

# Magister inženir prometa/magistrica inženirka prometa

# **Selected qualifications**

Name of qualification	Magister inženir prometa/magistrica inženirka prometa
Translated title (no legal status)	Master of Science in transport 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 study Transport Engineering programme is open to candidates who have completed:

• A first-cycle study programme in a relevant field: transport services (transport, transport technology, logistics, 8400), engineering (transport engineering, 5200), building and civil engineering (5820) and industrial engineering – civil engineering stream (5829).

A first-cycle study programme in another field: mechanical engineering (5211) and mechatronics (5200) – if prior to enrolment in the programme the candidate has completed course units essential for further study, totalling 27 ECTS credits. These course units may be completed during the first-cycle programme, during supplementary study programmes or by passing differential examinations before enrolment in the programme. Candidates must complete course units in subjects from the following fields: spatial and transport planning, roads planning and transport economics.
A first-cycle study programme in another field: architecture (5811) – if

prior to enrolment in the programme the candidate has completed course units essential for further study, totalling 27 ECTS credits. These course units may be completed during the first-cycle programme, during supplementary study programmes or by passing differential examinations before enrolment in the programme. Candidates must complete course units in subjects from the following fields: means of transport, technology and organisation of transport, roads planning and statistics.

• A professional higher education programme, adopted before 11 June 2004, in a relevant field: transport services (transport, transport technology, logistics, 8400), engineering (transport engineering, 5200) and building and civil engineering (5820).

• A professional higher education programme, adopted before 11 June 2004, in another field: mechanical engineering (5211) – if prior to enrolment in the programme the candidate has completed course units essential for further study, totalling 27 ECTS credits. These course units may be completed during the first-cycle programme, during supplementary study programmes or by passing differential examinations before enrolment in the programme. Candidates must complete course units in subjects from the following fields: spatial and transport planning, roads planning and transport economics.

• An academic higher education programme, adopted before 11 June 2004, in a relevant field: transport services (traffic, traffic technology, 8400). 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 their 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: building and civil engineering (5820) and industrial engineering – civil engineering stream (5829). Up to 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.

• 18. An academic higher education programme, adopted before 11 June 2004, in another field: mechanical engineering (5211), mechatronics (5200), architecture (5811) and urban planning (5812). Up to 40 ECTS credits are recognised for such candidates 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 study programme leading to a specialisation, adopted before 11 June 2004, in a relevant field: transport services (traffic, traffic technology, logistics, 8400) and building and civil engineering (5820). Up to 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: mechanical engineering (5211). Up to 60 ECTS credits are recognised for such candidates within the study programme, and candidates may enrol in the corresponding year of the programme.

#### Admission requirements

ISCED field	Field Tehnika, proizvodne tehnologije in gradbeništvo
ISCED subfield	subfield interdisciplinarne izobraževalne aktivnosti/izidi, pretežno tehnika, proizvodne tehnologije in gradbeništvo
Qualification level	SQF 8 EQF 7 Second level

## Learning outcomes

The qualification holder will be able to:

(general competences)

- identify and prove relations of cause and effect;
- predict and evaluate the consequences of planned solutions (measures);
- demonstrate mastery of research methods, procedures and processes;
- develop critical and self-critical judgement, including ethical and socially responsible reflection;
- apply knowledge in practice and show autonomy in professional work;
- develop communication skills and abilities, in particular communication with experts and specialists from other fields related to transport engineering;
- demonstrate cooperativeness and work in a group in an international environment.

#### (subject-specific competences)

- analyse and evaluate processes in the transport system;
- synthesise events in the transport system, in particular by integrating transport knowledge with other important social subsystems and evaluating the effects of the transport system on the environment, space, the economy, demographics;
- draw up sustainable mobility plans (Sustainable Urban Transport Projects SUTPs) using their knowledge of mobility, roads and transport planning, as one of the key components of the sustainable development of society (at local, regional and national levels);
- draw up transport studies using their knowledge of the generation and distribution of traffic flows, knowledge of traffic flow properties in connection with road capacities and means of transport, and knowledge of the methods and techniques of planning, modelling, evaluating and forecasting in transport;
- draw up studies of the impact of transport on the environment, using their knowledge of the interactions between environment, space, health, economy and transport;
- draw up safety concepts and reports and carry out safety inspections in road transport, using their knowledge of causes, consequences, possibilities and methods of intervention to ensure transport safety;
- plan, develop and implement transport technologies in the transport equipment industry, passenger and goods transport and the transport system;
- plan, develop and implement intelligent transport systems (ITS) in practice;
- organise transport activities in passenger and goods transport, including the transport of special loads and hazardous substances;
- prepare background documentation for spatial planning;
- draw up programmes, operational plans and maintenance plans for transport 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 second year, students must pass first-year examinations totalling at least 40 ECTS credits, which must include an examination in either Combinatorial optimisation or Higher statistics. Students who are repeating the first year or taking a break from their studies must pass all first-year examinations (i.e. complete all 60 ECTS credits) in order to progress to the second year.

#### **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 prescribed by the programme for a total of at least 120 ECTS credits.

#### **Awarding body**

Faculty of Civil Engineering, University of Maribor

URL

http://www.fg.um.si/eng/