SLOVENSKO
OGRODJE
KVALIFIKACIJ

Doktor znanosti/doktorica znanosti s področja gradbeništva

Selected qualifications

Diplomant prevajalskih študij – madžarščina (UN) in .../diplomantka prevajalskih študij – madžarščina (UN) in ...

Name of qualification	Doktor znanosti/doktorica znanosti s področja gradbeništva
Translated title (no legal status)	Doctor of Philosophy in the field of of Engineering in Construction Management
Type of qualification	Doktorat
Category of qualification	Izobrazba
Type of education	Doctoral education
Duration	3 years
Credits	180 credits

Admission requirements

• A completed second-cycle study programme; or
• a completed academic higher education programme adopted before 11 June 2004; or
• a completed professional higher education programme adopted before 11 June 2004 and a study programme leading to a specialisation; course units from the second-cycle Civil Engineering programme totalling 45 ECTS credits are defined for these candidates before enrolment in the programme: Mathematics, Numerical Methods, Construction Materials, Building Engineering Physics II, Construction Operations, Hydraulic Engineering Structures, Roads Planning II, Concrete Structures, Metal Structures, Information Models of Built Structures, Earthworks; or
• a completed study programme leading 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 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 civil engineering,
- independently apply acquired theoretical knowledge to solve problems in practice,
- use judgement to take strategic decisions in the civil engineering field,
- show autonomy in research work,
- show cooperativeness and 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 in the field of applied mathematics, numerical methods, construction mechanics, hydromechanics, geomechanics, steel, concrete and wooden structures, construction dynamics, optimisation of structures, synthesis of structures, construction informatics, construction management, operations, theory and optimisation of projects, construction materials, construction technology, transport infrastructure, construction ecology, integrated planning and spatial planning concepts,
- demonstrate mastery of advanced calculation methods for construction mechanics and dynamics,
- demonstrate mastery of methods for resolving the most complex geotechnical and hydraulic engineering problems
- demonstrate mastery of modern calculation methods for planning complex built structures,
- demonstrate mastery of methods for the optimisation and synthesis of structures,
- use and develop information technologies and advanced computer tools in civil engineering,
- demonstrate mastery of modern methods of planning roads infrastructure with an emphasis on road safety,
- demonstrate understanding of construction ecology, the concept of sustainable development and modern materials in the planning of built structures and the environment,
- demonstrate mastery of advanced methods of planning construction projects and construction management,
- demonstrate mastery of the theory of modern mathematical programming in the optimisation of structures, buildings and construction processes,
- demonstrate mastery of numerical methodologies for the economic evaluation of buildings, processes and projects,
- apply methods of economic optimisation in order to evaluate the viability of an investment,
- formulate independent expert opinions in the field of civil engineering,
- plan, lead and manage major investment projects.

Assessment and completion

Examination performance is graded 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 have completed at least 45 ECTS credits, which must include an examination in a core elective subject with mathematical content and individual research 1.
In order to progress from the second year to the third year, students must have completed all 60 ECTS credits from the second year and all first-year course units.

Condition for obtaining certificate

In order to complete the programme, students must complete all course units prescribed by the

programme and defend a doctoral thesis, for a total of 180 ECTS credits. Before defending his/her doctoral dissertation, the student must publish (or obtain confirmation of publication), as lead author, findings from the doctoral dissertation in at least one original scholarly article (SICRIS categorisation 1.01) in a scholarly journal indexed by SCI, SSCI or AH&CI with an impact factor greater than 0.

Awarding body

University of Maribor, Faculty of Civil Engineering

URL

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