnet; über Erfahrungen und Ereignisse berichten, Träume, Hoffnungen und Ziele beschreiben und dies auch begründen oder erklären; über persönliche Themen, und zu Ihrem Studienumfeld, kurze Texte schreiben.
Die Studierenden können andere Menschen einladen, ihr Fachwissen, ihre eigenen Erfahrungen und Sichtweise einzubringen. Sie können Informationen in klaren, gut strukturierten Texten zu Themen übermitteln, die ihnen vertraut oder von persönlichem oder aktuellem Interesse sind, obwohl der begrenzte Wortschatz gelegentlich zu Formulierungsproblemen führen kann.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
angefertigte/zusammengestellte Lehrmaterialianen; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen und Materialien; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch B1.1 (Seminar, 2 SWS)
Werkhausen R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0815: Portuguese - Portuguese for Spanish speakers A1 + A2 | Portugiesisch - Português para hispanofalantes A1 + A2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Muttersprachliche Kenntnisse im Spanischen oder Spanisch als Fremdsprache auf Niveau B2.

Content:
In diesem Modul werden Grundkenntnisse in Fremdsprache Portugiesisch unter Berücksichtigung plurikultureller, plurilingualer und landeskundlicher Aspekte, die es den Studierenden ermöglichen, mit Unterstützung ihres Repertoires in anderen romanischen Sprachen, hier insbesondere Spanisch, sich in einfachen, routinemäßigen Situationen zurechtzufinden, z. B. Studium und Ausbildung, Beruf, Wohnen, Medien und Reisen, vorausgesetzt die Gesprächspartner äußern sich deutlich in den verschiedenen Varianten der portugiesischen Sprache.
Die Studierenden lernen/üben von einfachen zu komplexeren Strukturen u.a. Fragen zur Person/ zur Familie zu stellen und zu beantworten; Zahlen, Preise und Uhrzeiten zu verstehen und zu benutzen; Angabe zu einem Ort und zu Personen zu machen; Vergleiche anzustellen, über

Erfahrungen zu sprechen und sie zu bewerten, über Alltagsaktivitäten zu berichten und diese zu planen; über die Ursachen und Folgen von etwas sprechen; Anweisungen zu geben; Situationen und Ereignisse in der Vergangenheit zu schildern und erzählen; einfache Diskussionen zu führen; Meinungen zu äußern und zu begründen. Dazu werden entsprechende, hierfür notwendige grammatische Themen bzw. Wortschatz behandelt.
Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch als auch im Vergleich zum Spanischen eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich an den Niveaustufen A1 und A2 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und zu gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte. Sie sind in der Lage, ihre spanischen Vorkenntnisse beim Erlernen der portugiesischen Sprache nützlich einzubringen.
Sie können beispielsweise sich und andere Personen, die persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation im Präsens oder Perfekt beschreiben. Sie können Vorschläge machen und reagieren, Informationen austauschen und Ratschläge geben.
Sie sind in der Lage, mit Hilfe feststehender Wendungen kurze, informative Texte oder Mitteilungen zu verfassen. Es werden Haupt- und Nebensätze verwendet, die durch eine Reihe von Bindewörtern kontextadäquat verbunden werden.
Die Studierenden können in Gesprächen eine unterstützende Rolle übernehmen, sofern andere Teilnehmer/innen an Gesprächen langsam sprechen und einer oder mehrere von ihnen einem dabei helfen, etwas beizutragen und Vorschläge zu machen. Sie können wichtige Informationen aus klar strukturierten, kurzen, einfachen Informationstexten übermitteln, sofern die Texte konkrete, vertraute Themen betreffen und in einfacher Alltagssprache verfasst sind.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.

Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0816: Portuguese B2.1 | Portugiesisch B2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur oder gesicherte Kenntnisse der Niveau B1

Content:
In diesem Modul werden unter Berücksichtigung plurikultureller, plurilingualer, landeskundlicher und akademischer Aspekte Kenntnisse in Portugiesisch vermittelt/aufgebaut und vertieft, die es den Studierenden ermöglichen, sich aktiv und annähernd flüssig über aktuelle gesellschaftlichen und berufsbezogenen Themen oder über vertrauten Fachgebieten sich zu informieren und zu argumentieren sowie sich mit interkulturellen Themen zu beschäftigen. Die Entwicklung von Lesestrategien von fachbezogenen Texten, sowie Wortschatzaufbau und Hörstrategien wird gefordert. Zur Festigung der mündlichen und schriftlichen Fertigkeit, werden Schwerpunkte der Grammatik (z.B. Nominalisierung, Indikativ/Konjunktiv, Indirekte Rede, komplexer Satzbau und Satzgefüge) wiederholt und vertieft.

Es werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiv zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2 des GER.
Nach Abschluss des Moduls können Studierende den wesentlichen Inhalt von authentischen Artikeln und Berichten sowie Texte aus dem eigenen Fach- und Interessengebiet selbständig verstehen. Sie sind in der Lage längere Redebeiträge und Vorträge zu verschiedenen Themen zu folgen, sofern sie klar vorgetragen werden. Sie können in einer Diskussion oder Präsentation Standpunkte darlegen, wobei sie komplexe Satzstrukturen und fachspezifisches Vokabular benutzen. Sie können begründen, warum sie einer bestimmten Meinung sind, und die Standpunkte anderer kommentieren.
Sie können gut mit anderen Menschen zusammenarbeiten und eine positive Atmosphäre schaffen, indem man sie unterstützt und Fragen zur Identifizierung gemeinsamer Ziele stellt, dabei Umsetzungswege abwägt und Vorschläge zum weiteren Vorgehen macht. Sie können Ideen Anderer weiterentwickeln, Fragen stellen, die zu Antworten aus verschiedenen Perspektiven einladen und eine Lösung oder nächste Schritte vorschlagen. Sie können detaillierte Informationen und Argumente zuverlässig übermitteln, z.B. die wichtigsten Punkte komplexer, aber gut strukturierter Texte aus den eigenen beruflichen, akademischen oder persönlichen Interessengebieten.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen sollen von den Studierenden eigenständig Grammatikthemen und Wortschatzübungen mit vorgegebenen (Online-) Materialien erarbeitet werden. Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
angefertigte/zusammengestellte Lehrmaterialianen; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen und Materialien; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch B2.1 (Seminar, 2 SWS)
Werkhausen R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0817: Portuguese B2.2 | Portugiesisch B2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur oder gesicherte Kenntnisse der Niveau B2.1

Content:
In diesem Modul werden Kenntnisse in Portugiesisch vermittelt/aufgebaut und vertieft, unter Berücksichtigung plurikultureller, plurilingualer und akademischer Aspekte, die es den Studierenden ermöglichen, über allgemeine und berufsbezogene Themen aktiv und annähernd flüssig zu kommunizieren. Anhand von Lese- und Hörtexten zu verschiedenen Themen lernen die Studierenden, Inhalte mündlich und schriftlich kohärent zusammenzufassen und Vor- und Nachteile abzuwägen und Stellung zu nehmen.
Sie erarbeiten sich ein Spektrum an themenbezogenem Vokabular, Redemitteln und Textbausteinen, die sie für das Zusammenfassen von Texten und den Austausch von Argumenten benötigen. Sie analysieren den Satzbau in komplexen Sätzen, setzen sich mit den entsprechenden

grammatischen Strukturen (wie z.B. Konnektoren und Kohäsionsmitteln) auseinander und vertiefen ihre Kenntnisse zur Umschreibung, Wortbildung und den Nominalisierungsmöglichkeiten.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesischen eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B2 des GER.
Nach Abschluss des Moduls können Studierende den wesentlichen Inhalt von authentischen Artikeln und Berichten sowie Texte aus dem eigenen Fach- und Interessengebiet selbständig verstehen. Sie sind in der Lage längere Redebeiträge und Vorträge zu verschiedenen Themen verstehen und mündlich und schriftlich kohärent wiedergeben.
Sie sind in der Lage, den Austausch von Ideen förderliche Atmosphäre zu schaffen und die Diskussion heikler Themen zu erleichtern, indem man verschiedene Perspektiven würdigt, die Teilnehmer/innen an Gesprächen zur Erkundung unterschiedlicher Standpunkte ermutigt und dabei die eigene Ausdrucksweise einfühlsam anpasst. Sie können auf den Ideen Anderer aufbauen und Vorschläge zum weiteren Fortgang machen. Sie können die wesentlichen Inhalte von gut strukturierten, aber langen und anspruchsvollen Texten zu Themen der eigenen beruflichen, akademischen oder persönlichen Interessengebiete übermitteln, indem man die Meinungen und Absichten der Sprecher/innen verdeutlicht.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen sollen von den Studierenden eigenständig Grammatikthemen und Wortschatzübungen mit vorgegebenen (Online-) Materialien erarbeitet werden. Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
angefertigte/zusammengestellte Lehrmaterialianen; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen und Materialien; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch B2.2 (Seminar, 2 SWS)
Werkhausen R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0818: Portuguese - Portuguese for Spanish Speakers A1 | Portugiesisch - Português para hispanofalantes A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Muttersprachliche Kenntnisse im Spanischen oder Spanisch als Fremdsprache auf Niveau B2.

Content:
In diesem Modul werden Grundkenntnisse der Fremdsprache Portugiesisch unter Berücksichtigung plurikultureller, plurilingualer und landeskundlicher Aspekte vermittelt, die es den Studierenden ermöglichen, mit Unterstützung ihres Repertoires in anderen romanischen Sprachen, hier insbesondere Spanisch, vertraute und alltägliche Ausdrücke und einfache Sätze zu verwenden und zu verstehen.
Sie lernen/üben grundlegendes Vokabular zu Themen wie Familie, Beruf, Freizeit, Einkaufen, Wohnen, Reisen und Gesundheit, einfache Gespräche in alltäglichen Situationen zu führen und in Hauptsätzen Alltägliches in Vergangenheit, Gegenwart und Zukunft zu äußern, unter Verwendung

von Nomen, Verben, Pronomen und Possessivartikeln, Modalverben, Imperativ und grundlegender lokaler und temporaler Präpositionen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache eigenverantwortlich und effektiv zu gestalten. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch als auch im Vergleich zum Spanischen eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich an den Niveaustufen A1 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage Ausdrücke und einfache Sätze zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Sie sind in der Lage, seine spanischen Vorkenntnisse beim Erlernen der portugiesischen Sprache nützlich einzubringen.
Sie können einfache Fragen in alltäglichen Situationen stellen und beantworten, Tagesabläufe in Vergangenheit und Gegenwart beschreiben, Absichten ausdrücken und einfache schriftliche Mitteilungen zur Person machen, Verabredungen treffen und in grundlegenden alltäglichen Situationen beispielsweise beim Einkauf oder im Restaurant ihre Wünsche erfolgreich kommunizieren, sofern die Gesprächspartner deutlich sprechen und Wiederholungen anbieten, wenn es erforderlich ist.
Die Studierenden können einfache, vorhersehbare Informationen von unmittelbarem Interesse übermitteln, die in kurzen, einfachen Texten wie Schildern und Notizen, Postern und Programmen enthalten sind. Die Kommunikation kann mit Hilfe von Internationalismen und verwandten Wörtern/ Gebärden aus anderen Sprachen erfolgen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch - Português para hispanofalantes A1 (Seminar, 2 SWS)
Santiago da Silva Lang R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0819: Portuguese - Portuguese for Spnish Speakers A2 | Portugiesisch - Português para hispanofalantes A2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht. Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur oder gesicherte Kenntnisse der Niveau A1 in Portugiesisch.
Muttersprachliche Kenntnisse im Spanischen oder Spanisch als Fremdsprache auf Niveau B2.

Content:
In diesem Modul werden Grundkenntnisse in Fremdsprache Portugiesisch unter Berücksichtigung plurikultureller, plurilingualer und landeskundlicher Aspekte, die es den Studierenden ermöglichen, mit Unterstützung ihres Repertoires in anderen romanischen Sprachen, hier insbesondere Spanisch, sich in einfachen, routinemäßigen Situationen zurechtzufinden, z. B. Studium und Ausbildung, Beruf, Wohnen, Medien und Reisen, vorausgesetzt die Gesprächspartner äußern sich deutlich in den verschiedenen Varianten der portugiesischen Sprache.
Die Studierende lernen/üben in komplexerer Struktur u.a. wie man Meinungen äußert und darauf reagiert; wie man über die Ursachen und Folgen von etwas spricht; wie man Anweisungen gibt;

wie man Situationen und Ereignisse in der Vergangenheit schildert; wie man Geschichten erzählt; wie man einfache Diskussionen führen kann, eine Auswahl treffen und begründen. Dazu werden entsprechende, hierfür notwendige grammatische Themen bzw. Wortschatz bearbeitet.
Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess eigenverantwortlich effektiver zu gestalten und damit die eigene Lernfähigkeit zu verbessern. Die Studierenden üben soziale und interkulturelle kommunikative Kompetenz durch kooperatives Handeln und Mediation (auch online).
Im Unterricht wird zugleich auf die grammatikalischen und phonetischen Unterschiede zwischen Sprachvarietäten des Portugiesisch als auch im Vergleich zum Spanischen eingegangen.

Intended Learning Outcomes:
Das Modul orientiert sich an den Niveaustufen A2 des GER.
Nach Abschluss dieses Moduls sind die Studierenden in der Lage im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen zu verstehen und zu gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studien- bzw. berufsrelevanten Themen unter Einbeziehung landeskundlicher Aspekte. Sie sind in der Lage, ihre spanischen Vorkenntnisse beim Erlernen der portugiesischen Sprache nützlich einzubringen.
Sie können beispielsweise sich und andere Personen, die persönliche Wohnsituation, Gesundheitszustand, Freizeitverhalten und berufliche Situation im Präsens oder Perfekt beschreiben. Sie können Vorschläge machen und reagieren, Informationen austauschen und Ratschläge geben.
Sie sind in der Lage, mit Hilfe feststehender Wendungen kurze, informative Texte oder Mitteilungen zu verfassen. Es werden Haupt- und Nebensätze verwendet, die durch eine Reihe von Bindewörtern kontextadäquat verbunden werden.
Die Studierenden können in Gesprächen eine unterstützende Rolle übernehmen, sofern andere Teilnehmer/innen an Gesprächen langsam sprechen und einer oder mehrere von ihnen einem dabei helfen, etwas beizutragen und Vorschläge zu machen. Sie können wichtige Informationen aus klar strukturierten, kurzen, einfachen Informationstexten übermitteln, sofern die Texte konkrete, vertraute Themen betreffen und in einfacher Alltagssprache verfasst sind.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen erarbeitet werden. Durch die Kombination dieser Übungen in Einzel-, Partner- und Gruppenarbeit wird der kommunikative und handlungsorientierte Ansatz umgesetzt. Dadurch wird die Interaktion und Mediation mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln, unter Berücksichtigung der sozialen und interkulturellen Kompetenz. Lernautonomie und Medienkompetenz werden angestrebt.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Portugiesisch - Português para hispanofalantes A2 (Seminar, 2 SWS)
Santiago da Silva Lang R
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0820: Portuguese C1 - Communication Course | Portugiesisch C1 - comunicação oral e escrita

Version of module description: Gültig ab winterterm 2022/23

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-09: Russian | Russisch

Module Description

SZ0901: Russian A1.1 | Russisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden elementare Kenntnisse der Fremdsprache Russisch vermittelt. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierenden lernen grundlegendes Vokabular zu den Einstiegsthemen in einfachen sprachlichen Strukturen zu formulieren und über sie im Präsens zu berichten. Die Studierenden üben zum Beispiel einfache Fragen zur Person, Familie und Herkunft zu stellen und zu beantworten sowie über Befinden,

