SLOVENSKO
OGRODJE
KVALIFIKACIJ

Magister inženir strojništva/magistrica inženirka strojništva

Selected qualifications

Name of qualification	Magister inženir strojništva/magistrica inženirka strojništva
Translated title (no legal status)	Master of Science in mechanical engineering
Type of qualification	Diploma druge stopnje
Category of qualification	Izobrazba
Type of education	Master's education
Duration	2 years
Credits	120 credits

Admission requirements

• A first-cycle programme consisting of at least 180 ECTS credits in the field of engineering sciences, manufacturing technologies, architecture and civil engineering, mathematics and statistics, computing, environmental protection, transport services and natural sciences; or
• a completed first-cycle study programme consisting of at least 180 ECTS credits in another field not covered in the preceding paragraph; such candidates are required to complete the following course units consisting of 30 credits from the first-cycle Mechanical Engineering programme before enrolling in the programme: Mathematical analysis (6 credits), Linear algebra (3 credits), Vector analysis (6 credits), Differential analysis (3 credits), Mechanics I (6 credits) and Mechanics II (6 credits); or
• a study programme leading to a professional higher education qualification, adopted before 11 June 2004, in the field of engineering sciences, manufacturing technologies, architecture and civil engineering, mathematics and statistics, computing, environmental protection, transport services and natural sciences; or
• a study programme leading to a professional higher education qualification, adopted before 11 June 2004, in another field not covered in the preceding paragraph; such candidates are required to complete the following course units consisting of 30 credits from the first-cycle Mechanical Engineering programme before enrolling in the programme: Mathematical analysis (6 credits), Linear algebra (3 credits), Vector analysis (6 credits), Differential analysis (3 credits), Mechanics I (6 credits) and Mechanics II (6 credits); or
• equivalent education in another country.
In the case of limited entry, the selection of candidates will be based on the average grade achieved in the undergraduate programme.

ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

ISCED subfield

subfield metalurgija, strojništvo in kovinarstvo

Qualification level

SQF 8
EQF 7
First level

Learning outcomes

The qualification holder will be able to:

(general competences)

- demonstrate individual creative thinking;
- resolve specific work problems through the application of scientific methods and procedures;

- demonstrate coherent mastery of basic knowledge and the capacity to integrate knowledge from various fields;
- place new information and interpretations in the context of the fundamental discipline;
- demonstrate understanding of the basic structure of the fundamental discipline and the links between its sub-disciplines;
- demonstrate understanding of and apply the methods of critical analysis;
- develop skills in the application of knowledge in a specific professional field;
- use modern computer, information and communication technologies;
- lead group work and demonstrate proficiency in communication both within an organisation and outside it;
- find new sources of knowledge in the relevant professional and academic field;
- incorporate the findings of other disciplines into the broader field of mechanical engineering;
- take responsibility for managing highly complex work systems and develop a capacity for critical reflection;

(subject-specific competences)

- demonstrate mastery of knowledge in chosen specialist fields (e.g. power, process and environmental engineering, structural engineering, manufacturing technologies and systems, and computer modelling for engineering) and further develop that knowledge;
- plan, construct, model, optimise, evaluate, manage, and build technologically complex products and systems that can potentially be offered in global markets;
- develop and use research methods across a broad spectrum of problems and in this way respond rapidly to new circumstances in both national and international contexts;
- master new technological procedures and processes;
- find new solutions and use a research approach to the design and manufacture of products that are connected to new techniques and the most advanced technologies;
- adopt a holistic approach to the development, manufacture and optimisation of products and installations, taking into account various factors such as functional properties, form, manufacture, assembly, economics, management, maintenance, environment.

Assessment and completion

Students' knowledge is assessed by means of practical exercises and seminar papers, and also via products, projects, performances, services, etc. and by examinations. Examination performance is scored as follows: 10 (excellent); 9 (very good: above-average knowledge but with some mistakes); 8 (very good: solid results); 7 (good); 6 (adequate: knowledge satisfies minimum criteria); 5–1 (inadequate). In order to pass an examination, a candidate must achieve a grade between adequate (6) and excellent (10).

Progression

In order to progress to the second year, students must complete first-year course units totalling at least 45 ECTS credits.
If a student fails to meet all progression requirements, the Studies Committee of the Senate of the Faculty of Mechanical Engineering may approve enrolment in the second year at the student's request in accordance with the provisions of the Statute of the University of Maribor.

Transitions

Third-cycle doctoral study programmes (SQF level 10)

Condition for obtaining certificate

In order to complete the second-cycle (master's) programme in Mechanical Engineering, students must complete all course units, for a total of 120 credits (pass all examinations prescribed by the study programme and write and successfully defend a master's thesis).

Awarding body

Faculty of Mechanical Engineering University of Maribor

URL

http://www.fs.um.si/en/study/study-programme/second-cycle/