

# Magister inženir kemijskega inženirstva/magistrica inženirka kemijskega inženirstva

### **Selected qualifications**

Name of qualification

Magister inženir kemijskega inženirstva/magistrica inženirka kemijskega inženirstva

Translated title (no legal status)

Master of Science in chemical engineering

Type of qualification

Diploma druge stopnje

**Category of qualification** 

Izobrazba

Type of education

Master's education

**Duration** 

2 years

**Credits** 

120 credits

Enrolment in the second-cycle programme Chemical Engineering is open to candidates who have completed:

- a first-cycle programme in the field of chemical engineering,
- a first-cycle programme in the field of chemistry or biochemistry, where on enrolling in the first year the candidate chooses among the elective subjects of the firstcycle Chemical Engineering programme: Fluid Mechanics, Heat and Mass Transfer, Chemical Reaction Engineering
- a first-cycle study programme in another field not covered in the two preceding paragraphs, if prior to enrolment the candidate has completed course units totalling 30 ECTS credits in subjects from the first-cycle study programme in Chemical Engineering. Subjects are defined at the candidate's request by the FKKT studies committee
- a professional higher education programme, if prior to enrolment the candidate has completed course units totalling 30 ECTS credits in subjects from the first-cycle study programme in Chemical Engineering. Subjects are defined at the candidate's request by the FKKT studies committee.

committe

## **Admission requirements**

**ISCED** field

Field

Tehnika, proizvodne tehnologije in gradbeništvo

**ISCED** subfield

subfield kemijsko inženirstvo in procesi

**Qualification level** 

SQF 8 EQF 7

Second level

#### **Learning outcomes**

The qualification holder will be able to:

(general competences)

- demonstrate a good grounding in the main fields of chemical engineering, solid knowledge of chemistry and sufficient knowledge of mathematics and physics;
- attain a standard of knowledge and competences that will enable them to enter the third cycle of sets of lectures or programmes;
- analyse, synthesise and demonstrate understanding of the influence of technical solutions on environmental and social relations;
- communicate effectively, including in English, and use modern presentation tools;
- work in multidisciplinary groups;
- demonstrate understanding of the principles of leadership and understanding of business practice;
- demonstrate understanding of own professional and ethical responsibility;
- pursue autonomous learning and recognise the need for lifelong learning.
- demonstrate in-depth knowledge for conceptual, development, planning, research and leadership activities in addressing more complex problems.

(subject-specific competences)

- work safely in a laboratory and carry out their own risk assessments,
- demonstrate understanding of and explain the limits of reliability of their experimental data,
- collect and interpret relevant scientific data and take decisions that require deep reflection on relevant scientific and ethical questions,
- successfully implement a research project,
- apply in depth knowledge of phenomena in order to construct more advanced models,
- use relevant software and other advanced tools,
- apply the concepts of process dynamics,
- carry out more advanced experiments and offer more advanced interpretation of results,
- analyse, assess and compare relevant alternatives within a selected specialisation,
- synthesise and optimise new solutions.

#### **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, full-time and part-time 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**

University of Ljubljana, Faculty of Chemistry and Chemical Technology

URL

http://www.fkkt.uni-lj.si/en/about/