

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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Biotech and Packaging at its Best

The Applied Life Sciences Department is located at two strategic locations in Vienna, where we offer degree programs focussing on natural sciences and engineering. Teaching and research take place at both of these locations.

Muthgasse

The technically-oriented degree programs in Bioengineering, Bioinformatics, Biotechnological Quality Management and Bioprocess Technology are located at the biotechnology campus in the Muthgasse. There, we cooperate closely with renowned biotech companies and the University of Natural Resources and Life Sciences, Vienna (BOKU). Together with the BOKU, we share research and education facilities and the excellent infrastructure that our students and researchers use.



Vienna BioCenter

The second department location is the renowned Vienna BioCenter in the Helmut-Qualtinger-Gasse. Here we offer the degree programs from the Biotechnology Section – bachelor's degree in Molecular Biotechnology, master's degree in Molecular Biotechnology - and from the Packaging and Resource Management Section – bachelor's degrees in Sustainable Management of Resources, and in Packaging Technology, master's degree in Packaging Technology and Sustainability. The Vienna BioCenter is an internationally leading biomedical research hub. We have a lively relationship with the research institutions and biotech companies at the BioCenter.



Part of
Vienna
BioCenter

International Research

As a recognized and competent research partner, the Applied Life Sciences department currently cooperates with reputed universities, research and medical institutions and is constantly working on new project ideas for which third-party funds and partners are acquired. Students are involved in research activities early on in their education and are able to participate in projects.

Three Research Fields

Our research work concentrates primarily on medical-biopharmaceutical and industrial biotechnology. At the FH Campus Wien, the research activities of the Applied Life Sciences are focussed on three research fields: Biotechnology, Molecular Biotechnology and Sustainability and Packaging research.

Biotechnology research is currently concerned with the development of new substances and processes that enable efficient pharmaceutical production. The researchers in this area work mainly on bioinformatics and bioprocess technology.

Molecular Biotechnology research, including the competence centre of the same name, comprises two research groups - Allergy Research and Signalling Pathways/Cell Based Test Systems - which are currently working on the analysis of allergies and other inflammatory reactions and also on



cell-based test systems for the assessment of the tolerance of materials and substances. The Competence Center for Sustainable and Future Oriented Packaging Solutions 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.

Microbial World Map

Everyone who travels on the subway comes into contact with bacteria and other microorganisms. An international research consortium has been 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 develops methods to analyse these data.

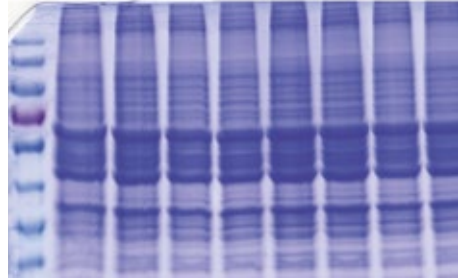
Scientific Brewhouse

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".



Diagnosis: Meat Allergy

In the Vienna BioCenter laboratories, researchers are working on improving the diagnosis of 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.



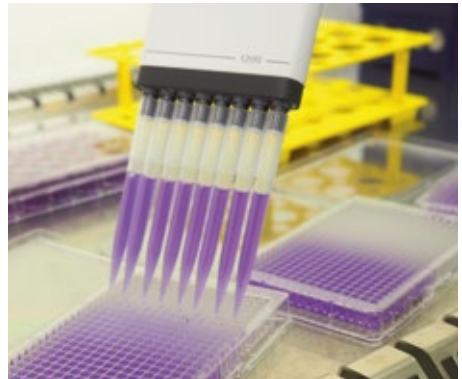
Well-Tolerated Medical Devices

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.



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.

