

**CONSTRUCTION MANAGEMENT >  
INDUSTRY > BRIDGES > TUNNELS >  
ENERGY EFFICIENCY > TRANSPORT >  
INTERNATIONAL PROJECTS**

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**T**he master degree programme reflects the increasing demands on functionality and building quality and increasing awareness of costs and the environment.

The programme provides specialist education in energy-efficient building design and modern support structures in structural and civil engineering. Students will be familiarised with project management tools and the legal basics required for drawing up and interpreting building contracts.

The application and networking of knowledge in comprehensive problem-oriented projects will additionally foster their understanding of processes and procedures in the construction industry. Apart from technical-scientific abilities, communicative and social skills as well as a grasp of legal, ecological and economic contexts are becoming increasingly relevant. Students have the option to specialise in elective subjects.

*“The programme provides exactly what we need in subsequent professional practice – a good understanding of construction engineering, and specialisation in a range of subject areas. I especially appreciated the degree of personal flexibility the programme permits. Graduates have excellent chances of getting established in many areas of construction engineering.”*

DI Johanna Dirnbäck, Graduate

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**FACTS**

- DiplomingenieurIn (DI)
- Full-time
- 3 semesters / 90 ECTS
- Language of instruction: German
- 31 places per year
- Head of Degree Programme:  
FH-Prof. DI Dr. Michaela Kofler  
FH JOANNEUM Graz

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

## CAREER PROSPECTS

Highly qualified engineers with comprehensive expertise and flexibility are in great demand in the construction sector.

Our graduates can work independently for clients or contractors in the construction sector. Career opportunities include the entire range of structural and civil engineering tasks in planning and engineering firms, construction departments as well as the construction and building industry. They can demonstrate their skills both in Austria and abroad addressing the future challenges of the construction sector.

*“The internship in South Africa certainly enriched my studies. It not only allowed me to use my newly acquired knowledge, it also gave me the chance to learn about a completely foreign culture.”*

Thomas Pychner, BSc,  
Student

CURRICULUM: 90 ECTS (30 ECTS per semester)

1st semester	2nd semester	3rd semester
Structural Design – Renovation of Existing Structures 7 ECTS	Bridge Construction – Project: Civil Engineering & Construction Management 7 ECTS	Alternative Energy Generation – Power Plant Construction 4 ECTS
Energy-Efficient Building Design – Project: Structural Engineering & Building Trade – Construction of Industrial Buildings – Structural Fire Protection Brandschutz 13 ECTS	Rock Mechanics and Tunnelling – Soil Mechanics and Foundation Engineering 5 ECTS	International Construction & PPP – Business Administration & Management – Calculation of Costs of Planning and Construction Work 5 ECTS
	Traffic Route Engineering – Rail and Road 3 ECTS	Diploma Thesis + Seminar 21 ECTS
Life Cycle Costs 2 ECTS	Building Contracts – Public Procurement - Project management 7 ECTS	
Professional Meetings & Communication 2 ECTS	Project Work and Presentation 2 ECTS	
Finite Element Method – New Materials in Construction – Structural Fire Design – Timber Construction – Sustainability in Civil Engineering – Building Physics Simulations 12 ECTS	Prestressed Concrete – Structural Dynamics – Measurement Technique – Revitalisation - Building Contracts – Investment Calculations & Financial Mathematics – Tunnelling – Facility Management 12 ECTS	

Structural Engineering	Geotechnical Engineering	Energy-Efficient Design and Construction & Construction of Industrial Buildings	Transport and Energy
Construction Economics, Construction Management & International Construction	Communication & Presentation	Electives*	Diploma Thesis + Seminar

\* students must choose 6 ECTS per semester