Degree Program Documentation Master's degree AgriFood Economics, Policy and Regulation

Part A TUM School of Life Sciences Technical University of Munich

General Information:

- Administrative responsibility:
- Name of degree program:
- Degree:
- Standard Duration of Study
- Credits:
- Form of study:
- Admission:
- Start:
- Language of Instruction:
- Location:
- Degree program coordinator:
- Contact for further questions to this document:
- Status as of:

- TUM School of Life Sciences
- AgriFood Economics, Policy and Regulation
- Master of Science (M.Sc.)
- 4 semesters
- 120 credit points (CP)
- Full time
- Aptitude assessment (EV)
- Winterterm 2024/2025
- English
- Weihenstephan (Freising)
- Prof. Dr. agr. Johannes Sauer
- Team Quality Management <u>qm.co@ls.tum.de</u> 10.10.2023

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1 Degree Program Objectives

1.1 Purpose of the Degree Program

The central subject of the program AgriFood Economics, Policy and Regulation is the social, economic, legal, and ethical effects, implications, and trade-offs of modern agricultural production and food systems. The former are characterized either by a strong technological orientation with increasing digitalization intensity and fundamentally novel technologies ("smart agriculture", "precision agriculture", biotech-based plant breeding etc.), a primary orientation towards ecologically sustainable and regional/local production and marketing principles ("organic agriculture"), or finally by an increasingly circular use of resources ("circular agriculture"). Examples of conflicting goals in this context are the society-wide discourses on animal welfare, insect protection and biodiversity, genetically modified food, solidarity/social farming, migrant workers, international price dependencies, the shutdown of farms, nitrate pollution problems, and energy-intensive food production.

The food system, which encompasses primary agricultural production but goes well beyond it, can be characterized by the following core elements: market forces, social and cultural norms/values/guiding principles, consumption practices, products, technologies, knowledge, infrastructures, policies, and regulations, as well as other social and time-related characteristics. The overarching context influencing processes within the Agri-Food system includes, for example, climate change or demographic changes. Subcomponents within the Agri-Food system refer, for instance, to sustainable innovations and shifting paradigms. All these elements interact with the Agri-Food system in an interdependent way.

Against the background of the complex structure and far-reaching interrelationships of various core elements of the Agri-Food sector, it is evident that the international Agri-Food sectors are confronted with a multitude of challenges, trade-offs and areas of conflict (e.g., climate change, biodiversity, fair supply chains, economic and sustainable development in poorer countries). These challenges need to be addressed while enhancing the production of high-quality food during the next decades for a still-growing world population that is projected to reach almost 10 billion people in 2050.¹ Solving this task successfully requires both public and private actors to have the appropriate skills, combined with in-depth knowledge of the sector's political, technological, and societal conditions. Capable sector experts need to have a profound knowledge of social, political, economic, agroecological, ethical, and technological contexts as well as the expertise to find and apply innovative solutions in these areas. This skill set is required to anticipate, solve, and defuse conflicts, to mediate between different stakeholders in the agricultural and food sector, to clarify complex issues, and thus ultimately to contribute to a socially optimal and sustainable solution to existing and new challenges.

Today's Agri-Food systems are characterized by strong and increasing internationalization in both the political and economic dimensions. International integration of agricultural markets and policy-making at a multi-national level shape the environment for producers, processors, and other sector stakeholders. Therefore, sector experts need to understand the implications of this multi-dimensional

¹ https://www.un.org/en/global-issues/population



international integration, combined with strong cross-cultural competencies to effectively and collaboratively work towards solutions to challenges in the sector.

1.2 Strategic Significance of the Program

TUM is committed to making a significant contribution to a more sustainable future society. The university's goal is to be a driver of sustainable development in science, economy, and society, as defined by the TUM Sustainable Futures Strategy 2030. The program AgriFood Economics, Policy and Regulation directly contributes to this goal by training capable and responsible experts for a sector that has to deal with a multitude of sustainability challenges identified by today's society.

