SLOVENSKO
OGRODJE
KVALIFIKACIJ

Magister jedrske tehnike/magistrica jedrske tehnike

Selected qualifications

doktor znanosti/doktorica znanosti s področja humanistike

Name of qualification	Magister jedrske tehnike/magistrica jedrske tehnike
Translated title (no legal status)	Master of Science in nuclear 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

Admission requirements Enrolment in the second-cycle Nuclear Engineering programme is open to candidates who have completed:
• a first-cycle (Bologna, undergraduate) programme in physics, mechanical engineering, electrical engineering, computing, building and civil engineering, mathematics or chemistry.
• a first-cycle (Bologna) programme in another field, where depending on the field of the completed programme candidates must pass differential examinations totalling up to 60 credits. These units are determined with regard to the difference or similarity of the field and candidates complete them during the first-cycle programme, during supplementary study programmes or by passing examinations before enrolment in the master's programme. The decision on the content and quantity of differential examinations is taken by the Studies Committee of the Physics Department at the Faculty of Mathematics and Physics (OF FMF).
• a professional higher education programme under the former system in physics, mechanical engineering, electrical engineering, computing, building and civil engineering, mathematics or chemistry.
• a professional higher education programme under the former system in another field, if prior to enrolment the candidate has completed course units essential for further studies, totalling up to 60 credits. Candidates may take differential examinations during the first-cycle programme, during supplementary study programmes or by passing examinations before enrolment in the master's programme. The decision on the content and quantity of differential examinations is taken by the Studies Committee of the OF FMF.
Conditions for enrolment are also met by candidates who have completed education equivalent to the qualifications listed in point 1 to 4 at a foreign university, and who enrol under the same conditions as those that apply to candidates who have completed their education in Slovenia.

ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

ISCED subfield

subfield elektrotehnika in energetika

Qualification level

SQF 8
EQF 7
Second level

Learning outcomes

The qualification holder will be able to:

(general competences)

- demonstrate a capacity for abstraction and analysis of problems,
- collect, critically assess and synthesise data, measurements and solutions,
- identify the necessary data for the formulation of new knowledge,
- formulate new knowledge on the basis of existing theories or available data,
- apply knowledge in practice (particularly knowledge of modern technologies),
- demonstrate mastery of processes in nuclear engineering and energy systems,
- make interdisciplinary connections between scientific findings,
- undertake autonomous professional work and work in an (international) group,
- communicate and impart technical information to the general public.

(subject-specific competences)

- demonstrate in-depth knowledge of nuclear engineering and energy,
- make connections between the basic laws of nature and observable characteristics of the world,
- formulate problems mathematically,
- deduce the physical bases of practical problems,
- model problems in the field of nuclear engineering and energy,
- demonstrate advanced experimental skills,
- critically evaluate the results of measurements and apply these in the building or upgrading of models,
- demonstrate understanding of the principles of operation of technological devices on the basis of basic laws,
- present physical methods and results in a manner adapted to a target audience (in Slovene and a foreign language),
- use high-performance computer systems and communication technologies,
- plan, introduce and manage large energy systems,
- communicate with the general public about topics relating to nuclear technology and nuclear safety.

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 enrol in the second year, students must have completed a compulsory subject and completed a total of at least 52 ECTS credits.

Transitions

Third-cycle doctoral study programmes (SQF level 10)

Condition for obtaining certificate

In order to complete their studies, students must complete all course units, consisting of 60 ECTS credits per year (a total of 120 ECTS credits). Students complete the programme when they obtain a passing grade for their master's thesis defence

Awarding body

Faculty of Mathematics and Physics, University of Ljubljana

URL

https://www.fmf.uni-lj.si/en/