

STUDY PROGRAMMES OFFERED
BY THE FACULTY OF
MECHANICAL ENGINEERING
AND INFORMATICS



MSC IN COMPUTER SCIENCE ENGINEERING



**Faculty of Mechanical
Engineering and
Informatics**



**English
(min. B2 or equivalent)**



4 semesters



**bachelor's or masters' degree in
Computer science**



30 June 12:00 (noon) CET



**3500 EUR/semester
150 EUR application fee**

SHORT DESCRIPTION:

The objective of the program is to train computer science engineers who by acquiring a high level of natural science and specific technical knowledge related to their study field are able to design new IT systems on the following fields: distributed applications, software engineering, software security, data mining. The program also prepares students to continue their studies at doctoral level.

CAREER PROSPECTS:

Software engineers are awaited at almost any field of information technology fields, e.g. software development, programming, OS and databases. Graduates are able to carry out and coordinate research and development tasks in computer science.



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MSC IN MECHANICAL ENGINEERING



**Faculty of Mechanical
Engineering and
Informatics**



**English
(min. B2 or equivalent)**



4 semesters



**bachelor's / masters' degree in
Mechanical Engineering**



30 June 12:00 (noon) CET



**3500 EUR/semester
150 EUR application fee**

SHORT DESCRIPTION:

The objective of the programme is to train mechanical engineers who are able to work out, model, design, operate, control and maintain concepts for mechanical systems and processes; to develop engineering technologies and processes, new materials and manufacturing technologies applying them in an energy-efficient and environmentally conscious way; to perform leadership, control and organisational tasks; to perform tasks of technical development, research, design and innovation; to participate in and control national and international engineering projects. The programme also prepares students to continue their studies at doctoral level.

CAREER PROSPECTS:

Graduates are able to carry out innovative tasks and participate in engineering projects in Hungary and worldwide. Design engineers are demanded at almost any fields of industry, e.g. vehicle manufacturing, machine manufacturing, production engineering, etc.



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MSC IN LOGISTICS ENGINEERING



**Faculty of Mechanical
Engineering and
Informatics**



**English
(min. B2 or equivalent)**



4 semesters



**Any kind of BSc/MSc (or equivalent) diploma,
preferably in the logistics fields**



30 June 12:00 (noon) CET



**3500 EUR/semester
150 EUR application fee**

SHORT DESCRIPTION:

The aim of the course is to train logistics engineers who, with their knowledge of natural sciences, specific technical, economic, management, IT, industrial and transport technologies, are capable of analyzing, planning, organizing and managing logistics processes and systems (goods transport, materials handling, warehousing, picking, loading, material supply, materials procurement, goods distribution, waste management) that implement the flow of materials within and between companies, including the related flow of information. They are able to design, develop, contribute to the production, quality control and operation of logistics machinery, tools and equipment, which forms whole logistics systems. They are prepared to pursue studies at doctoral level.

SPECIALIZATIONS: Digital Logistics

ENTRANCE EXAMINATION: Oral interview

CAREER PROSPECTS:

By applying the acquired competences, graduates can find a job in a wide variety of domestic and international companies, for instance, automotive, food industry, logistics service providers, etc., where they can deal with the planning, development and management of logistics systems and processes with modern digitalization solutions. The demand for these professionals is growing intensively thanks to increasing process complexity increases and spreading Industry 4.0 technologies.



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PHD IN INFORMATION SCIENCE AND TECHNOLOGY



**Faculty of Mechanical
Engineering and
Informatics**



**English
(min. B2 or equivalent)**



8 semesters



**masters' degree in Computer
science**



30 June 12:00 (noon) CET



**3500 EUR/semester
150 EUR application fee**

SHORT DESCRIPTION:

The doctoral school awaits all talented students with the relevant master degree who are interested in research and development in the field of applied and theoretical computer science. The three main study areas are: applied computer science, information technology for production engineering (including measuring and control engineering information systems), and material flow systems (information technology for logistics). PhD students receive continuous guidance by their supervisors throughout their research work.

Applied Computer Sciences: Theory and Application of Algorithms; Data-and Knowledge Systems; Intelligent Soft Computing; Computer Graphics and Geometry.

Computer Supported Production Systems: Computer Integrated Production Systems; Automatization and Control Systems

Logistic Systems: Design and Planning of Logistic Systems; Operation Control of Logistic Systems

CAREER PROSPECTS:

Since Computer science is at the core of research in major international companies and also many small and medium enterprises that create technologies and applications for the future, PhD graduates can easily find a position in the industry, but also at research institutes and at universities.



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PHD IN MECHANICAL ENGINEERING SCIENCES



**Faculty of Mechanical
Engineering and
Informatics**



**English
(min. B2 or equivalent)**



8 semesters



**master degree in the following technical fields:
Mechanical Engineering, Electrical Engineering,
Mechatronics, Physics, Mathematics**



30 June 12:00 (noon) CET



**3500 EUR/semester
150 EUR application fee**

SHORT DESCRIPTION:

The educational and research programme of the Doctoral School encompasses three large areas. One deals with basic engineering sciences, the second with designing objects (machines and machine elements) and the third one is related to the field of material sciences and materials processing technologies, as well as to production processes and production systems. All three areas include the elaboration and theoretical analysis of models describing technological processes, the design of processes and production systems with up-to-date methods, and the creative application and development of computer-aided engineering methods.

PhD students can carry out research in the following fields: Basic engineering sciences: mechanics of solids, transport processes and machines; Design of machines and structures: material handling machine design, design of machines and elements, product development and design, design of mechatronic systems, design of engineering structures, design of tool machines; Material science, production systems and processes: materials engineering and mechanical technology, manufacturing systems and processes, assembly systems, structural integrity

CAREER PROSPECTS:

The doctoral program prepares doctoral students for knowledge-intensive work in society, where highly analytical and specialized knowledge is required. Graduates can become university lecturers or researchers, or can apply to non-academic careers.



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INTERNATIONAL WELDING ENGINEER (POSTGRADUATE)



**Faculty of Mechanical
Engineering and
Informatics**



English intermediate level (B2)



3 semesters



bachelor's in engineering (mechanical engineering, materials engineering, metallurgical engineering, vehicle engineering, civil structural engineering, engineering management, gas and petroleum engineering, thermal and power engineering)



30 June 12:00 (noon) CET



**1400 EUR/semester
610 EUR examination fee**

SHORT DESCRIPTION:

SHORT DESCRIPTION: A candidate completing the IWE/EWE training under this program is expected to acquire advanced knowledge and critical understanding of welding technology application. He / she shall have advanced competence and skills at a level that is required in the field of welding technology which demonstrate:

- technology mastery and required innovation,
- being able to solve high-level complex and unpredictable problems,
- the ability to manage high complex technical and professional activities or projects related to welding applications,
- taking responsibility for decision making in unpredictable work or study context,
- taking responsibility for managing professional development of individuals and groups.

CAREER PROSPECTS:

According to the international standards it is a requirement to have a welding engineer with IWE/EWE diploma at all companies operating in the production of welded structures.

Related to academic questions please contact

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