



FOOD BIOTECHNOLOGY

Master of Science

Curriculum

Dear students

This curriculum provides you with comprehensive information on the Master's program in Food Biotechnology for all students beginning their studies in the winter semester 2016/17.

Please keep in mind that all information in this guide is subject to change. For the latest information please visit the website of the University of Hohenheim at **www.uni-hohenheim.de**.

Should you have further questions regarding your studies please visit our guide to advising at **www.uhoh.de/guide** or contact Dr. Sabine Lutz-Wahl at **fb@uni-hohenheim.de**.

We hope you enjoy your stay at the University of Hohenheim and wish you all the best for your studies!

Dean's Office of the Faculty of Natural Sciences &
Study Counsellors of Food Biotechnology

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Program design

Final degree	Master of Science (M. Sc.)
Standard period of study	4 semesters (120 ECTS credits)
Type of program	Full-time, on site
Language of instruction	English

Contents and aims of the degree program

The program in Food Biotechnology is concerned with the properties, the production processes and the manifold applications of enzymes and microorganisms in the food industry and for bioanalytical purposes.

Microorganisms are especially good producers of enzymes, since they can be cultivated in bio-reactors under controlled, secure and standardized conditions. In comparison to other organisms, such as plants and animals, microorganisms have the highest level of productivity.

Enzyme technology explores enzymatic production processes. This requires knowledge of biochemical methods, including the filtration, purification and characterization of enzymes, enzyme kinetics, the immobilization of enzymes, gene expression and the mutagenesis of recombinant enzymes.

The program in Food Biotechnology is both interdisciplinary and research-oriented. You learn how to independently organize, realize, present and publish fundamental as well as application-oriented research projects. You acquire the necessary key skills in the theory and practice of enzyme and biotechnology as well as corresponding qualitative and quantitative methods of analysis. Moreover, you will be able to also take modules from the adjoining Master's programs in Food Science and Engineering, Clinical Nutrition, Molecular Nutritional Science and Biology.

Please see the following page for an overview of the learning outcomes of the program as a whole. All of our students, irrespective of your chosen specialization, will acquire these competencies.

Learning outcomes

Below is a schematic overview of the learning outcomes for the program in Food Biotechnology. It helps you identify the knowledge and skills you acquire during the course of your studies.

	Professional skills	Cognitive skills	Key skills
	Upon completion of your studies you...		
Knowledge	<ul style="list-style-type: none"> possess comprehensive and in-depth knowledge of the field of enzyme technology, food microbiology and biotechnology and can clearly communicate its scientific basics, even to laymen. are able to grasp new and unknown facts and developments in the field of food science and incorporate them into and thereby expand upon already existing knowledge. 	<ul style="list-style-type: none"> are able to describe the principle of a method in detail from a natural scientific point of view. quickly comprehend new and unknown facts and developments in the adjoining disciplines of food science, nutritional science as well as biology by drawing on existing knowledge, which is expanded in the process. 	<ul style="list-style-type: none"> possess critical thinking skills. are able to work efficiently towards a goal, both independently and as part of a team. are able to design, coordinate, execute and analyze diverse projects. possess the ability to correctly and diligently conduct scientific work and you can transfer this attitude to other non-scientific areas of operation.
Application	<ul style="list-style-type: none"> develop new ways to utilize enzymes and microorganisms in the life science industry by connecting theory to praxis. You are familiar with necessary laboratory equipment and can derive application-oriented concepts from experimental work. are able to utilize your subject-specific knowledge in a problem-oriented manner. 	<ul style="list-style-type: none"> are able to transfer knowledge to diverse fields of operation. are able to combine knowledge of the fields of enzyme technology, food microbiology and biotechnology with developments in adjoining disciplines, such as food science or nutritional science in order to develop inter- and transdisciplinary concepts and methods. 	<ul style="list-style-type: none"> can take part and contribute to (scientific) discussions as well as moderate them. know how to deal with contrary opinions in a productive manner. are able to confidently give presentations know how to express yourself appropriately in spoken and written form.
Analysis	<ul style="list-style-type: none"> can easily implement existing methods in innovative problem-solving strategies and know how to modify existing methods when required to suit a particular problem. are able to analyze your own methods and strategies and optimize them if necessary. 		

Structure of the program

The program in Food Biotechnology has a modular block structure. All modules consist of compact courses lasting four weeks, with new modules commencing every fifth week.