Wohnort und Sprachkenntnisse zu diskutieren. Es werden kommunikative Situationen geübt, die auf einen Aufenthalt im Zielland vorbereiten. Dazu werden die notwendigen grammatikalischen Themen behandelt. Die Studierenden erlernen die russische Schrift und können sie in der Praxis anwenden. Es werden Lernstrategien vermittelt, die einen erfolgreichen Einstieg in die russische Sprache ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A1 des Gemeinsamen Europäischen Referenzrahmens (GER). Nach Bestehen des Moduls sind die Studierenden in der Lage vertraute, alltägliche Ausdrücke und ganz einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter Bedürfnisse zielen. Man kann sich und andere vorstellen und den Gesprächspartnern Fragen zu ihrer Person stellen sowie auch selbst auf Fragen dieser Art Antwort geben. Die Studierenden können sich auf einfache Art verständigen, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenen Materialien; Vorbereitung einer kurzen Präsentation in der Zielsprache; selbständige Recherchen zu den vorgegebenen Themen. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Russisch A1.1 (Seminar, 2 SWS)
Legkikh V, Minakova-Boblest E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0902: Russian A1.2 | Russisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A1.1 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul werden Grundkenntnisse der Fremdsprache Russisch vermittelt. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierenden lernen grundlegendes Vokabular zu verschiedenen Themen in einfachen sprachlichen Strukturen zu formulieren und über sie im Präsens zu berichten. Die Studierenden üben zum Beispiel einfache Fragen zum Beruf zu stellen und zu beantworten, sich über Freizeitbeschäftigungen und Hobbys auszutauschen, Einkaufsgespräche zu führen, eine Speisekarte zu verstehen und etwas zu

bestellen, zu fragen, was man gern zu den Mahlzeiten isst und trinkt. Es werden kommunikative Situationen geübt, die auf einen Aufenthalt im Zielland vorbereiten. Dazu werden die notwendigen grammatikalischen Themen behandelt und Lernstrategien vermittelt, die eine erfolgreiche Gestaltung des weiteren Lernprozesses in der Fremdsprache Russisch ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A1 des Gemeinsamen Europäischen Referenzrahmens (GER). Nach Bestehen des Moduls sind die Studierenden in der Lage vertraute, alltägliche Ausdrücke und einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter Bedürfnisse zielen. Die Studierenden können sich auf einfache Art verständigen, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Die Studierenden können einfache Fragen stellen und beantworten, einfache Feststellungen treffen oder auf solche reagieren, sofern es sich um unmittelbare Bedürfnisse oder um sehr vertraute Themen handelt.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenen Materialien; Vorbereitung einer Präsentation in der Zielsprache; selbständige Recherchen zu den vorgegebenen Themen. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben); multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Russisch A1.2 (Seminar, 2 SWS)
Minakova-Boblest E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0903: Russian A2.1 | Russisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A1.2 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul werden Grundkenntnisse der Fremdsprache Russisch vermittelt. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierenden lernen Informationen zu erfragen und Auskunft zu geben, Pläne/Absichten zu äußern und diese kurz zu begründen, über Vorlieben, Interessen und Erfahrungen zu sprechen. Die Studierenden üben zum Beispiel Einkaufsdialoge im Kaufhaus zu führen, über ihre Kleiderwahl zu sprechen, Reiseerlebnisse zu schildern, sich auszutauschen, wo und wann man gern seinen Urlaub verbringt, wo man gern wohnt. Es werden kommunikative Situationen geübt, die auf einen Aufenthalt im Zielland

vorbereiten. Dazu werden die notwendigen grammatikalischen Themen behandelt und Lernstrategien vermittelt, die eine erfolgreiche Gestaltung des weiteren Lernprozesses in der Fremdsprache Russisch ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2 des Gemeinsamen Europäischen Referenzrahmens (GER). Nach Bestehen des Moduls sind die Studierenden in der Lage, sich in einfachen, routinemäßigen Gesprächssituationen zu verständigen, in denen es um einen direkten Austausch von Informationen über vertraute und geläufige Dinge geht. Die Studierenden können die Bedeutung von kurzen, klaren und deutlich artikulierten Mitteilungen und Durchsagen erfassen. Sie sind in der Lage, häufig gebrauchte Ausdrücke anzuwenden und Sätze zu formulieren, die mit Bereichen von ganz unmittelbarer Bedeutung zusammenhängen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenen Materialien; Vorbereitung einer Präsentation in der Zielsprache; selbständige Recherchen zu den vorgegebenen Themen. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben); multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Russisch A2.1 (Seminar, 2 SWS)
Minakova-Boblest E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0904: Russian A2.2 | Russisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A2.1 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul werden Grundkenntnisse der Fremdsprache Russisch vermittelt. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierenden üben, einfache Gespräche in alltäglichen Kommunikationssituationen zu beginnen und in Gang zu halten sowie sich über vertraute Themengebiete zu äußern. Die Studierenden lernen zum Beispiel sich über Studium/Arbeitsalltag auszutauschen, die Wohnsituation zu beschreiben und Wegbeschreibungen zu geben. Es werden kommunikative Situationen geübt, die auf einen Aufenthalt im Zielland vorbereiten. Dazu werden die notwendigen grammatikalischen

Themen behandelt und Lernstrategien vermittelt, die eine erfolgreiche Gestaltung des weiteren Lernprozesses in der Fremdsprache Russisch ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2 des Gemeinsamen Europäischen Referenzrahmens (GER). Nach Bestehen des Moduls sind die Studierenden in der Lage, sich in einfachen, routinemäßigen Gesprächssituationen zu verständigen, in denen es um einen direkten Austausch von Informationen über vertraute und geläufige Dinge geht. Die Studierenden können die Bedeutung von kurzen, klaren und deutlich artikulierten Mitteilungen und Durchsagen erfassen. Sie sind in der Lage, häufig gebrauchte Ausdrücke anzuwenden und Sätze zu formulieren, die mit Bereichen von ganz unmittelbarer Bedeutung zusammenhängen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenen Materialien; Vorbereitung einer Präsentation in der Zielsprache; selbständige Recherchen zu den vorgegebenen Themen. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben) (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0905: Russian B1.1 | Russisch B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A2.2 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul werden weitere Kenntnisse der Fremdsprache Russisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Kommunikationssituationen wie z.B. Studium, Beruf, Freizeit, Reise zurechtzufinden. Der/Die Studierende übt, sich zu Themenbereichen von allgemeinem Interesse wie Internetnutzung und soziale Netzwerke selbständig und sicher zu verständigen. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt. Die Studierenden lernen beispielsweise, wie man frühere und heutige

Zeiten vergleicht, über zukünftige Handlungen und Ereignisse spricht, Vermutungen äußert, Bedingungen formuliert, Wünsche äußert usw. Dazu werden entsprechende, hierfür notwendige grammatikalische Themen behandelt.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2/B1 des Gemeinsamen Europäischen Referenzrahmens (GER). Nach der Teilnahme an dieser Lehrveranstaltung können die Studierenden die Hauptpunkte verstehen, wenn klare Standardsprache verwendet wird und wenn es um vertraute Dinge aus den Bereichen Arbeit, Studium, Freizeit u.a. geht. Der/Die Studierende ist in der Lage, sich einfach und zusammenhängend über vertraute Themen und persönliche Interessengebiete zu äußern. Man kann sich im Alltag verständlich ausdrücken und die meisten Gesprächssituationen bewältigen, denen man auf Reisen im Sprachgebiet begegnet. Die Studierenden können über Erfahrungen und Ereignisse berichten, Träume, Hoffnungen und Ziele beschreiben sowie zu Plänen und Ansichten kurze Begründungen oder Erklärungen geben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenen Materialien; Vorbereitung einer Präsentation in der Zielsprache; selbständige Recherchen zu den vorgegebenen Themen. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0906: Russian B1.2 | Russisch B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe B1.1 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul werden weitere Kenntnisse der Fremdsprache Russisch vermittelt, die den Studierenden ermöglichen, sich an den Gesprächen mit Muttersprachlern aktiv zu beteiligen und sicher zu verständigen, sofern Standardsprache gesprochen wird, z.B. zu Themen wie Reisen, Gesundheit, Ausbildung, Kunst, Umwelt. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt. Die Studierenden üben u.a.: wie man zu vielen verschiedenen Themen eine klare und detaillierte Darstellung gibt, Informationen wiedergibt,

Meinungen und Pläne erklärt und begründet. Dazu werden entsprechende, hierfür notwendige grammatikalische Themen behandelt.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1 des Gemeinsamen Europäischen Referenzrahmens (GER). Nach der Teilnahme an dieser Modulveranstaltung sind die Studierenden in der Lage, die Hauptinhalte komplexer Texte zu konkreten Themen zu verstehen. Er/Sie kann sich im Gespräch mit einem Muttersprachler relativ spontan und fließend verständigen. Die Studierenden können sich zu einem breiteren Themenspektrum klar und detailliert ausdrücken, einen Standpunkt zu einer aktuellen Frage erläutern, über Erfahrungen und Ereignisse selbständig berichten.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenen Materialien; Vorbereitung einer Präsentation in der Zielsprache; selbständige Recherchen zu den vorgegebenen Themen. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0907: Russian B2.1 | Russisch B2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten. In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe B1.2 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul werden weitere Kenntnisse in der Fremdsprache Russisch vermittelt, aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv und mit einem gewissen Grad an Flüssigkeit über Themen von allgemeinem Interesse oder von vertrautem Fachgebiet mit muttersprachlichen Trägern der Zielsprache zu diskutieren und eine Argumentation gut verständlich auszuführen. Die Studierenden trainieren ihre Fertigkeit, Informationen über aktuelle gesellschaftliche, berufsbezogene bzw. weitere Themen ihrer Interessen zu sammeln, zu strukturieren und zu präsentieren. Sie bekommen die Gelegenheit, einen kurzen Vortrag zu

einem fach-/berufsbezogenen, gesellschaftlichen oder kulturellen Thema zu übernehmen und anschließend auf die Fragen zur eigenen Präsentation einzugehen. Auch die interkulturellen Themen werden behandelt. Es werden die Entwicklung der Hörstrategien, der Lesestrategien von längeren, inhaltlich anspruchsvollen Texten sowie Wortschatzaufbau gefordert. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik wiederholt und vertieft.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1 des Gemeinsamen Europäischen Referenzrahmens (GER). Die Studierenden erlangen Kenntnisse in der Fremdsprache Russisch auf anspruchsvollem Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Nach Abschluss des Moduls sind die Studierenden in der Lage, eine Interaktion zu vielen Themen aus ihren Interessen- oder Fachgebieten selbständig aufrechtzuhalten und sich in einem immer größeren Spektrum von fachbezogenen Situationen zu kommunizieren. Er/Sie kann längeren Redebeiträgen und Vorträgen zu verschiedenen Themen folgen, sofern sie klar vorgetragen werden. Er/Sie ist imstande, den wesentlichen Inhalt von authentischen Artikeln und Berichten sowie Texte aus dem eigenen Fach- und Interessengebiet selbständig zu verstehen. Er/Sie ist in der Lage längere Texte zu schreiben und dabei auch zu einem gewissen Grad komplexe Satzstrukturen und fachspezifisches Vokabular zu benutzen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der der Fremdsprache mit vorgegebenen Materialien; Förderung kooperativen Lernens; eigenständiges Vorbereiten der Vorträge; Diskussionen in Gruppen zu vorbereiteten sowie frei/spontan gewählten Themen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0908: Russian - Introduction to Russian in Science B1 | Russisch - Einführung in die Wissenschaftssprache ab B1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A2.2 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul werden grundlegende Kenntnisse in der Fremdsprache Russisch vermittelt, die es den Studierenden ermöglichen, sich mit Russisch zu wissenschaftlichen Zwecken (Wissenschaftliches Russisch) zu befassen und sich in den studien- und wissenschaftsbezogenen Situationen – im Zielland wie im allgemeinen wissenschaftlichen Kontext – zurechtzufinden. Dazu wird der entsprechende Wortschatz aufgebaut und zielführende Lernstrategien vermittelt. Die Studierenden üben, das Russische im wissenschaftlichen Kontext beim/vom Hören zu verstehen

(Vorlesungen, Vorträge) und sich zu den Themen ihres wissenschaftlichen Fachgebiets zu äußern. Sie üben eine wissenschaftliche Diskussion aufzubauen/zu führen und bekommen die Gelegenheit, einen kurzen Vortrag aus/zu dem Gebiet ihres fachlichen Interesses zu übernehmen und anschließend auf die Fragen zur eigenen Präsentation einzugehen. Sie erlernen die für das Lesen, Verstehen und Zusammenfassen wissenschaftlicher und wissenschaftsbezogener Texte notwendigen Strategien und trainieren ihre Fertigkeit, die für ihre wissenschaftliche Arbeit / ihr Studium notwendigen Informationen zu sammeln, zu strukturieren und in der Zielsprache – in mündlicher und schriftlicher Form – zu präsentieren. Es wird dabei auf die für das Zielland spezifischen, aber auch allgemeingültigen Regeln, Formen, Strukturen des mündlichen und schriftlichen Ausdrucks/der Zusammenfassungen eingegangen. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik wiederholt und vertieft.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 des Gemeinsamen Europäischen Referenzrahmens (GER). Die Studierenden erlangen grundlegende Kenntnisse in der Fremdsprache Russisch als wissenschaftliche Sprache. Nach Abschluss des Moduls sind die Studierenden in der Lage, eine Interaktion zu Themen aus ihrem wissenschaftlichen Interessen- oder Fachgebiet selbständig aufrechtzuhalten und sich in einem größeren Spektrum von fachbezogenen/im wissenschaftlichen Alltag allgemein gültigen Situationen zu kommunizieren. Sie können längeren Redebeiträgen und Vorträgen im wissenschaftlichen/akademischen Kontext folgen. Sie sind imstande, den wesentlichen Inhalt von authentischen wissenschaftlichen/wissenschaftsbezogenen Artikeln und Berichten sowie Texte aus dem eigenen wissenschaftlichen Fach- und Interessengebiet selbständig zu verstehen. Sie sind in der Lage längere auch fachspezifische Texte zu schreiben und dabei zu einem gewissen Grad komplexere Satzstrukturen und fachspezifisches Vokabular zu verwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der der Fremdsprache mit vorgegebenen Materialien; Förderung kooperativen Lernens; eigenständiges Vorbereiten der Vorträge; Diskussionen in Gruppen zu vorbereiteten sowie frei/spontan gewählten Themen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0909: Russian as language of origin from B1 | Russisch als Herkunftssprache ab B1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Kumulative Prüfungsleistungen (mehrere Aufgaben). Hilfsmittel erlaubt.
Bei den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen, sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlicher Textproduktion überprüft.
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten.
In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Text- bzw. Leseverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Russisch als Herkunftssprache mit der kommunikativen Fertigkeit der Stufe A2.2 und höher.

Content:
In dieser Lehrveranstaltung werden grundlegende Kenntnisse in der Herkunftssprache Russisch vermittelt, die es den Teilnehmern ermöglichen,
zielorientiert an systematischen wie individuellen Defiziten bei der Beherrschung der russischen Sprache zu arbeiten, um sichere Kenntnisse in allen grundlegenden Sprachfertigkeiten zu erlangen. Dazu werden ausgewählte wie auf die Bedürfnisse der Teilnehmer orientierte Themen der Grammatik behandelt (u. A. gram. Fälle, Verbaspekte, Verben der Bewegung) und der moderne alltägliche wie fach- und studienbezogener Wortschatz aufgebaut/aufgefrischt. Die Teilnehmer werden für Stilistik der russischen Sprache bei Wort und Schrift sensibilisiert. Die Lesefertigkeit wird anhand aktueller landesbezogener Lektüre aufgebaut/erweitert und der schriftliche Ausdruck (inkl. Schreibschrift) bei thematischen Zusammenfassungen, Aufsätzen, fiktiven Blogbeiträgen etc. geübt. Auch an der korrekten Aussprache wird bei bestehendem Bedarf gearbeitet. Die Teilnehmer bekommen die Möglichkeit, einen kurzen Vortrag zu einem selbstgewählten Thema zu halten.