The TUM School of Life Science is dedicated to education and research in the field of the life sciences. The program AgriFood Economics, Policy and Regulation complements the international Master's portfolio offered at the TUM School of Life Science with Agricultural Biosciences (Division Agricultural and Horticultural Sciences), Nutrition and Biomedicine (Division Nutritional Science), and Sustainable Resource Management (Division Forestry).

The Master's program AgriFood Economics, Policy and Regulation is part of the Study Division Agricultural and Horticultural Sciences. While the Master of Agricultural Science Systems covers agricultural production with a focus on the systemic interaction of many factors (i.e., biological, technological, economic) the Agricultural Biosciences offers disciplinary depth in the biological disciplines relevant to crop and livestock production. To this end, the AgriFood program complements the faculty's study program portfolio with the components of international markets, ethics, policy, and regulation, combined in a uniquely interdisciplinary character.

An overview of the Master's programs offered by the Study Division Agricultural and Horticultural Sciences is given in Figure 1.



Figure 1: Overview of the Master's programs offered by the Study Division Agricultural and Horticultural Sciences



2 Qualification Profile

The following qualification profile corresponds in terms of content to the requirements of the Qualifications Framework for German Higher Education Qualifications (HQR) and the requirements contained therein (i) knowledge and understanding, (ii) usage, application and generation of knowledge, (iii) communication and cooperation and (iv) scientific self-conception/professionalism. The formal aspects according to the HQR (admission requirements, duration, graduation options) are described in chapters 3 and 6 as well as in the corresponding subject examination and study regulations.

Students graduating from TUM AgriFood Economics, Policy and Regulation combine competencies to be knowledgeable and skilled leaders and experts active in the AgriFood sector, with interdisciplinary knowledge on technological, political, ecological, economic, and societal preconditions, trends, and trade-offs in modern food systems. They are able to identify relevant current challenges, analyze these profoundly, and find and evaluate possible solutions, which they can critically reflect on and effectively communicate to stakeholders. With this, they are valuable experts for international organizations and the public sector.

Know and Understand

After successful completion of the study program, graduates understand the complexity of modern AgriFood systems and the manifold interactions between the economic, technical, ecologic, societal, and political dimensions. They achieve this by gaining profound interdisciplinary knowledge with which they can effectively extend discipline-specific knowledge acquired in their Bachelor's program. They are able to discuss ecological implications, socio-economic and political interactions, and describe technological principles of food production. They are able to explain technological innovations in the AgriFood sector. They understand the political landscape in AgriFood and the motives of its key actors. They can contrast various regulatory interventions in free markets and examine their economic implications. They understand the impacts and feedback between agricultural activities and the natural environment.

Using science skills they acquire during the study program, graduates are able to discuss findings presented in scientific reports on topics related to the AgriFood sector and can examine their relevance for existing food systems.

Using, Applying, and Generating Knowledge

Graduates are able to apply their interdisciplinary knowledge acquired during the program to contribute to act as analysts and problem-solvers to tackle existing real-world AgriFood-related challenges characterized by great complexity and multiple trade-offs, such as harmonizing agriculture's ecological impact, economic considerations, and society's demands for future food production.

In collaboration with stakeholders, they can develop innovative solutions in the form of consumer initiatives, business models, collaborative approaches, and campaigns. They can develop new regulatory schemes to counter suboptimal outcomes on AgriFood markets and work out approaches to re-design existing regulations. Graduates are able to transfer new scientific knowledge into practice by evaluating new findings and incorporating them into their decision-making. They are able to iden-



tify new challenges, examine their nature, and develop own research questions and research concepts including the choice of research methods to arrive at innovative solutions to tackle those challenges.

Communication and Cooperation

Graduates can effectively communicate with all relevant stakeholders in a constructive and competent way. They are able to lead and contribute to multidisciplinary teams, working with people from different cultural backgrounds. They are able to break down complex topics into key components and present them in ways adequate for their audience. They understand possible conflicts between stakeholders and the ways of cooperation between different actors within the sector and international cooperation with respect to the economic and political dimension.

