



UNIVERSITÄT
BAYREUTH

Master of Science

Food Quality and Safety

Research into healthy and sustainable food supply.

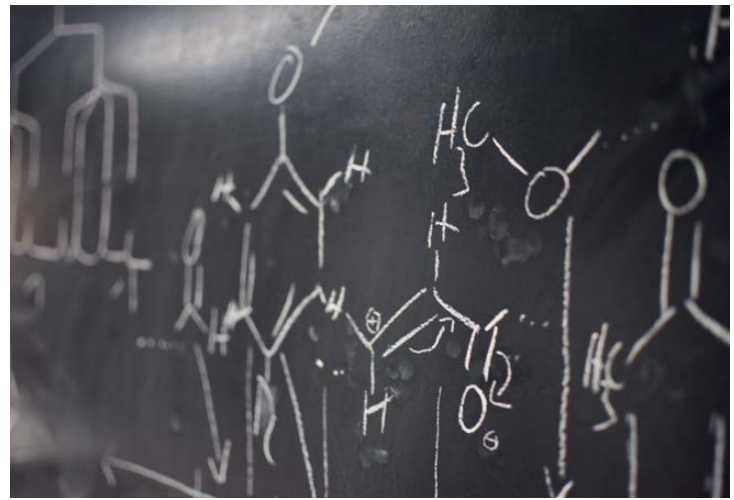




The aim of the degree programme is to qualify students both for a career in research as well as for executive positions in the food industry, at authorities, in the media, and in other areas of politics, administration, and business.

An integrated vision of nutrition.

The food industry is a highly complex environment. Besides the overwhelming variety of ingredients they contain, our food products are produced, traded, and processed globally. Quality assurance and quality enhancement must come to terms with this complexity, as must the legal framework, and new technical innovations. Unique in Germany, the *Food Quality and Safety* master's degree course at the University of Bayreuth addresses some of the greatest challenges of the 21st century: the sustainable production and distribution of healthy food of the highest possible quality, feeding a steadily growing world population, and optimizing existing supply chains while developing new ones. Complex problems require interdisciplinary solutions. This is where the scientific, legal, and economic skills you will acquire, thanks to this programme's interdisciplinary scope, will come to the fore.



In addition to complex specialist knowledge, our students acquire key social and personal competencies such as: scientific and practice-oriented work, teamwork, science communication, media training, conflict management, and many more.

Come and study at the interface of research and application.

We are confronted almost daily with new questions on food quality and safety. The life and health sciences are developing rapidly and demand extreme flexibility and adaptability from students. Your master's programme is dedicated to topics of great relevance, and aspires to implement future-oriented findings. You will be introduced to highly topical issues related to food, nutrition and health, work on concrete case studies, and be included in current research projects. You will acquire skills in the following areas: *Biology and Biochemistry of Food, Human Biology, Food Chemistry, Data Science/Bioinformatics/Statistics, Food Law, Trade Law, Safety and Risk Management Law, Quality Management, Food Supply Chain Management, and Science Communication*. Your ability to work in an interdisciplinary manner will therefore be just as important as creativity, teamwork, and a sense of responsibility.



Food quality and safety are directly related to human health. Ensuring the integrity and supply of nutritious food is critical for public health.

A master's degree with exciting prospects.

Germany is one of the largest food exporters in the world and at the same time dependant on the import of high quality primary products and ingredients. The food industry is one of the most important sectors in Germany. This means attractive prospects here for all those who have successfully completed the English-taught master's course in *Food Quality and Safety* at the University of Bayreuth. Yet in fact, your skills will be in demand all around the world, because the challenges in the areas of food, environment, and health have long since become global in nature.

In many areas you will be a sought-after specialist, such as in research, in leadership roles in health management, in health insurance companies, or in the food industry, as well as in politics and the media, with authorities and government ministries, and in the health sector.

Your studies at a glance. 4 semesters.

Course structure <i>Food Quality and Safety</i>	Credit points (ECTS)*
Biology and Biochemistry of Food	13
■ Food Microbiology	6
■ Crop Plant and Animal Biology	7
Human Biology	6
■ Nutrition Physiology and Immunology	6
Food Chemistry	12
■ Chemical Food Analysis	6
■ Food Metabolome and Toxicology	6
Data Science / Information Technology / Statistics	6
■ Data Analysis and Statistics	6
Law	18
■ Introduction to Law and Food Law	5
■ Food Quality and Food Authenticity Law	4
■ Trade Law	4
■ Food Safety and Risk Management Law	5
Management	10
■ Food Quality Management	5
■ Food Supply Chain Management	5
Multidisciplinary Trainings	10
■ Case Studies	7
■ Science Communication	3
Mandatory 3-Month Internship	15
Master's Thesis	30
Total	120

*ECTS credit points according to *ECTS*

The awarding of credit points according to the *European Credit Transfer System (ECTS)* facilitates the international comparability of coursework completed at European higher education institutions.



Kulmbach is an old margravate town which is home of companies, authorities, and research institutes in the food sector. With around 26,000 inhabitants, the town offers a full range of cultural and gastronomic delights.

Special programme, special place.

You may be wondering why the master's degree course in *Food Quality and Safety* is not actually taught at the main campus in Bayreuth, but on its nearby satellite campus in the charming beer-brewing town of Kulmbach. There's good reason why the newly founded faculty has its headquarters here at the foot of the lofty Plassenburg Castle. Kulmbach is home not only to some globally recognized companies in the food industry, but also to the *Max Rubner Institute*, the *Bavarian Control Authority for Food Safety and Veterinary Medicine*, the *State Technical College for Food Technology*, as well as the *Kulmbach Clinical Centre*. All of these are involved in various research projects and in the teaching at the faculty. Students benefit from the practice-oriented courses and close cooperation with companies in the food industry, where they make contacts, complete internships, and often discover exciting career prospects.



We offer a future-oriented master's programme with an individual support of our students from the very first request for advice to the nurturing of relationships within the framework of an alumni network.

Pioneering spirit and fresh ideas in an old spinning mill.

The University of Bayreuth, home to approximately 13,500 students, is currently rated as one of the top young universities worldwide, ranking "414 under 50" according to the academic magazine *Times Higher Education*. The University has a character all of its own, which appeals to highly talented students and excellent scientists. A recent example of its success in this regard is the newly founded *Faculty of Life Sciences: Food, Nutrition and Health* in Kulmbach, which is dedicated to research on the sustainable production and distribution of high quality, healthy food, and the effective prevention of diseases of modern civilization. The faculty is located in the town centre in the old Kulmbacher spinning mill, rich in tradition and currently subject to comprehensive renovation measures. As a satellite campus of the University of Bayreuth, we offer a specific study service and, of course, we are closely networked with all facilities and services on the main campus in Bayreuth.



An attractive study programme awaits you.

We appreciate your interest in the international master's programme *Food Quality and Safety* at the University of Bayreuth. As a prerequisite for the course of study, you should hold a bachelor's degree in one of the following subjects: *biology, biochemistry, biotechnology, agricultural science, food sciences, health sciences, ecotrophology, bioanalytics, nutrition science, or food chemistry*. An aptitude test will be required. Students enrolled in comparable courses of study may also be admitted after an aptitude test.

Start of Studies – Winter Semester

Further information on the application process can be found on our website at:
www.foodquality.uni-bayreuth.de

Programme Coordination:

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www.instagram.com/campus_kulmbach