SLOVENSKO
OGRODJE
KVALIFIKACIJ

Magister inženir tribologije površin in kontaktov/magistrica inženirka tribologije površin in kontaktov

Selected qualifications

Name of qualification	Magister inženir tribologije površin in kontaktov/magistrica inženirka tribologije površin in kontaktov
Translated title (no legal status)	Master of Science in tribology of surfaces and interfaces
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 (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,
• a 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,
• a 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),
• 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)

- demonstrate understanding of lifelong learning needs;
- participate in multidisciplinary groups to address and resolve technical difficulties and raise awareness of the importance of administrative requirements, accuracy and cooperation;

(subject-specific competences)

- demonstrate understanding of tribological interfaces and systems and the mutual relations of parameters and
- determine key effects from the nano level to the macro level;
- develop theoretical and experimental pathways for the study and resolution of tribological problems;
- incorporate multidisciplinary requirements into a coordinated solution that combines knowledge from various fields related to tribology;
- demonstrate autonomous thinking, creativity and problem-solving ability in tribological groups with individual responsibility;
- work as professional engineers and researchers in multicultural and interdisciplinary groups in the broader field of tribology, surfaces, interfaces and maintenance;
- demonstrate familiarity with industrial requirements and the specifics of the industrial sector and the academic world;
- assess, develop and apply scientific information and knowledge about tribological problems to address problems in industry;
- communicate with experts with an academic and industrial background via written documents, presentations and debates;
- demonstrate familiarity with mechanical systems, materials and lubricants in manufacturing processes, surface and oil analyses; use and interpret experimental techniques and results to address tribological problems (tribometers, microscopes, spectrometers, profilometers, etc.);

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 from the first year to the second year, students must have completed at least 60 credits; in order to complete the programme they must complete a further 60 credits and a master's thesis (i.e. a total of 120 credits across the entire programme).

Transitions

Third-cycle doctoral study programmes (SQF level 10)

Condition for obtaining certificate

In order to complete the programme, candidates must successfully complete all course units defined by the programme, consisting of 120 credits, and successfully defend a master's thesis.

Awarding body

Faculty of Mechanical Engineering, University of Ljubljana

URL

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