During the course of the two-year study program, modules in the amount of a minimum of 120 credits, including the Master's thesis, have to be completed successfully. This includes

- **compulsory modules** in the amount of a minimum of **37.5 credits**,
- **elective modules** in the amount of a minimum of **52.5 credits**,
- **Master's thesis** which awards **30 credits**.

The table below shows the structure of the program and represents the ideal course of studies:

	1 st module slot (7.5 credits)	2 nd module slot (7.5 credits)	3 rd module slot (7.5 credits)	4 th module slot (7.5 credits)
1 st semester	Scientific Writing and Reporting (1502-500)	Fermentation Technology (1501-400)	Recombinant Proteins (1506-430)	Chemical Analytical Methods (1302-440)
2 nd semester	Elective Modules			
3 rd semester	Project Work (1500-530) - module may be completed in any module slot -	You choose elective modules in the amount of 52.5 credits.		
4 th semester	Master's Thesis Food Biotechnology (1500-400)			

During the **first semester**, you acquire fundamental knowledge of the identification and recovery of enzymes and microorganisms in the life sciences and its connected industries. This includes a comprehensive introduction to food microbiology, enzyme analysis and their corresponding methodologies and research strategies.

From the **second semester** onwards you freely plan your studies according to your individual interests and preferred areas of specialization. You may choose to either specialize in one of two majors or to become a generalist in the field of food bio-

technology. While your approach to the program may thus differ, you will, in all cases, increasingly conduct independent research from the second semester onwards.

As a **generalist** you may choose any elective modules and write your Master's thesis at a department of your choice. If you want to study a **major**, you need to take the corresponding elective modules and complete the module "Project Work" as well as the Master's thesis at the corresponding department. If you study a major by taking the corresponding modules, the name of your major will be added to your diploma, transcript of records and your diploma supplement automatically.

Major "Enzyme Biotechnology"

The major in Enzyme Biotechnology focuses on enzymatic production processes and their utilization in the industrial sector. You acquire expertise in biochemical methods, including the purification, characterization, and immobilization of enzymes, enzyme kinetics and gene expression. You focus on the development and analysis of the effectiveness of biofunctional and technofunctional components, such as enzymes, antioxidants, pro- and prebiotics, dyes and bioactive peptides.

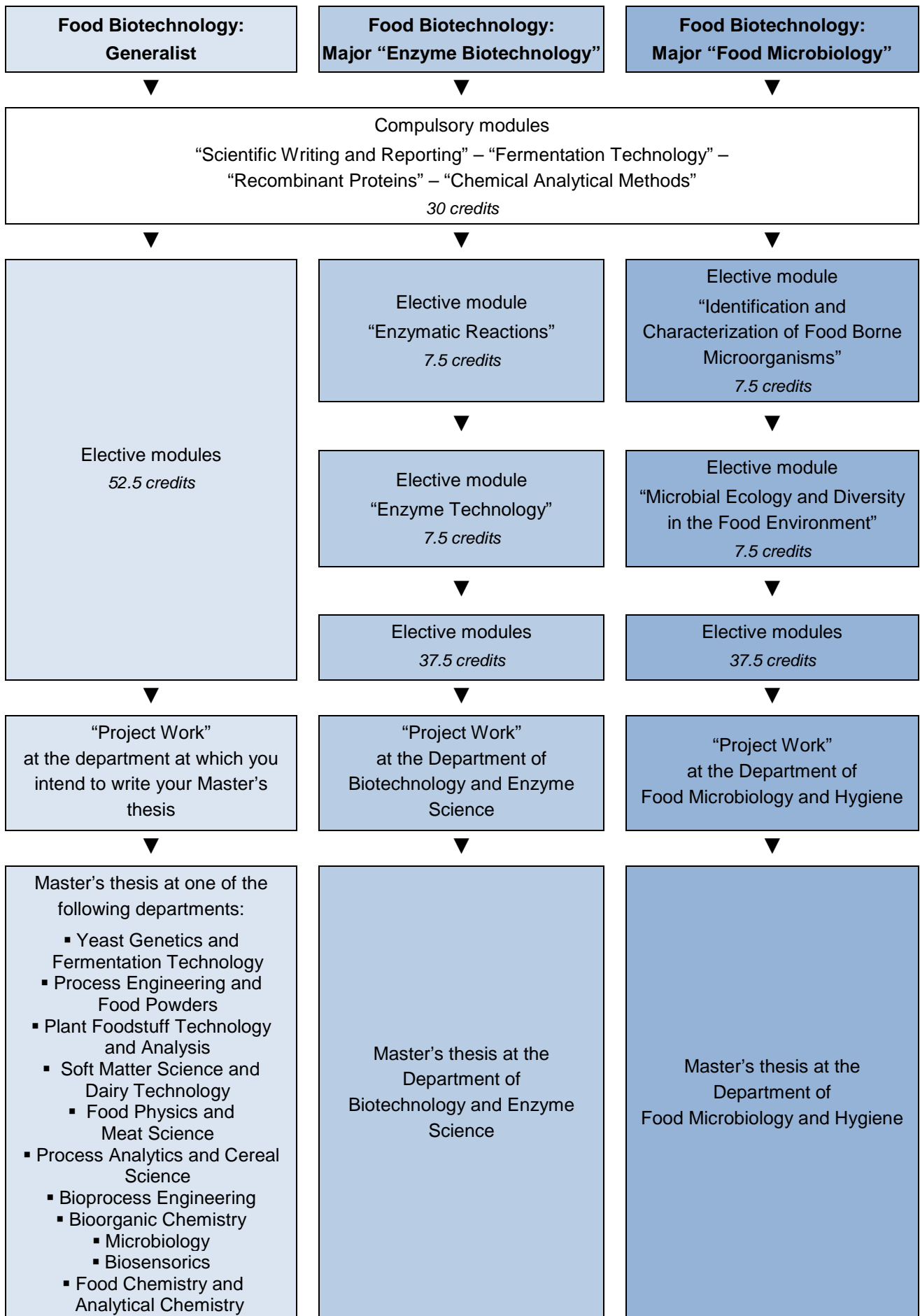
If you decide to study this major, you need to take the elective modules "Enzymatic Reactions" and "Enzyme Technology". In addition, you have to conduct your "Project Work" module as well as write your Master's thesis at the Department of Biotechnology and Enzyme Science.