Scientific Self-Conception and Professionalism

Graduates work following ethical principles based on fairness, equality, transparency, and tolerance. They reflect their doing on the basis of societal needs, working towards reconciling trade-offs in today's society between economic and environmental needs in modern food systems. They adequately self-assess their capabilities and identify opportunities where they can effectively contribute to a better outcome.

3 Target Groups

3.1 Target Groups

The primary target groups of the study program are graduate students from the fields of agricultural and horticultural sciences, political sciences, economics, and management. The program targets students with a strong interest in agriculture and existing knowledge of current challenges and research topics in the Agri-Food sector. Widening the target group by not only including agricultural and horticultural sciences but also students from the mentioned social sciences fields is conducive to the program's interdisciplinary character. Graduates of the program will combine competencies from the traditional agricultural and horticultural sciences with specific sector-relevant knowledge of economics and policy.

3.2 Program Prerequisites

The qualification for the Master's program in AgriFood Economics, Policy and Regulation is proven by a qualified Bachelor's degree of at least six semesters obtained at a domestic or foreign university or an at least equivalent degree in Agricultural Sciences and Horticultural Sciences, Political Sciences, Economics, or Management, or comparable study programs.

Because the teaching language is English, qualified applicants need to show a level of fluent English skills, if the language of instruction in previously completed study programs was not English. In this case, applicants must submit results of a recognized English test such as the "Test of English as a Foreign Language" (TOEFL) (at least 88 points), the "International English Language Testing System" (IELTS) (at least 6.5 points) or the "Cambridge Main Suite of English Examinations".



The study program AgriFood Economics, Policy and Regulation follows an interdisciplinary setup, combining competencies from the field of agricultural sciences (natural sciences and technological knowledge) with social sciences (political and management sciences as well as economics). To be able to successfully complete the study program, qualified applicants need to have a minimum level of basic knowledge in those fields, along with essential and undergraduate-level expertise in empirical research methods and natural sciences, such as mathematics and statistics. To demonstrate their knowledge and skills, candidates for the program are required to take an online test upon their application. The test is divided into three parts:

- general and interdisciplinary basic knowledge of regional and global challenges in the agri-food sector (30%),
- research methods and mathematical foundations (30%),
- specific knowledge in agricultural sciences, economics, and political science (40%).

Applicants will be admitted to the study program based on the final grade of their undergraduate study program and the online test result.

3.3 Target Numbers

The program pursues a high level of supervision, for example, during the interdisciplinary research project module. Given the limited teaching resources in the faculties, a cohort size of at most 50 students per year is targeted.

4 Analysis of Demand

Due to the prerequisites mentioned in Chapter 1, public as well as private employers have an increasing demand for well-founded and interdisciplinary trained professionals with the necessary knowledge and skills to contribute to overcoming the diverse challenges and trade-offs in the Agri-Food sector. The need for such professionals will remain the same in the near future due to new and ambitious political objectives such as the goal of climate neutrality and the restoration of ecosystems and biodiversity in the European Union by 2050.² Due to the growing world population, the global food sector itself is expected to grow considerably in the coming years.³ Employers in the agri-food sector have repeatedly been reporting a shortage of well-trained specialists in recent years, as documented in studies conducted by the German VDL (Berufsverband Agrar, Ernährung, Umwelt e. V.).⁴ This shortage can be expected to get more pressing in the coming years due to demographic change.

