Doktor znanosti/doktorica znanosti s področja matematike

Selected qualifications

Name of qualification

Doktor znanosti/doktorica znanosti s področja matematike

Translated title (no legal status)

Doctor of Philosophy in the field of mathematics

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 totalling 45 credits are individually defined for these candidates before enrolment in the given programme at the proposal of the Department of Mathematics and Computer Science at the Faculty of Natural Sciences and Mathematics – four examinations from the specialised fields of mathematical analysis, algebra and discrete mathematics, geometry and topology, and probability and statistics; or
- a completed study programme leading to professions regulated by EU directives, or another integrated master's degree programme consisting of 300 credits.

ISCED field

Field
Naravoslovje, matematika in statistika

ISCED subfield

subfield matematika

Qualification level

SQF 10
EQF 8
Third level

Learning outcomes

Qualification holders are qualified to:

(general competences)

- think systematically,
- demonstrate mastery of critical and self-critical assessment,
- work cooperatively in a team in a national and international environment and apply theoretical knowledge to the resolution of practical problems,
- demonstrate thorough knowledge of experimental and other methods for proving scientific theories,
- search for various sources of knowledge when resolving technical problems,
- demonstrate ethical reflection and a commitment to professional ethics in the scientific and educational fields,
- show initiative and autonomy in decision-making and in managing scientific projects,

(subject-specific competences)

- demonstrate the highest level of understanding of theoretical and methodological concepts in the field of mathematics and mathematical applications in natural science and social science disciplines,
- apply knowledge of the highest level in individual narrow/specific fields of mathematics and its application,
- address the most complex problems in specific fields of mathematics and various mathematical

applications, both autonomously and as part of a group, by applying known solutions and discovering new solutions or adapting existing solutions in the international context,

- carry out research at the highest level in specific fields of theoretical mathematics and applied fields and autonomously generate new knowledge (innovation),
- use and create new mathematical research methods and adapt existing research methods in predictable or altered (new) circumstances,
- lead research projects in the field of mathematics and related applied fields,
- seek out and create new sources of knowledge, both independently and as part of a group, in specific scientific fields of theoretical and applied mathematics,
- adapt mathematical knowledge, either autonomously or as part of a team, to the resolution of current specific problems in fields of work where this knowledge is useful,
- present the results of specific mathematical research at scientific and professional conferences, and in scholarly and specialist journals,
- demonstrate a thorough knowledge of specific educational work in the field of mathematics in different periods and different educational systems.

Assessment and completion

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 both compulsory subjects (a total of 20 credits), one major elective subject or two minor elective subjects (a total of 10 credits) and Research Seminar 1 (10 credits). In order to progress to the third year, students must have completed all first-year course units (totalling 60 credits) and second-year course units totalling at least 40 credits.

Condition for obtaining certificate

In order to complete the programme successfully, students must complete all course units prescribed by the programme, thereby accumulating at least 180 credits, submit a doctoral dissertation and successfully defend it in public.

Awarding body

University of Maribor, Faculty of Natural Sciences and Mathematics

URL