Information Sheet for Incoming Students Brewing and Food Technology

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TUM offers opportunities for international EXCHANGE STUDENTS (maximum of three semesters within the scope of an exchange program, like Erasmus+, TUMexchange or within a bilateral university agreement) as well as for international DEGREE STUDENTS (pursuing a BSc or MSc degree).

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Our Study Courses in Brewing and Food Technology

Brewing and Beverage Technology (B.Sc.)

The bachelor's program in Brewing and Beverage Technology deals with technical procedures and processes relating to biology, technology and biochemistry, as seen in beverage production and the brewing of beer.The discipline-specific training covers a broad spectrum of subjects, including the purchase and assessment of raw materials, the organization and optimization ofvarious stages of production, and the implementation of quality assurance systems. Further aspects of the program deal with the construction or adaptation of production plants and utilities, the analytical and sensory monitoring of product characteristics, and the development of new beverages.

Language of Instruction:	German
Standard Duration of Studies:	6 semesters fulltime
Credits	180 ECTS

Food Technology (B.Sc.)

The bachelor's program in Food Technology and Biotechnology deals with procedural, biological, technological and biochemical processes that occur throughout the value-added chain in food production. Content relating to economics completes the program.The study plan covers the broad spectrum of demands relating to the complex process of food manufacture: from the purchase and assessment of raw materials, through the organization and optimization of the widest possible range of production steps, to establishing quality assurance systems in the manufacturing process. In addition, the program handles problems associated with the planning of new and conversion of existing production facilities. Further degree course content includes that relating to the analytical or sensory monitoring of product characteristics. A central focus lies on the development of innovative and individual products tailored to consumer behavior.

Language of Instruction:	German
Standard Duration of Studies:	6 semesters fulltime
Credits	180 ECTS

Pharmaceutical Bioprocess Engineering (B.Sc.)

The bachelor's program in Bioprocess Engineering deals with the relations between process engineering, biology, technology and biochemistry, as found in biotechnology and the pharmaceutical industry.The curriculum covers the broad spectrum of requirements in the complex field of Bioprocess Engineering, from the development of new methods of production and fermentation to the optimization of existing production processes through to establishing methods of quality assurance in the manufacturing process. In addition, the program alsogives due consideration to the area of production plants, including, for example, the construction of utilities. Further content concerns the analytical monitoring of product characteristics. Given that the biopharmaceutical industry is comparatively young, the development of innovative procedures is very relevant. During their studies, students are specifically prepared for the development of new methods.

Language of Instruction:	German
Standard Duration of Studies:	6 semesters fulltime
Credits	180 ECTS

Brewing Technology, Diplom-Braumeister

Language of Instruction:	German/English Hybrid
Standard Duration of Studies:	4 semesters fulltime
Credits	180 ECTS

Brewing and Beverage Technology (M.Sc.)

The specific orientation of the master's program in Brewing and Beverage Technology makes it one of only a few study options in this specialist area. The program is rooted in engineering, the natural sciences and economics, as they relate to brewing and beverage technology.The program has two specialist focus areas: firstly, process engineering and process automation; and secondly, the specialization, based on fundamental principles of natural science, in brewery technology. In the master's program, these focus areas are complemented by a broad range of required electives offered in various disciplines. Required electives account for ca. 25%, allowing graduates to develop and sharpen their own individual profile. The choice of subject for the master's thesis reinforces this profile. Experience shows that graduates enjoy excellent professional prospects on the employment market. Areas of activity can range from the monitoring of production and product quality, to the design of production facilities and associated plant technology. The master's program in Brewing and Beverage Technology is a consecutive program that directly follows our own bachelor's program in Brewing and Beverage. The bachelor's degree covered fundamental principles of the natural sciences and process engineering that, during the master's program, are broadened out in a discipline-oriented manner. The curriculum allows students to pursue and advance their knowledge of the widest possible range of areas relating to brewing and beverage technology: from the development and design of new production processes, through the optimization of existing methods of production, to the introduction and monitoring of quality control methods. In addition,equal attention is paid to the utilities found in beverage production plants. A further part of the degree concerns the analytical monitoring of product characteristics. In the traditional brewing and beverage industry too, there is a high demand for innovative products, procedures and technologies. During the course of the degree, students are specifically trained to develop these.

Language of Instruction:	German
Standard Duration of Studies:	4 semesters fulltime
Credits	120 ECTS

Food Technology and Biotechnology (M.Sc.)

The master's program in Food Technology and Biotechnology is rooted in in engineering, the natural sciences and economics, as they relate to food technology. It is structured as a full-time, modular degree. The standard duration of study is four semesters. Within this time, students must complete course components that earn them 120 Credits in total. Of these, 30 Credits are allotted to the master's thesis, which is to be completed during the forth semester of study. A compulsory core curriculum, focused on deepening students' foundations in the discipline, is accompanied by an extensive offering of required electives, allowing students to sharpen their own profile in accordance with their interests. Required modules support specialization in disciplines such as food technology, innovative food concepts and technologies, or the micro-and macro-structures of food. Here, the integration of focus areas relating to process engineering and food technology becomes clear. The wide range of laboratory internships on offer helps establish a practical way of relating to the theory learned. In the context of the master's thesis, students advance their knowledge of already familiar scientific modes of working.

Language of Instruction:	German
Standard Duration of Studies:	4 semesters fulltime
Credits	120 ECTS

Pharmaceutical Bioprocess Engineering (M.Sc.)

Given its interdisciplinary orientation, the master's program in Pharmaceutical Bioprocess Engineering is unique in Germany. The program is founded upon engineering, the natural sciences and economics, as they relate to innovative biopharmaceutical technology. The program has two specialist focus areas: firstly, process engineering and process automation; and secondly, the specialization, based on fundamental principles of the natural sciences, in molecular biology and biochemistry. In the master's program, these focus areas are complemented by a broad range of required electives offered in various disciplines. Required electives account for ca. 25%, allowing graduates to develop and sharpen their own individual profile. The choice of subject for the master's thesis reinforces this profile. Experience shows that graduates enjoy excellent professional prospects on the employment market. Areas of activity can range from the monitoring of bioprocesses, to the design of fermentation facilities. The master's program directly follows our own bachelor's program in Bioprocess Engineering. The bachelor's degree covered fundamental principles of the natural sciences and process engineering that, during the master's program, are broadened out in a discipline-oriented manner. The curriculum covers, and advances students' knowledge of the widest possible range of areas relating to bioprocess engineering: from the development and design of new production and fermentation processes, through the optimization of existing methods of production, to the introduction and monitoring of quality control methods. In addition, the utilities found in a pharmaceutical company are given equal consideration. A further part of the master's degree concerns the analytical monitoring of product characteristics. Given that the biopharmaceutical industry is comparatively young, the development of innovative procedures and technologies is profoundly relevant. Students are specifically prepared to handle such matters during the course of the degree.

Language of Instruction:	German
Standard Duration of Studies:	4 semesters fulltime
Credits	120 ECTS