Master’s Programmes:

Agrobiotechnology (M.Sc.)

Insect Biotechnology and Bioresources (M.Sc.)

Transition Management (M.Sc.)

(Taught in English)
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Web Links:
Justus Liebig University (JLU): www.uni-giessen.de/welcome
Information on studying at JLU: www.uni-giessen.de/study
Information for international students: www.uni-giessen.de/international-pages
Faculty 09: www.uni-giessen.de/faculties/f09/studies

All information, given in this brochure is based on the currently effective special study regulations for this course of study. Changes to the special study regulations are announced on the University's website in the "MUG" (Mitteilungen der Universität): www.uni-giessen.de/mug/7

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1. Institutions and Contacts

These Master’s programmes are offered by

JLU Faculty 09 - Agricultural Sciences, Nutritional Sciences and Environmental Management

1. Course Specific Academic Counselling
   (Studienfachberatung)

   Agrobiotechnology
   Course Director
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   Department of Agricultural Policy and Market Research
   Zeughaus, Senckenbergstraße 3, 35390 Giessen
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   martin.petrick@agrar.uni-giessen.de

2. Section International Students - Student Counselling Office
   International Office and Registrar’s Office
   Goethestr. 58, 35390 Giessen
   Phone +49 (0) 641 99 12143
   Office hours:
   Monday, Wednesday, Friday 10:00 am – 12:00 pm
   studium-international@uni-giessen.de
   www.uni-giessen.de/international-pages

3. Board of Examiners / Examination Office
   (Prüfungsausschuss)

   Examination Office, Bismarckstr. 24, 35390 Giessen
   Phone +49 (0) 641 9939011, Fax +49 (0) 641 99-39019
   studies@fb09.uni-giessen.de

   Prof. Dr. Martin Petrick
   Board of Examiners, Chairman

4. Dean’s Office, Faculty 09
   (Dekanat des Fachbereichs 09)

   Bismarckstr. 24, 35390 Giessen
   Dean: Prof. Dr. Klaus Eder
   Vice Dean: Prof. Dr. Wencke Gwozdz
   Study Dean: Prof. Dr. Martin Petrick

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   studies@fb09.uni-giessen.de

   www.uni-giessen.de/faculties/f09
2. **Field of Studies**

2.1. **Agrobiotechnology**

Biotechnology has produced a new and leading technology that is helping to determine the direction of global economic development and international competitiveness. Since the early 1990s, there has been rapid progress in the biotechnology sector, driven mainly by the results of genomic research and, more recently, by rapid developments in cell biology (cell factories) and technological advances. Growth in these areas is expected to continue to accelerate. It is crucial for our future that the energies resulting from the explosion of knowledge taking place in these fundamental domains are harnessed to the development of technologies that will benefit society as a whole.

Starting in the winter semester 2005/2006, Justus Liebig University Giessen has established a new international Master’s programme in Agrobiotechnology in order to meet the growing worldwide importance of biotechnology, not least in university education, for plant and animal production as well as for nutritional sciences. Justus Liebig University was the first German university to take up the global challenge of establishing an internationally oriented course of studies that provides the highest level of academic training for entry into the biotechnology and agricultural sectors of the global economy. The overall goal of the Master’s programme in Agrobiotechnology at Giessen University is to prepare scientists in both the traditional “pure” disciplines and in the fields of agriculture and nutrition for leadership roles at the forefront of the agriculture and food sector.

One important educational goal is to provide students with practical methods and expertise based on a broad scientific foundation. In order to achieve this goal, the following factors are crucial:

- research-oriented study,
- solving problems in current farming practice,
- the acquisition of international expertise and the promotion of creativity and innovation,
- attention to the need to identify and assess the impact of technological processes.

2.2. **Insect Biotechnology and Bioresources**

With more than one million scientifically described species, insects are the largest group of organisms on Earth. As an emerging interdisciplinary research area, insect biotechnology explores insects as well as insect-associated micro- and macro-organisms as emerging bioresources in the fields of medicine, crop protection, pharmaceuticals, industrial food and biotechnology.

