FH University of Applied Sciences TECHNIKUM WIEN

Language ENGLISH

MASTER'S PROGRAM

TISSUE ENGINEERING AND REGENERATIVE MEDICINE

Artificial production of biological tissues and regenerative medicine are the focus of this research-oriented degree program that combines biology, medicine, and engineering.

Students are introduced to two new fields of biomedical science: The goal is to replace defective parts in the human body, on the one hand, and to stimulate the body's own processes for regeneration, on the other. The possibility of producing usable, natural human tissue such as skin, muscles or bones in the laboratory is one of the great challenges of medicine. International research and development of new therapies in these areas is booming. Students benefit from a close connection to current research.

DURATION: **4 SEMESTER**	DEGREE: **MASTER OF SCIENCE IN ENGINEERING**	
LANGUAGE: **ENGLISH**	ADMISSION PLACES: **60**	ORAGNISATION FORM: **EVENING FORM**
COST: **€ 363,36 TUITION FEE, € 26,20 ÖH FEE / € 3.000 Tuition fees for students from third countries**		

CHANGE OUR TOMORROW

„We bring students, researchers, and experts together to learn hands-on, with a strong focus on connecting engineering, cell biology, medicine, and bioinformatics. From cell culture and biomaterials to bioprinting, gene editing, omics and AI-based analysis, students explore technologies shaping the future of tissue engineering and regenerative medicine."
Andreas Teuschl-Woller, Program Director



1st SEMESTER	ECTS
Biological Processes in Regeneration	5.00
Molecular and Cellular Biology in Regenerative Medicine	
Biomacromolecular Chemistry	5.00
Biomaterials in Tissue Engineering	
Protein Chemistry	
Economics and Sustainability in Molecular Life Sciences	5.00
Corporate Management	
Sustainability and Ethics in Work and Engineering	
Evaluation and Reporting in Molecular Life Sciences 1	5.00
Project Process and Team Management 1	
Reporting and Data Presentation	
Introduction to Tissue Engineering	5.00
Showcases of Tissue Engineering Approaches	
Stem Cell Basics	
Laboratory Work in Teams	5.00
Project Laboratory 1	

2nd SEMESTER	
Evaluation and Reporting in Molecular Life Sciences 2	5.00
Management for Quality in Biomedicine	
Project Process and Team Management 2	
Overview Specialisations	5.00
Overview and selected Usecases in Bioinformatics & Bioengineering	
Pharma- and Biotechnology	5.00
Biotechnology & Extracellular Vesicles	
Project Management and Legal Issues for (Bio-)Pharmaceutical Products	
Regulation of Signaling Pathways	5.00
Bioreactors and Biophysical Pathways	
Gene Regulation and Signal Transduction	
Scientific Research Design, Evaluation and Communication	5.00
Study Design and Biostatistics	
Writing Scientific Englisch	
Training for Master Project	5.00
Project Laboratory 2	

3rd SEMESTER	
Immunologic and Vascular Considerations	5.00
Advanced Immonology and vascular TE	
Stem Cell Applications	
Pharmaeconomics and Marketing	5.00
Case Studies in Pharmaceutical Industries	
Economics and Marketing	
Specialisations - to choose	20.00
Bioengineering	
Biomechanics & Simulation	
Bioprinting	
Gene Editing Bioengineering	
Model Systems	
Bioinformatics	
AI as a Life Science Tool	
Coding Languages	
Gene Editing Bioinformatics	
Omics	

4th SEMESTER	
Master Thesis	25.00
Master Thesis Seminar	5.00

CAREER PROSPECTS

Tissue engineering is an interdisciplinary area. Graduates have in-depth expertise in the fields of cell and tissue engineering and regenerative medicine. Combined with the practical experience they gain during their studies, they have many career opportunities open to them. They are employed in medical and biotechnological laboratories as well as in analytical development, quality control, process development, and various research institutions. They also meet the requirements for further doctoral studies in science and technology.

Now with specializations in bioinformatics and bioengineering

The curriculum of the Master's degree program has been revised for 2025/26 and expanded to include content on cutting-edge areas such as gene editing, bioprinting and omics technologies.

FH TECHNIKUM WIEN

FURTHER INFORMATION, CURRENT DATES AND CONTACT DATA: www.technikum-wien.at/mte