

Study **Applied Life Sciences.**

BACHELOR'S DEGREE PROGRAMS

- Bioengineering
- Molecular Biotechnology
- Packaging Technology
- Sustainable Management of Resources

MASTER'S DEGREE PROGRAMS

- Bioinformatics
- Bioprocess Technology
- Biotechnological Quality Management
- Molecular Biotechnology
- Packaging Technology and Sustainability

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Study Applied Life Sciences.

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FH Campus Wien

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Biotech and Packaging at its Best

The Department of Applied Life Sciences offers degree programs with focus on natural sciences and engineering.

Since semester 2022/23, the entire department is housed in the new building at the main campus in Favoritenstraße.

A joint location for the Applied Life Sciences

In the newly constructed building in close proximity to the main campus, we have brought together the technically oriented degree programs in Bioengineering, Bioinformatics, Biotechnological Quality Management and Bioprocess Technology with the degree programs in Medical Biotechnology: Molecular Biotechnology (Bachelor's and Master's degree program) and the degree programs from the Department of Packaging Technology and Sustainability - Sustainable Management of Resources, Packaging Technology, Packaging Technology and Sustainability. On several floors, students and lecturers have access to a first-class infrastructure that leaves nothing to be desired: Laboratories for microbiology, cell biology, microscopy and cell cultures. In addition, there are laboratories for packaging technology and bioengineering, a trichoderma laboratory, rooms for electrophoresis and mold cultivation, as well as three laboratories for further research and development activities and two practice laboratories to consolidate what has been learned. The new site also features a fermentation laboratory and pilot brewery, our Scientific Brewhouse.



Research for progress

At the interface between chemistry, biology, genetics and microbiology, research in molecular biotechnology has enormous potential. In the medical field, molecular biotechnology is particularly crucial in the fight against cancer or infectious diseases, as well as for the containment of epidemics and pandemics.

One of the major tasks of the 21st century also includes the responsible use and the management of resources. Research into the development of sustainable packaging is part of this and a significant step in the fight against climate change and for an intact environment.

What is your part in this?

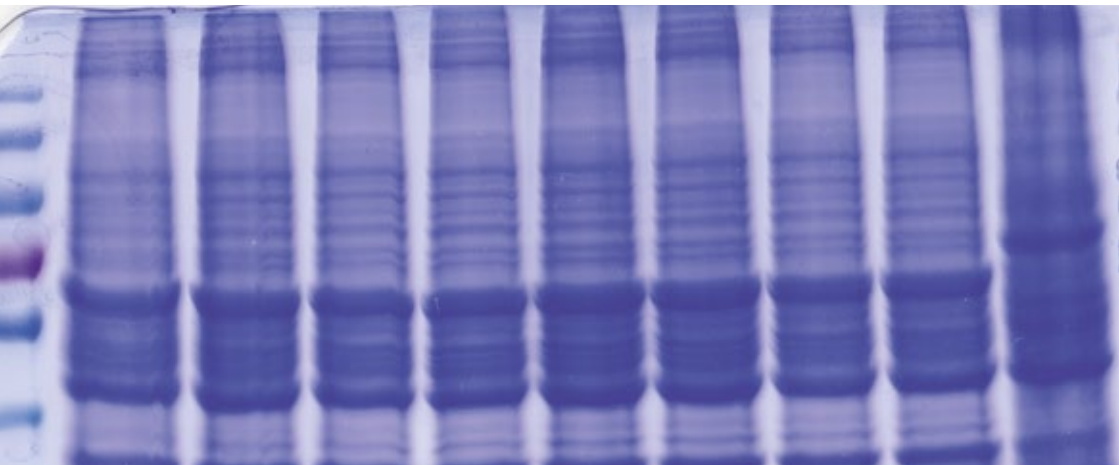
Already at an early stage we involve students in the research activities of our competence centers and degree programs and thus enable them to actively participate in projects. Our department cooperates with renowned universities, research institutes, clinics as well as the packaging industry. During your studies you will be part of this network.

Competence Center for Molecular Biotechnology

In its research work, the competence center focuses primarily on medical-biopharmaceutical and industrial biotechnology. The two research groups of the Biotechnology section deal with applied aspects of two highly topical areas of biotechnology: signaling pathways/cell based test systems and immunology.

Diagnosis: Meat Allergy

Our researchers are working to improve the possibilities for diagnosing meat allergies: single molecules rather than the total extracts used to date will enable more reliable diagnoses in the future. The allergen molecules can be produced recombinantly, i.e. in large quantities and very pure, and are thus suitable for testing and diagnosis.



Well-Tolerated Medical Devices

Infusion needles, catheters, prostheses or implants can cause allergic, toxic or inflammatory reactions. Therefore, they must be tested for their compatibility in elaborate test series. Molecular Biotechnology researchers, are working together with OFI Technologie & Innovation GmbH to develop a new in vitro test system for these so-called invasive materials and products.

Award-winning research by graduates

Graduates of the Molecular Biotechnology programs are doing excellent research! The Federal Ministry of Education, Science and Research (BMBWF) has repeatedly endorsed this opinion. It annually awards the „Würdigungspreis“ for excellent theses. This award has already been granted nine times to graduates of Molecular Biotechnology.

Scientific Brewhouse

Biotechnology has its roots in beer brewing and vinegar making. The process steps and methods used are very similar to biopharmaceutical applications. In the bachelor's degree program in Bioengineering and the master's degree program in Bioprocess Technology, students can put their knowledge of biochemistry, microbiology and hygiene into practice by brewing beer. The beer is brewed under the brand “Scientific Brewhouse”.



Microbial World Map

Everyone who travels on the subway comes into contact with bacteria and other microorganisms. An international research consortium were studying the microorganisms in cities such as New York, Moscow, Sao Paulo, Berlin and Vienna for several years. The master's degree program in Bioinformatics has developed methods to analyse these data.

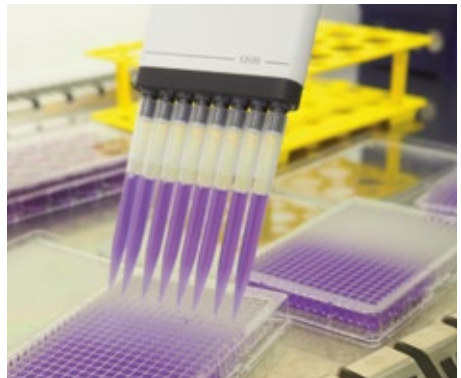


Competence Center for Sustainable and Future Oriented Packaging Solutions

The Competence Center conducts research into the development of sustainable packaging. Research focuses on the safety of packaging and the evaluation and improvement of the sustainability of products and processes.