Intended Learning Outcomes:
Diese Lehrveranstaltung orientiert sich am Niveau B1 des Gemeinsamen Europäischen Referenzrahmens (GER). Von der zu erwarteten hohen mündlichen Kompetenz der Teilnehmer ausgehend, werden die Studierenden unter Berücksichtigung des individuellen Bedarfs an die sichere Beherrschung der Stufe B1 herangeführt, wobei systematische sowie individuelle Defizite bei Grammatik, Leseverständnis, schriftlichem Ausdruck, Stilistik, Aussprache und modernem Wortschatz ausgeglichen werden. Nach Abschluss dieser Lehrveranstaltung beherrschen die Teilnehmer die Herkunftssprache Russisch auf hohem Niveau in allen grundlegenden sprachlichen Fertigkeiten. Sie kommunizieren und sind imstande sich schriftlich auszudrucken unter Verwendung der niveauentsprechenden Grammatik, Stilistik und modernem alltäglichen sowie fach- und studienspezifischen Wortschatz. Sie beherrschen die Schreibschrift und sind imstande niveauentsprechende allgemeine wie studien- und fachbezogene Texte zu lesen und über diese zu diskutieren.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen grundlegender grammatischer Phänomene in der Herkunftssprache mit vorgegebenen Materialien; Förderung kooperativen Lernens; eigenständiges Vorbereiten der Vorträge; Diskussionen in Gruppen zu vorbereiteten sowie frei/spontan gewählten Themen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)
Vom Kursleiter selbst angefertigte / zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Russisch als Herkunftssprache ab B1 (Seminar, 2 SWS)
Legkikh V
For further information in this module, please click campus.tum.de or here.

Module Description

SZ0910: Russian - Communication Course B1/B2 | Russisch - Kommunikationskurs B1/B2

Version of module description: Gültig ab winterterm 2022/23

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21). Zu der Prüfungsleistung gehört auch eine kurze Präsentation auf Russisch zu einem kulturbezogenen, gesellschaftlichen oder wissenschaftlichen Thema im Zusammenhang mit Russland oder russischsprachigen Sprachraum. Diese Präsentation ist eigenverantwortlich mündlich wie schriftlich zu gestalten bzw. vorzutragen. Anschließend sollen auch Fragen zur eigenen Präsentation beantwortet werden können.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe Russisch A2.2 oder vergleichbare Kenntnisse.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Russisch vermittelt, aufgebaut und vertieft, die es den Studierenden ermöglichen, sich in verschiedenen Situationen, z.B. in Studium, Arbeit und Freizeit, und zu Themen von allgemeinem Interesse selbständig und sicher in der Zielsprache zu kommunizieren und zu verständigen. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt. Je nach Bedarf werden Schwerpunkte der russischen Grammatik wiederholt und vertieft. Vor allem die mündliche Kommunikation steht im Vordergrund. Die aktive Mitarbeit der Studierenden z. B. mittels Kurzvorträge und Diskussionen

wird erwartet und gefördert. Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Russisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1/B2 des Gemeinsamen Europäischen Referenzrahmens (GER). Die Studierenden erlangen Kenntnisse in der Fremdsprache Russisch auf anspruchsvollem Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Nach Abschluss des Moduls sind die Studierenden in der Lage über verschiedene Themen detailliert und zusammenhängend zu berichten, Informationen zusammenzufassen, ihre Erfahrungen und Eindrücke wiederzugeben, ihren Standpunkt zu vertreten. Sie können Inhalte von Lektüren, Gesprächen, Filmen, Podcasts und Interviews wiedergeben und ihre Meinung äußern. Sie sind in der Lage, zu vielen Themen aus ihren Interessen- oder Fachgebieten klar und strukturiert in mündlicher und schriftlicher Form zu kommunizieren/zu berichten.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen Materialien; Förderung kooperativen Lernens; eigenständiges Vorbereiten der Vorträge; Diskussionen in Gruppen zu vorbereiteten sowie frei/spontan gewählten Themen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte

Media:
Vom Kursleiter/der Kursleiterin selbst angefertigte/zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Reading List:
Wird in der Lehrveranstaltung bekannt gegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ0911: Russian B1/B2 - Grammar | Russisch B1/B2 - Systematische Grammatik

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Version 1: In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie zur freien Textproduktion und wird in Form von kompetenz- und handlungsorientierten kumulativen Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).
Version 2: Schriftliche Abschlussklausur (keine Hilfsmittel erlaubt). Prüfungsdauer: 90 Minuten. In der schriftlichen Prüfung werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhaltet Fragen zur Anwendung von Wortschatz und Grammatik, zu Lese- und Hörverstehen sowie Aufgaben zur freien Textproduktion. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreiche Teilnahme an der Stufe A2.2 oder vergleichbare Sprachkenntnisse.

Content:
In diesem Modul (Übungskurs) werden grammatische Kenntnisse in der Fremdsprache Russisch vermittelt, aufgebaut und vertieft. Der Schwerpunkt liegt dabei auf der praktischen Anwendung des Gelernten im täglichen Sprachgebrauch, wozu kommunikative alltagsnahe Übungen in großer Variationsbreite angeboten werden. Zu den Unterrichtsthemen gehören z.B. der Gebrauch der Verbalaspekte im Infinitiv und Imperativ, Deklination der Zahlwörter, Adverbialsätze, der Gebrauch und die Bedeutung der Konjunktionen etc. Auch die Ausdrucksmöglichkeiten von verschiedenen

Sprechabsichten werden behandelt, z.B. die Angabe des Grundes, Ausdruck der Bestimmtheit/ Unbestimmtheit, Ausdruck des Zustandes und des Vorhandenseins etc. Das Modulkonzept bietet Raum für flexible Anpassungen nach den individuellen Lernzielen der Teilnehmer.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1/B2 des Gemeinsamen Europäischen Referenzrahmens (GER). Die Studierenden erlangen grammatische Kenntnisse in der Fremdsprache Russisch auf anspruchsvollem Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Nach Abschluss des Moduls sind die Studierenden in der Lage die behandelten grammatischen Themen sicher in ihrer alltäglichen Kommunikation anzuwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen mit vorgegebenen Materialien; Förderung kooperativen Lernens. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Vom Kursleiter/Kursleiterin selbst angefertigte/zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-10: Schwedish | Schwedisch

Module Description

SZ1001: Swedish A1 | Schwedisch A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Schwedisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz geringer Sprachkenntnisse zurechtzufinden.
Wir lernen / üben grundlegendes Vokabular zu Themen wie Familie, Wohnen, Beruf, Freizeit, Landeskunde und in einfach strukturierten Haupt- und Nebensätzen Alltägliches im Präsens zu berichten; Plural der Nomen; Personal-, Reflexiv-, Demonstrativ- und einige

Possessivpronomen; einfache Negationsformen; den Gebrauch einiger Modalverben und Präpositionen; Adjektivdeklination.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 des GER. Der/die Studierende erlangt Grundkenntnisse in der Fremdsprache Schwedisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung kultureller und landeskundlicher Aspekte. Nach Abschluss dieses Moduls kann er/sie alltägliche Ausdrücke und sehr einfache Sätze verstehen und verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich auf einfache Art verständigen, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/Sie kann beispielsweise einfache Fragen zu Person und Familie stellen und beantworten sowie Verabredungen treffen.
Sowohl im mündlichen als auch im schriftlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat, bzw. der A1-Stufe entsprechend, Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Schwedisch A1 (Seminar, 2 SWS)
Dai Javad P, Matyas E

Blockkurs Schwedisch A1 (Seminar, 2 SWS)
Matyas E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1002: Swedish A2 | Schwedisch A2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur A1

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Schwedisch vermittelt, die es den Studierenden - trotz noch geringer Sprachkenntnisse – ermöglichen sollen, sich in alltäglichen Grundsituationen zurechtzufinden.
Wir lernen/üben grundlegendes Vokabular und Konversation und produzieren auch kürzere Texte (z. B. Brief; Textzusammenfassung und Kurzpräsentationen); vertiefen und erweitern die Grammatik aus der A1-Stufe und lesen Texte in leicht leserlicher Form.
Grammatische Inhalte: Wiederholung der Pronomen; Komplettierung der Possessivpronomen; komplexer strukturierte Haupt- und Nebensätze mit Modalverben; Imperativ; Präteritum; Perfekt

und Plusquamperfekt; Zeitausdrücke /-angaben; Zeit-, Ort- und Richtungsadverbien, Steigerung des Adjektivs.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 des GER. Der/Die Studierende erlangt Grundkenntnisse in Schwedisch mit allgemein sprachlicher Orientierung unter Berücksichtigung kultureller und landeskundlicher Aspekte. Nach Abschluss dieses Moduls kann der/die Studierende im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen Themen unter Einbeziehung landeskundlicher Aspekte. Der/die Studierende ist in der Lage kurze informative Texte oder Mitteilungen zu grundlegenden Situationen zu verfassen und kann längere Texte zu vertrauten Themen verstehen, in denen gängige bzw. einfache alltagsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind.
Sowohl im mündlichen als auch im schriftlichen Sprachgebrauch ist der/die Studierende in der Lage, situationsadäquat, bzw. der A2-Stufe entsprechend, Wortschatz und Grammatik korrekt anzuwenden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der LV bekannt gegeben); multimedial gestütztes Lehr- und Lernmaterial

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Schwedisch A2 (Seminar, 2 SWS)
Dai Javad P, Matyas E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1014: Swedish C1.1 | Schwedisch C1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur B2.2

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Schwedisch vermittelt /aufgebaut und vertieft, die es den Studierenden ermöglichen, aktiv über aktuelle gesellschaftliche Themen Schwedens oder von einem vertrautem Fachgebiet, mit einem Muttersprachler zu diskutieren bzw. eine Argumentation zu führen.
Vermittlung eines anspruchsvolleren Wortschatzes (auch Fachtermini, Redewendungen und ausgefallene Phrasen).
Wiederholung der Grammatik aus der B2-Stufe, Vertiefung und Erweiterung von z. B. Satzbau mit mehreren Ergänzungen; Adverbien; Konjunktionen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau C1.1 des GER. Der/Die Studierende erlangt Kenntnisse in der Fremdsprache Schwedisch auf komplexem standardsprachlichem Niveau unter Berücksichtigung interkultureller bzw. gesellschafts-/landeskundlicher Aspekte. Der/Die Studierende kann nach Abschluss des Moduls den wesentlichen Inhalt aus anspruchsvollen, längeren Texten aus dem oben genannten Interessengebiet verstehen (auch implizite Zusammenhänge) und wiedergeben. Er/Sie kann Redebeiträge und Vorträge sowohl zu aktuellen Themen als auch innerhalb seines/ihres Fachgebietes folgen, sofern sie klar vorgetragen werden.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Multimedial gestütztes Lehr- und Lernmaterial

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1016: Swedish B1.1 | Schwedisch B1.1

Version of module description: Gültig ab summerterm 2024

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Schwedisch B1.1 (Seminar, 2 SWS)
Dai Javad P
For further information in this module, please click campus.tum.de or here.

SZ0003-11: Intercultural Communication | Interkulturelle Kommunikation

Module Description

SZ1102: EuroTeQ Intercultural Workshop – Intercultural competencies for working in multicultural teams | EuroTeQ Intercultural Workshop – Intercultural competencies for working in multicultural teams

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 1	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
1 written test 90 min. (100%)

Performance, testing the learning outcomes specified in the module description, is examined by a written test. Aids are permitted. Candidates work on tasks that focus on intercultural theories, intercultural models and other content covered in class. As part of the exam, students must prove their intercultural reflection skills by

Repeat Examination:

(Recommended) Prerequisites:
The course is especially intended for students in engineering programs, but is generally open to all TUM students. In particular, students who will be studying at a EuroTeQ partner university in the coming academic year or those, who are from partner universities and are currently studying at TUM and/or are participating in the EuroTeQ program should feel addressed. Students should envision themselves working in a European engineering context.

Content:
The workshops take place on 3-4 days in the specified period. One Workshop on Fridays / Saturdays and one on Mondays / Thursdays.
In addition to their specialist knowledge, future engineers must coordinate cross-disciplinary work and communicate with other disciplines. Accordingly, in a European job market, intercultural competencies and communication skills are required to create successful collaboration.

Intercultural agility, which is essential for studying and working in a multicultural environment, consists of a combination of knowledge about intercultural contexts and an ability to critically analyze one's own thoughts and values from an intercultural perspective After the course, students can apply intercultural models and strategies based on these models for the practical management of complex, interculturally challenging situations in university and professional settings.

Intended Learning Outcomes:
Students can recognize how intercultural factors can play a role when working in multicultural teams and how our ways of thinking, values, attitudes and our personal background influence the way we interact with others. They have acquired tools for analyzing and interpreting interculturally complex situations in a goal-oriented manner and have discourse strategies to implement these in discussions in order to facilitate mutual understanding. Students can expand their own knowledge of divergent cultural values and standards by asking purposeful and appropriate questions and they can present their own perspective.

Teaching and Learning Methods:
The module consists of a course in which the learning content is studied in a communicative and action-oriented manner using self-experience exercises, video material, critical incidents and theoretical input in individual, partner and group work. Additional self-study material is provided (for preparation and follow-up work and for deepening one's own background knowledge) for consolidation and supplementation of the classroom sessions.

Media:
Multimedia-supported teaching and learning material, also online

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
The EuroTeQ Engineer: Cultural Agility for Studying and Working in Multicultural Settings (Workshop, 1 SWS)
Elekes R, Nierhoff-King B
For further information in this module, please click campus.tum.de or here.

SZ0003-12: Spanish | Spanisch

Module Description

SZ1201: Spanish A1 | Spanisch A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Spanisch vermittelt, die es den Studierenden ermöglichen, sich in vertrauten und alltäglichen Grundsituationen trotz noch geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die Studierenden lernen, einfache Fragen zur Person/Familie zu stellen und zu beantworten, Anmeldeformulare mit persönlichen Daten auszufüllen, über Studium, Beruf und Freizeitaktivitäten zu sprechen, Gefallen, Interessen und Vorlieben auszudrücken, Orte zu beschreiben etc. Sie lernen/üben grundlegendes Vokabular zu diesen Themen und berichten in einfach strukturierten Hauptsätzen über Alltägliches im Präsens. Es werden u.a. folgende Themen der Grammatik

behandelt: Präsens regelmäßiger und (einige) unregelmäßiger Verben, bestimmte und unbestimmte Artikel, Demonstrativpronomen, Verneinung einfacher Sätze etc.
Es werden Strategien vermittelt, die eine Verständigung in alltäglichen Grundsituationen ermöglichen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 „Elementare Sprachverwendung“ des GER.
Der/die Studierende kann nach der Teilnahme an der Modulveranstaltung einfache Fragen über vertraute Themen stellen und beantworten. Er/sie kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/sie kann einfache schriftliche Mitteilungen zur Person machen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch A1 (Seminar, 2 SWS)
Borneo Gomez P, Galan Rodriguez F, Garcia Garcia M, Guerrero Madrid V, Lopez Agudo E, Nevado Cortes C, Noch nicht bekannt N, Pardo Gascue F, Rey Pereira C, Rodriguez Garcia M, Tapia Perez T, Villegas Montano J, Zuniga Chinchilla L

Blockkurs Spanisch A1 (Seminar, 2 SWS)
Garcia Garcia M, Gomez Cabornero S, Pardo Gascue F, Rodriguez Garcia M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1202: Spanish A2.1 | Spanisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A1.
Einstufungstest mit Ergebnis A2.1.

