

# Master Program Biomedical Engineering

## Biomedical Engineering

### Careers

The interface between engineering and life sciences is considered as one of the most promising scientific and economical poles of the 21<sup>st</sup> century.

The professional prospects of the field of Biomedical Engineering are bright. Biomedical innovation continues to yield both improved patient well being and economical reward.

Biomedical engineers are engaged in research, development but also in implementation and operation. By creative thinking, they are involved in the design, development and assessment of biomaterials such as synthetic scaffolds for tissue regeneration or drug delivery, devices such as pacemakers or joint prosthesis and technologies such as image processing or computer simulation.

With mobility and flexibility, exciting professional activities open up to BM engineers from science to management in start-up enterprises, research facilities, international companies and governmental institutions.

Its interdisciplinary nature and close relationship with health care confers Biomedical Engineering an excellent reputation for women career advancement.

### Registration

The Master program is open to students with a bachelor degree of Vienna University of Technology or an equivalent degree from a recognized university in chemistry, civil engineering, computer science, electrical engineering, mathematics, mechanical engineering or physics.

Additionally the program is also accessible to students with bachelor degrees of other recognized institutions provided the scientific depth is comparable to the above degrees.

The registration period and procedure is administrated by the department for studies and examinations at the Vienna University of Technology:

[www.tuwien.ac.at/tu\\_vienna/teaching/admission](http://www.tuwien.ac.at/tu_vienna/teaching/admission)

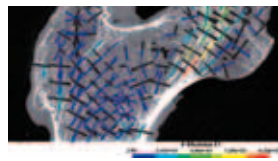


## E 066 453

## Future through Technology

code number	E 066 453
duration	4 semesters 120 ECTS
degree	Dipl.-Ing. (MSc)

<http://master-biomed.tuwien.ac.at>



# Biomedical Engineering

## Welcome

to the Master program in Biomedical Engineering (BME) of Vienna University of Technology in the heart of magnificent Vienna.

“Engineering for people” is the leading motto of this two century old institution and becomes especially true for Biomedical Engineering which aims to improve quality of life and meet the challenges of contemporary health care systems.

## What is Biomedical Engineering?

It represents the application of engineering principles and technologies to biology and medicine, providing an enhancement of health care. It is no longer an emerging discipline but an active and broad interdisciplinary field. It includes bioelectric phenomena, bioinformatics, biomaterials, biomechanics, bioinstrumentation, biosensors, biosignal processing, to some extent biotechnology, computational biology, medical imaging, rehabilitation engineering, tissue engineering and the associated ethical, social and economical issues.

## Motivation

The Masterprogramm in BME aims to transmit to bachelor engineers the fundamental skills and the contemporary knowledge necessary for the resolution of biomedical engineering problems in research and development.

## Facts

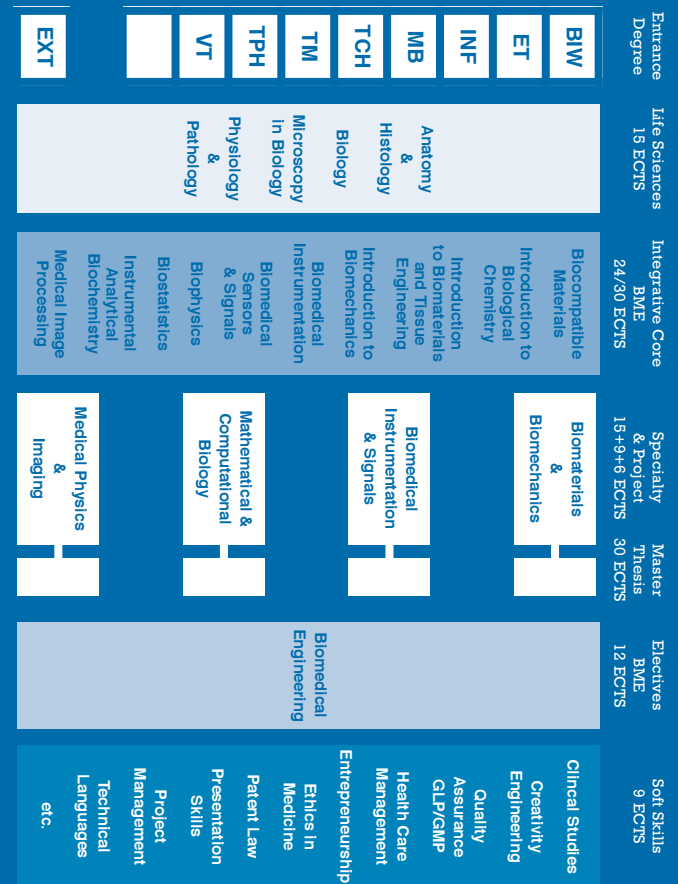
- duration of 2 years, 4 semesters or 120 ECTS
- broad interdepartmental program
- international character, most courses in english, german language is helpful but not mandatory
- research oriented master thesis
- master degree, MSc in Biomedical Engineering

## Specialities

A specialization including the research oriented master thesis is proposed in the following areas:

- Biomaterials & Biomechanics
- Biomedical Instrumentation & Signals
- Mathematical & Computational Biology
- Medical Physics & Imaging

Biomedical Engineering at the Vienna University of Technology  
Welcome/What is/Motivation



## More Information and Contact

- curricula committee Biomedical Engineering  
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The Master program is open to students with a bachelor degree of Vienna University of Technology or an equivalent degree from an recognized university in: ■ Chemistry ■ Computer Sciences ■ Mathematics ■ Physics ■ Civil Engineering ■ Electrical Engineering ■ Mechanical Engineering