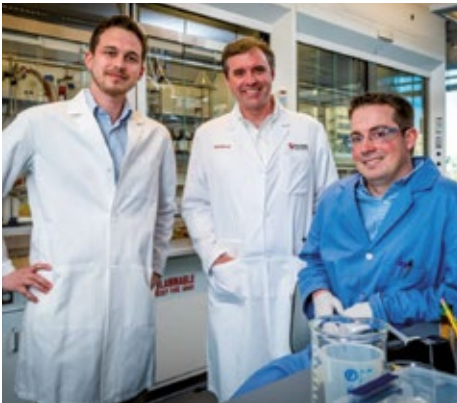


Global Network

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 medical-pharmaceutical industry, the chemical industry and to brewing and fermentation technology. What makes the program special is that the campus in the Muthgasse is at the heart of a biotechnology cluster.

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



FH Campus Wien
1190 Vienna



Language of instruction
German



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

Head of Degree Program: FH-Prof. DI Dr. Michael Maurer

Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Analytical and physical Chemistry LE	2	3
	General and inorganic Chemistry LE	2,5	5
	General Chemistry I (practical Course) LAB	1	1
	General Microbiology LE	2	4
	Introduction to organic Chemistry LE	1	2
	Mathematics LE	2	4
	Microbiological Microscopy (practical Course) LAB	0,5	1
	Physics LE	1,5	3
	Statistics for chemical Analysis LE+EX	1,5	3
	Stoichiometry and quantitative chemical Analysis LE	1,5	2
Tutorial in Mathematics EX	1	2	
2 nd SEMESTER 30 ECTS	Bioorganic Chemistry LE	1	3
	General Chemistry II (practical Course) LAB	2	2
	General Chemistry III (practical Course) LAB	3	4
	Hydraulics and fluid Mechanics LE	1	2
	Mechanical Engineering I LE	2	5
	Microbiologic Methods LE+EX	0,5	1
	Organic Chemistry LE	2	4
	Specific Microbiology LE	2	4
3 rd SEMESTER 30 ECTS	Technical Drawing, Mechanical Engineering LE+EX	0,5	1
	Technical Mathematics LE+EX	2	4
	Biochemistry LE	2	4
	Calculations in Process Engineering LE+EX	2	5
	Electrical Engineering LE	1,5	3
	General Microbiology (practical course) LAB	3	3
	Introduction to the biochemical Exercises LE+EX	0,5	1
	Mechanical Engineering II LE	2	4
4 th SEMESTER 30 ECTS	Molecular Genetics and Straindevelopment LE	2	4
	Thermo-mechanical Process Engineering LE	2	4
	Tutorial for Calculations in Process Engineering EX	0,5	2
	Basics of Bioprocess Engineering LE	2	4
	Bioanalytics LE	2	3
	Biochemistry (practical Course) LAB	2,5	3
	Brewing and Fermentation Technology LE	2	4
	Calculations in Bioprocess Engineering LE+EX	1	2
5 th SEMESTER 30 ECTS	Cell Biology LE	2	4
	Measurement, Control -and Sensor Technology LE+EX	1,5	3,5
	Programming and Bioinformatics LE+EX	1	3,5
	Technical Microbiology LE	2	3

	LECTURE	SCH	ECTS	
5 th SEMESTER 30 ECTS	Animal Cell Technology LE	1	2	
	Applied Statistics LE	1	2	
	Introduction to GMP and Quality Management LE	1	2	
	Molecular Genetics (practical Course) LAB	2	3	
	Molecular Genetics (practical Course) - Project Preparation SE	1	1	
	Practical Course: Fermentation Technology LAB	3,5	5	
	Quality Control LE	1	2	
	Statistics (practical Course) EX	1	4	
	Specialization Bioprocess Technology			
	Biotechnological Plant Engineering and Automation LE	2	5	
6 th SEMESTER 30 ECTS	GMP (practical Course) SE	1	4	
	Specialization Informatics			
	Bioinformatic Data Analysis (Statistics) EX	1	2	
	Bioinformatics LE	0,5	1	
	Programming LE+EX	1,5	6	
6 th SEMESTER 30 ECTS	Aseptic Filling LE	0,5	1	
	Downstream-Processing, Metabolites LE	1	2	
	Downstream-Processing, Proteins LE	1	2	
	Fermentation (Practical Course) LAB	1,5	2	
	Plant Hygiene LE	1	2	
	Practical Training PR		7,5	
	Practical Training - Reflection SE	0,5	0,5	
	Specialization Bioprocess Technology			
	Bachelor Thesis - Supervision - BVT LE+EX	2	2	
	Downstream Processing (Practical Course) LAB	1	1	
6 th SEMESTER 30 ECTS	Facility Design, GMP-Project, Bachelor Thesis SE	5	10	
	Specialization Informatics			
	Bachelor Thesis - Supervision - BVT LE+EX	2	2	
	Linuxbased Systems and Data Base LE+EX	1	1	
	Programme Design, Automation, Bachelor Thesis SE	5	10	