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Spanisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden, z.B. Freizeitaktivitäten, auf Reisen, im Restaurant, unter Kommilitonen, Freunden und Nachbarn, Austausch von Erfahrungen etc. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die grammatikalischen Strukturen werden weiter aufgebaut, wie z.B. die Verwendung von den Vergangenheiten pretérito perfecto - pretérito indefinido, ser und estar, unbetonte Personal Pronomen etc.
Es werden Strategien vermittelt, die mündlich wie schriftlich eine Verständigung trotz noch geringer Sprachkenntnisse ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2 „Elementare Sprachverwendung" der GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, die Bedeutung von kurzen, klaren und deutlich artikulierten Mitteilungen und Durchsagen zu erfassen. Die Kommunikation ist im Rahmen von einfachen, routinemäßigen Kontexten möglich. Der Austausch von Informationen erfolgt über kurze Dialoge mit verschiedenen Zeitbezügen (z.B. Gegenwart, Vergangenheit, einfaches Futur) und umfasst einfache Satzgefüge mit beschränkten Strukturen zu vertrauten Tätigkeiten. Der/Die Studierende kann einfache Fragen zu Inhalten stellen und auch beantworten. Gespräche und Dialoge sind kurz, zeitlich beschränkt und orientieren sich inhaltlich an Kontexten, wie z.B. Familie, Freunde, Lebens- und Wohnraum, Reisen. Die Studierenden können kurze Texte oder Briefe lesen und verstehen, wenn diese einen häufig gebrauchten Wortschatz und bekannte Strukturen beinhaltet und wenn darin vertraute Informationen zu finden sind. Er/Sie ist in der Lage mithilfe feststehender Wendungen kurze, einfache Mitteilungen oder persönliche Briefe zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch A2.1 (Seminar, 2 SWS)
Galan Rodriguez F, Guerrero Madrid V, Lopez Agudo E, Tapia Perez T, Villegas Montano J

Blockkurs Spanisch A2.1 (Seminar, 2 SWS)
Listan Rosa M, Montero de Espinosa Candau C

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1203: Spanish A2.2 | Spanisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.1.
Einstufungstest mit Ergebnis A2.2.

Content:
In diesem Modul werden weitere Grundkenntnisse der Fremdsprache Spanisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierenden lernen/üben u.a. Anweisungen und Ratschläge zu geben; Situationen und Ereignisse in der Vergangenheit zu schildern; Geschichten zu erzählen; über die Wohnungssuche zu sprechen. Dazu werden entsprechende hierfür notwendige grammatikalische Themen behandelt wie die Verwendung und Kontrast der Zeiten der Vergangenheit, pretérito imperfecto und pretérito indefinido, das Imperativ, das Gebrauch von Präpositionen etc. Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse (in alltäglichen Grundsituationen) ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2 „Elementare Sprachverwendung" des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage vertraute Sätze und Redewendungen zu einem erweiterten Spektrum an Themen zu verstehen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen oder Studien- bzw. berufsrelevanten Themen. Sie erfassen die Bedeutung von kurzen, klaren und deutlich artikulierten Mitteilungen und Durchsagen. Der Austausch von Informationen erfolgt kurz aber mühelos über eine Reihe bekannter Äußerungen zu vertrauten Tätigkeiten und Themen. Die Studierenden können sich aktiv in kurzen Interaktionen, die über einen beschränkten zeitlichen Umfang gehen, zu bekannten Themen einbringen. Er/Sie kann längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Der/Die Studierende ist in der Lage, mithilfe feststehender Wendungen kurze, informative Texte oder Mitteilungen zu verfassen. Es werden Haupt- und Nebensätze verwendet, die durch eine Reihe von Bindewörtern kontextadäquat verbunden werden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch A2.2 (Seminar, 2 SWS)
Borneo Gomez P, Gomez Cabornero S, Guerrero Madrid V, Lopez Paredes M, Tapia Perez T

Blockkurs Spanisch A2.2 (Seminar, 2 SWS)

Mayea von Rimscha A
For further information in this module, please click campus.tum.de or here.

Module Description

SZ12031: Spanish A2.1 + A2.2 | Spanisch A2.1 + A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A1.
Einstufungstest mit Ergebnis A2.1.

Content:
In diesem Modul werden weitere Grundkenntnisse der Fremdsprache Spanisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierende lernen/üben u.a.:
wie man eine Wohnung sucht; wie man Erfahrungen austauscht; wie man Anweisungen, und Ratschläge gibt; wie man Situationen und Ereignisse in der Vergangenheit schildert; wie man Geschichten erzählt. Dazu werden entsprechende hierfür notwendige grammatikalische Themen behandelt und vertieft. Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse (in alltäglichen Grundsituationen) ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2 „Elementare Sprachverwendung" des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, vertraute Sätze und Redewendungen zu einem erweiterten Spektrum an Themen zu verstehen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen oder Studien- bzw. berufsrelevanten Themen. Sie erfassen die Bedeutung von kurzen, klaren und deutlich artikulierten Mitteilungen und Durchsagen. Der Austausch von Informationen erfolgt kurz aber mühelos über eine Reihe bekannter Äußerungen zu vertrauten Tätigkeiten und Themen. Die Studierenden können sich aktiv in kurzen Interaktionen, die über einen beschränkten zeitlichen Umfang gehen, zu bekannten Themen einbringen. Er/Sie kann längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Der/Die Studierende ist in der Lage mithilfe feststehender Wendungen kurze, informative Texte oder Mitteilungen zu verfassen. Es werden Haupt- und Nebensätze verwendet, die durch eine Reihe von Bindewörtern kontextadäquat verbunden werden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch A2.1 + A2.2 (intensiv) (Seminar, 4 SWS)
Gonzalez Sainz C, Mayea von Rimscha A, Pardo Gascue F, Rey Pereira C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1207: Spanish A1 + A2.1 | Spanisch A1 + A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Spanisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden, z.B. auf Reisen, im Restaurant, unter Kommilitonen, Freunden und Nachbarn, Austausche von Erfahrungen etc. Die Studierenden lernen Fragen zur Person/Familie zu stellen und zu beantworten, Anmeldeformulare mit persönlichen Daten auszufüllen, über Studium, Beruf und Freizeitaktivitäten zu sprechen, Gefallen, Interessen und Vorlieben auszudrücken, Orte zu beschreiben. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Es werden u.a. folgende Themen der Grammatik behandelt: Präsens regelmäßiger und unregelmäßiger Verben, bestimmte und unbestimmte Artikel, Demonstrativpronomen, Verneinung einfacher Sätze, Verwendung von den Vergangenheiten pretérito perfecto - pretérito indefinido, ser und estar, unbetonte Personal Pronomen etc.

Es werden Strategien vermittelt, die eine Verständigung in alltäglichen Grundsituationen ermöglichen.

Intended Learning Outcomes:
Die Lernergebnisse orientieren sich am Niveau A2 „Elementare Sprachverwendung“ des GER. Der/die Studierende kann nach der Teilnahme an der Modulveranstaltung sich auf einfache Art verständigen, wenn die Gesprächspartner*in langsam und deutlich sprechen und bereit sind zu helfen. Er/sie ist in der Lage die Bedeutung von kurzen, klaren und deutlich artikulierten Mitteilungen und Durchsagen zu erfassen. Die Kommunikation ist im Rahmen von einfachen, routinemäßigen Kontexten möglich. Der Austausch von Informationen erfolgt über kurze Dialoge mit verschiedenen Zeitbezügen (z.B.: Gegenwart, Vergangenheit, einfaches Futur) und umfasst einfache Satzgefüge mit beschränkten Strukturen zu vertrauten Tätigkeiten. Der/Die Studierende kann einfache Fragen zu Inhalten stellen und auch beantworten. Gespräche und Dialoge sind kurz, zeitlich beschränkt und orientieren sich inhaltlich an Kontexten, wie z.B. Familie, Freunde, Lebens- und Wohnraum, Reisen. Die Studierenden können kurze Texte oder Briefe lesen und verstehen, wenn diese einen häufig gebrauchten Wortschatz und bekannte Strukturen beinhaltet und wenn darin vertraute Informationen zu finden sind. Er/Sie ist in der Lage mithilfe feststehender Wendungen kurze, einfache Mitteilungen oder persönliche Briefe zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch A1 + A2.1 (intensiv) (Seminar, 4 SWS)

Garcia Garcia M, Iglesias Martin A, Listan Rosa M, Montero de Espinosa Candau C, Nevado Cortes C, Tapia Perez T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1208: Spanish A1 - AVE (online) | Spanisch A1 - AVE (online)

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 82	**Contact Hours:** 8

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Keine Spanisch Vorkenntnisse. Die Lehrveranstaltung eignet sich besonders für Studierende, die gerne selbständig arbeiten und online betreut werden möchten.

Content:
In diesem Modul werden die Studierenden eine Lizenz für eine sechsmonatige Nutzung eines Online Kurs erwerben (kostenlos).
In diesem Modul werden Grundkenntnisse in der Fremdsprache Spanisch vermittelt, die es den Studierenden ermöglichen, sich in vertrauten und alltäglichen Grundsituationen trotz noch geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierenden lernen einfache Fragen zur Person/Familie zu stellen und zu beantworten, Anmeldeformulare mit persönlichen Daten auszufüllen, über Studium, Beruf und Freizeitaktivitäten zu sprechen, Gefallen, Interessen und Vorlieben auszudrücken, Orte zu beschreiben etc. Sie lernen/üben grundlegendes Vokabular zu diesen Themen und berichten in einfach strukturierten Hauptsätzen über Alltägliches im Präsens. Es werden u.a. folgende Themen

der Grammatik behandelt: Präsens regelmäßiger und (einige) unregelmäßiger Verben, bestimmte und unbestimmte Artikel, Demonstrativpronomen, Verneinung einfacher Sätze etc.
Es werden Strategien vermittelt, die eine Verständigung in alltäglichen Grundsituationen ermöglichen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 „Elementare Sprachverwendung“ des GER.
Der/die Studierende kann nach der Teilnahme an der Modulveranstaltung einfache Fragen über vertraute Themen stellen und beantworten. Er/sie kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/sie kann einfache schriftliche Mitteilungen zur Person machen.

Teaching and Learning Methods:
Die Studierenden arbeiten selbständig mit der Aula Virtual de Español AVE, einer Online-Plattform, die vom Instituto Cervantes entwickelt worden ist und verschiedene Übungsformen bietet. Sie werden durch einen/eine Tutor/Tutorin (die Dozentin) online betreut.
Anhand der Multimediaprodukte über Text, Ton und Bild werden Sprachbeispiele in ihrem realen Kontext vermitteln. Den Studierenden werden attraktive Präsentationen und interaktive Übungen angeboten, mit deren Hilfe er/sie die Inhalte selbstständig praktizieren kann. Der persönliche Tutor/Tutorin orientiert und berät die Studierenden, bietet ihm/ihr Übungen zur Unterstützung oder Anregung an, und ist für die Bewertung seiner/ihrer Arbeit zuständig. Alle Themen enthalten drei oder mehr Kommunikationsübungen in Zusammenarbeit mit den Kursteilnehmern und dem Tutor/Tutorin, und eine Abschlussarbeit, in der jeder Studierende die erlernten funktionellen Inhalte praktisch anwendet. Zusätzlich findet während des Semesters Präsenzunterricht statt.

Media:
Online Lernplattform. Der/Die Studierende verfügt über interaktive und multimediale Studienmaterialien.

Reading List:
Wird in der Lehrveranstaltung bekanntgegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch A1 AVE (online) (Seminar, 2 SWS)
Gomez Cabornero S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1209: Spanish C1 - current issues in Spain and Latin America | Spanisch C1 - La actualidad en España y América Latina

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.2.
Einstufungstest mit Ergebnis C1.1.

Content:
In diesem Modul werden den Studierenden kulturelle, soziopolitische und/oder geschichtliche Kenntnisse über die spanischsprachigen Länder vermittelt, die sie in die Lage versetzen, unter Einbeziehung interkultureller Aspekte zu kommunizieren und zu handeln. Diese Veranstaltung bietet einen Querschnitt durch die Kultur und Gesellschaft Spaniens und Lateinamerika, indem gesellschaftliche Tendenzen anhand aktueller Zeitungsartikeln, Literatur (Kurzerzählungen), Essays, Filme etc., diskutiert werden. Es soll den Studierenden eine Vertiefung in das „Fremdverstehen“ der gesamten spanischsprachigen Welt ermöglichen und somit auch die interkulturelle Kompetenz erhöht werden. Es wird ein erweitertes Spektrum an Kommunikationsmöglichkeiten zu aktuellen Themen erarbeitet und Aspekte der Grammatik wiederholt und ergänzt.

In diesem Modul haben die Studierenden die Gelegenheit, eine kurze Präsentation eigenverantwortlich zu gestalten und vorzutragen sowie anschließend auf Fragen zur eigenen Präsentation zu antworten.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau C1 „Kompetente Sprachverwendung“ des Gemeinsamen Europäischen Referenzrahmens für Sprachen des Europarats.
Nach Abschluss des Moduls kann der/die Studierende ein breites Spektrum anspruchsvoller, längerer Texte verstehen und auch implizite Bedeutungen erfassen. Er/Sie kann sich spontan und fließend ausdrücken, ohne öfter deutlich erkennbar nach Worten suchen zu müssen. Er/Sie kann die Sprache im gesellschaftlichen und beruflichen Leben oder in Ausbildung und Studium wirksam und flexibel gebrauchen. Die Studierenden können sich klar, strukturiert und ausführlich zu komplexen Sachverhalten äußern und dabei verschiedene Mittel zur Textverknüpfung angemessen verwenden. Er/Sie kann ihre Gedanken und Meinungen präzise ausdrücken und ihre eigenen Beiträge geschickt mit denen anderer verknüpfen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.
Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen; Eigenständiges Referieren und Präsentieren akademischer und gesamtgesellschaftlicher Inhalte zu vorgegebenen Themen.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Wird in der Lehrveranstaltung bekanntgegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1212: Spanish C1 - Spain and Latin America - Yesterday and Today | Spanisch C1 - España y América Latina ayer y hoy