Major "Food Microbiology"

The major in Food Microbiology demands a thorough understanding of pathogens and the importance of hygiene in food production, which is essential for utilizing microorganisms and enzymes in the life science industry. You focus on controlling the reproduction of microorganisms - from starter cultures to bioreactors - and on determining their genetic functions by regulating gene expression to produce specific proteins.

If you decide to study this major, you need to take the elective modules "Identification and Characterization of Food Borne Microorganisms" and "Microbial Ecology and Diversity in the Food Environment". In addition, you have to conduct your "Project Work" module as well as write your Master's thesis at the Department of Food Microbiology and Hygiene.

We have printed a schematic overview of the structural differences between the "Generalist", the major "Enzyme Biotechnology" and the major "Food Microbiology" on page 5. The figure shows the three possible ways to obtaining your degree.



If you study to become a generalist you take **elective modules** in the amount of at least 52.5 credits and you may choose any elective modules on offer. If you want to study a major, you are required to take the elective modules dedicated to this major as well as further elective modules in the amount of at least 37.5 credits, chosen from all elective modules on offer for the program.

During selected modules, excursions to relevant industry and businesses may take place. Furthermore, the module catalogue also includes modules in the areas of food science and engineering, nutritional sciences and biology. This allows you to develop your scientific qualifications to include subject areas adjacent to and beyond the field of food biotechnology.

Whether you chose to study a major or to become a generalist, completing the compulsory module “**Project Work**” is mandatory for all students in this program. The “Project Work” serves to introduce you to working on a scientific project independently and prepares you for your Master’s thesis. It is therefore usually completed at the department at which you plan to write your Master’s thesis. This way you are able to familiarize yourself with the laboratories, methodologies and the staff before commencing your thesis work. You are free to choose when you want to complete your “Project Work”, but you must complete it before starting to write your Master’s thesis at the latest. We recommend you do your project work in the third semester, shortly before starting work on your Master’s thesis. The “Project Work” is done in consultation with a supervisor (postgraduate scientific staff member) assigned by the department.

Industrial internships may be integrated in the course of your studies on an individual basis. Depending on the duration and contents of the internship, you may be awarded credits. In order to be awarded credits you need to discuss your plan to do an internship as an elective module with a supervising professor before the internship begins to establish a timeframe and academic requirements. For detailed information on internships please see page 10.