During your studies you will deal intensively with the systematics and ecology of insects and acquire specific scientific and technical knowledge. You will also learn about various methodical research approaches to investigate insects and their associated organisms as a new resource for food and luxury food, enzymes and bioactive natural products and finally to refine fully developed products.

The study programme is characterized by a strong emphasis on research and practical relevance, as well as a high level of interdisciplinary approaches and projects.

Insect Biotechnology and Bioresources has become one of the outstanding research areas in the life sciences at JLU, not least due to the establishment of the LOEWE Center for Insect Biotechnology and Bioresources and a Fraunhofer Institute in Giessen. This focus is strengthened and expanded by the international Master’s programme Insect Biotechnology and Bioresources.
2.3. Transition Management

Transition countries are middle-income countries undergoing radical economic and political change in a short period of time. Their societies are moving from one political or economic system to another, such as from a state-led command economy to a market economy or from autocracy to democracy, or are experiencing severe economic crises. The group of transition countries includes post-socialist and emerging economies in Europe, Asia, Africa and Latin America.

The Master's programme Transition Management is an interdisciplinary study programme established by five faculties of the University of Giessen, led by the Faculty of Agricultural Sciences, Nutritional Sciences and Environmental Management (Faculty 09). The Center for International Development and Environmental Research (ZEU) at the University of Giessen contributes topical input and teaching modules specifically tailored to the needs of the programme.

Justus Liebig University Giessen is the first university in Germany to address the specific problems of transition countries in an international, interdisciplinary programme that combines theory and practice.

The Master’s programme enables students to

- understand the complex processes and specific demands of transition countries,
- comprehend the different areas of transition, including economic, legal, political, social, agricultural and environmental aspects and their interrelationships,
- gain knowledge as well as practical skills in methods and strategies to enhance the transition process,
- train their soft skills by learning and working in international and interdisciplinary teams.

By the end of the programme, students will be able to develop integrative approaches to transition issues applicable to the private and public sectors.

The Master’s programme is designed for students who are interested in learning about the complex problems of transition countries and in developing approaches to overcome these problems by linking economic, political and environmental aspects. A background in related academic disciplines is required. The main target group of the study programme are graduates from transition countries who wish to deepen and broaden their knowledge.

2.4. Sustainable Transition

The Faculty 09 offers a fourth international Master’s degree programme called „Sustainable Transition“, which is taught completely online. You can find further information about this programme on: www.uni-giessen.de/studium/sustainable-transition

3. Faculty 09: Agricultural Sciences, Nutritional Sciences and Environmental Management

Securing the global food supply and establishing a healthy diet under consideration of global environmental factors are the focus of research and teaching in all departments of Faculty 09. The principle of sustainability as environmental compatibility, efficiency and social compatibility, must be upheld in all research endeavors, with due consideration of animal welfare and consumer interests. The principle of sustainability not only applies to the production of animal products, but also to the production of plant products. As the world’s arable land is limited, it is essential to increase crop yields by enhancing the productivity of agricultural crops per square meter. In addition, the rapid global change in climatic conditions and its consequences for farming also require a quick adaptation of plants and the entire agricultural sector to the environmental requirements of the future.
Increasing stress resistance to biotic and abiotic stress indicators is a big challenge for plant breeding. Therefore, research on the effects of pests and the influence of beneficial organisms, as well as the effects of symbiotic interactions on plants and the environment, is essential. Prospective stable crop yields while conserving natural resources must be ensured through sustainable approaches, including enhanced nutrient use efficiency and improved strategies to control plant pests and pathogens. Abiotic factors, such as improved plant tolerance to water, salt and drought stress, are also increasingly important in the context of plant health and yield, which are affected by changing environmental conditions due to climate change. The scientific, technical and economic implications of a wide range of issues and problems, from agricultural production to industrial food processing to waste disposal and recycling, are part of the curriculum.