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.2.
Einstufungstest mit Ergebnis C1.1.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, mündlich wie schriftlich in Themenbereichen aus Alltag, Beruf, Kultur, Gesichte, Politik der spanischsprachigen Länder situationsadäquat zu handeln (agieren und reagieren). Anhand ausgewählter Presseartikeln, Literatur, etc., werden soziokulturelle Zusammenhänge aktueller Themen reflektiert. Es werden Kenntnisse in den benannten Bereichen vertieft und Aspekte der Grammatik wiederholt und ergänzt. In diesem Modul haben die Studierenden die Gelegenheit, eine kurze Präsentation eigenverantwortlich zu gestalten und vorzutragen sowie anschließend auf Fragen zur eigenen Präsentation zu antworten.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau C1 „Kompetente Sprachverwendung“ des GER. Nach der Teilnahme an der Modulveranstaltung kann der/die Studierende auf sehr hohem Niveau in unterschiedlichsten Situationen mündlich und schriftlich kommunizieren. Er/Sie ist in der Lage, die Fremdsprache sowohl im Auslandsstudium als auch im Beruf wirksam und flexibel zu gebrauchen. Die Studierenden können komplexe Sachverhalte ausführlich darstellen und dabei Themenpunkte miteinander verbinden, bestimmte Aspekte besonders ausführen und ihren Beitrag angemessen abschließen. Er/Sie kann ein breites Spektrum anspruchsvoller, längerer Texte verstehen und auch implizite Bedeutungen erfassen. Er/Sie kann sich spontan und fließend ausdrücken, ohne öfter deutlich erkennbar nach Worten suchen zu müssen. Er/Sie kann sich klar, strukturiert und ausführlich zu komplexen Sachverhalten äußern und dabei verschiedene Mittel zur Textverknüpfung angemessen verwenden.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezieltem Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Übungen wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern. Durch kontrolliertes Revidieren grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Kenntnisse vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.
Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen; Eigenständiges Referieren und Präsentieren akademischer und gesamtgesellschaftlicher Inhalte zu vorgegebenen Themen.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Wird in der Lehrveranstaltung bekanntgegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1216: Spanish B1.2 | Spanisch B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B1.1.
Einstufungstest mit Ergebnis B1.2.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, (sich) in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Film, Musik, Sport u.a. selbständig und sicher in der Zielsprache zu operieren/bewegen/verständigen, wenn Standardsprache verwendet wird. Sie erweitern Ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatischen Schwerpunkte der spanischen Sprache. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt. Die Studierenden vertiefen ihre Kenntnisse anhand verschiedener aktueller Themen des spanischsprachigen Raums. Dazu werden entsprechende, hierfür notwendige grammatische Themen und Wortschatz behandelt.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1 „Selbständige Sprachverwendung“ des GER. Der/Die Studierende erlangt vertiefte Kenntnisse in der Fremdsprache Spanisch auf standardsprachlichen Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Nach Abschluss des Moduls kann der/die Studierende sich in den meisten Situationen, denen man im Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher verständigen. Er/Sie ist in der Lage, wesentliche Inhalte in einfachen, authentischen Sachtexten, Fernseh- oder Radiosendungen und literarischen Texten zu verstehen und wiederzugeben und sich spontan an Gesprächen zu vertrauten Themen von allgemeinem Interesse zu beteiligen. Der/Die Studierende kann einfache formelle und längere persönliche Briefe und Texte verfassen, strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch B1.2 (Seminar, 2 SWS)
Borneo Gomez P, Galan Rodriguez F, Noch nicht bekannt N
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1217: Spanish B2.2 | Spanisch B2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.1.
Einstufungstest mit Ergebnis B2.2.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, aktiv und weitgehend flüssig über Themen von allgemeinem Interesse oder in vertrauten Fachgebieten mit einem Muttersprachler zu kommunizieren und eine Argumentation strukturiert auszuführen. Ein besonderes Augenmerk wird in diesem Modul auf die Entwicklung von Lesestrategien allgemeiner, akademischer und fachbezogener Texten, auf Wortschatzarbeit sowie die Befähigung zur Entwicklung von Hörstrategien gelegt. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik (z.B. contraste de pasados, indicativo/subjuntivo, estilo indirecto, oraciones subordinadas complejas 2) erarbeitet, wiederholt und vertieft.

In diesem Modul haben die Studierenden die Gelegenheit, eine kurze Präsentation eigenverantwortlich zu gestalten und vorzutragen sowie anschließend auf Fragen zur eigenen Präsentation zu antworten.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B2 „Selbständige Sprachverwendung" des GER. Der/die Studierende erlangt Kenntnisse in der Fremdsprache Spanisch auf schriftsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Er/Sie kann mühelos unterschiedlichste Texte, Artikel und Berichte aus Fachbüchern, Zeitschriften und Magazinen zu einem breiten Spektrum an Themen lesen und verstehen. Er/Sie kann in den Texten verschiedene Meinungsbilder, Standpunkte und Haltungen erkennen. Er/Sie ist in der Lage, zeitgenössische Prosatexte zu lesen. Der/Die Studierende kann längere Redebeiträge und Vorträge mühelos verstehen und komplexer Argumentation folgen, sofern sie klar vorgetragen werden. Der/Die Studierende ist in der Lage, klare und detaillierte Texte zu verschiedenen Themen, die von besonderem Interesse für ihn/sie sind oder zu seinem/ihrem Fachgebiet gehören zu verfassen und dabei kohärent zu argumentieren und fachspezifisches Vokabular zu benutzen. Er/Sie kann die eigenen Ansichten und Standpunkte begründen und verteidigen, seine/ihre Argumentation logisch aufbauen und verbinden sowie Vor- und Nachteile bezüglich einer Entscheidung darlegen. Er/Sie kann sich spontan und fließend verständigen. Er/Sie kann zu vielen Themen aus seinen/ihren Interessen- oder Fachgebieten klar und strukturiert in mündlicher Form kommunizieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch B2.2 (Seminar, 2 SWS)
Guerrero Madrid V, Nevado Cortes C
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1218: Spanish B1.1 | Spanisch B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.2.
Einstufungstest mit Ergebnis B1.1.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, (sich) in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse selbständig und sicher zu operieren/bewegen/verständigen, wenn Standardsprache verwendet wird. Sie erweitern Ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatikalischen Schwerpunkte der spanischen Sprache. Die Studierenden lernen/üben u.a. wie man Vermutungen anstellt; über biografische und historische Ereignisse spricht; wie man Wünsche und Gefühle ausdrückt. Dazu werden entsprechende, hierfür notwendige grammatische Themen behandelt.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1 „Selbständige Sprachverwendung“ des GER. Der/Die Studierende erlangt in diesem Modul vertiefte Kenntnisse in der Fremdsprache Spanisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung interkultureller und landeskundlicher Aspekte. Nach erfolgreicher Teilnahme am Modul kann der/die Studierende sich in den ihm/ihr vertrauten Situationen, denen man im Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnen kann, sicher verständigen. Der/Die Studierende ist in der Lage, wesentliche Inhalte in einfachen authentischen Texten aus alltäglichen Bereichen zu verstehen, und sich spontan an Gesprächen zu vertrauten Themen zu beteiligen. Die Studierenden können mündlich wie schriftlich über Erfahrungen, Gefühle und Ereignisse einfach und zusammenhängend berichten und zu vertrauten Themen eine persönliche Meinung äußern und argumentieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch B1.1 (Seminar, 2 SWS)
Galan Rodriguez F, Lopez Paredes M, Villegas Montano J

Blockkurs Spanisch B1.1 (Seminar, 2 SWS)
Tapia Perez T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1219: Spanish B2.1 | Spanisch B2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B1.2.
Einstufungstest mit Ergebnis B2.1.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, aktiv und annähernd flüssig über Themen von allgemeinem Interesse oder von vertrauten Fachgebieten mit einem Muttersprachler zu kommunizieren und dabei strukturiert zu argumentieren. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden Schwerpunkte der Grammatik (z.B. futuro, imperfecto de subjuntivo, ser/estar, oraciones subordinadas complejas 1) erarbeitet, wiederholt und vertieft. In diesem Modul haben die Studierenden die Gelegenheit, eine kurze Präsentation zu gestalten, vorzutragen und anschließend auf Fragen zur eigenen Präsentation zu antworten.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau B2 „Selbständige Sprachverwendung" des GER. Der/die Studierende erlangt Kenntnisse in der Fremdsprache Spanisch auf schriftsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Er/Sie kann unterschiedliche Artikel und Berichte aus Büchern oder Zeitschriften, die sowohl mit eigenen Interessen als auch mit ihrem Fachgebiet in Zusammenhang stehen, sicher verstehen. Er/Sie kann längeren Redebeiträgen und Vorträgen zu aktuellen Themen folgen, sofern sie klar vorgetragen werden. Der/Die Studierende ist in der Lage, zusammenhängende Texte zu unterschiedlichen, vertrauten allgemeinsprachlichen aber auch fachsprachlichen Themen zu verfassen und dabei auch komplexere Satzstrukturen und fachspezifisches Vokabular zu benutzen. Er/Sie kann zu vielen Themen aus seinen/ihren Interessen- oder Fachgebieten klar und strukturiert in mündlicher Form kommunizieren.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch B2.1 (Seminar, 2 SWS)
Gomez Cabornero S, Tapia Perez T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1225: Spanish B1.1 + B1.2 | Spanisch B1.1 + B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 6	**Total Hours:** 180	**Self-study Hours:** 120	**Contact Hours:** 60

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.2.
Einstufungstest mit Ergebnis B1.1.

Content:
In diesem Modul werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, (sich) in vertrauten Situationen, z.B. in Studium, Arbeit, Freizeit und Familie, und zu Themen von allgemeinem Interesse wie Film, Musik, Sport u.a. selbständig und sicher in der Zielsprache zu operieren/bewegen/verständigen, wenn Standardsprache verwendet wird. Sie erweitern Ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatischen Schwerpunkte der spanischen Sprache. Dabei werden interkulturelle, landeskundliche und studienbezogene Aspekte berücksichtigt. Die Studierenden vertiefen ihre Kenntnisse anhand verschiedener aktueller Themen des spanischsprachigen Raums. Dazu werden entsprechende, hierfür notwendige grammatische Themen und Wortschatz behandelt.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1 „Selbstständige Sprachverwendung“ des GER. Der/Die Studierende erlangt vertiefte Kenntnisse in der Fremdsprache Spanisch auf standardsprachlichen Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte. Nach Abschluss des Moduls kann der/die Studierende sich in den meisten Situationen, denen man im Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher verständigen. Er/Sie ist in der Lage, wesentliche Inhalte in einfachen, authentischen Sachtexten, Fernseh- oder Radiosendungen und literarischen Texten zu verstehen und wiederzugeben und sich spontan an Gesprächen zu vertrauten Themen von allgemeinem Interesse zu beteiligen. Der/Die Studierende kann einfache formelle und längere persönliche Briefe und Texte verfassen, strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch B1.1+B1.2 (intensiv) (Seminar, 2 SWS)
Garcia Garcia M, Lopez Agudo E
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1227: Spanish C1.1 | Spanisch C1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.2.
Einstufungstest mit Ergebnis C1.1.

Content:
In dieser Lehrveranstaltung werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, sich spontan und flüssig auszudrücken und eine Argumentation strukturiert und kohärent auszuführen. In dieser Lehrveranstaltung wird besonderes Augenmerk auf die Erweiterung und den präzisen Umgang mit Vokabular zu allgemeinen und fachlichen Themen (z. B. Graphik- und Datenauswertung) sowie auf die Entschlüsselung und Analyse der diskursiven Merkmale von Text- und audiovisuellen Dokumenten gelegt. Zur Festigung der mündlichen und schriftlichen Fertigkeit werden ausgewählter Schwerpunkte der Grammatik erarbeitet, wiederholt und vertieft. Die Studierenden erhalten die Gelegenheit, eine Präsentation zu einem Thema aus dem eigenen Studienfach zu erarbeiten und vorzutragen und daran anschließend eine Diskussion zu leiten.

Intended Learning Outcomes:
Diese Lehrveranstaltung orientiert sich am Niveau C1 „Kompetente Sprachverwendung" des GER. Der/die Studierende kann eine Vielzahl von Texten verstehen, einschließlich literarischer Schriften, Zeitungs- oder Zeitschriftenartikel und spezialisierter akademischer oder professioneller Publikationen, vorausgesetzt, er/sie kann schwierige Abschnitte erneut nachlesen. Der/die Studierende kann längere Reden und Vorträge unterschiedlicher Fachgebiete verstehen und auch eine komplexe Argumentation folgen, auch wenn diese nicht klar strukturiert ist und Inhalte nur impliziert werden. Er/sie ist in der Lage, ein breites Spektrum idiomatischer Ausdrücke, auch solche umgangssprachlicher Art, zu erkennen und dabei die Registerverschiebungen differenzieren. Er/sie kann nahezu vollständig implizierte Bedeutungen in Rundfunk- und Fernsehprogrammen verstehen. Er/sie kann klare, detaillierte Beschreibungen und Präsentationen zu komplexen Themen geben und Argumentationen mit Beispielen belegen. Er/sie kann klar strukturierte Texte zu komplexen Themen verfassen, die eigene Meinung deutlich darstellen und beherrscht verschiedene Mittel zur Textverknüpfung.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch C1.1 (Seminar, 2 SWS)
Guerrero Madrid V
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1228: Spanish B2 - Spanish in Science and Technology | Spanisch B2 - Español para la Ciencia und Tecnología

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B2.2.
Einstufungstest mit Ergebnis C1.1.

Content:
In dieser LV werden Kenntnisse in der Fremdsprache Spanisch erarbeitet, die es den Studierenden ermöglichen, in Studium und Beruf annähernd flüssig über Themen des eigenen und eines fremden Fach- und Interessengebiets zu kommunizieren. Die Studierenden analysieren Strukturen, die in Fachtexten und fachlicher Kommunikation häufig auftreten. Sie erarbeiten einen umfangreichen Wortschatz zu einem breiten Spektrum an technischen Themen. Die Studierenden verwenden Strategien, die effizientes Hören und Lesen im Fach unterstützen. Grundlage der Erarbeitung der genannten Lerninhalte sind in erster Linie authentische Fachtexte. In dieser LV haben die Studierenden die Gelegenheit, eine kurze Präsentation zu gestalten, vorzutragen und anschließend auf Fragen zur eigenen Präsentation zu antworten.

Intended Learning Outcomes:
Dieser LV orientiert sich an Niveau B2 „Selbständige Sprachverwendung" des GER. Nach der Teilnahme an der Lehrveranstaltung kann der/die Studierende den wesentlichen Inhalt von wissenschaftlichen Artikeln und Berichte sowie Texte aus dem eigenen Fach- und Interessengebiet selbständig verstehen und Standpunkte identifizieren. Er/Sie kann längeren Redebeiträge und Vorträgen sowohl zu aktuellen Themen als auch innerhalb seines/ihres Fachgebietes folgen, sofern sie klar vorgetragen werden. Der/Die Studierende ist in der Lage zusammenhängende Texte fachsprachlichen Themen zu verfassen und dabei auch kohärent zu argumentieren und fachspezifisches Vokabular zu benutzen. Er/Sie kann zu vielen Themen aus seinem/ihrem Interessen- oder Fachgebiet klar und strukturiert referieren und argumentativ Stellung beziehen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Wird im Kurs bekanntgegeben.

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1229: Spanish B1 - Grammar Training | Spanisch B1 – Grammatik Training-Curso práctico de gramática

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe B1.2.
Einstufungstest mit Ergebnis B2.1.

Content:
In diesem Modul werden ausgewählte Bereiche der Grammatik aus der B1-Stufe wiederholt und vertieft, die es den Studierenden ermöglichen, mündlich wie schriftlich sicherer in der Fremdsprache Spanisch zu kommunizieren. Die Studierenden erweitern Ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatischen Schwerpunkte der spanischen Sprache (z. B. ser - estar, Vergangenheiten, subjuntivo, Präpositionen etc.)

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau B1 „Selbstständige Sprachverwendung“ des GER. Der/Die Studierende erlangt vertiefte Kenntnisse in der Fremdsprache Spanisch auf standardsprachlichen Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte.

Nach Abschluss des Moduls kann der/die Studierende sich in den meisten Situationen, denen man im Studium oder Beruf, Freizeit und auf Reisen im Sprachgebiet begegnet, sicherer verständigen

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1230: Spanish A2 - Grammar Training | Spanisch A2 - Grammatik Training-Curso práctico de gramática

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.2.
Einstufungstest mit Ergebnis B1.1.

Content:
In diesem Modul werden ausgewählte Bereiche der Grammatik aus der A2-Stufe wiederholt und vertieft, die es den Studierenden ermöglichen, mündlich wie schriftlich sicherer in der Fremdsprache Spanisch zu kommunizieren. Die Studierenden erweitern Ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatischen Schwerpunkte der spanischen Sprache (z. B. ser - estar, Pronomen, Präsens, Vergangenheiten etc.).