With the completion of your **Master’s thesis** at the end of the fourth semester, you demonstrate your ability to do independent scientific work. If you want to complete your Master’s thesis at a facility outside the University of Hohenheim, please see page 11 for further information.

Modules

The program in Food Biotechnology consists of compulsory and elective modules. You earn credits for each completed module. Each module awards 7.5 credits and lasts four weeks (unless specifically stated otherwise). In order to complete a module, you need to pass the module examination as explained on page 16.

During the course of the two-year study program you need to complete:

- **compulsory modules** in the amount of a minimum of **37.5 credits**,
- **elective modules** in the amount of a minimum of **52.5 credits**,
- **Master's thesis** which awards **30 credits**.



Detailed information on individual modules, their corresponding courses, the current state of modules on offer as well as on how to register for exams may be obtained at www.uni-hohenheim.de/module-catalog/fb.

A tool for composing individual timetables is available in the intranet at www.uni-hohenheim.de/schedule.

Compulsory modules

The compulsory modules have to be completed by all students in order to obtain their degree. The compulsory modules are:

Compulsory modules winter semester 2016/17

Module slot	Module dates	Module code	Module title
1	17.10. - 11.11.2016	1502-500	Scientific Writing and Reporting
2	14.11. - 09.12.2016	1501-400	Fermentation Technology
3	12.12. - 22.12.2016 09.01. – 20.01.2017	1506-430	Recombinant Proteins
4	23.01. - 17.02.2017	1302-440	Chemical Analytical Methods

Compulsory “Project Work“ module

Module slot	Module dates	Module code	Module title
any	may be completed anytime	1500-530	Project Work (Compulsory)

Elective modules

Elective modules provide you with the opportunity to specialize in an area that corresponds to your personal and professional interests. Depending on whether you want to become a generalist in food biotechnology or whether you want to study the major “Enzyme Biotechnology” or “Food Microbiology” governs your choice of elective modules. More information on the majors are on pages 4 to 6.

You may choose elective modules of the program in Food Biotechnology, of other natural science Master’s programs of the University of Hohenheim and of other degree programs offered at the University of Hohenheim. If you want to take modules at other German or foreign universities, you need to petition the board of examiners. Please contact the examinations office for further information. Elective modules may also include internships. For more information on internships please see page 10.

The elective modules are:

Elective modules summer semester 2017

Module slot	Module dates	Module code	Module title
1	03.04. - 28.04.2017	1507-510	Soft Matter Science II – Food Physics
1	03.04. - 28.04.2017	2303-430	<i>Molekulare Schalter bei Signalproteinen</i> (taught in German)
2	02.05. - 26.05.2017	1505-440	Dairy Science and Technology
2	02.05. - 26.05.2017	1302-450	Chemistry of Catalytic Redox Systems
2	02.05. - 26.05.2017	1509-500	Advanced Process Engineering Techniques for Cereal Processing
2	02.05. - 26.05.2017	2502-430	Cellular Microbiology
2	02.05. - 26.05.2017	1402-450	Cellular Signaling
2	02.05. - 26.05.2017	1510-420	Integrated Bioprocess Engineering - Bioproduction
2	02.05. - 26.05.2017	2303-420	<i>Modulation von Signalkaskaden</i> (taught in German)
3	29.05. - 02.06.2017 12.06. – 30.06.2017	TBD	Enzymatic Reactions
3	29.05. - 02.06.2017 12.06. – 30.06.2017	TBD	Identification and Characterization of Food Borne Microorganisms
3	29.05. - 02.06.2017 12.06. – 30.06.2017	1503-500	Food Process Design II – Process Integration and Scale-up

Module slot	Module dates	Module code	Module title
3	29.05. - 02.06.2017 12.06. – 30.06.2017	1504-430	<i>Technologie Pflanzlicher Lebensmittel II</i> (taught in German)
3	29.05. - 02.06.2017 12.06. – 30.06.2017	1301-450	Metal Coordination Chemistry in Biomolecules
3	29.05. - 02.06.2017 12.06. – 30.06.2017	1505-400	<i>Prinzipien der technischen Milchverarbeitung und analytische Methoden</i> (taught in German)
4	03.07. - 28.07.2017	1503-540	Drying, Granulation and Instantization
4	03.07. - 28.07.2017	1506-500	Bioethanol and Distilled Spirits
4	03.07. - 28.07.2017	1701-410	<i>Instrumentelle Analytik und Bioassays</i> (taught in German)
4	03.07. - 28.07.2017	1405-400	<i>Nutrigenomik</i> (taught in German)
any	may be completed anytime	1500-020	Free Project Work
any	may be completed anytime	1500-520	Project Work (Elective)
any	may be completed anytime	1502-400	Research in Enzyme Biotechnology
	TBD	1000-040	UNi-cert III English for Scientific Purposes

