

New: 100% online possible

# MEDICAL ENGINEERING AND ANALYTICS

MASTER | WORK-FRIENDLY | HYFLEX



**Location:** Online or Campus Klagenfurt  
Primoschgasse 8-10, 9020 Klagenfurt

**Duration:** 4 semesters

**Schedule:**  
Mon-Thu from 3:00 pm, Fri from 1:30 pm,  
approx. 2-3 Sat/semester (hybrid: participation  
either on-site or online)

**Academic Degree:**  
Master of Science in Engineering (MSc)

**ECTS Credits:** 120

**Language:** English

**Study places per year:** 20



The master of science program "Medical Engineering and Analytics" is designed to educate a new generation of medical engineers, who will innovate our healthcare systems. The MSc program puts the main emphasis on the current trends in medical engineering – the use of artificial intelligence, augmented and virtual reality, and as a result of the demographic change, assistive technologies. The program ensures the highest European educational standards and offers great flexibility. Our MSc program allows you to study work-friendly (on-site) and HyFlex – online with the possibility to do some lectures asynchronously at your own schedule and pace. Therefore, you can study from anywhere in the world and also combine the studies with your work and family life.

## COURSE INFORMATION

With the main focus on these current trends, this MSc program provides a specific education in deep learning, signal and image analysis, visualization, and assisted living. Hands-on training in specialized laboratories and work on projects represent other core elements of this program. We also focus on entrepreneurship and provide the students with resources and assistance to found their own startups. The "Study & Work" program offers our students the opportunity to work part-time at one of Carinthia's leading companies and thus gain professional experience already during their studies. Small groups, personal support and mentoring, and an open-door policy for all professors are our top priorities.

## JOB AND CAREERS

The Master of Science degree program "Medical Engineering and Analytics" is designed to educate highly qualified specialists in modern health technologies and analytics. Equipped with the knowledge of artificial intelligence, extended reality, and assistive technologies, our graduates will have a broad spectrum of excellent career opportunities with the most common areas being:

- R&D for production companies in the medical field,
- research at universities,
- medical image processing,
- big data analysis,
- application of artificial intelligence,
- technical support at hospitals,
- development of assistive technologies,
- software development.

# CURRICULUM

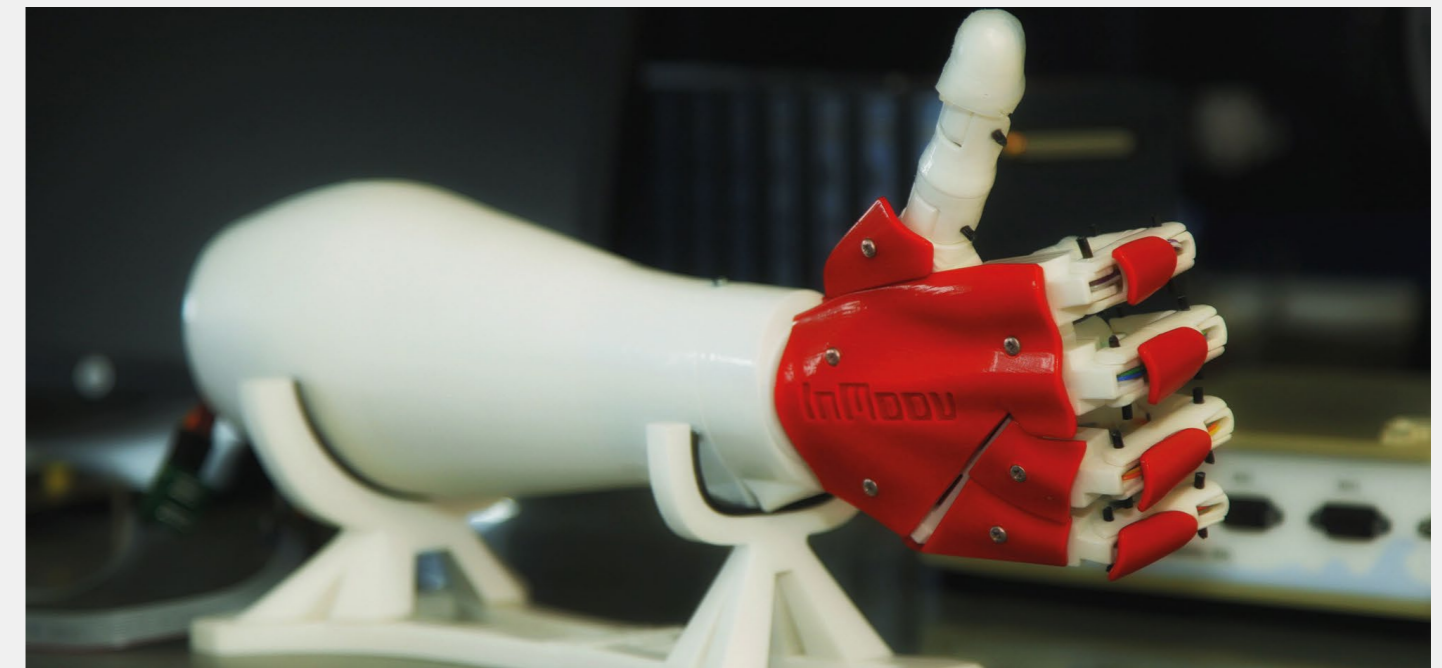
1 <sup>st</sup> Semester	ECTS
Ambient Assisted Living 1	5
Introduction to Machine Learning	5
Applied Medical Signal Analysis	5
Academic Skills	5
Statistics	5
Project (I) Prerequisites and Project Domains	5
<b>Total</b>	<b>30</b>

3 <sup>rd</sup> Semester	ECTS
Studies in Biomedical Engineering	5
Deep Learning in Medical Applications	5
Artificial intelligence in Clinical Imaging	5
Entrepreneurship	5
Neuroscience	5
Project (III) Practical Implementation	5
<b>Total</b>	<b>30</b>

2 <sup>nd</sup> Semester	ECTS
Ambient Assisted Living 2	5
Data Analytics and Neural Networks	5
Applied Medical Image Analysis	5
Augmented Visualization in Medicine	5
Smart Medical Production and Robotics	5
Project (II) Frameworks and Concept Study	5
<b>Total</b>	<b>30</b>

4 <sup>th</sup> Semester	ECTS
Master Thesis	25
Master Seminar	2
Master Exam	3
<b>Total</b>	<b>30</b>
<b>Total Sum</b>	<b>120</b>

ECTS = European Credit Transfer System



### 📅 DATES

**Start:** 1 October 2024

**Study guidance:**  
info@fh-kaernten.at | +43 5 90500 7700

**FH Days and information events:**  
all dates at [www.fh-kaernten.at/study-guidance](http://www.fh-kaernten.at/study-guidance)

### 💶 COSTS

**Tuition fee:** € 363.36 per semester  
**Student Union Fee:** around € 22, annual adjustment

### ✉ CONTACT

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**W:** www.cuas.at/mea



MEDICAL ENGINEERING