The broad disciplinary base of Faculty 09, encompassing scientific, social and economic matters, serves to facilitate links with areas of common interest in a variety of other university faculties, providing many opportunities for interdisciplinary projects.

Teaching and research cover a broad spectrum, including topics such as agricultural, food and environmental policy, agricultural production economies, soil resources, applied entomology, insect biotechnology in plant protection, landscape ecology and landscape planning, landscape, water and biogeochemical cycles, plant breeding, animal breeding.

Approximately 3300 students are enrolled in Faculty 09.

4. Studying in Giessen – Justus Liebig University

Giessen is located almost in the center of Germany, about 70 km north of Frankfurt am Main. Nestled between the low mountain ranges of Vogelsberg, Taunus and Westerwald, the city is situated in the picturesque valley of the Lahn river. The wide range of cultural activities and the attractive surroundings make Giessen a center for leisure and sports activities.

In this city of young people, the cost of living is comparatively low and the transportation in all directions is excellent (autobahn, bus and train networks, and close proximity to Frankfurt International Airport). About 26,500 students are enrolled at Justus Liebig University and another 11,000 students study at the Technische Hochschule Mittelhessen - University of Applied Science, resulting in the highest student density in all of Germany, adding to Giessen’s total population of about 90,000 inhabitants. The presence of students contributes significantly to the personality and flair of the city, its cultural activities, and its nightlife with its lively student pub scene and multicultural cuisine.

As the second largest university in the state of Hesse and the largest employer in the region, Justus-Liebig-University Giessen (JLU), founded in 1607, is an institution that is both rich in tradition and forward-looking in its curricula. It offers a broad spectrum of subjects – law, economics, commerce and management studies, humanities, the natural and social sciences, agricultural and nutritional sciences, medicine, dentistry and veterinary medicine. The University has eleven faculties and five scientific centers and offers a wide range of degree courses in the humanities (languages and literature, theater and arts, teacher training, history, sociology, political science, psychology, sports). The structure of the University’s science- and technology-oriented faculties, departments and institutes provides unique opportunities for inter- and cross-disciplinary study and research.
5. **Structure of the Degree Course**

The Master’s degree programme is designed to be completed within 4 semesters (2 years). The programme starts every year in the winter semester (October). All courses are taught in English.

5.1. **Courses**

The courses are offered in the form of modules. The modules themselves are discrete study units which can be combined in building-block fashion. This allows for an individually tailored but nonetheless rounded curriculum.

Each module covers 4 semester hours of instruction per week (SWS; 1 semester hour = 45 minutes) and concludes with an examination. 6 credit points are awarded for each module passed. The credit points assigned to each module indicate the workload involved, as set out in the European Credit Transfer System (ECTS). The workload for a module comprising 4 SWS is set at an average of 180 hours (60 hours of lectures and tutorials, 120 hours of independent study).

Various forms and combinations of teaching and study methods may be included in a module (e.g. lecture, exercise, laboratory practical, seminar, excursion, colloquium, project work, group assignment). Some modules, especially laboratory courses, can be offered as block seminars (1-2 weeks) which take place during the semester break.

5.2. **Module Examinations**

At the end of the lecture period, the student sits an examination in each of the modules that he/she was enrolled in. Therefore, continuous course preparation and revision is required throughout the semester. Possible forms of examination include: written examinations, oral examinations, oral presentations (with or without a written summary) and/or seminar papers or comparable modes of examination.

Each module examination requires a timely online registration via the electronic examination management system FlexNow (https://flexnow.uni-giessen.de/). The deadline for registration is made public by the Board of Examiners and announced online on the faculty’s webpage for each individual semester.

There are three periods for examinations concluding a module:

a) First examination period: generally in the last week of the lecture period and in the first week of the lecture-free period of a semester

b) Second examination period: generally in the week prior to commencement of the lecture period of the following semester

c) Third examination period (retake examinations): generally in the sixth week after lectures have commenced in the following semester

Students may sit examinations concluding a module in the first or second examination period. Retake tests are possible in the second or third examination period. Failed attempts have to be repeated in the next possible examination period. Registration for the exams via FlexNow is only required for the first attempt in each module (first or second examination period).