Packaging - Sustainable and Safe

Food contact materials (FCM), i.e. packaging, containers, kitchen utensils, cutlery and crockery, may contain undesirable, possibly harmful substances. They can be transferred to food through contact. Packaging and Resource Management and Molecular Biotechnology are researching together with OFI Technologie & Innovation GmbH on a method for evaluating the safety of FCMs. The aim is to provide the packaging and food industry with a test strategy to exclude health risks for consumers.

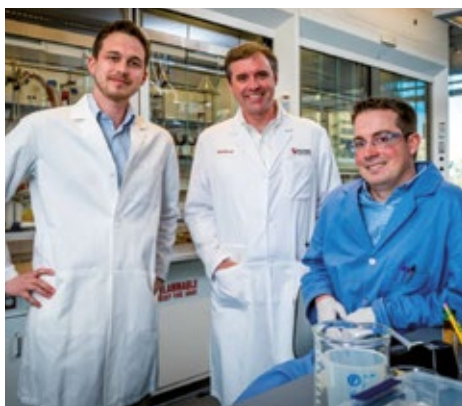


Global Network

The biotech industry is a very international, very dynamic and well-networked sector. Therefore, the degree programs in the Department of Applied Life Sciences work closely with partners from science, research and industry, both nationally and internationally. Bioengineering, Bioinformatics, Biotechnological Quality Management and Bioprocess Technology cooperate in Austria with renowned biotech companies, the University of Natural Resources and Life Sciences, Vienna (BOKU) and the Austrian Centre of Industrial Biotechnology (acib).

Molecular Biotechnology's network includes universities, research institutions and biotech companies from Austria and other European countries as well as internationally with Australia, Canada, China, Japan, New Zealand, Singapore, South Korea, Taiwan and the USA. Thanks to this network, students and graduates of the English-language master's degree program can do parts of their studies and research at universities such as King's College in London or Stockholm University in Sweden.

The internationally oriented packaging and resource management is closely networked with universities such as the Munich University of Applied Sciences and Vienna University of Technology, research institutes and the Austrian packaging industry. Among other things, the latter awards an annual scholarship to applicants from outside the EU and the European Economic Area.



From left to right: Georg Winter PhD, James Bradner MD and Dennis Buckley at Harvard



Gwangju Institute of Science and Technology, South Korea

Bioengineering | Bachelor's Degree Program

Biology And Technology

You are interested in science, and mathematics is one of your strengths. Biology and technology fascinate you, which is why you want to learn how they can be optimally applied in industrial practice. You think analytically and in a process-oriented manner. Quality is important to you. You like to work in teams and on projects, you want to make a career in industry and have an adequate knowledge of English.

21st Century Key Technology

In the bachelor's degree program in Bioengineering you will be trained to conceptualize biotechnological plants and to plan and optimize production processes. Technology, biology and chemistry are the pillars of this program. It is tailored to applications in the food and pharmaceutical industries. In addition, we provide you with knowledge in programming and quality management. The course enables you to gain the certificate for quality representatives for quality management systems according to ISO 9001. Starting in the winter semester 2022/23, you will be studying in the newly constructed building at the main campus with state-of-the-art lecture rooms and excellently equipped laboratories.

Booming Biotech Industry

As a biotechnologist you plan, develop and optimize biotechnological production processes, to make them suitable for industrial production. You can work in the biopharmaceutical, chemical or food industry, or in brewing and fermentation technology, among others. In the medium-term, you could hold a management position or at some point found your own start-up.

Overview



6 Semester
180 ECTS



Bachelor of Science
in Engineering (BSc)



Organizational form
Part-time



40
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
German



Tuition fee/semester
€ 363.36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students

Head of Degree Program: Dr. Michael Maurer

Curriculum

LECTURE		SCH	ECTS	LECTURE		SCH	ECTS		
1 st SEMESTER 30 ECTS	Analytical and Physical Chemistry LE	2	4	5 th SEMESTER 30 ECTS	Brewing laboratory with QC focus EX	1,5	3		
	General and Inorganic Chemistry LE	2,5	5		Digital transformation of processes LE	1	2		
	General Chemistry I (Practical Course) EX	1	1		Introduction to GMP and Quality Management LE	1	2		
	General Microbiology LE	2	4		Molecular Biology (Practical Course) EX	2	4		
	Introduction to Organic Chemistry LE	1	2		QM for quality representatives IC	2	4		
	Mathematics IC	2	3		Quality Control LE	1	2		
	Microbiological Microscopy (Practical Course) EX	0,5	1		Scientific Work in Molecular Biology - Project Preparation IC	1	2		
	Physics LE	1,5	3		Virtual Exchange IC	1	2		
	Statistics for Chemical Analysis IC	1,5	3		Specialization Bioprocess Technology				
	Stoichiometry and Quantitative Chemical Analysis LE	1,5	3		Biotechnological Plant Engineering and Automation LE	2	5		
Tutorial in Mathematics EX	1	1	GMP seminar IC	1	4				
2 nd SEMESTER 30 ECTS	Electrical Engineering LE	1,5	3	Specialization Informatics					
	General Chemistry II (Practical Course) EX	2	4	Bioinformatics and Bioinformatic Data Analysis IC	1,5	3			
	General Chemistry III (Practical Course) EX	3	5	Programming IC	1,5	6			
	Hydraulics and Fluid Mechanics LE	1	2	6 th SEMESTER 30 ECTS	Animal Cell Technology LE	1	2		
	Materials science and manufacturing engineering LE	2	4		Aseptic Filling LE	0,5	1		
	Microbiologic Methods IC	0,5	1		Bachelor exam	1	1		
	Organic Chemistry LE	2	4		Bioprocessing Laboratory EX	1,5	2		
	Specific Microbiology LE	2	2		Downstream-Processing, Proteins LE	1	2		
	Technical Drawing, Mechanical Engineering IC	0,5	1		Plant Hygiene LE	1	2		
	Technical Mathematics IC	2	4		Practical Training PR	7,5			
Biochemistry LE	2	4	Practical Training - Reflection EX		0,5	0,5			
Calculations in Process Engineering IC	2	4	Specialization Bioprocess Technology						
Cell Biology LE	2	4	Bachelor's Thesis Seminar - BVT SE		1	1			
3 rd SEMESTER 30 ECTS	General Microbiology (practical course) EX	3	5	Downstream Processing Laboratory EX	1	1			
	Introduction to the Biochemical Exercises IC	0,5	1	Facility Design, GMP-Project, Bachelor's Thesis SE	5	10			
	Measurement, Control and Sensor Technology IC	1,5	3	Specialization Informatics					
	Mechanical Engineering LE	2	4	Bachelor's Thesis Seminar - BIF SE	1	1			
	Thermo-mechanical Process Engineering LE	2	4	Linux-based Systems and Data Bases IC	1	1			
	Tutorial for Calculations in Process Engineering IC	0,5	1	Programme Design, Automation, Bachelor Thesis SE	5	10			
	Applied Statistics IC	2	3,5	Abbreviations					
4 th SEMESTER 30 ECTS	Bioanalytics LE	2	3	ECTS	ECTS Credits				
	Biochemical engineering LE	2	4	EX	Exercise				
	Biochemistry (Practical Course) EX	2,5	3	IC	Integrated Course				
	Brewing and Fermentation Technology LE	2	4	LE	Lecture				
	Calculations in Bioprocess Engineering IC	1	2	PR	Practical				
	Molecular Biology LE	2	4	SCH	Semester Credit Hours				
	Programming and Bioinformatics IC	1	3,5	SE	Seminar				
Technical Microbiology LE	2	3							