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau A2 „Elementare Sprachverwendung“ des GER. Der/Die Studierende erlangt vertiefte Kenntnisse in der Fremdsprache Spanisch auf standardsprachlichen Niveau unter Berücksichtigung interkultureller, landeskundlicher und studienbezogener Aspekte.

Nach Abschluss des Moduls kann der/die Studierende sich in einfachen, routinemäßigen Situationen verständigen, in denen es um einen einfachen und direkten Austausch von Informationen über vertraute und geläufige Dinge geht.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1231: Spanish A2 plus - Writing and Grammar Skills | Spanisch A2 plus - Sicherheit in Wortschatz und Grammatik

Version of module description: Gültig ab winterterm 2022/23

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch A2 plus – Sicherheit in Wortschatz und Grammatik (Seminar, 2 SWS)
Listan Rosa M
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1232: Spanish B2 plus - Preparation for C1 | Spanisch B2 plus - Vorbereitung auf C1

Version of module description: Gültig ab winterterm 2022/23

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1234: Spsnish C1.1 | Spanisch C1.1 - Más allá de los límites

Version of module description: Gültig ab winterterm 2022/23

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Spanisch C1.1 (Seminar, 2 SWS)
Guerrero Madrid V
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1235: Spanish C1.2 | Spanisch C1.2

Version of module description: Gültig ab summerterm 2024

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-13: Hebrew | Hebräisch

Module Description

SZ1304: Hebrew A1.1 | Hebräisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
Der/die Studierende erlangt Grundkenntnisse in der Fremdsprache Hebräisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung kultureller und landeskundlicher Aspekte. Es werden Kenntnisse vermittelt, die es den Studierenden ermöglichen, sehr einfache Strukturen wiederzugeben.
Themen aus alltäglichen Situationen zusammen mit der entsprechenden Grammatik und Wortschatz werden behandelt.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1.1 des GER. Nach Abschluss dieses Moduls sind die Studierenden in der Lage die hebräischen Schriftzeichen selbstständig zu lesen, zu schreiben und auszusprechen, hebräische Druck und Schreibschrift zu beherrschen, sehr einfache Fragen zu vorgegebenen, alltäglichen Themen zu beantworten, sehr einfache vorgegebene Sätze zu erkennen und wiederzugeben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Hebräisch A1.1 (Seminar, 2 SWS)
Weidemann T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1305: Hebrew A1.2 | Hebräisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreich bestandene Stufe A1.1

Content:
In diesem Modul werden weitere Grundkenntnisse in der Fremdsprache Hebräisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. U.a. werden die Themen, Uhrzeit, feminine Zahlen, Adjektivflexion, und -verwendung, Verwendung des direkten Objekts und die Wochentage behandelt.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1.2 des GER. Nach Abschluss sind die Studierenden in der Lage, sich in sehr einfachen, routinemäßigen Situationen zu verständigen, wenn es um einen direkten Austausch von Informationen und um vertraute Themen und Tätigkeiten geht, ein sehr kurzes Kontaktgespräch zu führen (Begrüßung, Wohlbefinden, Uhrzeit erfragen und angeben, Einkäufe tätigen, nach dem Weg fragen) und mit kurzen Sätzen und einfachen Mitteln z.B. Familie, Wohnsituation, Orte und Gegenstände zu beschreiben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Hebräisch A1.2 (Seminar, 2 SWS)
Weidemann T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1306: Hebrew A2.1 | Hebräisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreich bestandene Stufe A1.2

Content:
In diesem Modul werden weitere Grundkenntnisse in der Fremdsprache Hebräisch vermittelt, die es den Studierenden ermöglichen sich in alltäglichen Situationen zurechtzufinden. U. a. werden vertiefte grammatikalische Themen (z.B. Infinitivbildung verschiedener regelmäßiger und unregelmäßiger Verbgruppen, Adverbien, komplexe Nominalsätze, Zahlen bis 100, Zusammengesetzte Wörter (Smichut) und Indefinitpronomen (jeder/alle) und komplexere landeskundliche Themen (Israelische Geschichte, Kunst, und Kultur) behandelt.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2.1 des GER. Nach Abschluss sind die Studierenden in der Lage, sich in alltäglichen Situationen mündlich und schriftlich zu verständigen und dabei die erlernte Grammatik anzuwenden. Sie sind in der Lage, komplexere Satzstrukturen zu erkennen und setzen diese selbst um (z. B. Ausdruck von konkreten Wünschen, Nachfrage und Angabe von Gründen, Treffen vergleichender Aussagen). Die Studierenden führen erfolgreich kurze Gespräche über einfache geschichtliche und kulturelle Themen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-14: Turkish | Türkisch

Module Description

SZ1402: Turkish A2.1 | Türkisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A1.2

Content:
Aufbauend auf die Grundkenntnisse aus A1 und unter Einbeziehung interkultureller und landeskundlicher Aspekte und der fortdauernden Modernisierung der türkischen Sprache werden in diesem Modul das Hörverstehen trainiert und vertieft und die Verflüssigung der Ausdrucksfähigkeit im aktiven Sprechen gefördert. Der Übungsschwerpunkt liegt in der richtigen Auswahl und Anreihung der Agglutinationen, der Endungsanalyse beim Hören und Lesen von Informationen. Die Studierenden lernen/üben Imperativ, Vergangenheit, Zukunft, Verneinung und Fragesätze zu formulieren und verstehen. Themen aus dem alltäglichen Leben wie Kochen, Freizeit, Nachrichten, Wetter und Aktivitäten planen erweitern den Wortschatz.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau "A2.1 Elementare Sprachverwendung“ des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, vertraute Sätze und

Redewendungen zu einem erweiterten Spektrum an Themen zu verstehen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen oder Studien- bzw. berufsrelevanten Themen.
Die Lernenden erfassen die Bedeutung von klaren und deutlich artikulierten Mitteilungen. Der Austausch von In-formationen erfolgt kurz, aber mühelos zu vertrauten Tätigkeiten und Themen.
Der/die Studierende ist in der Lage mithilfe feststehender Wendungen kurze, informative Texte zu verstehen, mündlich wie schriftlich zu wiedergeben und zu verfassen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Dialogübungen; gezielte Hör-, Sprech-, Lese- und Schreibübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Referat; kontrolliertes Selbstlernen grundlegender Phänomene der Fremdsprache mit vorgegebenen Materialien. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Türkisch A2.1 (Seminar, 2 SWS)
Kardes Alper T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1403: Turkish A2.2 | Türkisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.1

Content:
Aufbauend auf die Grundkenntnisse aus A 2.1 und unter Einbeziehung interkultureller und landeskundlicher Aspekte und der fortdauernden Modernisierung der türkischen Sprache werden in diesem Modul weiterhin schwerpunktmäßig das Hör- und Lehseverstehen trainiert und vertieft und das aktive Sprechen anhand weitere Themen wie Gewohnheiten, Gesundheit, Kultur und Medien gefördert. Im Fokus der Grammatik stehen weitere, besondere Tempusformen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau „A2.2 Elementare Sprachverwendung“ des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, sich aktiv in kurzen Interaktionen zu einem erweiterten Spektrum an Themen einzubringen. Die Lernenden können auch längere Texte zu vertrauten Themen verstehen, in denen einfache alltags-, studierenden- und berufsbezogene Sprache verwendet wird. Der Austausch von Informationen erfolgt kurz, aber mühelos zu vertrauten Tätigkeiten und Themen. Der/die Studierende ist in der Lage mithilfe

feststehender Wendungen kurze, informative Texte zu verfassen. Es werden Haupt- und einige Nebensätze verwendet.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Dialogübungen; gezielte Hör-, Sprech-, Lese- und Schreibübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; kontrolliertes Selbstlernen grundlegender Phänomene der Fremdsprache mit vorgegebenen Materialien.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1404: Turkish A1.1 | Türkisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
Nach ersten Einblicken in die Beschaffenheit/Spezifität der Sprache (Agglutination, Vokalharmonie, Satzbau, Fehlen des grammatischen Geschlechts) werden in diesem Modul Grundkenntnisse der Fremdsprache Türkisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte mit einbezogen. Die Studierenden ler-nen/üben einfach strukturierte Hauptsätze zu formulieren und im bestimmten Präsens zu erzählen. Zum Beispiel: Angaben zur eigenen Biografie zu machen oder zur Biografie einer Person Fragen zu stellen und zu beantworten, bezogen auf Namen, momentanes Befinden, Herkunft, Nationalität, Familienstand, Alter, Wohnort, Arbeitsplatz, Studium, Sprachen, Beruf; Zahlen zu verstehen und zu benutzen. Dazu werden entsprechende, hierfür notwendige grammatikalische Themen behandelt. Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse (in alltäglichen Grundsituationen) ermöglichen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau „A1.1 Elementare Sprachverwendung“ des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, vertraute alltägliche Ausdrücke und sehr einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Er/sie kann sich und andere vorstellen, anderen Leuten Fragen zu ihrer Person stellen und auf Fragen dieser Art Antwort geben. Der/die Studierende kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Sprech-, Lese- und Schreibübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; kontrolliertes Selbst-lernen grundlegender Phänomene der Fremdsprache mit vorgegebenen Materialien. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Türkisch A1.1 (Seminar, 2 SWS)
Colak A, Kardes Alper T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1405: Turkish A1.2 | Türkisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A1.1

Content:
Dieses Modul orientiert sich am Niveau „A1.2 Elementare Sprachverwendung“ des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, vertraute alltägliche Ausdrücke, Redewendungen und einfache Sätze zu verstehen und zu verwenden. Dabei handelt es sich um grundlegende, kurze Informationen zu alltäglichen oder Studien- bzw. berufsrelevanten Fragen und vertrauten Tätigkeiten und Themen. Er/sie kann sich und andere vorstellen, anderen Leuten Fragen zu ihrer Person stellen und auf Fragen dieser Art Antwort geben. Der/die Studierende kann sich auf einfache Art verständigen, wenn die Ge-sprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen.

Intended Learning Outcomes:
Dieses Modul orientiert sich am Niveau „A1.2 Elementare Sprachverwendung“ des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage, vertraute alltägliche Ausdrücke, Redewendungen und einfache Sätze zu verstehen und zu verwenden. Dabei handelt es sich um grundlegende, kurze Informationen zu alltäglichen oder Studien- bzw. berufsrelevanten

Fragen und vertrauten Tätigkeiten und Themen. Er/sie kann sich und andere vorstellen, anderen Leuten Fragen zu ihrer Person stellen und auf Fragen dieser Art Antwort geben. Der/die Studierende kann sich auf einfache Art verständigen, wenn die Ge-sprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; Dialogübungen; gezielte Hör-, Sprech-, Lese- und Schreibübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; kontrolliertes Selbstlernen grundlegender Phänomene der Fremdsprache mit vorgegebenen Materialien. Freiwillige Hausaufgaben festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial.

Reading List:
Lehrbuch (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Türkisch A1.2 (Seminar, 2 SWS)
Kardes Alper T
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1408: Turkish - Communication A2 | Türkisch - Kommunikation A2

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse (hier: mündliche
Kommunikationsfähigkeiten) überprüft. Format: Audiodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.1

Content:
In diesem Modul steht die mündliche Kommunikation in der Fremdsprache Türkisch im Vordergrund. Es werden Kenntnisse vermittelt, die es den Studierenden ermöglichen, im einfachen Kontext, d. h. in verschiedenen alltäglichen Situationen und zu Themen von allgemeinem Interesse zusammenhängend und verständlich zu kommunizieren. Dabei wird ein Spektrum an Vokabular, Redewendungen und Dialogmustern erarbeitet; interkulturelle und landeskundliche Aspekte berücksichtigt; Schwerpunkte der Grammatik gemäß der Niveaustufe (insbesondere die Tempus-Formen Präsens, Präteritum und Futur sowie Nebensatzkonstellationen) wiederholt bzw. vertieft und gefestigt. Die aktive Mitarbeit der Studierenden wird erwartet und gefördert.

Intended Learning Outcomes:
Nach Abschluss des Moduls können die Studierenden auf A2-Niveau sich an leichteren Gesprächen im Alltag beteiligen bzw. einfach und zusammenhängend in alltäglichen Kommunikationssituationen verstehbar reagieren und Ansichten kurz begründen oder erklären, sofern sie in klarer Standardsprache vorgetragen werden und die Thematik vertraut ist.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Sprechübungen; Einzel-, Partner- und Gruppenarbeit; kontrolliertes Selbstlernen grundlegender Kommunikationsmuster in der Fremdsprache mit vorgegebenen Materialien; Förderung kooperativen Lernens; Diskussionen in Gruppen zu vorbereiteten sowie frei/spontan gewählten Themen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Vom Kursleiter/der Kursleiterin selbst angefertigte/zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Reading List:
Vom Kursleiter/der Kursleiterin selbst angefertigte/zusammengestellte Übungen; Auszüge aus kopierbaren Lehrmaterialien; Online-Materialien

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Türkisch - Kommunikation A2 (Seminar, 1 SWS)
Kardes Alper T
For further information in this module, please click campus.tum.de or here.

SZ0003-15: Danish | Dänisch

Module Description

SZ1501: Danish A1 | Dänisch A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In dieser LV werden Grundkenntnisse der dänischen Sprache vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Kommunikationssituationen zurechtzufinden.
Geübt wird: Grundlegendes Vokabular zu Themen wie Freizeit, Familie, Wohnen, Essen, Landeskunde, Beruf und in einfach strukturierten Sätzen über diese Themen im Präsens zu berichten. Ebenso wird grundlegende dänische Grammatik geübt; Substantive (Singular und

Plural), Verben und Modalverben, Personalpronomen, Possessivpronomen, Indefinitpronomen, reflexive Pronomen, einige Präpositionen, Adjektivdeklination sowie Steigerung und Wortstellung.

Intended Learning Outcomes:
Die LV orientiert sich an dem Niveau A1 des GER. Die/der Studierende erlangt Grundkenntnisse in der Fremdsprache Dänisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung kultureller und landeskundlicher Aspekte. Nach Abschluss dieses Moduls kann sie/er alltägliche Ausdrücke und einfache Sätze verstehen und verwenden. Die/der Studierende kann sich auf einfache Art verständigen und in dänischer Sprache kommunizieren.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Dänisch A1 (Seminar, 2 SWS)
Vagner S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1502: Danish A2 | Dänisch A2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Prüfungsleistungen A1

Content:
In diesem Modul werden erweiterte Kenntnisse der dänischen Sprache vermittelt, die es den Studierenden ermöglichen, sich in fast allen alltäglichen Kommunikationssituationen zurechtzufinden.
Geübt wird: erweitertes Basisvokabular um Beschreibungen und eigene Meinung bekannt zu geben, eigene Situation und Aktivitäten zu weitergeben, über das Wetter zu reden etc. Themen sind z.B. im Bereich Ausbildung, Beruf, Urlaub und (eigene) Zukunft. Die Zeitformen Präteritum und Perfekt sowie die Partizipien werden hier stärker geübt. Die dänische Grammatik wird

dabei erweitert; mehrere Präpositionen, indirekte Rede, unregelmäßige Substantivformen, Komparativformen von Adjektiven, Wortstellung in Nebensätzen, Passivformen von Verben, bestimmter Artikel usw.