Examination periods are determined annually by the Board of Examiners and published on the University webpage of the examination office (www.uni-giessen.de/faculties/f09/studies/examinations-and-doctorate/deadlines).

All exams can be repeated twice.
5.3. **Structure of the Master’s Degree Courses**

The Master’s degree courses consist of 16 modules (120 CP):

<table>
<thead>
<tr>
<th>Component</th>
<th>Modules</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core competence</td>
<td>8 mandatory</td>
<td>48</td>
</tr>
<tr>
<td>Profile competence</td>
<td>8 optional</td>
<td>48</td>
</tr>
<tr>
<td>Master’s thesis</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16 modules</td>
<td>120</td>
</tr>
</tbody>
</table>

Students have to create a profile module plan with their choice of profile modules via the electronic registration system FlexNow. The profile module plan is created during the first semester of study and lists the profile modules and their respective allocation by semester. In order to set up a profile module plan the student can, if desired, arrange a consultation appointment with the academic advisor. The profile module plan may be changed by the student. Modules with completed examinations listed in the profile module plan and modules which are registered for the exam without the possibility to withdraw after the deadline cannot be removed from the profile module plan.

The course of studies is regarded as successfully completed if all required modules have been passed. The final grade is calculated from the average grades of the individual modules with the grade of the Master’s thesis being weighted by a factor of four.

<table>
<thead>
<tr>
<th>Master’s Degree Course</th>
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<tbody>
<tr>
<td>Semester</td>
</tr>
<tr>
<td>1.</td>
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<tr>
<td>2.</td>
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<tr>
<td>3.</td>
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<tr>
<td>4.</td>
</tr>
</tbody>
</table>

- Core Modules (Mandatory Modules)
- Profile Modules (Optional Modules)
- Master’s thesis

Degree awarded: Master of Science (M.Sc.)
**Core Modules (Mandatory Courses)**

The core modules must be attended by all students of the respective degree programme; completion of a given module involves successful performance in a module examination.

\[\text{MK} = \text{Master Kernmodul (Master Core Module)}\]

### Agrobiotechnology

1. **Semester** (5 Core Modules)
   - MK-002-EN Applied Statistics
   - MK-011-EN Lab Course Biochemistry
   - MK-015-EN Plant Protection and Bioengineering
   - MK-116-EN Principles of Scientific Practice
   - MK-057-EN Molecular Phytopathology

2. **Semester** (3 Core Modules + 2 Profile Modules)
   - MK-016-EN Biotechnology and Genomics
   - MK-018-EN Microbial Food Biotechnology
   - MK-007-EN Animal Nutrition and Feed Science

3. **Semester** (5 Profile Modules or 3 Profile Modules + Internship)

4. **Semester** (1 Profile Module + Master’s Thesis)

### Insect Biotechnology and Bioresources

1. **Semester** (4 Core Modules + 1 Profile Module)
   - MK-002-EN Applied Statistics
   - MK-087-EN Natural Product Chemistry
   - MK-088-EN Entomology I
   - MK-089-EN Insect Biotechnology and Integrated Pest Management

2. **Semester** (4 Core Modules + 1 Profile Module)
   - MK-090-EN Biocourses for Natural Product Discovery
   - MK-091-EN Entomology II
   - MK-092-EN Food Technology
   - MK-093-EN Bioprocess Engineering I

3. **Semester** (5 Profile Modules or 3 Profile Modules + Internship)

4. **Semester** (1 Profile Module + Master’s Thesis)

### Transition Management

1. **Semester** (5 Core Modules)
   - MK-067-EN-DI Theory and Practice of Economic Development
   - MK-068-EN Empirical Research Methods
   - MK-101-EN International Law
   - MK-102-EN-DI Global Food Markets
   - MK-103-EN Power and Democracy

