SLOVENSKO
OGRODJE
KVALIFIKACIJ

Magister inženir energetike/ magistrica inženirka energetike

Selected qualifications

Name of qualification	Magister inženir energetike/ magistrica inženirka energetike
Translated title (no legal status)	Master of Science in power 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 Energy Technology programme is open to candidates who have completed:
• A first-cycle study programme in a relevant field: natural science, mathematics and computing (40); physical and chemical science (44); mathematics and statistics (46); computing (48); engineering (52); manufacturing and processing (54); architecture, urban planning and building (58); agriculture, forestry and fishery (62); transport services (84); environmental protection (85).
• A first-cycle study programme in another field: teacher training and education science (14); arts (21); humanities (22); social and behavioural science (31); journalism and information (32); business and administration (34); law (38); life science (42); veterinary science (64); health (72); social services (76); personal services (81); security services (86) – if prior to enrolment in the programme the candidate has completed course units essential for further study, totalling 13 ECTS credits. These course units may be completed during a first-cycle programme, via supplemental study programmes or by passing differential examinations before enrolment in the programme. Candidates must complete the following course units: Software in electrical energy supply; Basics of energy systems, Protection of the environment.
• A completed professional higher education programme, adopted before 11 June 2004, in a relevant field: natural science, mathematics and computing (40); physical and chemical science (44); mathematics and statistics (46); computing (48); engineering (52); manufacturing and processing (54); architecture, urban planning and building (58); agriculture, forestry and fishery (62); transport services (84); environmental protection (85).
• A professional higher education programme, adopted before 11 June 2004, in another field: teacher training and education science (14); arts (21); humanities (22); social and behavioural science (31); journalism and information (32); business and administration (34); law (38); life science (42); veterinary science (64); health (72); social services (76); personal services (81); security services (86) – if prior to enrolment in the programme the candidate has completed course units essential for further study, totalling 13 ECTS credits. These course units may be completed during a first-cycle programme, via supplemental study programmes or by passing differential examinations before enrolment in the programme. Candidates must complete the following course units: Software in electrical energy supply; Basics of energy systems, Protection of the environment.
• An academic higher education programme, adopted before 11 June 2004, in a relevant field: natural science, mathematics and computing (40); physical and chemical science (44); mathematics and statistics (46); computing (48); engineering (52); manufacturing and processing (54); architecture, urban planning and building (58); agriculture, forestry and fishery (62); transport services (84); environmental protection (85). As a rule 60 ECTS credits are recognised for such candidates within the study programme and candidates may enrol in the second year of the programme if with these recognised course units they meet the conditions for transition laid down by an accredited study programme.
• An academic higher education programme, adopted before 11 June 2004, in another field: teacher training and education science (14); parts (21); humanities (22); social and behavioural science (31); journalism and information (32); business and administration (34); law (38); life science (42); veterinary science (64); health (72); social services (76); personal services (81); security services (86). For such candidates 44 ECTS credits are recognised within the study programme and candidates may enrol in the corresponding year of the programme.
• A professional higher education programme, adopted before 11 June 2004, and a programme leading to a specialisation, adopted before 11 June 2004, in a relevant field: natural science, mathematics and computing (40); physical and chemical science (44); mathematics and statistics (46); computing (48); engineering (52); manufacturing and processing (54); architecture, urban planning and building (58); agriculture, forestry and fishery (62); transport services (84); environmental protection (85). As a rule 60 ECTS credits are recognised for such candidates within the study programme and candidates may enrol in the second year of the programme if with these recognised course units they meet the conditions for transition laid down by an accredited study programme.
• A professional higher education programme, adopted before 11 June 2004, and a programme leading to a specialisation, adopted before 11 June 2004, in another field: teacher training and education science (14); parts (21); humanities (22); social and behavioural science (31); journalism and information (32); business and administration (34); law (38); life science (42); veterinary science (64); health (72); social services (76); personal services (81); security services (86). For such candidates 44 ECTS credits are recognised within the study programme and candidates may enrol in the corresponding year of the programme.
Candidates who have completed a first-cycle study programme or a professional higher education programme adopted before 11 June 2004, or an academic higher education programme adopted before 11 June 2004 or a professional higher education programme adopted before 11 June 2004 plus a specialisation programme adopted before 11 June 2004 in a non-relevant field must before enrolling in the programme complete course units totalling 13 ECTS credits in the following subjects: Software in electrical energy supply; Basics of energy systems, Protection of the environment.

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)

- professionally analyse, synthesise and anticipate solutions and consequences in energy systems, processes and functions,
- make judgements for the adoption of decisions in energy systems and processes,
- autonomously apply acquired theoretical knowledge to resolve energy system management problems in practice,
- demonstrate mastery of research methods, procedures and processes in energy systems, processes and functions,
- work and create in an international environment, with an emphasis on the exploitation of all conventional and alternative energy sources,
- demonstrate mastery of state-of-the-art technological methods, procedures and processes in energy processes,
- demonstrate autonomy and self-confidence in professional work,
- demonstrate a capacity for ethical reflection and a deep commitment to professional ethics that will be evaluated in an international environment,
- cooperate and work in a group,
- lead expert groups,
- demonstrate an inclination for training to pursue further studies,
- integrate knowledge from various fields and build it into specific applications in organisations, particularly those in the energy sector,
- formulate independent expert opinions on the functioning of the energy system,
- plan, lead and manage major investment projects in the development of energy systems (repair, expansion or construction of a power plant),
- cooperate with the environment in the preparation and implementation of investment work in the field of energy systems,
- demonstrate autonomous and confident mastery of basic knowledge.

(subject-specific competences)

- rationally resolve specific work problems in the field of energy systems technology,
- constantly address specific work processes through the application of modern scientific methods and procedures,
- demonstrate understanding of new information and interpretations and place them in the context of the fundamental discipline;
- demonstrate familiarity with and understanding of the foundation and history of the development of the fundamental discipline,
- demonstrate understanding of the systemic approach,
- demonstrate understanding of the basic structure of the fundamental discipline and the links between its sub-disciplines,
- demonstrate understanding of and apply critical analysis methods and the development of theories, and apply them in resolving specific work problems,

- use information and communication technologies intensively and constantly in energy systems,
- use information management systems intensively and constantly in their specific field of work in the process of operation and management of an energy system,
- demonstrate familiarity with modern technological processes, operations, methodologies and organisation of work in their own specific working environment,
- continuously develop critical and self-critical assessment in a focused manner when making decisions in the dynamics of energy systems and processes,
- develop communication skills, in particular constant communication in the international environment in the energy sector,
- build and plan energy systems.

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 next year, students must have completed the course units prescribed by the study programme (lectures, practical classes, written tests, seminars, etc.) and gained the prescribed number of credits from the study programme by passing examinations.

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 Energy Technology, University of Maribor

URL

http://www.fe.um.si/en/