SLOVENSKO
OGRODJE
KVALIFIKACIJ

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Doktor znanosti/doktorica znanosti s področja prometno inženirstvo

Selected qualifications

Name of qualification	Doktor znanosti/doktorica znanosti s področja prometno inženirstvo
Translated title (no legal status)	Doctorate in the field of transport engineering
Type of qualification	Doktorat
Category of qualification	Izobrazba
Type of education	Doctoral education
Duration	3 years
Credits	180 credits

Admission requirements

Enrolment in the third-cycle doctoral programme in Transport Engineering is open to candidates possessing the relevant knowledge and skills, which they have acquired by completing:
• a second-cycle study programme,
• an academic higher education programme, adopted before 11 June 2004,
• a professional higher education programme, adopted before 11 June 2004, and a study programme leading to a specialisation. Prior to enrolment in the programme, course units totalling 45 ECTS credits will be determined for such candidates. These course units are subjects from the Transport Engineering programme: Mathematics D, Technology of multimodal transport, Transport planning methods, Statistics B, Transport infrastructure planning, Sustainable transport concepts, Modern aspects of means of transport, Mobility management,
• a study programme giving access to professions regulated by EU directives, or another integrated master's programme consisting of 300 ECTS credits.

ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

ISCED subfield

subfield interdisciplinarne izobraževalne aktivnosti/izidi, pretežno tehnika, proizvodne tehnologije in gradbeništvo

Qualification level

SQF 10
EQF 8
Third level

Learning outcomes

Qualification holders are qualified to:

(general competences)

- demonstrate in-depth understanding of theoretical and methodological concepts;
- demonstrate mastery of research methods, procedures and processes in transport engineering;
- autonomously apply acquired theoretical knowledge to solve problems in practice;
- use judgement to take strategic decisions in the transport engineering field;
- show autonomy in research work;
- show cooperativeness, work in a group;
- work and create in an international environment;
- develop communication skills and expertise, in particular constant communication in the international environment;
- show curiosity and an inclination for training for continuous study;
- manage time, materials and human and financial resources;
- act as mentor to younger colleagues at the university or in industry;
- lead large technical groups and research teams;
- demonstrate a capacity for ethical reflection and a deep commitment to professional ethics;

- show creativity and innovation as the result of the interdisciplinary nature of the study programme.

(subject-specific competences)

- demonstrate in-depth knowledge of mathematical content and knowledge of multimodal transport systems, the management of an integrated transport system, research into transport provision, modelling and simulation of transport flows, transport in terminals, transport infrastructure management technology, transport infrastructure project management, EU transport policy, the transport policy of mega-transport undertakings, intelligent transport systems, automation in transport, modern means of transport, the economics of the global transport industry, transport safety and simulation models of safety analyses in transport, spatial planning and the impact of the transport system on the environment,
- demonstrate in-depth understanding of theoretical and methodological concepts in selected narrow sub-fields of transport engineering,
- logically address specific problems in the field of intermodal transport systems,
- constantly address specific problems through the application of modern scientific methods and procedures,
- demonstrate understanding of new information and interpretations and place them in the context of transport engineering and engineering in general,
- demonstrate familiarity with and understanding of the foundations and history of the development of transport engineering,
- 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 management systems intensively and constantly in their specific field of work in the process of operation and management of an intermodal transport system,
- master fundamental knowledge with autonomy and self-confidence,
- demonstrate knowledge of modern technological processes, operations, methodologies and organisation of work in their own specific working environment,
- integrate knowledge from various areas and build it into specific applications in their field,
- formulate independent expert opinions on the functioning of an intermodal transport system,
- plan, lead and manage major investment projects in the development of an intermodal transport system (development of a road or rail transport subsystem),
- develop critical reflection.

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 complete at least 45 ECTS

credits, which must include an examination in a core subject and individual research 1.
In order to progress from the second year to the third year, students must have completed a total of 120 course units, i.e. all first- and second-year course units. Students must submit the topic of their doctoral dissertation by the third year at the latest.

Condition for obtaining certificate

In order to complete the programme, students must complete all course units envisaged by the study programme, for a total of 180 credits, and write and successfully defend a doctoral dissertation.

Awarding body

Faculty of Construction and Civil Engineering, University of Maribor

URL

https://www.fgpa.um.si/en/