2. **Semester** (3 Core Modules + 2 Profile Modules)
   - MK-100-EN Transition in Practice
   - MK-070-EN Business Administration and Sustainability Management

3. **Semester** (5 Profile Modules or 3 Profile Modules + Internship)

4. **Semester** (1 Profile Module + Master’s Thesis)
### Profile Modules (Optional Courses)

The student must choose 8 further modules from among the following:

**MP** = Master Profilmodul (Master Profile Module, EN = Module is taught completely in English; DI = Module is offered completely digital)

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP-007-EN</td>
<td>Food and Nutrition Security and Development</td>
</tr>
<tr>
<td>MP-020-EN</td>
<td>Plant Breeding for Resistance and Quality Breeding</td>
</tr>
<tr>
<td>MP-029-EN</td>
<td>Plant-Microbe Interactions</td>
</tr>
<tr>
<td>MP-075-EN</td>
<td>Host-Intestine-Microbe Interactions</td>
</tr>
<tr>
<td>MP-076-EN</td>
<td>Lab Course: Tissue Culturing and Genetic Transformation</td>
</tr>
<tr>
<td>MP-077-EN</td>
<td>Lab Course: Methods in Molecular Phytopathology</td>
</tr>
<tr>
<td>MP-090-EN</td>
<td>Biotechnology for Pest Control</td>
</tr>
<tr>
<td>MP-097-EN</td>
<td>Microbial Diagnostics</td>
</tr>
<tr>
<td>MP-098-EN</td>
<td>Molecular Plant Breeding</td>
</tr>
<tr>
<td>MP-145-EN</td>
<td>Methods of Regional Analysis and Planning</td>
</tr>
<tr>
<td>MP-149-EN</td>
<td>Molecular Techniques</td>
</tr>
<tr>
<td>MP-150-EN</td>
<td>Milestones of Insect Biotechnology &amp; Bioresources</td>
</tr>
<tr>
<td>MP-151-EN</td>
<td>Antibiotics: Present, Past and Future</td>
</tr>
<tr>
<td>MP-153-EN</td>
<td>Food Analysis</td>
</tr>
<tr>
<td>MP-156-EN</td>
<td>Laboratory Course I</td>
</tr>
<tr>
<td>MP-157-EN</td>
<td>Laboratory Course II</td>
</tr>
<tr>
<td>MP-158-EN</td>
<td>Insects for Food and Feed Production Systems</td>
</tr>
<tr>
<td>MP-163-EN-DI</td>
<td>Python for Environmental Scientists</td>
</tr>
<tr>
<td>MP-175-EN</td>
<td>Effect-directed Analysis by HPTLC-Assay-HRMS</td>
</tr>
<tr>
<td>MP-178-EN</td>
<td>Empirical Research Methods for Natural Resource Analysis</td>
</tr>
<tr>
<td>MP-181-EN</td>
<td>Gender and Development</td>
</tr>
<tr>
<td>MP-184-EN</td>
<td>Democracy and Postcoloniality</td>
</tr>
<tr>
<td>MP-189-EN</td>
<td>Clinical Nutrition in Gastrointestinal Disease</td>
</tr>
<tr>
<td>MP-190-EN</td>
<td>Clinical Nutrition in Paediatric Disease</td>
</tr>
<tr>
<td>MP-208-EN-DI</td>
<td>Concepts of Ecological Economics</td>
</tr>
<tr>
<td>MP-209-EN</td>
<td>Field-Work based Research in Socio-Economics</td>
</tr>
<tr>
<td>MP-210-EN-DI</td>
<td>Land Governance for Sustainable Land Use in Africa</td>
</tr>
<tr>
<td>MP-211-EN-DI</td>
<td>Agriculture, Ecosystem Functioning and Climate Change</td>
</tr>
<tr>
<td>MP-214-EN</td>
<td>Econometrics and Modelling Applications</td>
</tr>
<tr>
<td>MP-215-EN</td>
<td>Regulation of Agricultural Value Chains</td>
</tr>
<tr>
<td>MP-218-EN-DI</td>
<td>The Economics of Nitrate Pollution</td>
</tr>
<tr>
<td>MP-220-EN-DI</td>
<td>Special Topics of the UN Sustainable Development Goals I</td>
</tr>
<tr>
<td>MP-221-EN-DI</td>
<td>Special Topics of the UN Sustainable Development Goals II</td>
</tr>
<tr>
<td>MP-222-EN</td>
<td>Introduction to International Trade</td>
</tr>
<tr>
<td>MP-223-EN</td>
<td>Applied Econometric Methods for the Social Sciences</td>
</tr>
<tr>
<td>MP-224-EN</td>
<td>International Agricultural Development</td>
</tr>
<tr>
<td>MP-227-EN</td>
<td>Biodiversity Monitoring with Molecular Tools</td>
</tr>
<tr>
<td>MP-230-EN-DI</td>
<td>Sustainable Plant Protection</td>
</tr>
<tr>
<td>MP-234-EN</td>
<td>Crop Abiotic Stresses</td>
</tr>
<tr>
<td>MP-235-EN</td>
<td>Practical Genome Sequencing and Bioinformatics</td>
</tr>
<tr>
<td>MP-236-EN</td>
<td>Quantitative Genetics</td>
</tr>
<tr>
<td>MP-240-EN</td>
<td>Statistical Learning</td>
</tr>
<tr>
<td>MP-246-EN</td>
<td>Transition to a Sustainable Bioeconomy</td>
</tr>
<tr>
<td>MP-247-EN-DI</td>
<td>Land Use Change Projection with Q-GIS</td>
</tr>
<tr>
<td>MP-248-EN</td>
<td>Fruit Breeding</td>
</tr>
<tr>
<td>THM-01-EN*</td>
<td>Pharmaceutical Basics</td>
</tr>
<tr>
<td>THM-02-EN*</td>
<td>Quality Management</td>
</tr>
<tr>
<td>THM-04-EN*</td>
<td>Selected Chapters of Pharmaceutical &amp; Industrial Biotechnology</td>
</tr>
</tbody>
</table>