Molecular Biotechnology

Bachelor's Degree Program

Interest in Medical, Molecular Biotechnology

Your strengths lie in biology and chemistry. You are interested in applying medical, molecular biological technologies. With innovative spirit and patience, you like to get to the bottom of things, to develop them further or discover new things. You are a team player, manually skilled and enjoy working in a laboratory.

Analysing Healthy and Sick Cells

The bachelor's degree program Molecular Biotechnology offers you a practice-oriented education in medical molecular biotechnology. You will learn to analyse the causes of diseases at the cellular level and to develop active substances, vaccines and gene therapies against them. Starting in the winter semester 2022/23, you will be studying in the newly constructed building at the main campus with state-of-the-art lecture rooms and excellently equipped laboratories. The degree program is part of a very extensive national and international network.

Highly Qualified with a Background in Science

As a biotech generalist you are greatly in demand in industry. You can work as a scientific-technical assistant in research departments and laboratories of internationally active pharmaceutical companies as well as at universities or medical institutions. Or you may decide to work in project management or quality assurance in the manufacture of medicines. At the same time, the degree program serves as preparation for relevant master's studies (inter-) national universities, which can later lead to a doctoral thesis.



Overview



6 Semesters
180 ECTS



**Bachelor of Science in
Natural Sciences (BSc)**



Organizational form
Full-time



60
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
German



Tuition fee/semester
€ 363.36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students

Head of Degree Program: Dr. Beatrix Kuen-Krismer



Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Analytical Chemistry I LE	1	1
	Analytical Chemistry I LAB	6	6
	Business Studies LE	1	1
	General Biology LE	2	3
	General Cell Biology LE	1,5	2
	General Chemistry LE	2	3
	Mathematics for Biology I IC	3	3
	Microscopy Lab LAB	1,5	3
	Molecular Biology & Genetics I LE	2	3
	Public Law LE	2	2
	Scientific Communication in English IC	2	2
	Social Skills I IC	1	1

2 nd SEMESTER 30 ECTS	Biochemistry I: Foundations & Building Blocks of Life LE	1,5	2
	Cell Biology of the Eukaryotes LE	2	3
	Cell Culture LE	1	1
	Chemical Calculation IC	0,5	0,5
	Civil Law LE	2	2
	Inorganic Chemistry LE	1	2
	Mathematics for Biology II IC	2,5	2,5
	Methods of DNA analysis LE	1	2
	Molecular Biology & Genetics II LE	2	3
	Organic Chemistry LE	2	3
	Quantitative Analytical Chemistry LE	1	1
	Quantitative Analytical Chemistry LAB	3	3
	Scientific Communication in English II IC	2	2
	Social Skills II: Self-Coaching & Communication IC	1	1
	Statistics for Biology I IC	2	2

3 rd SEMESTER 30 ECTS	Biochemistry II: Structure Formation, Biorecognition & Catalysis LE	1,5	2
	Bioinformatics IC	3	3
	Cell Culture Laboratory LAB	3	3
	English in Science & Career I IC	2	2
	Fundamentals of Microbiology LE	1,5	2
	Genetic Engineering LAB	3	3
	Immunology LE	1	2
	Introduction to Molecular Biological Lab Techniques LAB	1	1
	Molecular Biological & Biophysical Methods SE	1,5	3
	Physical Chemistry LE	2	3
	Quality & Process Management LE	2	2
	Social Skills III: Teambuilding & Conflict Resolution IC	1	1
	Statistics for Biology II IC	2	2
	Virology LE	0,5	1

	LECTURE	SCH	ECTS
4 th SEMESTER 30 ECTS	Applied Microbiology LE	2	2,5
	Biochemistry III: Bioenergetics and Metabolism LE	1,5	2
	English in Science & Career II IC	2	2
	Gene Expression LE	1	2
	Genome Organization IC	1	2
	GxP LE	4	5
	Instrument-based Analytics LE	2	3
	Microbiological Lab Techniques LAB	2,5	2,5
	Project Management IC	2	2
	Protein & Enzyme Biochemistry LAB	3	3
	Protein Expression & Purification LAB	3	3
	Social Skills IV: Moderation & Problem Solving IC	1	1

5 th SEM 30 ECTS	Bachelor Thesis I & Scientific Method SE	5
	Industry Practical PR	25

6 th SEMESTER 30 ECTS	Applied Genomics LE	2	3
	Bachelor Exam	2	
	Clinical aspects of immunology LE	1	2
	Developmental Biology LE	2	3
	Ethics IC	1	1
	Histology LE	2	3
	Human Physiology LE	2	3
	Intercultural Competence IC	1	1
	Marketing & Product Lifecycle Management IC	2	2
	Model Organisms LE	1	2
	Organic Chemistry LAB	3	3
	Reflection of Internship SE	2	2
	Tissue Engineering LE	2	3

Abbreviations

ECTS ECTS Credits

IC Integrated Course

LAB Laboratory

LE Lecture

PR Practical

SCH Semester Credit Hours

SE Seminar

More information:

www.fh-campuswien.ac.at/mb-b-en

Secretary's Office: +43 1 606 68 77-3500

biotechnologie@fh-campuswien.ac.at



Packaging Technology

Bachelor's Degree Program

Natural Science Meets Creativity

You are interested in natural sciences and have an understanding of technology. You want to combine your curiosity for different materials with your affinity for marketing and design. Others call you practical and creative, because you enjoy working on improvements, like interconnected thinking and have a high level of quality awareness.