² "Green Deal: pioneering proposals to restore Europe's nature by 2050 and halve pesticide use by 2030" (https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3746)

³ Statista Market Insights projects an annual growth of more than 6 % (https://www.statista.com/out-look/cmo/food/worldwide)

⁴ "Fach- und Führungskräfte in der Agrarbranche bald Mangelware?" (June 2014, <u>https://www.vdl.de/fach-und-fuehrungskraefte-in-der-agrarbranche-bald-mangelware/</u>); "VDL und BHGL: Parlamentarischer Abend: Für die



At the same time, a continuing trend of increasing international concentration and interconnectedness in the agricultural and food sector can be observed. This is reflected not only in the full integration of Agri-Food policy at the European level but also in increasing international cooperation and ownership structures in the private sector. Therefore, the need for professionals who are accustomed to interaction with international partners and demonstrate business-fluent English skills, as well as intercultural and interdisciplinary competence is constantly increasing.

In summary, the demand for graduates of the program is secured by the multiplicity of potential employers and fields of work as well as the simultaneous focus on the international labor market.

A strong demand for graduates of the program AgriFood Economics, Policy and Regulation can be identified in the following areas in particular:

- International organizations in the Agri-Food sector such as EU agencies, FAO, and World Bank (e.g., for analyses and advisory work in the form of policy and economic analysis),
- Activities in national and regional ministries and associated authorities on rural development and agricultural and food policy issues (e.g., strategy development and design of public fund-ing, public relations),
- Regulatory authorities at national and international levels such as EFSA (e.g., analysis and advisory activities as well as outreach activities taking into account policy requirements)
- (International) sustainability management and corporate social responsibility tasks in nationally and internationally active private sector companies in the agricultural and food industry in the processing sector or the consulting industry (e.g., strategy development and crosssectional tasks to improve operational sustainability performance and implementation of new regulatory requirements, public relations and representation in committees and associations),
- Activities in industry associations (e.g., public relations and representation in working groups, events, and committees),
- NGOs active in the Agri-Food sector (e.g., technical cooperation in projects, representation of interests),
- Media and communication sector (e.g., analysis and documentation of social conflicts in the field of agriculture/nutrition/natural resources),
- Research activities in the academic sector (universities, colleges) and public research (regional and governmental research institutes) in various disciplines such as agricultural sciences, natural sciences, social sciences, economics, and management.

Experience in the TUM School of Life Sciences has shown that international study programs receive sufficient and increasing attention from applicants all around the world (see Figure 2). This shows that the School is able to provide an attractive study environment for international graduates and that

Attraktivität des Grünen Studiums werben" (October 2018, https://www.vdl.de/parlamentarischer-abend-fuerdie-attraktivitaet-des-gruenen-studiums-werben/)



domestic students appreciate the opportunity to complement their undergraduate study programs with an international Master's program.



Figure 2: Overview of applications, admissions, and enrollments in international study programs at the TUM School of Life Sciences

5 Competition Analysis

5.1 Analysis of External Competition

The profile and basic orientation of the Master's program AgriFood Economics, Policy and Regulation differ significantly from the content and orientation of comparable Master's programs at other universities. The program is geared towards the socio-economic, political, and regulatory implications and requirements of a wide range of agricultural systems with a global focus, taking into account changing framework conditions and technological solutions. There is no comparable degree program in Germany and Europe that focuses on the social, economic, and political consequences and regulatory requirements in a central and interdisciplinary way. Table 1 provides an overview of current Master programs in other German universities. It becomes apparent that other programs strongly focus on either natural sciences or economics. None of the programs has a strong focus on agricultural policy in combination with an interdisciplinary approach addressing ecological and socioeconomic aspects.

University	Master Program
Humboldt-Universität Berlin	M.Sc. Agricultural Economics M.Sc. Horticultural Science M.Sc. Prozess- und Qualitätsmanagement in Landwirtschaft und Gartenbau M.Sc. Rural Development M.Sc. Öko-Agrarmanagement

Table 1: Overview of Master programs in the field of agricultural sciences in other German universities