*Only students of the master degree course Insect Biotechnology and Bioresources*
Internship

All master’s degree programmes of the faculty 09 offer a voluntary internship that enables our students to gain an initial insight into the various areas of professional activity in which they hope to pursue in the future. The internship also enables them to collect hands-on professional experience and establish contacts with potential employers. The internship can be conducted in various areas such as the chemical industry, agricultural corporations, the foodstuffs industry, government agencies or NGOs. The variety of contacts that our faculty possesses allows us to provide expert support to students seeking an internship. More information can be found on: www.uni-giessen.de/f09/internship

Master’s Thesis

Purpose of the Master’s Thesis

The purpose of the Master’s thesis is to demonstrate that a student can, within a maximum period of six months, show that he/she is capable of independently solving a problem from the relevant field of study by the application of scientific methods.

Form of the Master’s Thesis

The Master’s thesis consists of a written part (Master’s Thesis) and an oral presentation. The thesis shall be written in English.

The presentation takes place within the framework of a colloquium with a duration of at least 30 minutes and shall not exceed 45 minutes. The prerequisite for admittance to the Master’s thesis is the successful completion of 6 core modules.

Grading of the Master’s Thesis

The final grade of the Master’s thesis is made up of the average calculated from the grade awarded to the thesis and the grade resulting from the oral presentation; the thesis grade being weighted by a factor of three, while oral presentation is counted by the factor of one. The final grade of the Master’s thesis is an essential part of the final grade of the Master programme and is worth 24 ECT credits.

6. Job Perspectives

6.1. Job Perspectives for Graduates of Agrobiotechnology

Despite persistently high unemployment rates in some parts of Europe, this high-tech exporting region still does not have enough qualified candidates to meet the new challenges in science, technology and social policy. There is a clear need for people with the well-founded knowledge required to responsibly implement technological developments and to move society forward. The new international degree programme in Agrobiotechnology is specifically designed to meet this need. Due to its compatibility with other international degrees, the Master of Science in Agrobiotechnology is an ideal qualification for working abroad.