Paper, Plastic, Glass, Metal: Always An Eye On The Entire Life Cycle

The study program, developed in cooperation with packaging companies, is part-time and is attainable independent of your place of residence. Filling goods such as food and pharmaceutical products interact with their packaging materials. The program covers the entire life cycle of a packaging - from development and production, to recycling and disposal, up to marketing and quality management.

Generalists In Demand, And With Career Opportunities

As a graduate, you will be in demand in the fields of production, packaging development and design, in quality assurance, technical purchasing, sales and marketing. You start as an assistant or project team member, product developer, application engineer, designer, packaging inspector, laboratory technician, buyer or sales assistant with career opportunities to become a production, quality, marketing or sales manager.

Overview



6 Semesters
180 ECTS



**Bachelor of Science
in Engineering (BSc)**



Organizational form
Part-time



25
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
German



Tuition fee/semester
€ 363.36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students

Head of Degree Program: Dr. Silvia Apprich



Curriculum

	LECTURE	SCH	ECTS
1 st SEM 30 ECTS	Accounting and Controlling IC	2	4
	Chemical Laboratory Exercises EX	2	4
	Chemistry in Packaging Technology IC	3	6
	Fundamentals of Business Administration IC	2	4
	Fundamentals of Packaging Materials and their Manufacturing IC	3	6
	Fundamentals of Packaging Technology IC	3	6
2 nd SEMESTER 30 ECTS	Advanced Quality Management IC	1,5	3
	Filling and Packaging Technology IC	3	6
	Filling-Good-Characteristics and Requirements IC	3	6
	Introduction to IT in Companies IC	1	2
	Microbiological Laboratory Exercises EX	1	2
	Microbiology and Hygiene LE	1	2
	Physics in Packaging Technology IC	2	4
3 rd SEM 30 ECTS	Qualitymanagement and Occupational Safety IC	1,5	3
	Team and Leadership IC	1	2
	Glass IC	2,5	5
	Metal IC	2,5	5
	Operational and Commercial Excellence IC	2	4
	Operational Controlling IC	1	2
	Paper IC	2	4
	Paper Converting IC	3	6
	Printing Technology IC	2	4

	LECTURE	SCH	ECTS
4 th SEM 30 ECTS	Inspection Technology IC	3	6
	Packaging Legislation IC	2	4
	Plastics IC	2,5	5
	Plastics Converting IC	2,5	5
	Recycling and Waste Management IC	2,5	5
	Sustainability and Packaging IC	2,5	5
5 th SEM 30 ECTS	Bachelorthesis SE	2	10
	Professional Traineeship PR		19
	Reflection of Professional Traineeship SE	1	1
6 th SEM 30 ECTS	Conversation and Negotiation Skills IC	1	2
	Ecodesign IC	2,5	5
	Interdisciplinary Project in Packaging Development and Design IC	6	12
	Marketing of consumer products and industrial goods IC	2	4
	Purchasing and Supply Chain Management IC	1,5	3
	Sales and Key-Account-Management IC	2	4

Abbreviations

ECTS	ECTS Credits	PR	Practical
EX	Exercise	SCH	Semester Credit Hours
IC	Integrated Course	SE	Seminar
LE	Lecture		

More information: www.fh-campuswien.ac.at/vt-b-en
 Secretary's Office: vt@fh-campuswien.ac.at | +43 1 606 68 77-3536



Sustainable Management of Resources

Bachelor's Degree Program

Interested In The Environment And Natural Science?

Technical-scientific subjects such as physics or chemistry and environmental topics are close to your heart. You want to develop solutions for improved product sustainability. You accept change as a challenge. You like conceptual work and you are open for innovative approaches.

Lateral Thinking Allowed!

Climate change, scarcity of resources, waste prevention and increasingly strict environmental laws: companies need sustainably designed products and processes. Lateral thinking in order to change existing business models is therefore important. You will learn how to use resources carefully, prevent waste and use it productively as recyclable materials. The content includes technology, natural sciences, resource management, economics and environmental law.

Diverse Field Of Application: Sustainability Always In View

You are an expert in waste management and disposal concepts, life cycle analyses and sustainability reports. Resource management, waste disposal and product development and product management are your fields of activity. You are qualified for production, for purchasing, sales and logistics.

Overview



6 Semesters
180 ECTS



**Bachelor of Science
in Engineering (BSc)**



Organizational form
Part-time



23
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
German



Tuition fee/semester
€ 363.36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students