Rheinische Friedrich-Wil- helms Universität Bonn	M.Sc. Agricultural and Food Economics M.Sc. Agricultural Sciences and Resource Management in the Tropics and Subtropics M.Sc. Naturschutz und Landschaftsökologie M.Sc. Nutzpflanzenwissenschaften M.Sc. Tierwissenschaften
Justus-Liebig-Universität Giessen	M.Sc. Agrar- und Ressourcenökonomie M.Sc. Agrarbiotechnologie M.Sc. Ernährungsökonomie M.Sc. Nutzpflanzenwissenschaften M.Sc. Nutztierwissenschaften M.Sc. Sustainable Transition M.Sc. Transition Management M.Sc. Umweltwissenschaften
Georg-August-Universität Göttingen	M.Sc. Agrarwissenschaften M.Sc. Crop Protection M.Sc. Development Economics M.Sc. Sustainable International Agriculture
Martin-Luther-Universität Halle	M.Sc. Agrarwissenschaften M.Sc. Nutzpflanzenwissenschaften M.Sc. Management natürlicher Ressourcen
Universität Hannover	M.Sc. Pflanzenbiotechnologie
Universität Hohenheim	 M.Sc. Agrarbiologie M.Sc. Agrarwissenschaften M.Sc. Agribusiness M.Sc. Agricultural Economics M.Sc. Agricultural Sciences in the Tropics & Subtropics M.Sc. Bioeconomy M.Sc. Crop Sciences M.Sc. Environmental Protection and Agricultural Food Production M.Sc. Environmental Science – Soil, Water and Biodiversity M.Sc. Landscape Ecology M.Sc. Nachwachsende Rohstoffe und Bioenergie M.Sc. Organic Agriculture & Food Systems
Universität Kassel-Witzenhau- sen	M.Sc. Ökologische Landwirtschaft M.Sc. Sustainable International Agriculture M.Sc. Intern. Food Business and Consumer Studies M.Sc. Nachhaltiges Wirtschaften
Christian-Albrechts-Universi- tät Kiel	M.Sc. Agrarwissenschaften M.Sc. AgriGenomics M.Sc. Environmental Management M.Sc. Environmental and Resource Economics

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Universität Rostock	M.Sc. Nutztierwissenschaften M.Sc. Pflanzenproduktion und Umwelt				
Technische Universität Mün- chen, SOLS	M.Sc. Agrarsystemwissenschaften M.Sc. Agricultural Biosciences M.Sc. Sustainable Resource Management				

5.2 Analysis of Internal Competition

The Master's program AgriFood Economics, Policy and Regulation complements the existing Master's program in Agricultural System Sciences, although it is clearly differentiated in terms of goals and needs. Graduates of the Agricultural System Sciences program are more likely to be in the natural science area of primarily production-oriented agricultural sciences, while graduates of the AgriFood Economics, Policy and Regulation program are clearly oriented towards the international, social science, and socio-technological sphere of action as well as towards socio-economic and political impacts. The international Master's program Agricultural Biosciences deliberately does not include social and economic topics and consequently shows little overlap with the program due to its focus on biological disciplines.

The AgriFood Economics, Policy and Regulation program clearly distinguishes itself from purely management-oriented programs at the TUM School of Management, as all programs at this School are geared towards the management of a private enterprise or the management of individual firm activities such as marketing. Political and regulatory issues are not included here. The program is also clearly distinguished from those at the School of Social Sciences and Technology, as the core and starting point of the program is the agricultural and food sector, and interdisciplinary courses in this program incorporate social and political science approaches in their specific application. Finally, the degree program is just as clearly distinguished from bioeconomic degree programs at the Straubing campus, as the biological-technical-engineering approach is clearly the focus there. A specialization within existing social science programs (such as the Master's program in Politics and Technology) in no way does justice to the complexity of the AgriFood sector, which is characterized by close interactions between biological, technological, economic, social, and political-legal challenges and systems.

TUM School of Management Agricultural and Ressource Economics Value Chain and Consumer Economics

TUM School of Life Sciences Technological Innovations Climate Sciences Natural Resources and Ecology

od ics, nd

TUM School of Social Sciences and Technology *Political Sciences Governance*

Figure 3: Overview of the study program's concept, uniquely combining competencies from three TUM Schools.