The industrial internship that is part of the Agrobiotechnology degree provides students with the opportunity of coming into direct contact with potential employers, paving the way towards a successful professional career in areas such as the chemical, agricultural, and food industries, as well as in the public sector in local administration and the like.
The job opportunities for graduates of Agrobiotechnology are optimized by the emphasis on internationalization within the degree course, which offers a curriculum taught in English, and helps provide cooperative access to international biotechnology companies and the opportunities to study abroad.

Those who have planned their degree wisely will be able to present a profile characterized by broad knowledge, analytical skills, and, most importantly, a high degree of flexibility. Computer and online skills, as well as a good working knowledge of foreign languages and experience gained from time spent abroad will enhance your professional qualifications. Thanks to the above-average-European growth in the domain of biotechnology, graduates have excellent chances of finding a job in the public sector as an expert on environmental questions, or as a consultant in the research and development department of a commercial company.

A broad spectrum of careers are open to graduates interested in research, product development and quality management in areas such as chemistry, pharmaceuticals, food, and livestock feed, as well as in animal and plant breeding. Communicative and outgoing graduates will find their dream job as a project manager in engineering and consulting companies. Further job perspectives include research and teaching positions in universities and international organizations, including programmes in international development cooperation.

6.2. Job Perspectives for Graduates of Insect Biotechnology and Bioresources

Graduates of Insect Biotechnology and Bioresources are trained to work at all levels of agricultural production and pest control, medical biotechnology, bioinformatics, food production, business management and marketing.

There are many job opportunities in the agricultural industry (seeds, fertilizer, pesticides), biomedicine, pharmaceuticals, food biotechnology and health care. Producers and professional organizations, research institutes, consultancies, development services and international organizations are also potential employers.

Graduates with a Master's degree take up management positions in national and international authorities and associations. Other areas of employment include quality management, further education, consulting and research, public relations and marketing.

6.3. Job Perspectives for Graduates of Transition Management

Graduates of this Master’s programme work as project managers and consultants in private and public organizations involved in transition and development cooperation at the national, supranational and international levels. They find employment as managers and specialists in private enterprises in industry, the agricultural and nutritional sector, trade, banking, and financial services. The degree also qualifies graduates for careers as (junior) scientists in universities and non-university research institutions or as managers or civil servants in national public administrations, ministries, EU institutions, as well as in non-governmental organizations in the non-profit sector, think-tanks, or representations of interest groups.
7. Application

The Master's courses can only be commenced in the winter semester (October). The admission prerequisite for a Master's degree course is a Bachelor's degree with a relevant subject profile. The decision on whether or not the prior course of studies matches the required profile is taken by the faculty Board of Examiners (see above) when the application has reached the faculty. Any information on the status of acceptance without having completed the application process is not possible.

For detailed online information on the application process, consult: www.uni-giessen.de/international-pages/study/application/ug

Applicants who hold a Bachelor’s degree obtained at a foreign university (the country of origin of your university entrance certificate is of no importance) submit their application to JLU Giessen via uni-assist. They will check your application to make sure it is complete and correct and then forward it to JLU Giessen. Detailed information on how to apply is given on the website: www.uni-assist.de/en/

Prerequisite for admission to the Master's programme is also a proof of sufficient language proficiency in English. This may be evidenced by

a) either: TOEFL test iBT (internet-based test) with at least 95 points, or IELTS test with a minimum grade of 7 in the academic test;

b) or: proof of university entrance qualification awarded by one of the following countries: Australia, Ireland, Canada, New Zealand, the USA, the UK, South Africa.

c) or: proof of a Bachelor's degree in English in one of the following countries: Australia, Ireland, Canada, New Zealand, USA, United Kingdom, South Africa;

d) or: UNIcertIII

Students who apply for the degree program Insect Biotechnology and Bioresources have to hand in a letter of motivation with 500 words (+/- 10%) outlining the candidate’s personal motivation and his or her subject-specific knowledge.
8. **Commencement of Studies**

8.1. **Commencement of the Semester/Lectures**

After enrolment you are officially registered as a student at the University from the 1st of October. Your student ID card can be used as a travel concession ticket for the Rhein-Main Public Transport Network (RMV) as well as Nordhessischen Public Transport (NVV) from 1 September onwards (for information on the ‘semester ticket’ or Consolidated Fee, see under AStA (Student Union Committee) [www.asta-giessen.de/en/](http://www.asta-giessen.de/en/)).

