SLOVENSKO
OGRODJE
KVALIFIKACIJ

Diplomirani inženir geotehnologije (un)/diplomirana inženirka geotehnologije (un)

Selected qualifications

Name of qualification	Diplomirani inženir geotehnologije (un)/diplomirana inženirka geotehnologije (un)
Translated title (no legal status)	Bachelor of Science in geotechnology and mining
Type of qualification	Diploma prve stopnje (UN)
Category of qualification	Izobrazba
Type of education	Academic bachelor's education
Duration	3 years
Credits	180 credits
Admission requirements	• Matura or vocational matura or • school-leaving examination (prior to 1 June 1995) under any four-year secondary school programme.

ISCED field

Field
Tehnika, proizvodne tehnologije in gradbeništvo

ISCED subfield

subfield rudarstvo in drugo pridobivanje rudnin

Qualification level

SQF 7
EQF 6
First level

Learning outcomes

The qualification holder will be able to:

General competences:

- work in planning companies, the state administration, research laboratories of the institutes in the field of geotechnology, environmental engineering, extraction of mineral raw materials, etc.;
- apply basic knowledge of mathematics, physics and chemistry in engineering problems,
- carry out experiments and analyse and interpret data,
- demonstrate theoretical and practical knowledge within their professional field,
- quantify, identify, formulate and resolve engineering problems,
- apply the techniques, skills and modern engineering tools needed in practice,
- carry out high-quality expert analysis within the field of geotechnology and environmental engineering,
- perform individual and project work in the field of geotechnology and environmental engineering,
- understand ethical and professional responsibility,
- recognise the need for lifelong learning and participate in it,
- express themselves with authority and communicate in a foreign language;
- apply the acquired knowledge in the broader context of geotechnology and environmental engineering,
- cooperate within the projects in the field of geotechnology, environmental engineering and extraction of mineral raw materials,
- select, describe and interpret various natural phenomena within the field of geotechnology and environmental engineering,
- carry out parametrization and optimisation of problems within geotechnology and environmental engineering,
- understand stochastic processes in a natural environment,
- continue their education in the field of technology and natural sciences,
- engage in a broader social context in the field of technology development.

Subject-specific competences :

- demonstrate an in-depth specialist knowledge in the field of geotechnology, environmental engineering and extraction of mineral raw materials, supplemented with selected knowledge in the field of natural sciences, technology, management and ICT.
- demonstrate understanding of technical topics, including their theoretical background, and the application of methods (e.g. in the field of extraction of mineral raw materials: the Velenje digging method; in geotechnology: the new Austrian method of building tunnels),
- integrate scientific knowledge with knowledge from other engineering disciplines,

- perform autonomous work in applicative projects related to geotechnology, environmental engineering and extraction of mineral raw materials,
- demonstrate understanding of geological conditions in the planning and construction of structures, 3
- demonstrate understanding of measurement and observation in the planning and construction of structures,
- organise the optimal use of machinery in the planning and construction of structures,
- demonstrate understanding of the operations of an enterprise with regard to income and construction costs of structures, the extraction of mineral raw materials, etc.,
- economically manage projects in the field of geotechnology and environmental engineering and related fields of expertise,
- apply theoretical knowledge to the resolution and assessment of environmental protection problems,
- apply theoretical knowledge to the planning of developments while minimising harmful impacts on the environment and people,
- identify problems, carry out theoretical analysis, seek solutions and take appropriate action,
- pursue learning in their own professional field and adapt to related fields problem,
- participate in development work and transfer research and development achievements into practice,
- demonstrate understanding of the interdependence of science and technology,
- communicate with co-workers and experts from related disciplines, thus enabling active cooperation on joint work, including in the field of projects fundamental on the integration of technical laws and experience within the field of geotechnology and environmental engineering,
- demonstrate professional ethical and environmental responsibility,
- use modern programming tools.

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 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 to the second year, students must have completed first-year course units totalling 40 credits and all lab classes. The extent of 40 credits covers all the subjects of the compulsory module of the first year.

Transitions

Second-cycle master's study programmes (SQF level 8)

Condition for obtaining certificate

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

Awarding body

University of Ljubljana, Faculty of Natural Sciences and Engineering

URL

https://www.ntf.uni-lj.si/ogro/studij/1-stopnja/geotehnologija-in-okolje-un/splosne-informacije/