Figure 3 visualizes the program's interdisciplinary approach, making use of expertise in three different TUM Schools. By this, the study program offers a subject combination unique within TUM's portfolio and also in comparison to other European universities.

6 Structure of the Degree Program

The following TUM Schools are involved in the implementation of the study program:

- School of Life Sciences (LS)
- School of Management (SOM)
- School of Social Sciences & Technology (SOT)

The Master's program AgriFood Economics, Policy and Regulation comprises a total amount of 120 CP in four semesters including the Master's thesis. It is structured in such a way that it conveys competencies that build on each other consecutively and allows a high degree of individuality and mobility.

Four compulsory modules in the first semester (5 or 6 CP each) convey essential basics and are the starting platform for the individual choice of subject-relevant and individually chosen elective modules. These are "Economics of Agriculture and Technology", "Sustainability Politics and Policy", "Environment, Agriculture and Food", and "Technology for Agriculture and Food". These modules provide an extensive overview of the status quo and current developments in the AgriFood sector and bring together different disciplines, research approaches, and perspectives on agricultural production and food distribution. They teach students an in-depth knowledge of the socio-economic and political-regulatory implications of modern agricultural production and food systems.



In general, the compulsory modules in the first semester are designed to deliver contents with respect to modelling and overcoming sustainability challenges in the AgriFood sector. The modules combine basic knowledge from agricultural subdisciplines and interlinkages within agricultural systems with advanced content related to cutting-edge research topics. Thereby, the fundamental framework of the study program is laid out and prior knowledge of the students who stem from different undergraduate study backgrounds is harmonized.

Additionally, the compulsory module "Quantitative and Qualitative Methods in AgriFood Research" in the first semester will teach the students about popular research methods used in the social sciences. This course will build on previous knowledge of the students from their undergraduate programs and will equip students with methodological competence crucial for their studies during the Master's program but also for their later work life.

In the second and third semesters, in-depth scientific work and interdisciplinary analysis follow (required module Interdisciplinary Research Project AgriFood Economics, Policy and Regulation, 10 CP) as well as further elective options. Here, students have the opportunity to sharpen their individual profiles by choosing a further nine elective modules.

The elective modules build on these central competencies, deepen them exemplarily or complement them in selected focus areas. The students can choose between a wide range of electives to complete at least 53 CP from four topical areas:

- 1. (Agricultural) Economics
- 2. Governance, Political Sciences, Sociology
- 3. Climate Sciences, Resources, Ecology
- 4. Technological Innovations

Here, students have the opportunity to further develop their individual interests and strengths. Both a disciplinary, area-specific depth but also an interdisciplinary profile formation are individually possible. There are deliberately no restrictions between the elective areas to support individual profile formation. Students complete their studies with a Master's thesis (30 CP).

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Semester		Modules						Credits
1.	MGT001416	SOT86611	LS10016	LS10017		MGT001417	LS	
	Economics of Agri-	Sustainability Poli-	Environment, Agri-	Technology	for Ag-	Quantitative and	Interdisciplinary	
	culture and Tech-	tics and Policy	culture and Food	riculture and	Food	Qualitative Meth-	Qualification	
	(required)	(required)	(required)	(required)		Research	(elective)	
	(roquirou)					(required)		
	к	LP	в	к		к		6
	6 CP	6 CP	5 CP	5 CP		5 CP	3 CP	30
2. Mobility-Window 3.	MGT001418 Interdisciplinary Rese Food Economics, Pol (required) W 10 CP LS / WI / SOT Elective Modules (elective) (Designs see above) 10 CP	LS / WI / SOT Elective Modules (elective) Modules of at least 5 1. (Agriculture 2. Governand 3. Climate So 4. Technolog In addition, up to 6 C Catalog. 20 CP LS / WI / SOT Elective Modules (elective) (Designs see above) 20 CP	S / WI / SOT Elective Modules elective) Modules of at least 53 CP must be completed from the following elective areas: 1. (Agricultural) Economics 2. Governance, Political Sciences and Sociology 3. Climate Sciences, Resources and Ecology 4. Technological Innovations n addition, up to 6 CP may be selected from the SoLS "Interdisciplinary Qualification" Catalog. 20 CP S / WI / SOT Elective Modules elective) Designs see above)					
4.	LS10018							
	Master's Thesis (required) W 30 CP							30
Key	dark blue = final thesi blue = elective modul grey = required modu		C L R	P = credi P = learn eport; PJ	it points; K = written e: ing portfolio; PRÄ = pi = project work; W = re	kam; M = oral exam; resentation; B = esearch paper		

