

**CO-OP PROGRAMME >  
ENGINEERING SCIENCES  
> MANAGEMENT >  
INTERDISCIPLINARY >  
INTERNATIONAL**

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**O**ur master degree programme provides a chance to explore engineering and management issues in depth. Production relevant content relating to mechanical engineering, process and automation technology, management and internationalisation are combined with a focus on ecological, economic and social sustainability.

Students undertake applied research and development projects in cooperation with universities, partner institutions and R&D centres both in Austria and abroad. The course offers three modules exploring issues of engineering and materials sciences, modern production technologies as well as production and corporate organisation.

The third semester is taught in English and focuses primarily on interdisciplinary projects. Seminars on project management and the development of research collaborations, stays abroad and cooperation projects with international universities prepare our students for challenging roles in research and industry.

FH JOANNEUM is a partner of WACE, the World Association for Cooperative Education.

**International partner network**

- University of Waterloo, Canada
- University of Victoria, Canada
- University West, Sweden
- Victoria University, Australia
- KITO Corporation, Japan
- Windesheim University, Netherlands

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**FACTS**

- Master of Science in Engineering (MSc)
- Co-op
- 4 semesters / 120 ECTS
- Language of instruction: German / English
- 25 places per year
- Head of Degree Programme:  
FH-Prof. DI Dr. Georg Wagner
- FH JOANNEUM Graz

[www.fh-joanneum.at/enp](http://www.fh-joanneum.at/enp)

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## CAREER PROSPECTS

Graduates take on management roles in corporate organisation or in projects for the introduction of new production technologies and production optimisation as well as product and process development. Their extensive knowledge provides an ideal preparation for professional life. They make a key contribution to industrial research and development and support production companies in their internationalisation strategies.

Graduates involved in implementing innovation projects in their training company, have the opportunity to undertake a doctoral degree at a university of technology.

## Training partnership:

The co-op programme requires students to spend a total of around 16 months at their training company based on a training agreement – ten months on practice modules of varying length and six months on the master's thesis at the end of the course. The theory blocks are designed in such a way that they allow students to spend up to 80% of their time at the company. Special features of the training partnership include involvement in the company's research and development activities, flexibility of the training agreement (65 to 100 % employment) and personal student responsibility for selecting the thematic content and organisational structure of the course.

CURRICULUM: 120 ECTS (30 ECTS per semester)

1st semester	2nd semester	3rd semester	4th semester
Applied Science 5 ECTS	Materials Science 5 ECTS	Advanced Production Technologies 5 ECTS	Organisation and Personnel Management 2 5 ECTS
Computer Aided Engineering and Design 5 ECTS	Automation Technology 5 ECTS	Cleaner Production 5 ECTS	Master's Thesis 20 ECTS
Reciprocating and Turbomachinery 5 ECTS	Energy Engineering and Management 5 ECTS	Sustainable Production Engineering 5 ECTS	
Environmental Technology 5 ECTS	Factory Planning 5 ECTS	Product Lifecycle Engineering 5 ECTS	
Integrated Management 5 ECTS	Organisation and Personnel Management 1 5 ECTS	Internationalization 5 ECTS	
Professional Practice 1 5 ECTS	Professional Practice 2 5 ECTS	Professional Practice 3 5 ECTS	
			Professional Practice 4 5 ECTS
Scientific Foundations	Engineering	Organisation	Practice and Key Skills