Intended Learning Outcomes:
Das Modul orientiert sich an dem Niveau A2 des GER. Die/der Studierende erlangt erweiterte Kenntnisse in der Fremdsprache Dänisch mit allgemeinsprachlicher Orientierung und mit besonderem Gewicht auf das Kommunizieren der eigenen Meinung sowie Gegenstände, Aktivitäten und Medien beschreiben und besprechen. Nach Abschluss dieses Moduls kann sie/er an alltäglicher Konversation aktiv teilnehmen. Die/der Studierende kann seine/ihre Meinung äußern und auf einfache Art beschreiben und diskutieren, bewerten, empfehlen etc.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der LV bekannt gegeben); multimedial gestütztes Lehr- und Lernmaterial

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Dänisch A2 (Seminar, 2 SWS)
Vagner S
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1503: Danish B1 | Dänisch B1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Prüfungsleistungen A2

Content:
In diesem Modul werden Kenntnisse der Fremdsprache Dänisch erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen und zu Themen von allgemeinem Interesse selbständig in der Zielsprache zu äußern, wenn Standardsprache verwendet wird. Kommunikationsmöglichkeiten (Vokabular, Redewendungen, Dialogmuster etc.) zu den genannten Bereichen, ergänzen das Repertoire an Nebensätzen. Wir wiederholen / intensivieren und ergänzen elementare Aspekte der Grammatik wie die Präpositionen und Konjunktionen, die Vergangenheitsform, die Adjektive (Komparativ und Superlativ) und Adverbien; Passiv mit –s sowie und Wortfolge in komplexeren Satzmustern. Die LV orientiert sich am Niveau B1 des GER.

Der/Die Studierende erlangt Kenntnisse in der Fremdsprache Dänisch auf standardsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher, und studienbezogener Aspekte.

Intended Learning Outcomes:
Nach Abschluss dieses Moduls kann der/die Studierende sich in den meisten alltäglichen Situationen, denen man in Studium, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher verständigen, z. B. den eigenen Werdegang vorstellen, Wünsche äußern, Ratschläge erteilen, Anweisungen erteilen um Erlaubnis bitten, zu alltäglichen Themen eine persönliche Meinung äußern und widersprechen, für und gegen etwas argumentieren, persönliche Erfahrungen und Pläne kommunizieren.
Er/Sie kann wesentliche Inhalte in einfachen Sachtexten, in den Medien und literarischen Texten verstehen und wiedergeben und sich spontan an Gesprächen zu vertrauten Themen von allgemeinem Interesse beteiligen. Er kann einfache formelle und längere persönliche Briefe und Texte verfassen, strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch (wird in der LV bekannt gegeben); multimedial gestütztes Lehr- und Lernmaterial

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-16: Dutch | Niederländisch

Module Description

SZ1601: Dutch A1 | Niederländisch A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse, mündlich und schriftlich, in der Fremdsprache Niederländisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierenden lernen/

üben: z.B. Auskunft über die Wohnsituationen zu geben, den Tagesablauf zu beschreiben, über Gewohnheiten, Freizeit, Ausbildung und Arbeit zu sprechen und Wegbeschreibungen zu verstehen /geben.
Dazu werden u.a. folgende Themen der Grammatik behandelt und geübt: Nomen und Adjektive, Präsens, Perfekt und Präteritum, unregelmäßige Verben und Modalverben.
Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse (in alltäglichen Grundsituationen) ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Niederländisch effektiver zu gestalten und die eigenen Lernfähigkeiten zu verbessern.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau "A1 Elementare Sprachverwendung" des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage vertraute, alltägliche Ausdrücke und sehr einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Er/Sie kann sich und andere vorstellen und anderen Leuten Fragen zu ihrer Person stellen und auf Fragen dieser Art Antwort geben. Der/Die Studierende kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperatives Lernens; Kontrolliertes Selbstlernen grundlegender grammatischer Phänomene der Fremdsprache mit vorgegebenen Materialien.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Niederländisch A1 (Seminar, 2 SWS)
Becker H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1602: Dutch A2 | Niederländisch A2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene A1-Stufe

Content:
In diesem Modul werden erweiterte Grundkenntnisse, mündlich und schriftlich, der Fremdsprache Niederländisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die Studierenden lernen/üben: z.B. Auskunft über Gefühle und Stimmungen zu geben und Vermutungen und Meinungen zu äußern, einen formellen Brief zu schreiben, jemanden etwas zu empfehlen.

Dazu werden u.a. folgende Themen der Grammatik behandelt und geübt: den Superlativ, das Wörtchen „er“, das Futur, die Rechtschreibung und das Passiv. Es werden Strategien vermittelt, die eine Verständigung trotz noch geringer Sprachkenntnisse (in alltäglichen Grundsituationen) ermöglichen. Außerdem werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Niederländisch effektiver zu gestalten und die eigenen Lernfähigkeiten zu verbessern.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau "A2 Elementare Sprachverwendung" des GER.
Nach der Teilnahme an der Modulveranstaltung sind die Studierenden in der Lage vertraute, häufig gebrauchte Ausdrücke zu verstehen, (etwa Informationen zur Person und zur Familie, Einkaufen, Arbeit, nähere Umgebung) und sich in routinemäßigen Situationen mit dem Ziel des Informationsaustausches zu verständigen. Die eigene Herkunft und Ausbildung, direkte Umgebung und Dinge im Zusammenhang mit unmittelbaren Bedürfnissen beschreiben. Der/Die Studierende kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperatives Lernens; Kontrolliertes Selbstlernen grundlegender grammatischer Phänomene der Fremdsprache mit vorgegebenen Materialien.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Niederländisch A2 (Seminar, 2 SWS)
Becker H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1606: Dutch B1 | Niederländisch B1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene A2-Stufe

Content:
In dieser LV werden Kenntnisse der Fremdsprache Niederländisch erarbeitet, die es den Studierenden ermöglichen, sich in vertrauten Situationen und zu Themen von allgemeinem Interesse selbständig in der Zielsprache zu äußern, wenn Standardsprache verwendet wird. Kommunikationsmöglichkeiten (Vokabular, Redewendungen, Dialogmuster etc.) zu den genannten Bereichen, ergänzen das Repertoire an Nebensätzen. Wir wiederholen / intensivieren und ergänzen elementare Aspekte der Grammatik wie die Präpositionen und Konjunktionen, die Vergangenheitsform, die Adjektive (Komparativ und Superlativ) und Adverbien; Passiv,

Plusquamperfekt, sowie und Wortfolge in komplexeren Satzmustern. Die LV orientiert sich am Niveau B1 des GER. Der/Die Studierende erlangt Kenntnisse in der Fremdsprache Niederländisch auf standardsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher, und studienbezogener Aspekte.

Intended Learning Outcomes:
Nach Abschluss der LV kann der/die Studierende sich in den meisten alltäglichen Situationen, denen man in Studium, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher verständigen, z. B. den eigenen Werdegang vorstellen Wünsche äußern, Ratschläge erteilen, Anweisungen erteilen um Erlaubnis bitten, zu alltäglichen Themen eine persönliche Meinung äußern und widersprechen, für und gegen etwas argumentieren, persönliche Erfahrungen und Pläne kommunizieren.
Er/Sie kann wesentliche Inhalte in einfachen Sachtexten, in den Medien und in literarischen Texten verstehen und wiedergeben und sich spontan an Gesprächen zu vertrauten Themen von allgemeinem Interesse beteiligen. Er kann einfache formelle und längere persönliche Briefe und Texte verfassen, strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperatives Lernens; Kontrolliertes Selbstlernen grundlegender grammatischer Phänomene der Fremdsprache mit vorgegebenen Materialien.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-17: Norwegian | Norwegisch

Module Description

SZ1701: Norwegian A1 | Norwegisch A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Norwegisch vermittelt, die es den Studierenden ermöglichen, sich in alltäglichen Grundsituationen trotz geringer Sprachkenntnisse zurechtzufinden. Wir lernen / üben grundlegendes Vokabular zu Themen wie Familie, Wohnen, Beruf, Freizeit, Landeskunde und in einfach strukturierten Haupt- und Nebensätzen Alltägliches im Präsens zu berichten; Plural der Nomen; Personal-, Reflexiv-, Demonstrativ- und einige

Possessivpronomen; einfache Negationsformen; den Gebrauch einiger Modalverben und Präpositionen; Adjektivdeklination.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 des GER. Der/die Studierende erlangt Grundkenntnisse in der Fremdsprache Norwegisch mit allgemeinsprachlicher Orientierung unter Berücksichtigung kultureller und landeskundlicher Aspekte. Nach Abschluss dieses Moduls kann er/sie alltägliche Ausdrücke und sehr einfache Sätze verstehen und verwenden, die auf die Befriedigung konkreter, in der Bewältigung des Alltags wesentlicher Bedürfnisse zielen. Der/die Studierende kann sich auf einfache Art verständigen, wenn die Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.
Er/Sie kann beispielsweise einfache Fragen zu Person und Familie stellen und beantworten sowie Verabredungen treffen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Blockkurs Norwegisch A1 (Seminar, 2 SWS)
Janes J

Norwegisch A1 (Seminar, 2 SWS)
Janes J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1702: Norwegian A2 | Norwegisch A2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
Studien-/Prüfungsleistungen:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur A1

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Norwegisch vermittelt, die es den Studierenden – trotz geringer Sprachkenntnisse – ermöglichen sollen, sich in alltäglichen Grundsituationen zurechtzufinden.
Wir lernen/üben grundlegendes Vokabular und Konversationen und produzieren auch kürzere Texte (z.B. E-Mail, Textzusammenfassung und Kurzpräsentationen); vertiefen und erweitern die Grammatik aus der A1-Stufe und lesen Texte in leicht leserlicher Form.

Grammatische Inhalte: Wiederholung der Pronomen; Komplettierung der Possessivpronomen; komplexer strukturierte Haupt- und Nebensätze mit Modalverben; Imperativ; Präteritum; Perfekt und Plusquamperfekt; Zeitausdrücke-/angaben; Zeit-, Ort- und Richtungsadverbien; Steigerung des Adjektivs.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2 des GER. Der/Die Studierende erlangt Grundkenntnisse in Norwegisch mit allgemein sprachlicher Orientierung unter Berücksichtigung kultureller und landeskundlicher Aspekte.
Nach Abschluss dieses Moduls kann der/die Studierende im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen Themen unter Einbeziehung landeskundlicher Aspekte. Der/die Studierende ist in der Lage kurze informative Texte oder Mitteilungen zu grundlegenden Situationen zu verfassen und kann längere Texte zu vertrauten Themen verstehen, in denen gängige bzw. einfache alltagsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Norwegisch A2 (Seminar, 2 SWS)
Janes J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1703: Norwegian B1 | Norwegisch B1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Bestandene Abschlussklausur A2

Content:
In diesem LV werden Kenntnisse der Fremdsprache Norwegisch erarbeitet,
die es den Studierenden ermöglichen, sich in vertrauten Situationen und zu Themen von allgemeinem Interesse selbständig in der Zielsprache zu äußern.
Kommunikationsmöglichkeiten (Vokabular, Redewendungen, Dialogmuster etc.) zu den genannten Bereichen, ergänzen das Repertoire an Nebensätzen.
Wir wiederholen / intensivieren und ergänzen elementare Aspekte der Grammatik. Die LV orientiert sich am Niveau B1 des GER. Der/Die Studierende erlangt Kenntnisse in der Fremdsprache

Norwegisch auf standardsprachlichem Niveau unter Berücksichtigung interkultureller, landeskundlicher, und studienbezogener Aspekte.
Nach Abschluss der LV kann der/die Studierende sich in den meisten alltäglichen Situationen, denen man in Studium, Freizeit und auf Reisen im Sprachgebiet begegnet, sicher verständigen, z. B. den eigenen Werdegang vorstellen, Wünsche äußern, Ratschläge erteilen, Anweisungen erteilen, um Erlaubnis bitten, zu alltäglichen Themen eine persönliche Meinung äußern und widersprechen - für und gegen etwas argumentieren, persönliche Erfahrungen und Pläne kommunizieren.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau B1 des GER. Nach Abschluss dieses Moduls kann der/die Studierende wesentliche Inhalte in einfachen Sachtexten, in den Medien und in literarischen Texten verstehen und wiedergeben und sich spontan an Gesprächen zu vertrauten Themen von allgemeinem Interesse beteiligen. Er/Sie kann einfache formelle und längere persönliche Briefe und Texte verfassen, strukturiert zu einem alltäglichen Thema von persönlichem Interesse referieren und schriftlich eine logisch begründete Stellungnahme zu einem aktuellen Thema verfassen, wenn Hilfestellung gegeben wird.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Norwegisch B1 (Seminar, 2 SWS)
Janes J
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1704: Norwegian B2 | Norwegisch B2

Version of module description: Gültig ab summerterm 2023

Module Level:	Language:	Duration:	Frequency:
Credits:* 3	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-18: Korean | Koreanisch

Module Description

SZ1804: Korean A2.1 | Koreanisch A2.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreich abgeschlossene Stufe A1.2

Content:
In diesem Modul werden weitere Grundkenntnisse in der Fremdsprache Koreanisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierende lernen/üben (u. a.) Konsekutivsatz (um … zu), Richtungs- und Kausalpartikel, Präpositionen: oben, unten, vor, hinter, neben, innen, außen, zwischen, links und rechts, Hilfsverben (mögen, wollen, können),

Futurform, Partizip Präsens/Attributives Adjektiv, Konjugationsform von Adjektiv-Verben, Honorativ und Imperativ, Wegbeschreibung, Reiseplan, Briefschreiben, Shopping, Internetbestellung.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2.1 des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierende in der Lage Sätze und häufig gebrauchte Ausdrücke zu verstehen, die mit Bereichen von ganz unmittelbarer Bedeutung zusammenhängen. Sie können sich in routinemäßigen Situationen verständigen, in denen es um einen direkten Austausch von Informationen über vertraute und geläufige Themen geht.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Koreanisch A2.1 (Seminar, 2 SWS)
Jeong H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1805: Korean A2.2 | Koreanisch A2.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreich abgeschlossene Stufe A2.1

Content:
In diesem Modul werden Grundkenntnisse, die in A2.1 erworben wurden, vertieft. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierende lernen/üben (u. a.) wie man Meinungen äußert und darauf reagiert; wie man über die Ursachen und Folgen von etwas spricht; wie man Anweisungen und Ratschläge gibt; wie man Situationen und Ereignisse in der Vergangenheit schildert; wie man Geschichten erzählt. Sie können einfache Diskussionen führen, eine Auswahl treffen und begründen. Dazu werden entsprechende Themen der Grammatik behandelt: Honorativformen, Modalverben (müssen, können), Konjunktionen.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau A2.2 des GER. Nach Abschluss dieses Moduls kann der/die Studierende im Gespräch einfache Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Dabei handelt es sich um grundlegende Informationen zu alltäglichen, oder studienrelevanten Themen unter Einbeziehung landeskundlicher Aspekte. Der/die Studierende kann längere Texte und Briefe zu vertrauten Themen verstehen, in denen gängige aber einfache alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Er/Sie ist in der Lage kurze, informative Texte oder Mitteilungen zu grundlegenden Situationen in Alltag und Studium zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Koreanisch A2.2 (Seminar, 2 SWS)
Kim Y
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1807: Korean B1.2 | Koreanisch B1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreich abgeschlossene Stufe B1.1

Content:
In diesem Modul werden Kenntnisse, die in B1.1 erworben wurden anhand verschiedenster aktueller Themen des koreanischen Lebens vertieft. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die Studierenden erweitern ihren Wortschatz sowie festigen und vertiefen die bisher erlernten grammatischen Schwerpunkte der koreanischen Sprache. Sie lernen/üben u. a. wie man Absichten, Vorschläge, Absagen und Verhandeln formuliert. Dazu werden entsprechende Themen der Grammatik behandelt, wie z. B. eine besondere Form der Nominalisierung, konditionale Konjunktion, Verbot und vielfältige Nebensatzkonstellationen.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau B1.2 des GER. Nach Abschluss dieses Moduls kann der/die Studierende im Gespräch komplizierte Sätze und Redewendungen zu einem erweiterten Spektrum an vertrauten Themen verstehen und gebrauchen. Der/die Studierende kann längere Texte zu vertrauten Themen verstehen, in denen gängige aber gehobene alltags- oder berufsbezogene Sprache verwendet wird und in denen vorhersehbare Informationen zu finden sind. Er/Sie ist in der Lage, längere, informative Texte oder Mitteilungen zu grundlegenden Situationen im Alltag und Studium zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1808: Korean A1.1 | Koreanisch A1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Koreanisch vermittelt.
Hangul & Vorbereitung 1 bis 4: Alphabet, Vokale + Konsonanten, Silbenstruktur + Ausspracheregeln, Wort- und Satzstruktur, Begrüßung + Vorstellung, Zahlen (1-100) nach rein koreanischem System, Zahleneinheiten, Berufsbezeichnungen, Ländernamen, Demonstrativ- und Possessivpronomina, Orte + Einrichtungen, Ortsangaben, Konjugationsformen (regelmäßige Verben).