Figure 4: Curriculum AgriFood Economics, Policy and Regulation - basic structure

If desired, students can use the 2nd and/or 3rd semester as a mobility window and bring in credits from the electives offered by other German or international universities. This is made possible by the fact that the required module Interdisciplinary Research Project AgriFood Economics, Policy and Regulation is flexibly offered in both the winter and summer semesters and can be completed abroad. In addition, students can contribute 6 CP in the elective area through an Interdisciplinary Qualification subject.

semester	modules								credits
1	MGT001416 SOT86611 Economics of Agri- culture and Technol- ogy (required)		LS10016 Environme culture and (required)	ES LS10017 nent, Agri- Technology for Agri- and Food (required)		MGT001417 Quantitative and Qualitative Methods in AgriFood Re- search (required)	CLA31900 Lecture Series Envi- ronment - TUM (elective)		
	к	LP	в		к		к	Poster + PRÄ	7
	6 CP	6 CP	5 CP		5 CP		5 CP	3 CP	30
2.	WZ1590 WZ2581 Climate Change Plant Biotechnology Economics (elective) (elective)		WI001281 The Econo Firm Comp (elective)	WZ1060 nics of Precision Agriculture etition (elective)		WZ1561 Value Chain Eco- nomics (elective)	SZ0515 French C1 (elective)		
	к к к			к		PJ	к	6	
	5 CP	5 CP	6 CP	CP			6 CP	3 CP	30
ນ. wopuWindow	MGT001418 Interdisciplinary Research Project AgriFood Economics, Policy and Regulation (required)		WZ2724 Emission (Land-Use mal Husba (elective)	Control in and Ani- ndry	WZ2757 Advanced mental and Resource l ics (elective)	Environ- I Natural Econom-	WZ1824 System Analysis and Introduction to Ecology (elective)	WZ2730 Climate Change - Science, Impacts and Adaptation, Miti- gation (elective)	
bilit	W/		Mork		к		к	м	5
Ň	10 CP		5 CP		5 CP		5 CP	5 CP	30
4.	LS10018 Master's Thesis (required) W						30		
Key	dark blue = final thesis blue = elective modules grey = required modules					CP = credi = learning project wo	it points; K = written exa portfolio; PRÄ = present rk; W = research paper	m; M = oral exam; LP tation; B = report; PJ =	

Figure 5: Exemplary and non-overlapping curriculum of the M.Sc. AgriFood Economics, Policy and Regulation with the "Interdisciplinary Research Project AgriFood Economics, Policy and Regulation" in Winter term