Abbreviations

ECTS	ECTS Credits
EX	Exercise
LAB	Laboratory
LE	Lecture
PR	Practical
SCH	Semester Credit Hours
SE	Seminar

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

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



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. The location of the degree program is the renowned Vienna BioCenter with ultra-modern lecture halls and well-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



FH Campus Wien
1030 Vienna



Language of instruction
German



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

Head of Degree Program: FH-Prof. Mag. Dr. Beatrix Kuen-Krismer



Curriculum

	LECTURE	SCH	ECTS		LECTURE	SCH	ECTS
1st SEMESTER 30 ECTS	Analytical Chemistry I LE	1	1	4th SEMESTER 30 ECTS	Applied Microbiology LE	2	2,5
	Analytical Chemistry I LAB	6	6		Biochemistry III: Bioenergetics and Metabolism LE	1,5	2
	Business Studies LE	1	1		English in Science & Career II IC	2	2
	General Biology LE	2	3		Gene Expression LE	1	2
	General Cell Biology LE	1,5	2		Genome Organization IC	1	2
	General Chemistry LE	2	3		GxP LE	4	5
	Mathematics for Biology I IC	3	3		Instrument-based Analytics LE	2	3
	Microscopy Lab LAB	1,5	3		Microbiological Lab Techniques LAB	2,5	2,5
	Molecular Biology & Genetics I LE	2	3		Project Management IC	2	2
	Public Law LE	2	2		Protein & Enzyme Biochemistry LAB	3	3
	Scientific Communication in English IC	2	2		Protein Expression & Purification LAB	3	3
Social Skills I IC	1	1	Social Skills IV: Moderation & Problem Solving IC	1	1		
2nd SEMESTER 30 ECTS	Biochemistry I: Foundations & Building Blocks of Life LE	1,5	2	5th SEM 30 ECTS	Bachelor Thesis I & Scientific Method SE		5
	Cell Biology of the Eukaryotes LE	2	3		Industry Practical PR		25
	Cell Culture LE	1	1	6th SEMESTER 30 ECTS	Applied Genomics LE	2	3
	Chemical Calculation IC	0,5	0,5		Bachelor Exam		2
	Civil Law LE	2	2		Clinical aspects of immunology LE	1	2
	Inorganic Chemistry LE	1	2		Developmental Biology LE	2	3
	Mathematics for Biology II IC	2,5	2,5		Ethics IC	1	1
	Methods of DNA analysis LE	1	2		Histology LE	2	3
	Molecular Biology & Genetics II LE	2	3		Human Physiology LE	2	3
	Organic Chemistry LE	2	3		Intercultural Competence IC	1	1
	Quantitative Analytical Chemistry LE	1	1		Marketing & Product Lifecycle Management IC	2	2
	Quantitative Analytical Chemistry LAB	3	3		Model Organisms LE	1	2
	Scientific Communication in English II IC	2	2		Organic Chemistry LAB	3	3
Social Skills II: Self-Coaching & Communication IC	1	1	Reflection of Internship SE		2	2	
Statistics for Biology I IC	2	2	Tissue Engineering LE		2	3	
3rd SEMESTER 30 ECTS	Biochemistry II: Structure Formation, Biorecognition & Catalysis LE	1,5	2	Abbreviations			
	Bioinformatics IC	3	3	ECTS ECTS Credits	PR	Practical	
	Cell Culture Laboratory LAB	3	3	IC Integrated Course	SCH	Semester Credit Hours	
	English in Science & Career I IC	2	2	LAB Laboratory	SE	Seminar	
	Fundamentals of Microbiology LE	1,5	2	LE Lecture			
	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				