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1.1 des GER. Nach Abschluss sind die Studierenden in der Lage vertraute, alltägliche Ausdrücke und ganz einfache Sätze zu verstehen und zu verwenden, die auf die Befriedigung konkreter Bedürfnisse zielen. Er/Sie kann sich und andere vorstellen und entsprechend Fragen formulieren. Er/Sie kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-Partner- und Gruppenarbeit; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren nach vorgegebenen Kriterien; moderierte (Rollen-) Diskussionen. Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Koreanisch A1.1 (Seminar, 2 SWS)
Jeong H, Kim Y, Lee K, Shin H

Blockkurs Koreanisch A1.1 (Seminar, 2 SWS)
Kim Y
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1809: Korean A1.2 | Koreanisch A1.2

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreich abgeschlossene Stufe A1.2

Content:
In diesem Modul werden weitere Grundkenntnisse in der Fremdsprache Koreanisch vermittelt, die den Studierenden ermöglichen, sich in alltäglichen Grundsituationen zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierende lernen/üben (u. a.) Konsekutivsatz (um … zu), Richtungs- und Kausalpartikel, Präpositionen: oben, unten, vor, hinter, neben, innen, außen, zwischen, links und rechts, Hilfsverben (mögen, wollen, können), Futurform, Partizip Präsens/Attributives Adjektiv, Konjugationsform von Adjektiv-Verben, Honorativ und Imperativ, Wegbeschreibung, Reiseplan, Briefschreiben, Shopping, Internetbestellung.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A2.1 des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierende in der Lage Sätze und häufig gebrauchte Ausdrücke zu verstehen, die mit Bereichen von ganz unmittelbarer Bedeutung zusammenhängen. Sie können

sich in routinemäßigen Situationen verständigen, in denen es um einen direkten Austausch von Informationen über vertraute und geläufige Themen geht.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Koreanisch A1.2 (Seminar, 2 SWS)
Kim Y, Lee K

Blockkurs Koreanisch A1.2 (Seminar, 2 SWS)
Shin H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1810: Korean B1.1 | Koreanisch B1.1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Die Prüfungsleistungen werden in Form von kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben erbracht.
Hilfsmittel sind erlaubt.
Die Prüfungsleistungen sind in ihrer Gesamtheit so konzipiert, dass die Anwendung von Wortschatz und Grammatik, das Lese- und/oder Hörverstehen sowie die freie Textproduktion geprüft werden.
Mündliche Kommunikationsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
Erfolgreich abgeschlossene Stufe A2.2

Content:
In diesem Modul werden Grundkenntnisse, die in A2.2 erworben wurden, vertieft. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt. Die Studierende lernen/üben u. a. wie man Absichten, Bitten und Vergleiche formuliert und über Erfahrungen spricht. Dazu werden entsprechende Themen der Grammatik behandelt, wie z. B. Konjunktionen, Superlativformen, eine besondere Form der Negation; Nebensatzkonstellationen und die Partizip- und Verlaufsform.

Intended Learning Outcomes:
Dieses Modul orientiert sich an Niveau B1.1 des GER. Nach der Teilnahme an der Modulveranstaltung sind die Studierende in der Lage, Sätze und häufig gebrauchte Ausdrücke aus einem erweiterten Themenspektrum zu verstehen (u. a. studienrelevante Themen). Der Austausch von Informationen erfolgt kurz aber mühelos über eine Reihe bekannter Äußerungen zu vertrauten Tätigkeiten und Themen. Die Lerner sind in der Lage mithilfe feststehender Wendungen kurze, informative Texte oder Mitteilungen zu verfassen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechübungen in Einzel-, Partner- und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben zur Vor- und Nachbearbeitung festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial (wird in der LV bekannt gegeben)

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:
Koreanisch B1.1 (Seminar, 2 SWS)
Shin H
For further information in this module, please click campus.tum.de or here.

Module Description

SZ1812: Korean B1.1 plus B1.2 - Preparation for TOPIK | Koreanisch B1.1 plus B1.2 - Vorbereitung auf die Sprachprüfung TOPIK

Version of module description: Gültig ab winterterm 2022/23

Module Level:	Language:	Duration:	Frequency:
Credits:* 1	**Total Hours:**	**Self-study Hours:**	**Contact Hours:**

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:

Repeat Examination:

(Recommended) Prerequisites:

Content:

Intended Learning Outcomes:

Teaching and Learning Methods:

Media:

Reading List:

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Module Description

SZ1813: Korean B1.1 + B1.2 - Grammar | Koreanisch B1.1 + B1.2 - Grammatik

Version of module description: Gültig ab summerterm 2023

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 1	**Total Hours:** 30	**Self-study Hours:** 15	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Anwendung von Wortschatz und Grammatik. Hilfsmittel sind erlaubt. Mündliche Reaktionsfähigkeiten werden anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft.

Repeat Examination:

(Recommended) Prerequisites:
Gesicherte Kenntnisse der Stufe A2.2

Content:
In diesem Modul wird Grundwissen der Grammatik auf dem Niveau von B1.1 und B1.2 in Form von Lückentexten und Frage-/Antwort-Dialogen behandelt.
Dabei werden in der Fragensammlung interkulturelle, landeskundliche und aktuelle Aspekte berücksichtigt, zum Beispiel, wie man Absichten, Bitten, Vorschläge, Absagen, Verhandlungen, Vergleiche und Erfahrungen formuliert.

Intended Learning Outcomes:
Nach erfolgreichem Abschluss des Moduls werden die Studierenden ihr erworbenes Grundwissen der koreanischen Grammatik um die Niveaustufe B1 erweitert; Feinheiten und Nuancen der Sprache vertieft und ihre neuen Kenntnisse und die Anwendung dieser im Alltag anhand gezielter Übungsaufgaben gefestigt haben.

Teaching and Learning Methods:
Kommunikatives und handlungsorientiertes Erarbeiten der Inhalte; gezielte Hör-, Lese-, Schreib- und Sprechübungen; Einzel-, Partner- und Gruppenarbeit; Förderung kooperativen Lernens; Kontrolliertes Revidieren einzelner Aspekte der Grammatik mit vorgegebenen (online-) Materialien; Referieren und Präsentieren; moderierte Diskussionen. Freiwillige Hausaufgaben zur Vor- und Nachbereitung festigen das Gelernte.

Media:
Multimedial gestütztes Lehr- und Lernmaterial

Reading List:
Vom Dozierenden selbst zusammengestelltes Übungsmaterial (PDF-Format).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

SZ0003-20: Catalan | Katalanisch

Module Description

SZ2001: Catalan A1 | Katalanisch A1

Version of module description: Gültig ab summerterm 2022

Module Level: Bachelor/Master	**Language:** Language taught	**Duration:** one semester	**Frequency:** irregularly
Credits:* 3	**Total Hours:** 90	**Self-study Hours:** 60	**Contact Hours:** 30

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
In den Prüfungsleistungen werden die in der Modulbeschreibung angegebenen Lernergebnisse geprüft. Sie beinhalten Aufgaben zur Rezeption (Lese- und Hörverstehen) sowie zur Produktion (Wortschatz und Grammatik sowie freie Textproduktion) und werden in Form von kommunikativen kompetenz- und handlungsorientierten (Portfolio-) Prüfungsaufgaben abgehalten. Hilfsmittel erlaubt. Mündliche Produktion wird anhand der Anwendung entsprechender Redemittel in schriftlichen Dialogbeispielen überprüft und/oder in Form einer Audio-/Videodatei abgehalten. Hierzu beachten wir die Datenschutzgrundverordnung (DSGVO, Art. 12 -21).

Repeat Examination:

(Recommended) Prerequisites:
keine

Content:
In diesem Modul werden Grundkenntnisse in der Fremdsprache Spanisch vermittelt, die es den Studierenden ermöglichen, sich in vertrauten und alltäglichen Grundsituationen trotz noch geringer Sprachkenntnisse zurechtzufinden. Dabei werden interkulturelle und landeskundliche Aspekte berücksichtigt.
Die Studierenden lernen einfache Fragen zur Person/Familie zu stellen und zu beantworten, Anmeldeformulare mit persönlichen Daten auszufüllen, über Studium, Beruf und Freizeitaktivitäten zu sprechen, Gefallen, Interessen und Vorlieben auszudrücken, Orte zu beschreiben etc. Sie lernen/üben grundlegendes Vokabular zu diesen Themen und berichten in einfach strukturierten Hauptsätzen über Alltägliches im Präsens. Es werden u.a. folgende Themen der Grammatik

behandelt: Präsens regelmäßiger und (einige) unregelmäßiger Verben, bestimmte und unbestimmte Artikel, Demonstrativpronomen, Verneinung einfacher Sätze etc.
Es werden Strategien vermittelt, die eine Verständigung in alltäglichen Grundsituationen ermöglichen.

Intended Learning Outcomes:
Das Modul orientiert sich am Niveau A1 „Elementare Sprachverwendung“ des GER.
Der/die Studierende kann nach der Teilnahme an der Modulveranstaltung einfache Fragen über vertraute Themen stellen und beantworten. Er/sie kann sich auf einfache Art verständigen, wenn die Gesprächspartnerinnen oder Gesprächspartner langsam und deutlich sprechen und bereit sind zu helfen. Er/sie kann einfache schriftliche Mitteilungen zur Person machen.

Teaching and Learning Methods:
Das Modul besteht aus einem Seminar, in dem die angestrebten Lerninhalte mit gezielten Hör-, Lese-, Schreib- und Sprechaufgaben in Einzel-, Partner und Gruppenarbeit kommunikativ und handlungsorientiert erarbeitet werden. Durch die Kombination dieser Aufgaben wird die Interaktion mit den Partnern unterstützt und gefordert. Die Studierenden erwerben Teamkompetenz durch kooperatives Handeln in gemischten Gruppen.
Es werden Möglichkeiten aufgezeigt, den Lernprozess in der Fremdsprache Spanisch eigenverantwortlich und effektiver zu gestalten und damit die eigenen Lernfähigkeiten zu verbessern.
Durch kontrolliertes Selbstlernen grundlegender grammatischer Phänomene und Kommunikationsmuster in der Fremdsprache mit vorgegebenen (online-) Materialien werden die im Seminar vermittelten Grundlagen vertieft.
Freiwillige Hausaufgaben (zur Vor-und Nacharbeitung) festigen das Gelernte.

Media:
Lehrbuch; multimedial gestütztes Lehr- und Lernmaterial, auch online.

Reading List:
Lehrbuch (wird in der Lehrveranstaltung bekanntgegeben).

Responsible for Module:

Courses (Type of course, Weekly hours per semester), Instructor:

For further information in this module, please click campus.tum.de or here.

Master's Thesis | Master's Thesis

Module Description

WZ2754: Master's Thesis | Master's Thesis

Version of module description: Gültig ab winterterm 2024/25

Module Level: Master	**Language:** English	**Duration:** one semester	**Frequency:** winter/summer semester
Credits:* 30	**Total Hours:** 900	**Self-study Hours:** 885	**Contact Hours:** 15

Number of credits may vary according to degree program. Please see Transcript of Records.

Description of Examination Method:
The assessment in this module is based on the successful completion of the Master's Thesis (Research paper of around 100 pages, depending on the topic) including the starting Master's Thesis Proposal (Report as coursework, 5 pages). Formal requirements for the Master’s Thesis as well as for the Master’s Thesis Proposal are communicated in the seminar “Master’s Thesis Proposal”.

By writing the Master`s Thesis, students demonstrate that they are able to identify a research gap from their respective field and to design target-oriented research to close the gap and solve respective research questions. They demonstrate that they can independently conduct a research project and work on it in a solution-oriented manner, taking into account appropriate scientific methods. They demonstrate, that they are able to present their research in a scientific paper with a logical outline and scientific writing style.

Repeat Examination:
Next semester / End of Semester

(Recommended) Prerequisites:
The Master's Thesis should be the last module in the Master's program. For this reason, sufficient modules should have been taken in order to be able to finish the program with the completion of the Thesis. Details on this are regulated by the Academic and Examination Regulations (FPSO). Both, skills in scientific writing and knowledge in the selected research field, are the basis of developing and conducting research and writing the Master’s Thesis.

Content:
The student selects a topic of his/her own choice on which he/she will work according to scientific methods. Discussing the topic and the methods with a guiding professor or lecturer before starting the Master’s Thesis is absolutely necessary. Therefore, for all students a starting seminar "Master’s Thesis Proposal" is offered to guide them 1) theoretically in structuring their 6 months’ work, and 2) in practice in writing a Proposal, which outlines their Thesis topic including the state of knowledge, the research gaps, the goal of the Master's Thesis, the planned methods, and a working and a financial plan. It also includes training on literacy strategy.

The Thesis must be written under the supervision of a qualified examiner, who has the approval to conduct exams at TUM. It is recommended to choose an examiner of the “Sustainable Resource Management” Degree Program. The examiner will in the end grade the Master’s Thesis. The Thesis can be done internally at TUM, or as an external Thesis outside the university, abroad or in the student’s home-country, with previous consent of the examiner from TUM.

Intended Learning Outcomes:
Upon successful completion of the Master’s Thesis module, students have the ability to work independently and adapt to a problem in a limited period of time. The theoretical and practical training received in the module enables students to investigate defined scientific questions on their own, with support from an experienced supervisor. They can analyze and evaluate state-of-the-art knowledge, identify a research gap, and work on derived specific research questions. To answer these questions and find solutions, they can subsequently plan and conduct research designs addressing the scientific questions with appropriate research methods and techniques. The students know the most important facts and theories related to their research topic and can critically discuss and evaluate their own results in relation to the state-of-the-art knowledge. In conducting their art of science, they follow the rules of good scientific practice.

Teaching and Learning Methods:
The master student is guided in literature search, scientific reading, solving problems, practicing, designing a research project, creating a scientific Proposal and a scientific Thesis, constructive criticizing of their own work, and revising it on the basis of feedback, all parts under time constraints. Therefore, the learning methods are introduced in an introduction seminar to support a structured procedure and peer instructions for their individual work.

Media:
Dependent on the topic of the Thesis; e.g., specialized literature, software

Reading List:
Dependent on the topic of the Thesis.

Responsible for Module:
Weber-Blaschke, Gabriele; Prof. Dr. rer. silv. habil.

Courses (Type of course, Weekly hours per semester), Instructor:
Master's Thesis Proposal (Seminar, 1 SWS)
Weber-Blaschke G
For further information in this module, please click campus.tum.de or here.

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