Elective modules winter semester 2017/18

Module slot	Module dates	Module code	Module title
1	16.10. – 10.11.2017	2303-460	Bioanalysis
1	16.10. – 10.11.2017	1503-510	Process Driven Product Design: Cereals and Sweets
1	16.10. – 10.11.2017	1507-500	Advanced Meat Science and Technology
1	16.10. – 10.11.2017	1505-420	<i>Innovative Milchtechnologie</i> (taught in German)
2	13.11. – 08.12.2017	1502-480	Mutagenesis and Overexpression of Enzymes
2	13.11. – 08.12.2017	1102-510	Applied Statistics for the Life Sciences
2	13.11. – 08.12.2017	1101-400	Applied Mathematics for the Life Sciences
2	13.11. – 08.12.2017	2501-440	Protein Expression in Bacteria

Module slot	Module dates	Module code	Module title
2	13.11. – 08.12.2017	1510-440	Integrated Bioprocess Engineering – Upstream Processing
2	13.11. – 08.12.2017	1504-420	<i>Technologie Pflanzlicher Lebensmittel I</i> (taught in German)
2	13.11. – 08.12.2017	2301-430	<i>Molekulare Sinnesphysiologie</i> (taught in German)
3	11.12. – 22.12.2017 08.01. – 19.01.2018	1510-430	Integrated Bioprocess Engineering – Bioseparation Process Science (Downstream Processing)
3	11.12. – 22.12.2017 08.01. – 19.01.2018	1503-520	Food Process Design I – Efficient Processing and Transport Phenomena
3	11.12. – 22.12.2017 08.01. – 19.01.2018	2303-410	<i>Rekombinante Expression von Signalmolekülen</i> (taught in German)
4	22.01. – 16.02.2018	1502-510	Enzyme Technology
4	22.01. – 16.02.2018	TBD	Microbial Ecology and Diversity in the Food Environment
4	22.01. – 16.02.2018	2501-450	<i>Membranbiochemie</i> (taught in German or English depending on the language skills of the participating students)
4	22.01. – 16.02.2018	1505-500	Soft Matter Science I – Food Rheology and Structure
4	22.01. – 16.02.2018	1403-420	<i>Grundlagen des Alterns und altersbedingte Erkrankungen</i> (taught in German)
any	may be completed anytime	1500-020	Free Project Work
any	may be completed anytime	1500-520	Project Work (Elective)
any	may be completed anytime	1502-400	Research in Enzyme Biotechnology
	TBD	1000-040	UNICert III English for Scientific Purposes

Internships

As part of the curriculum you have the opportunity to choose to do an internship and be awarded credits. An internship may be done at a national or international research center or at a research and development department of a company in Germany or abroad that is related to the life sciences. This includes the food, pharmaceutical as well as their supplying industries, the sector of plant design and engineering as well as process technology.

You have to find an internship placement on your own; however, the Internship Office (uhoh.de/praktikum) and the CareerCenter (uni-hohenheim.de/career-center) are able to offer assistance. Prior to beginning your internship, you also need to find a supervisor related to the subject-area of your placement. The supervisor decides whether the internship placement is appropriate and also assesses the mandatory internship report. Please be aware that while internships may last longer than six or twelve weeks, respectively, no additional credit can be awarded. We nevertheless encourage you to complete a prolonged internship in order to gain experience.

There are two internship modules:

Slot	Module dates	Code	Module title
any	can be completed anytime	1500-600	Internship FB (Industrial placement) (6 weeks, 7,5 ECTS)
any	can be completed anytime	1500-610	Internship FB (Industrial placement) (12 weeks, 15 ECTS)

Master's thesis

Your Master's thesis shows that you are able to work independently on a topic in the field of food biotechnology within a period of six months by applying scientific methods. It is usually written during the fourth semester. Thesis work includes a literature review, compilation of original data derived from laboratory work as well as a period of write-up. You need to find a thesis supervisor – a professor or a *Privatdozent/in* – on your own. The thesis is usually written at the department at which you have completed your “Project Work” (see page 6).