More information:

www.fh-campuswien.ac.at/mb_b-en
 Secretary's Office: +43 1 606 68 77-3500
 biotechnology@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 a 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



FH Campus Wien
1030 Vienna



Language of instruction
German



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

Head of Degree Program: FH-Prof.ⁱⁿ Dipl.-Ing.ⁱⁿ Dr.ⁱⁿ Silvia Apprich



Curriculum

	LECTURE	SCH	ECTS
1st SEMESTER 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
2nd 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
Qualitymanagement and Occupational Safety IC	1,5	3	
	Team and Leadership IC	1	2
3rd SEMESTER 30 ECTS	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
4th SEMESTER 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
5th SEMESTER 30 ECTS	Bachelorthesis SE	2	10
	Professional Traineeship PR		19
	Reflection of Professional Traineeship SE	1	1
6th SEMESTER 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
EX	Exercise
LE	Lecture
PR	Practical
SCH	Semester Credit Hours
SE	Seminar

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



FH Campus Wien
1030 Vienna



Language of instruction
German



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

Head of Degree Program: Univ.-Doz. Mag. Dr. Manfred Tacker



Curriculum

	LECTURE	SCH	ECTS
1 st SEMESTER 30 ECTS	Accounting and Controlling IC	2	4
	Business Management - Basics IC	2	4
	Environmental Legislation IC	2	4
	Introduction to Resource Management IC	2	4
	Legal Basics IC	1,5	3
	Methods of Resource Management IC	1,5	3
	Physics and Mathematics in Resource Management IC	4	8
2 nd SEMESTER 30 ECTS	Business Ethics and CSR IC	1,5	3
	Chemistry in Resource Management IC	2,5	5
	Environmental Biology and Hygiene IC	2	4
	International Product Compliance IC	1,5	3
	Introduction to Corporate IT IC	1	2
	Organization of Production and Labor SE	1	2
	Sustainable Management of Resources IC	2,5	5
3 rd SEMESTER 30 ECTS	Waste Legislation IC	3	6
	Advances Quality Management IC	1	2
	Ecodesign IC	1,5	3
	Exercises - Life Cycle Assessment EX	2,5	5
	Life Cycle Assessment IC	2,5	5
	Materials in Resource Management IC	2	4
	Process Technology IC	2,5	5
3 rd SEMESTER 30 ECTS	Product Development IC	1,5	3
	Quality Management IC	1,5	3

	LECTURE	SCH	ECTS
4 th SEMESTER 30 ECTS	Environmental and Resource Economics IC	2	4
	Environmental Management Systems IC	1,5	3
	Introduction to Waste Management IC	2,5	5
	Material Flow Management - Processoptimization IC	3	6
	Material Flow Management (Bachelor Thesis) SE	2	4
	Resource Management for Production and Retailing IC	1	2
	Waste Management and Recycling Technologies IC	3	6
5 th SEM 30 ECTS	Bachelor Thesis 2 SE	2	10
	Reflections on Practical Experience SE	1	1
	Vocational Internship PR		19
6 th SEMESTER 30 ECTS	Industry Specialization 1 IC	2,5	5
	Industry Specialization 2 IC	2,5	5
	Logistics IC	1,5	3
	Marketing and Product Management IC	1,5	3
	Operational and Commercial Excellence IC	1,5	3
	Processmanagement IC	2,5	5
	Purchasing and Supply-Chain-Management IC	2	4
Rhetoric and Negotiation Technique IC	1	2	

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 is focused on molecular biology and is tailored to the requirements of medical-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



FH Campus Wien
1190 Vienna



Language of instruction
German



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

Head of Degree Program: FH-Prof. DI 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
4 th SEM 30 ECTS	Validation of Software and Medical Devices LE	1	2
	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 University of Natural Resources and Applied Life Sciences, Vienna (BOKU), 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



