

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
1100 Vienna, as of winter
semester 2022/23



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