Head of Degree Program: Dr. Silvia Apprich



Curriculum

	LECTURE	SCH	ECTS		LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Accounting and Controlling IC	2	4	4 th SEMESTER 30 ECTS	Environmental and Resource Economics IC	2	4
	Business Management - Basics IC	2	4		Environmental Management Systems IC	1,5	3
	Environmental Legislation IC	2	4		Introduction to Waste Management IC	2,5	5
	Introduction to Resource Management IC	2	4		Material Flow Management - Processoptimization IC	3	6
	Legal Basics IC	1,5	3		Material Flow Management (Bachelor Thesis) SE	2	4
	Methods of Resource Management IC	1,5	3		Resource Management for Production and Retailing IC	1	2
	Physics and Mathematics in Resource Management IC	4	8		Waste Management and Recycling Technologies IC	3	6
				5 th SEM 30 ECTS	Bachelor Thesis 2 SE	2	10
2 nd SEMESTER 30 ECTS	Business Ethics and CSR IC	1,5	3		Reflections on Practical Experience SE	1	1
	Chemistry in Resource Management IC	2,5	5		Vocational Internship PR		19
	Environmental Biology and Hygiene IC	2	4				
	International Product Compliance IC	1,5	3	6 th SEMESTER 30 ECTS	Industry Specialization 1 IC	2,5	5
	Introduction to Corporate IT IC	1	2		Industry Specialization 2 IC	2,5	5
	Organization of Production and Labor SE	1	2		Logistics IC	1,5	3
	Sustainable Management of Resources IC	2,5	5		Marketing and Product Management IC	1,5	3
	Waste Legislation IC	3	6		Operational and Commercial Excellence IC	1,5	3
3 rd SEMESTER 30 ECTS	Advances Quality Management IC	1	2		Processmanagement IC	2,5	5
	Ecodesign IC	1,5	3		Purchasing and Supply-Chain-Management IC	2	4
	Exercises - Life Cycle Assessment EX	2,5	5		Rhetoric and Negotiation Technique IC	1	2
	Life Cycle Assessment IC	2,5	5				
	Materials in Resource Management IC	2	4				
	Process Technology IC	2,5	5				
	Product Development IC	1,5	3				
	Quality Management IC	1,5	3				

Abbreviations

ECTS ECTS Credits

EX Exercise

IC Integrated Course

PR

Practical

SCH Semester Credit Hours

SE

Seminar

More information: www.fh-campuswien.ac.at/nrm-b-en

Secretary's Office: nrm@fh-campuswien.ac.at | +43 1 606 68 77-3565



Bioinformatics | Master's Degree Program

The Perfect Combination

You are a natural scientist with basic IT knowledge. You want to work on and answer biological questions with computer science methods. Analytical and process-oriented thinking come easy to you. You are solution-oriented and enjoy working in teams and on projects at the interface of various disciplines. You have an adequate knowledge of English.

Focus On Medical Biotechnology

In the Master's degree program Bioinformatics you will develop algorithms and programs with which biochemical processes can be simulated and molecular biological data analyzed. The program represents digitalization in biotechnology and ranges from medical research to data-driven optimization in pharmaceutical production. Numerous R&D projects offer you the opportunity to work on cutting-edge applications and to establish valuable contacts for your professional future.

Bioinformaticians Urgently Wanted!

As a graduate you will work in a biotechnological research company in the biopharmaceutical industry, in industrial biotechnology or in medical and molecular biology research. However, you can also offer your know-how and skills as an independent bioinformatics service provider.

Overview



4 Semesters
120 ECTS



Master of Science
in Engineering (MSc)



Organizational form
Part-time



22
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
German



Tuition fee/semester
€ 363.36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students

Head of Degree Program: Dr. Michael Maurer



Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Basics of Algorithms LE	1	2
	Data Mining and Visualization IC	1	2
	Databases LE	2	4
	Introduction to Linux and Shells scripting IC	1	2
	Introduction to Programming IC	2,5	5
	Proteomics IC	1,5	3
	Selected chapters of Mathematics LE	1	2
	Statistics IC	1,5	3
	Transcriptomics and Genomics IC	2	4
	Transcriptomics and Genomics Practice EX	1,5	3
2 nd SEMESTER 30 ECTS	Applied Programming Practice IC	3	6
	Data Analysis Laboratory LAB	2	4
	Database Systems IC	1,5	3
	Machine Learning Methods IC	1	2
	Master Thesis Preparation SE	0,5	1
	Medical Analysis of Genoms LE	1	2
	Selected Chapters of Bioinformatics SE	1	2
	Software Development IC	3	6
	Specific Statistics Practice EX	1	2
	Structure Prediction in Biopolymers LE	1	2

	LECTURE	SCH	ECTS
3 rd SEMESTER 30 ECTS	Automation Practice IC	3	6
	Biotechnological Seminar SE	0,5	1
	Business Plan and Cost Accounting IC	2	4
	Clinical Bioinformatics IC	1,5	3
	Computational Systems Biology IC	1,5	3
	Innovation and Entrepreneurship IC	1	2
	Metagenom Analysis IC	1	2
	Molecular Design IC	1,5	3
	Network and Internet Technologies IC	1	2
	Patenting IC	1	2
	Validation of Software and Medical Devices LE	1	2
4 th SEM 30 ECTS	Master Exam		1
	Master Thesis		28
	Master Thesis Seminar SE	1	1

Abbreviations

ECTS	ECTS Credits
EX	Exercise
IC	Integrated Course
LAB	Laboratory
LE	Lecture
SCH	Semester Credit Hours
SE	Seminar

More information: www.fh-campuswien.ac.at/bif-m-en

Secretary's Office: bioengineering@fh-campuswien.ac.at | +43 1 606 68 77-3600



Bioprocess Technology | Master's Degree Program

Process Technology, Biotechnology And Laboratory

You are familiar with process technology and natural sciences. You want to improve your research competency and further develop and optimize process technologies. You think analytically and in a process-oriented and system-related manner. You enjoy working in teams, but are also open for a management position. An adequate knowledge of English is expected.

The Living Cell Makes The Difference

In bioprocess technology, biotechnological methods are transferred to technical applications in the industry. You will learn to develop manufacturing processes from the gene to the product, to transfer them to production scale and, based on simulations, to evaluate them in economic terms. You also have the opportunity to participate in research projects with the Austrian Centre of Industrial Biotechnology (acib) and renowned biotech companies.

And After Graduation!?

As a bioprocess technologist you will plan, develop and implement new biotechnological production processes and plants in the biopharmaceutical industry, industrial biotechnology, the food industry and in environmental technology. You work as project manager, lead production teams in large-scale plants, or are responsible for the accompanying quality management.