FH Campus Wien
1190 Vienna



Language of instruction
German



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

Head of Degree Program: FH-Prof. DI 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 program works closely together with the University of Natural Resources and Applied Life Sciences, Vienna (BOKU), the Austrian Centre of Industrial Biotechnology (acib) and 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



FH Campus Wien
1190 Vienna



Language of instruction
German



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



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-en

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



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. The degree program is taught at the renowned Vienna BioCenter, one of Europe's hotspots for life science. 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



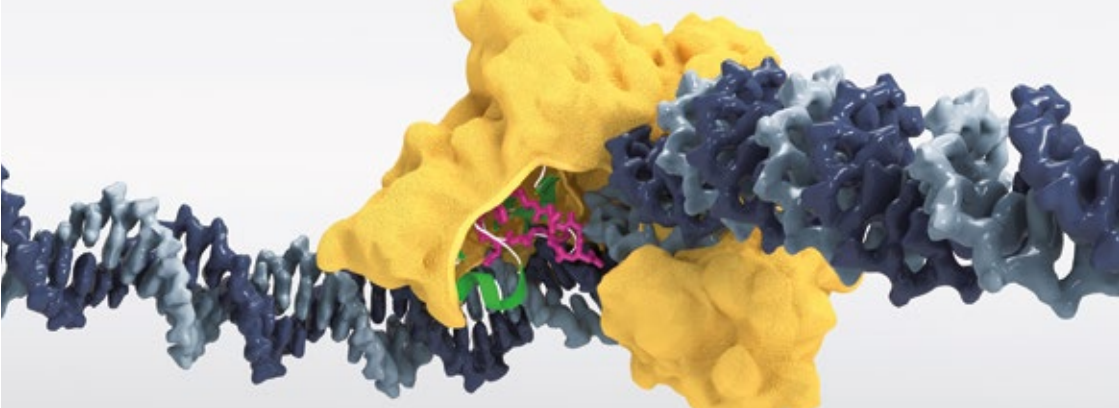
FH Campus Wien
1030 Vienna



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	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

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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



FH Campus Wien
1030 Vienna



Language of instruction
English



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



Curriculum

	LECTURE	SCH	ECTS
1st 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
2nd 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
3rd 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
4th SEM 30 ECTS	Trends and Future Markets in Packaging IC	3	6
	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
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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

- > Civil Engineering and Redevelopment Technology for the Real Estate Sector | PT
- > Technical Building Equipment | PT

MASTER

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

HEALTH SCIENCES

BACHELOR

- > Biomedical Science | FT
- > Dietetics | FT
- > Logopedics - Phoniatics - Audiology | FT
- > Midwifery | FT
- > Occupational Therapy | FT
- > Orthoptics | FT
- > Physiotherapy | FT
- > Radiological Technology | FT

ACADEMIC COURSE

- > Sonography | PT

MASTER

- > Biomedical Science | PT
- > Health Assisting Engineering | PT
- > Holistic Therapy and Salutogenesis | PT

APPLIED NURSING SCIENCE

BACHELOR

- > Health Care and Nursing | FT

ACADEMIC COURSE

- > Health Care and Nursing, Practice Mentoring | 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
- › 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

- › Digitalization, Politics and Communication | PT
- › Integrated Riskmanagement | PT
- › International Relations and Urban Policy² | PT
- › Leadership, Politics and Management | PT
- › Public Management | PT
- › Tax Management | PT


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

²subject to approval by the relevant bodies

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With almost 7,000 students, FH Campus Wien is the largest university of applied sciences in Austria. In the Departments Applied Nursing Science, Applied Life Sciences, Building and Design, Health Sciences, Social Work, Engineering and Administration, Economics, Security, Politics, FH Campus Wien offers more than 60 full-time and part-time degree programs and academic courses. Continuing education in the form of seminars, modules and certificate programs is covered by the Campus Wien Academy.

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 is certified with the Eco-label.

FH Campus Wien Applied Life Sciences Campuses

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