The Master's thesis examination consists of a written part (thesis) as described above and, if applicable, an oral defense (colloquium). Whether a colloquium is part of the Master's thesis is decided by your supervisor. In the colloquium, you have to defend the essential arguments, methods and results of your thesis.

You have to register your Master's thesis with the Examinations Office immediately once your thesis supervisor has assigned the topic. Please use the form available online at uhoh.de/masterthesisfb. You have to register your Master's thesis six months after you have passed your last module examination at the latest.

Recommendations for writing a Master's thesis¹

Length The Master's thesis should be approximately 50 to 80 pages long, excluding the bibliography and addendum.

Layout

Format

- Language: English or German
- Passive voice ("The experiment was designed to show...")
- Continual paging
- Page margins: top: 2.5 cm; bottom: 2 cm; left: 3 cm, right: 2 cm
- Distance of header from top 1.25 cm; distance of footer from bottom: 1.25 cm
- Paper format DIN A4 (upright format)

Font

Choose a font that is big enough and easily legible, e.g. Arial, Times New Roman or Helvetica 12pt, (variables in equations and Latin names or the names of microorganisms: in italics). 1.5 line spacing. Grouped style is recommended.

Citing journals, books or the internet

The citational style has to be consistent – once a style has been chosen, you have to adhere to it throughout the text. The use of citation managing programs, such as RefManager or Endnote, is recommended.

An example for a journal citation:

Author A, author B, Title of the text, (acronym of the) journal volume, pages xx-yy (year)

An example for a book citation:

Author A, author B; in Title of the book; editor A; Publishing house, publishing place (year); pages xx-yy.

If you are using sources found on the internet (also see page 13), they have to be cited. The following information should be included in the citation:

Name, First name of the author, title of the publication, publishing organization if applicable, url, date of retrieval

Outline

Every Master's thesis should have the following outline:

1. Cover

¹ Deviations are possible in consultation with your supervisor.

2. Declaration of authorship
3. Table of contents
4. Introduction
5. Materials and methods
6. Results
7. Discussion
8. Conclusion
9. Summary in German and English
10. Bibliography
11. Addendum (if applicable)

Bibliography Material not authored by you, such as citations, research results, charts, photos, illustrations, etc., have to be clearly indicated.

The bibliography includes all citations in alphabetical or numerical order. We expect our students to engage with primary literature and reviews. Cited literature should always be up to date.

The use of any online encyclopedia, such as Wikipedia, or other commercial information material (company flyers, advertisement brochures, internet platforms) are not to be used.

Addendum Additional material, such as tables, extensive derivations, computer codes, etc., which would interrupt the flow of the text, are added here. Acknowledgments, dedications, etc. may be added to the Master's thesis. These are, however, not required and not given page numbers or included in the table of contents as they are not part of the scientific text.

Declaration of authorship At the beginning of the Master's thesis every student has to declare to be the sole author of the text. The text of this declaration is as follows (according to German law this text has to be in German, please find a translation below):

„Hiermit versichere ich, dass ich die vorliegende Arbeit selbstständig verfasst habe. Dabei wurden keine anderen als die angegebenen Quellen und Hilfsmittel verwendet. Wörtlich oder inhaltlich übernommene Stellen wurden als solche kenntlich gemacht.

Place, date

Signature

(“I hereby declare to be the sole author of this text. I have used no

other than the cited sources and aides. Citations, direct or indirect, are marked as such.”)

Cover

The layout for the cover page is on page 15.

UNIVERSITY OF HOHENHEIM
Name of the institute



Title of the Master's thesis

Master's Thesis

Degree program:

Handed in by
(Name)

Head of Department :
1. supervisor :
2. supervisor :
Topic issued on :
Date of submission :

Writing your Master's thesis outside the University of Hohenheim

Only if you are unable to find a suitable Master's thesis topic at the University of Hohenheim and only if a professor from Hohenheim agrees is it possible to write your thesis at an external institution. The external institution must provide proper conditions for conducting research at a university level. The topic for a Master's thesis may be issued and the thesis work supervised by a person who is not a full-time member of scientific staff at the Faculty of Natural Sciences, as long as the supervisor possesses qualifications equal to those of a professor at Hohenheim. This means that you can write your Master's thesis, e.g. at a research and development department of a company meeting the required scientific and academic standards and that a qualified person at that company may issue the thesis topic and supervise your work.