Overview



4 Semesters
120 ECTS



Diplom-Ingenieur (DI)¹
¹comparable to „Master of Science in Engineering (MSc)“



Organizational form
Part-time



18
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
German



Tuition fee/semester
€ 363.36² + ÖH premium + contribution
² maximum € 727 for third-country students

Head of Degree Program: Dr. Michael Maurer



Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Automation Tutorial LAB	1	2
	Biogas Production and Algal Technology LE	1	2
	Bioprocesses and Products LE	1,5	3
	Bioreactors and Bioprocess Engineering IC	2	4
	Differential Equations for Bioprocess Engineering IC	1	2
	Energy, Heating and Cooling Technologies I IC	1,5	3
	Measurement, Control and Automation IC	1,5	3
	Parenterals LE	1	2
	Platform Chemicals and Biopolymers IC	1,5	3
	Technical Risk Analysis IC	1	2
	Technical Risk Analysis Practice EX	1	2
	Validation IC	1	2
2 nd SEMESTER 30 ECTS	Bioprocess Engineering (Practical Course) LAB	2	4
	Downstream Processing (Practical Course) LAB	3	6
	Downstream Processing, Proteins IC	1,5	3
	Energy, Heating and Cooling Technologies II IC	1,5	3
	Enzyme Technology LE	1	2
	Pharmaceutical Technology IC	2	4
	Plant Cleaning IC	1	2
	Selected Subjects in Bioprocess Engineering and Master Thesis Preparation SE	1	2
	Specific Statistics IC	1	2
	Statistical Design of Experiments I IC	1	2

	LECTURE	SCH	ECTS
3 rd SEMESTER 30 ECTS	Biosafety and Biosecurity LE	0,5	1
	Business Plan and Cost Accounting IC	2	4
	Fermentation Practical LAB	1	2
	Industrial Facility Hygiene LE	1	2
	Innovation and Entrepreneurship IC	1	2
	Microbial Production Strains and Strain Development LE	1,5	2
	Molecular Biology Laboratory Practical LAB	1	2
	Patenting IC	1	2
	Plant Design and Construction IC	1,5	3
	Statistical Design of Experiments II EX	1	2
	Sterilization and Disinfection IC	1	2
	Technical Project Management IC	0,5	1
	Wastewater Treatment IC	1,5	3
	Water and Ventilation Technology IC	1	2
4 th SEM 30 ECTS	Master Exam		1
	Master Thesis		28
	Master Thesis Seminar SE	1	1

Abbreviations

ECTS ECTS Credits

EX Exercise

IC Integrated Course

LAB Laboratory

LE

Lecture

SCH

Semester Credit Hours

SE

Seminar

More information: www.fh-campuswien.ac.at/bvt-m-en

Secretary's Office: bioengineering@fh-campuswien.ac.at | +43 1 606 68 77-3600



Biotechnological Quality Management

Master's Degree Program

Scientific and Technical Know-How

You have fundamental know-how in natural sciences, process biotechnology and quality management. Your awareness for risk-benefit is outstanding. You think analytically and in a process-oriented manner, enjoy working in teams and on projects and are interested in a management position. Naturally, you have an adequate knowledge of English.

Unique Training

The part-time master's degree program combines technical expertise with methods of operations management. The focus is on quality management for biotechnological processes and products. The basics of Good Manufacturing Practice as well as business management optimization are taught. In addition, with this program you can take the qualification examination as an internal or external auditor for quality management systems in accordance with ISO 9001. The degree program cooperates with universities and research institutions, e.g. with the Austrian Centre of Industrial Biotechnology (acib), and maintains cooperations with renowned biotech companies.

Deployable Across a Variety of Industries

As a graduate you will work in quality assurance, quality control, product registration, plant design, auditing and/or in Good Manufacturing Practice. You will be primarily employed in the biopharmaceutical industry and industrial biotechnology, but can also be deployed in authorities, ministries, the food and feed industry or in the cosmetics industry.

Overview



4 Semesters
120 ECTS



**Master of Science
in Engineering (MSc)**



Organizational form
Part-time



18
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
German



Tuition fee/semester
€ 363.36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students

Head of Degree Program: Dr. Michael Maurer



Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Bioprocesses and Products LE	1,5	3
	Good Manufacturing Practice, Eudralex IC	1	2
	Immunology LE	1	2
	Implementation of Analytical Methods EX	1,5	2
	Introduction to GMP and Quality Management LE	1	2
	ISO 9001 IC	1,5	3
	Parenterals LE	1	2
	Physiology LE	1	2
	QM-System Development IC	1	2
	Selected Subjects in Quality Management and Master Thesis Preparation SE	1	2
	Selected topics in Quality Management LE	1	2
	Technical Risk Analysis IC	1	2
	Technical Risk Analysis Practice EX	1	2
	Validation IC	1	2

2 nd SEMESTER 30 ECTS	Auditing IC	0,5	1
	Behavior and Error Performance SE	1	2
	Biopharmakology LE	1,5	3
	External and Internal Auditing LE	0,5	1
	Introduction to Operations Research LE	1	2
	Optimization Methods EX	1	2
	Pharmaceutical Technology IC	2	4
	Process Modelling and Simulation IC	2,5	5
	QM in Food Production LE	1	2
	Six Sigma, Lean, Kaizen IC	2	4
	Specific Statistics IC	1	2
	Specific Statistics Practice EX	1	2

	LECTURE	SCH	ECTS
3 rd SEMESTER 30 ECTS	Accreditation and Auditing IC	1	2
	Biosafety and Biosecurity LE	0,5	1
	Business Plan and Cost Accounting IC	2	4
	Data Mining and Visualization IC	1	2
	Energy Technology for Quality Management IC	1	2
	Good Clinical Practice and Pharmacovigilance LE	1	2
	Industrial Facility Hygiene LE	1	2
	ISO 45001 and integrated QM LE	0,5	1
	Materials Stream and Environmental Management IC	1	2
	Quality Control and Quality Assurance in the Laboratory IC	2,5	4
	Regulatory Requirements in Drug Licensing IC	1,5	3
	Statistical Process Control IC	1,5	3
	Sterilization and Disinfection IC	1	2

4 th SEM 30 ECTS	Master Exam	1	
	Master Thesis	28	
	Master Thesis Seminar SE	1	1

Abbreviations

ECTS	ECTS Credits
EX	Exercise
IC	Integrated Course
LE	Lecture
SCH	Semester Credit Hours
SE	Seminar

More information: www.fh-campuswien.ac.at/bioqu-m-n

Secretary's Office: bioengineering@fh-campuswien.ac.at | +43 1 606 68 77-3600



+43 676 34 82 531

Molecular Biotechnology | Master's Degree Program

Are you passionate about medical and molecular biotechnological research?

You are looking for a position with major responsibilities in vaccine and drug development or in stem cell research. You are curious and determined to find the best solutions to problems. In human medical-biotechnological development, you want to be at the forefront. You are a team player and are looking to solve challenging problems. You want to work in a multicultural environment with English as the working language.

