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# Magister inženir strojništva/magistrica inženirka strojništva

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## Selected qualifications

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

## Admission requirements

- A completed first-cycle (Bologna) academic or professional higher education programme consisting of at least 180 credits in the field of mechanical engineering or related engineering or natural science/mathematics disciplines; or
- a completed first-cycle (Bologna) academic or professional higher education programme consisting of at least 180 credits in fields not listed in the preceding paragraph, on condition that before enrolment in the second-cycle master's programme "MECHANICAL ENGINEERING – Research and Development Programme" they complete course units from the first-cycle academic higher education programme "MECHANICAL ENGINEERING – Research and Development Programme" consisting of 44 credits in subjects that are essential for further study: Mathematics 2, Strength, materials 2, Thermodynamics, Heat transfer, Machine elements 2 and Construction methodology; or
- a completed professional higher education programme in the field of mechanical engineering or related engineering or natural science/mathematics disciplines (before adoption of the Higher Education Act in 2004); or
- a professional higher education programme (before adoption of the Higher Education Act 2004) in fields not listed in the preceding paragraph, on condition that before enrolment in the second-cycle master's programme "MECHANICAL ENGINEERING – Research and Development Programme" they complete course units from the first-cycle academic higher education programme "MECHANICAL ENGINEERING – Research and Development Programme" consisting of 44 credits in subjects that are essential for further study: Mathematics 2, Strength, materials 2, Thermodynamics, Heat transfer, Machine elements 2 and Construction methodology.

## ISCED field

Field  
Tehnika, proizvodne tehnologije in gradbeništvo

## ISCED subfield

subfield metalurgija, strojništvo in kovinarstvo

## Qualification level

SQF 8  
EQF 7  
Second level

## Learning outcomes

The qualification holder will be able to:

(general competences)

- effectively and creatively address complex R&D problems and project/applied tasks in the wider field of mechanical engineering, and participate in interdisciplinary integration;
- address the most complex development tasks autonomously and/or as part of a group;

(subject-specific competences)

- build on and apply basic mechanical engineering knowledge and implement it in technical development contexts;
- demonstrate mastery of the basic theoretical and applied knowledge essential for mastery of the technical field of mechanical engineering;
- demonstrate broad competences in the field of mechanical engineering such as to enable further study in a doctoral programme;
- carry out physical, mathematical and numerical modelling of problems with a developed capacity for critical analysis of results;
- autonomously acquire new knowledge and skills;
- autonomously carry out complex research, development, engineering and technical organisational work and creatively address individual tasks in the field of mechanical engineering;
- seek optimal solutions on the basis of analysis and synthesis.

## 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 of the second-cycle master's programme in Mechanical Engineering – Research and Development Programme, students must have completed course units totalling at least 48 ECTS credits.

## Transitions

Third-cycle doctoral study programmes (SQF level 10)

## Condition for obtaining certificate

In order to complete the programme, students must complete all course units in all subjects in which they have enrolled and write and defend a master's thesis.

## Awarding body

Faculty of Mechanical Engineering, University of Ljubljana

URL

<http://www.fs.uni-lj.si/en/>

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