Please **follow these steps**, if you want to write your Master's thesis at an institution outside the University of Hohenheim:

1. Contact the professor heading the department corresponding to your desired thesis topic to seek approval to write your thesis outside of the University of Hohenheim. Discuss your thesis as well as the institution at which you would like to conduct your research with the professor. If your supervisor at the external institution is not a full-time scientific staff member at the Faculty of Natural Sciences, ask the professor to be your second supervisor. Further, the professor at Hohenheim has to agree to the thesis topic proposed by the external supervisor.
2. If the professor agrees to your proposed thesis work, you need to petition the examinations board in a formal letter for its approval. Please include the following information in your petition:
 - **Title** of your proposed thesis and an **exposé**
 - The **reason** for conducting your thesis work at an external facility
 - Name of your **external supervisor**
 - Name of your second **supervisor at Hohenheim**.
3. Once the examinations board has approved your petition, your supervisor may assign your topic and you must register the thesis immediately with the Examinations Office. Please use the form available online at **uhoh.de/masterthesisfb**.

Submitting your Master's thesis

You are required to submit two bound copies of the Master's thesis to the Examinations Office before the deadline. In addition, you need to submit your thesis on a digital medium (CD/DVD) for further examination purposes. Along with these docu-

ments, you have to submit a written declaration of authorship, declaring to be the sole author of the submitted work and that all sources and aids have been indicated as such.

Examinations

Every module of the Master's program in Food Biotechnology is completed with an examination. Types of examinations offered at the University of Hohenheim include written and oral examinations, protocols of practical courses, reports, preparation and presentation of contributions to seminars as well as colloquia. Information on examinations for specific modules may be found in the module catalog at www.uni-hohenheim.de/module-catalogue.

Registration

Examinations of blocked modules are usually held at the end of the respective block. For blocked modules registration must be completed seven days before the examination takes place at the latest. You have to register for every examination you decide to take online through *Studium Online* at www.uhoh.de/studiumonline.

Once a registration for a module examination has been completed, the examination can no longer be dropped and you have to take the examination eventually. However, you have the option of withdrawing from an examination date you have previously registered for. If you want to withdraw from an examination date, you need to submit your withdrawal in writing to the Examinations Office seven calendar days before the examination date. In case of withdrawal, you are automatically registered for the upcoming examination date. Please note: withdrawing from an examination date does not cancel your registration for the examination. You cannot withdraw your registration for an examination, you only have the option of pushing the examination date.

Coursework may be a prerequisite for taking an examination. Please see the respective module description at www.uni-hohenheim.de/module-catalogue for detailed information on the specific requirements for taking an examination.

Information on the respective valid examination regulations, deadlines, examination dates, etc. may be obtained at the Examinations Office or online at www.uni-hohenheim.de/exams.

Examination resits

It is possible to resit an examination once. It is not possible to resit an examination which has already been passed.

If you fail an examination, you are notified by the examinations office in writing, usually including the resit date for which you are automatically signed up. Examination resits for blocked modules take place either in the upcoming examination period or are scheduled by the responsible professor. In some cases, the resit date has not been set at the time of notification. If this is the case, please check the resit dates with the respective professor or the Examinations Office.

Grading system

The examination result is expressed in grades according the grading table below. A minimum grade of 4.0 is required to pass an examination and complete a module. Modules Some modules are not graded and are either passed or failed.

	German	English
1,0 1,3	<i>sehr gut</i>	very good
1,7 2,0 2,3	<i>gut</i>	good
2,7 3,0 3,3	<i>befriedigend</i>	satisfactory
3,7 4,0	<i>ausreichend</i>	sufficient
5,0	<i>nicht ausreichend</i>	fail

Overall grade

The overall grade for the Master's program in Food Biotechnology is calculated as the weighted average of all grade scores achieved in all modules, including the Master's thesis. The module grades and the grade of the Master's thesis are weighted on the basis of the credits awarded for each completed module. The result is rounded mathematically to one decimal digit. Results above 4.0 are always rounded up to 5.0.

Recognition of credits obtained abroad

Credits obtained at another university during an exchange period can be recognized by the examinations board and thus contribute towards your degree. The awarding institution has to be equivalent to a German university and the competencies imparted by the courses taken must not exhibit substantial differences to the competencies of the program in Food Biotechnology.

Cheating and plagiarism

If you attempt to influence the result of an examination by cheating or using forbidden aids the respective examination is assessed with “fail” (5.0). This expressly includes plagiarism, i.e. the use of content taken from the internet or other sources without properly quoting or indicating the source.