In the winter semester, lectures generally commence mid-October and end mid-February. In the summer semester they generally begin mid-April and end mid-July (exact dates can be found under: [www.uni-giessen.de/en/international-pages](http://www.uni-giessen.de/en/international-pages)).

8.2. **Accommodation**

There are numerous affordable rooms on offer in flat-sharing communities in the public residential market. Please note: enrolment at Justus Liebig University does not include a room reservation. All students have to organize their accommodation on their own. Information on finding a flat as well as links to the classifieds and the housing market can be found at: [www.uni-giessen.de/international-pages/study/around-gi/accommodation/where-to-live-in-giessen](http://www.uni-giessen.de/international-pages/study/around-gi/accommodation/where-to-live-in-giessen)

However, it may be difficult to organize a private accommodation from your home country. So if you are looking for some private room in a shared apartment, it should be noted that it might take some time to find something suitable. You would have to sleep in a hotel or a hostel until then.

The Association for Student Affairs (Studierendenwerk Giessen) offers a wide range of types of accommodation, e.g. single rooms, double apartments, shared apartments etc. at various locations. There is a long waiting list (2-4 months) for an accommodation via the Giessen student welfare service, it is recommended to apply for an accommodation as soon as possible.

Information on our halls of residence can be found on the homepage of the Studierendenwerk Giessen at: [www.stwgi.de/wohnen/](http://www.stwgi.de/wohnen/)

We also recommend the guideline “Finding Accommodation” ([www.uni-giessen.de/en/international-pages/study/around-gi/accommodation/brochure/index](http://www.uni-giessen.de/en/international-pages/study/around-gi/accommodation/brochure/index))

8.3. **Orientation Days for Master Students**

Some Master’s students are faced with a new university and possibly moving to a new city or even a foreign country when commencing their graduate degree. The orientation days (Master StET) support Master’s students who are new to Giessen and give them a smooth start into the new course of studies before the lectures begin.

Master’s students from higher semesters function as mentors during the orientation days who will show you around the campus and give insight into what it is like to study at JLU Giessen. You are going to be introduced to all of the important university services, like the central examination administration system (FlexNow) and the university’s e-learning/teaching platform (Stud.IP). Furthermore, you will learn how to sign up for classes and many other things in order to have a successful start.

All Master’s students will gain a deep insight into the order of study as well as the modules and receive support and guidance in creating a timetable. It is a great opportunity to ask questions about different modules and also talk about subject-related topics. The exact dates and more detailed information can be found on: [www.uni-giessen.de/en/faculties/f09/studies/while-studying/orientation](http://www.uni-giessen.de/en/faculties/f09/studies/while-studying/orientation)
9. **List of Abbreviations**

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<th>Full Form</th>
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<tr>
<td>AStA</td>
<td>Student Union Committee</td>
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<td>FB</td>
<td>Faculty</td>
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<td>JLU</td>
<td>Justus Liebig University, Giessen</td>
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<tr>
<td>M.Sc.</td>
<td>Master of Science</td>
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<td>MK</td>
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<td>SWS</td>
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10. **Examination Regulations**

- German language version of the examination regulations: [www.uni-giessen.de/mug/7/findex36.html/7_36_09_1_AOeU](http://www.uni-giessen.de/mug/7/findex36.html/7_36_09_1_AOeU)


(The English translation serves solely for purposes of information. The German language version of the examination regulations is the legally binding version.)