Your world is medical and pharmaceutical biotechnology

The English-language master's degree program in Molecular Biotechnology is unique in Austria: the emphases of the master's degree program are Molecular Medicine, Human Genetics, Drug Discovery and Immunology. You will learn about the hot topics of big data, personalized data analysis and data security. You will investigate the causes of diseases at the cellular level and learn how to develop new treatments and therapies for them. Starting in the winter semester 2022/23, you will be studying in the newly constructed building at the main campus with state-of-the-art lecture rooms and excellently equipped laboratories. The degree program is part of a large national and international network at university level.

Biotechnologists - Specialized in Research and Innovation

As a graduate you are mainly involved in medical and pharmaceutical research and development. You also possess the necessary entrepreneurial know-how to ground your own start-up or you may decide to study for a doctorate at an Austrian or an international university.



Overview



4 Semesters
120 ECTS



Master of Science
in Natural Sciences (MSc)



Organizational form
Full-time



40
Study places



Main Campus
Favoritenstraße 222
1100 Vienna

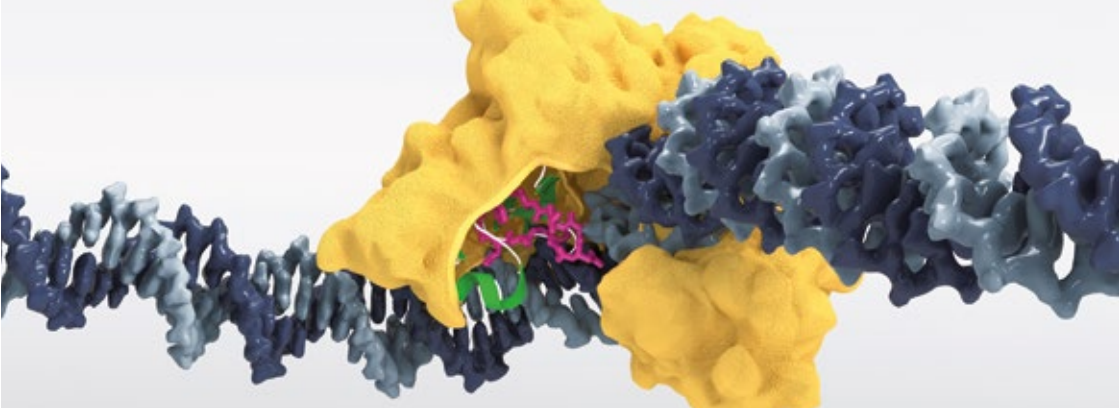


Language of instruction
English



Tuition fee/semester
€ 363.36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students

Head of Degree Program: Dr. Beatrix Kuen-Krismer



Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Bioethics IC	1	1
	Bioinformatics IC	2	2
	Clinical Drug Development IC	1	1
	General Pathology LE	2	3
	Intercultural Teams in Interdisciplinary Projects IC	1	1
	Medical Genetics LE	2	2
	Medical Genetics LAB	2	2
	Molecular Genetics LE	1,5	2
	Molecular Immunology LE	2	3
	Molecular Pathology LE	2	3
	RNA LE	1	2
	RNA Analysis LAB	3	3
	Scientific Communication I IC	2	3
	Vascular Biology LE	1	2
2 nd SEMESTER 30 ECTS	Biologicals LE	1	1
	Drug Screening LE	1	1
	Intellectual Property and Patent Law LE	1	1
	In silico Biology IC	3	3
	Infection Biology LE	2	2
	Innovation in Biotechnology & Start-ups IC	2	2
	Molecular Pathology LAB	3	3
	Molecular Virology LE	1	2
	Scientific Communication II IC	2	2
	Signalling Pathways LE	1	2
	Signalling Pathways LAB	3	3
	Stem Cells LE	1,5	2
	Stem Cells LAB	2,5	3
	Electives (1 ECTS of your choice)		
	1. RNA SE	1	1
	2. Drug Discovery SE	1	1
	3. Molecular Immunology SE	1	1
	Electives (2 ECTS of your choice)		
	1. Therapeutic Strategies LE	1	2
	2. Vaccine Development LE	1	2

	LECTURE	SCH	ECTS
3 rd SEMESTER 30 ECTS	Allergies & Autoimmune Diseases LE	1	2
	Computational Data Analysis IC	2	2
	Drug Design LE	2	2
	Gene Therapy LE	1	2
	Mass Spectrometry IC	2	2
	Master Project Seminar IC	1	1
	Molecular Immunology LAB	3	3
	Molecular Neurobiology LE	2	3
	Molecular Pharmacology IC	2	3
	Strategic Business Management IC	2	2
	Toxicology LAB	3	3
	Tumour Biology LE	2	3
	Electives (1 ECTS of your choice)		
	1. Computer-assisted Systems & Data Integrity IC	1	1
	2. Pharmacovigilance & Regulatory Affairs IC	1	1
	Electives (1 ECTS of your choice)		
	1. Scientific Method: Drug Discovery SE	1	1
	2. Scientific Method: Immunology SE	1	1
4 th SEM 30 ECTS	Master Exam		2
	Master Thesis		28

Abbreviations

ECTS	ECTS Credits
IC	Integrated Course
LAB	Laboratory
SE	Seminar
SCH	Semester Credit Hours
LE	Lecture

More information: www.fh-campuswien.ac.at/mb-m-en

Secretary's Office: biotechnologie@fh-campuswien.ac.at | +43 1 606 68 77-3500



Packaging Technology and Sustainability

Master's Degree Program

Help Shaping the Future - with Packaging

You have a technical and scientific background. Avoiding food waste and conserving resources is important to you. You optimize production processes in an ecological, economic and social context. If you are also looking for a leadership position, this master's degree program is ideal for you.

From Packaging Technology to Management Skills

This English-language degree program is divided into four main topics: Packaging Technology, Sustainability, Management and Science and Research. You will learn about the latest technologies for the production as well as filling and packaging process of packaging materials. Know-how in scientific working and research management as well as soft skills prepare you for a leading position. Work experience and employment are beneficial, but not a prerequisite for the degree program.