semester		modules							credits
1	MGT001416	SOT86611	LS10016		LS10017		MGT001417	CLA30818	
	Economics of Agri-	Sustainability Poli-	Environment,	Agri-	Technology for Agri-		Quantitative and	Chor- und Orches-	
	culture and Technol-	tics and Policy	culture and Fo	bod	culture and Food		Qualitative Methods	terarbeit	
-	ogy	(required)	(required)		(required)		in AgriFood Re-	(elective)	
	(required)						search (required)		
	×	ID	8		ĸ		(required)	ĸ	6
	6 CP	6 CP	5 CP		5 CP		5 CP	3 CP	30
2.	MGT001418		WZ1590		WZ2581		WZ1488	WI001204	
	Interdisciplinary Resea	rch Project AgriFood	Climate Chang	ge	Plant Biote	chnology	Perspectives of Ge-	Economics of Water	
	Economics, Policy and	Regulation	Economics		(elective)		netic Engineering in	Use, Regulation and	
	(required)		(elective)				Agriculture	Markets	
	w						(elective)	(elective)	
			к		к		к	К	5
	10 CP		5 CP		5 CP		5 CP	5 CP	30
3.	WI000739	WI000948	WZ2724		WZ2757		WZ1824	WZ1339	
	Consumer Behavior	Food Economics	Emission Con	trol in	Advanced	Environ-	System Analysis	Robotics and Auto-	
	(elective)	(elective)	Land-Use and Ani-		Resource Econom		and Introduction to	mation in Agriculture	
ě			(elective)	usbandry Re		Econom-	(cleative)	(elective)	
, Line			(elective)		(elective)		(elecuve)		
1					(ciccuve)				
i i i	к	м	M or K		к		к	к	6
ĕ	6 CP	6 CP	5 CP		5 CP		5 CP	3 CP	30
4.				LS10	0018				
	Master's Thesis				s Thesis				
	(required)								
	W 20 CD						30		
dark blue = final thesis CP = credit points: K - written even: M - oral even:					m: M = oral exam: I P	30			
(ey	blue = elective module		= learning portfolio; PRÄ = presentation; B = report; PJ =						
	grey = required modules				project work; W = research paper				
	I		1						

Figure 6: Exemplary and non-overlapping curriculum of the M.Sc. AgriFood Economics, Policy and Regulation with the "Interdisciplinary Research Project AgriFood Economics, Policy and Regulation" in Summer term



7 Organization and Coordination

The Master's Program AgriFood Economics, Policy and Regulation is offered by the TUM School of Life Sciences.

Areas of responsibility might be listed as follows:

The following administrative tasks are performed partly by the TUM Center for Study and Teaching (TUM CST) and its administrative units, and partly by the Campus Office Weihenstephan of the TUM School of Life Sciences:

•	Student Advising	Student Advising and Information Services (TUM CST), <u>studium@tum.de</u> , +49 (0)89 289 22245 Provides Information and advice for prospective and current students (via hotline/ service desk)
•	Departmental Student Advising:	Team Student Advising (Campus Office Weihenstephan) <u>advising.co@ls.tum.de</u>
•	Academic Programs Office:	Campus Office Weihenstephan <u>campus.office@ls.tum.de</u>
•	Study Abroad Advising/ Internationalization:	TUM-wide: TUM Global & Alumni Office <u>globaloffice@tum.de</u> Departmental: Team International (Campus Office Weihenstephan) <u>international.co@ls.tum.de</u>
•	Gender Equality Officer:	Prof. Aphrodite Kapurniotu akapurniotu@mytum.de
•	Advising – Barrier-Free Education:	Service Office for Disabled and Chronically III Students (TUM CST), <u>handicap@zv.tum.de</u> +49 (0)89 289 22737
•	Admissions and Enrollment:	Admission and Enrollment (TUM CST) <u>studium@tum.de,</u> +49 (0)89 289 22245
•	Aptitude Assessment (EV):	TUM-wide: Admissions and Enrollment (TUM CST) Departmental: Campus Office Weihenstephan <u>advising.co@ls.tum.de</u>
•	Semester Fees and Scholarships:	TUM-wide: Fees and Scholarships (TUM CST)



• Examination Office:

Examination Board:

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TUM-wide: Central Examination Office (TUM CST) Departmental: Team Examination (Campus Office Weihenstephan) <u>examination.co@ls.tum.de</u>

examination.co@ls.tum.de N.N. (Chair) N.N. (Secretary)

 Quality Management – Academic and Student Affairs:

TUM-wide: Quality Management (TUM CST) www.lehren.tum.de/startseite/team-hrsl/ Departmental: Team Quality Management (Campus Office Weihenstephan) gm.co@ls.tum.de