Teaching staff may require you to attach a declaration of authorship to written examinations or assignments and demand them to be handed in in digital form. Please ask the respective supervisor before submitting your work.

Language courses

The Language Center of the University of Hohenheim offers courses in more than ten languages, including German.

For more information on German language courses please visit **www.spraz.uni-hohenheim.de/deutsch**.

For more information on the Language Center and all other language courses please visit **www.spraz.uni-hohenheim.de**.

English language course – UNIcert III

UNIcert III – “English for Scientific Purposes” courses are available for all students of the Faculty of Natural Sciences. These courses are intended to aid students in improving their English skills and to provide them with an internationally recognized language certificate.

This UNIcert III program is designed to meet the specific needs of our students and can easily be integrated into the course of studies as an elective module, which also awards credits, thus contributing towards your degree.

Find further information at **www.natur.uni-hohenheim.de/language-course**.

Extending the period of study

The standard period of study is four semesters. However, you are not required to complete your studies within that time. There are ways and reasons to extend the period of study. The maximum period of study is seven semesters!

Extending the period of study before all modules are completed

If you have yet to complete your regular modules, excluding the Master’s thesis, it is possible to take a semester on leave (*Urlaubssemester*). During this time, you are

free to spend a semester abroad and take courses and examinations at a host university. Completed modules can be recognized by the University of Hohenheim and thus contribute towards your degree. It is also possible to complete an internship, which may also be an extension of an internship done as part of an elective module (see page 10 for more information on internships).

A semester on leave provides you with the necessary flexibility to design the course of your studies on an individual basis. This does not necessarily extend your period of study as examinations completed during an exchange semester, for example, can be fully recognized. For further information on reasons for being granted a semester on leave please visit www.uni-hohenheim.de/academicleaveofabsence.

Extending the period of study after all modules are completed

Once you have successfully completed your last module, with only the master's thesis left, you have six months before you are required to begin working on your thesis. However, please be aware that the maximum period of study is seven semesters, which cannot be extended. You may, of course, also opt to start writing your thesis right away.

These six months provide you with the opportunity to do an internship or spend a semester abroad. However, neither of these activities can be recognized since all credits necessary to complete your degree have already been accumulated.

For further information on exchange semesters please visit the website of the Office of International Affairs at exchange.uni-hohenheim.de.

Career prospects

The Master's program in Food Biotechnology provides you with a well-rounded interdisciplinary, applied, natural scientific education. Depending on your specialization and practical experience, the following fields in the food, biotech, cosmetics, chemicals or pharmaceutical industry may be of interest to you:

- research and development
- project management
- quality assurance and management

With an above-average degree you also have the option of pursuing further academic qualifications by obtaining your doctorate at a university in Germany or abroad. This provides a path to leading positions in research and development or, if you are interested in economics, into management positions at international companies.

If you want to enter the job market outside academia, we would like to advise you to contact the CareerCenter for guidance. The CareerCenter Hohenheim is a service center and the first contact point for students and graduates for guidance when creating your own profile as well as assistance with your career entry and career planning. For more information please visit www.uni-hohenheim.de/careerentry.

Completing your studies

You have successfully completed your studies and would like to use your degree certificate to apply for a job? No problem, but please keep the following in mind:

- Only after you have completed all exams and all of your grades have been entered into the system can your diploma be issued. Once all grades have been entered into the system you may exmatriculate yourself and do not need to re-register for the next semester. If you exmatriculate or forego re-registration before all grades have been entered into the system, your studies are considered to have ended prematurely with exams either not taken or not entered into the system.
- If you re-register due to missing entries in the system, you do not have to pay the semester fees.

Semester Dates 2016 - 2018

	Start of lectures	End of lectures	Holidays
Winter 2016/17	17.10.2016	04.02.2017	01.11.2016 23.12.2016 - 06.01.2017
Summer 2017	03.04.2017	15.07.2017	14.04. - 17.04.2017 01.05.2017 25.05.2017 05.06.2017 06.06. - 10.06.2017 15.06.2017
Winter 2017/18	16.10.2017	03.02.2018	01.11.2017 23.12.2017 - 06.01.2018
Summer 2018	03.04.2018	14.07.2018	30.03. - 02.04.2018 01.05.2018 10.05.2018 21.05.2018 22.05. - 26.05.2018 31.05.2018

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