Growing Markets Require Qualified Staff

The packaging industry is growing strongly and needs more qualified personnel in the future - especially internationally. As a graduate, you have excellent opportunities with your economic and technical background. Thanks to your knowledge of a wide variety of materials in the packaging field and your proficiency in technical English, you will find opportunities internationally as a specialist or manager in production and packaging development, quality assurance, packaging-specific purchasing and sales, in marketing and design as well as in research.

Overview



4 Semesters
120 ECTS



**Master of Science
in Engineering (MSc)**



Organizational form
Part-time



26
Study places



Main Campus
Favoritenstraße 222
1100 Vienna



Language of instruction
English



Tuition fee/semester
€ 363,36¹ + ÖH premium + contribution
¹ maximum € 727 for third-country students



Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Advanced Packaging Technology IC	3	6
	Life Cycle Assessment I IC	1,5	3
	Methods in Resource Management IC	2	4
	Presentation Techniques IC	1	2
	Research and Project Management IC	2,5	5
	Scientific English in Packaging Technology I IC	1,5	3
	Scientific Working IC	1,5	3
	Statistics in Scientific Working IC	2	4
2 nd SEMESTER 30 ECTS	Conflict and Moderation Techniques IC	1	2
	Innovation, Entrepreneurship & Strategy IC	3	6
	Leadership IC	1	2
	Legal Aspects in Sustainability IC	2	4
	Life Cycle Assessment II IC	1,5	3
	Packaging Testing Systems and Technology IC	3	6
	Scientific English in Packaging Technology II IC	1,5	3
	Sustainability and Resource Management IC	2	4

	LECTURE	SCH	ECTS
3 rd SEM 30 ECTS	Elective I LE	1,5	3
	Elective II LE	1,5	3
	Financial Management IC	3	6
	Managerial Economics IC	3	6
	Regulatory Affairs IC	1	2
	Toxicology IC	2	4
	Trends and Future Markets in Packaging IC	3	6
4 th SEM 30 ECTS	Elective III LE	1,5	3
	Master Seminar SE	1,5	3
	Master Thesis		18
	Packaging Development and Design IC	3	6

Abbreviations

ECTS	ECTS Credits
IC	Integrated Course
SE	Seminar
SCH	Semester Credit Hours
LE	Lecture

More information: www.fh-campuswien.ac.at/pts-m-en

Secretary's Office: pts@fh-campuswien.ac.at | +43 1 606 68 77-3565



Overview of Diversity

APPLIED LIFE SCIENCES

BACHELOR

- Bioengineering | PT
- Molecular Biotechnology | FT
- Packaging Technology | PT
- Sustainable Management of Resources | PT

MASTER

- Bioinformatics | PT
- Bioprocess Technology | PT
- Biotechnological Quality Management | PT
- Molecular Biotechnology | FT
- Packaging Technology and Sustainability | PT

BUILDING AND DESIGN

BACHELOR

- Architecture – Green Building | FT
- Civil Engineering and Construction Management | PT | FT

ACADEMIC COURSES

- Technical Building Equipment | PT

MASTER

- Architecture – Green Building | FT
- Civil Engineering and Construction Management | PT
- Technical Building Equipment | PT

HEALTH SCIENCES

BACHELOR

- Biomedical Science | PT | FT
- Dietetics | FT
- Logopedics – Phoniatrics – Audiology | FT
- Midwifery | FT
- Occupational Therapy | PT | FT
- Orthoptics | FT
- Physiotherapy | PT | FT
- Radiological Technology | FT

ACADEMIC COURSE

- Sonography | PT

MASTER

- Health Assisting Engineering | PT

APPLIED NURSING SCIENCE

BACHELOR

- Health Care and Nursing | FT

ACADEMIC COURSES

- Health Care and Nursing, Practice Mentoring | PT
- Primary Health Care Nursing | PT
- Public Health | PT

MASTER

- Advanced Nursing Counseling | PT
- Advanced Nursing Education | PT
- Advanced Nursing Practice – Focus On Nursing Management | PT
- Health Assisting Engineering | PT

SOCIAL WORK

BACHELOR

- Social Management in Early Education and Care | PT
- Social Work | PT | FT

MASTER

- Spatial and Clinical Social Work | PT
- Children- and Family-Centered Social Work | PT
- Social Economy and Social Work | PT

ENGINEERING

BACHELOR

- Applied Electronics | PT
- Clinical Engineering | PT
- Computer Science and Digital Communications | PT | FT
- High Tech Manufacturing | FT

ACADEMIC COURSE

- Functional Safety for Automotive ISO 26262 | PT

MASTER

- Electronic Systems Engineering | PT
- Green Mobility | PT
- Health Assisting Engineering | PT
- High Tech Manufacturing | PT
- IT-Security | PT
- Multilingual Technologies | PT
- Safety and Systems Engineering | PT
- Software Design and Engineering | PT
- Technical Management | PT

ADMINISTRATION, ECONOMICS, SECURITY, POLITICS

BACHELOR

- Integrated Safety and Security Management | PT
- Public Management | PT
- Tax Management | PT


MASTER


- Digital Transformation & Tax Technology Management MBA | PT
- Digitalization, Politics and Communication | PT
- Integrated Riskmanagement | PT
- International Relations and Urban Policy | PT
- Leadership, Politics and Management | PT
- Public Management | PT
- Tax Management | PT

PT ... Part-time, FT ... Full-time

In partnership with

 Bundesministerium
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With more than 8,000 students at three campuses and five partner locations, FH Campus Wien is Austria's largest university of applied sciences. The departments of Applied Nursing, Applied Life Sciences, Building and Design, Health Sciences, Social Work, Engineering as well as Administration, Economics, Security, Politics offer a choice of more than 60 part-time and full-time degree programs and courses. Application-oriented research and development is bundled in nine specialized competence centers. Continuing education in the form of seminars, modules and certificate programs is covered by Campus Wien Academy. FH Campus Wien is committed to sustainability and is a founding member of the Alliance for Sustainable Universities.

FH Campus Wien is networked with the science, business, industry, social, public and health sectors, enabling us to offer excellent vocational training for everyone. And we mean everyone, with contact points for people with physical disabilities, chronic illnesses and an Equal Treatment Unit.

FH Campus Wien
Favoritenstraße 222
1100 Vienna
U1 Altes Landgut
T: +43 1 606 68 77-6600
office@fh-campuswien.ac.at
www.fh-campuswien.ac.at