

1. Information identifying the holder of the qualification

- 1.1. *Family name:* SLAK
 - 1.2. *Given name:* JURE
 - 1.3. *Date of birth:* 20. 12. 1993
 - 1.4. *Student identification number or code:* 27152005
 - 1.5. *Date of graduation:* 5. 9. 2017
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2. Information identifying the qualification

- 2.1. *Name of the qualification and the title conferred (in original language):*
Diploma
MAGISTER MATEMATIKE
Abbreviation: mag. mat.
 - 2.2. *Main field(s) of study for the qualification, study program, options:*
Classification according to the ISCED: Mathematics and statistics.
Second cycle master's study program in MATHEMATICS.
The study program was accredited by the Council for Higher Education of the Republic of Slovenia on 5 October 2007, and on 17 September 2015.
 - 2.3. *Name of the awarding institution (in original language):*
UNIVERZA V LJUBLJANI, FAKULTETA ZA MATEMATIKO IN FIZIKO (UL FMF)
Jadranska 19, 1000 Ljubljana
 - 2.4. *Legal status of the awarding institution:* public; university member
 - 2.5. *Language(s) of instruction/examination:* Slovenian
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3. Information on the level of the qualification

- 3.1. *Level of the qualification:* second cycle: master's study program.
Levels of SQF, EQF, and EHEQF: Slovenian Qualifications Framework (SQF 8), European Qualifications Framework (EQF 7), and European Higher Education Qualifications Framework (EHEQF second cycle).
- 3.2. *Official length of the study program:* 2 full academic years based on 120 ECTS credits
- 3.3. *Admission requirements:*
Admission to the study program is open to either:
 - 1. Graduates of the the first cycle academic study program in Mathematics.
 - 2. Graduates of a higher professional study program, accredited prior to 11 June 2004. Prior to enrollment, these applicants may be given additional requirements to demonstrate that they have acquired the knowledge and skills that are essential for admission to the master's study program. The exact requirements are determined by the Department Study Committee according to the completed study program and can comprise from 10 to a maximum of 60 ECTS credits; they can be met already during the higher professional studies or by means of passing examinations prior to admission to the master's study program.
 - 3. Graduates of other university (bachelor) study programs. Prior to enrollment, these applicants may be given additional requirements to demonstrate that they have acquired the knowledge and skills that are essential for admission to the master's study program. The exact requirements are determined by the Department Study Committee according to the completed study program and can comprise from 10 to a

maximum of 60 ECTS credits; they can be met already during the bachelor studies or by means of passing examinations prior to admission to the master's study program.

4. Candidates with a degree equivalent to one of the above, obtained at another university in Slovenia or abroad.

In case of admission limitation, the applicants are selected according to their first cycle study program achievement (grade point average, graduation thesis grade) and the achievement in the mathematical courses of the first cycle study program. When ranking the candidates, general achievement brings 50 % of points, and mathematical courses achievement brings 50 % of points.

Transitions from other study programs are possible in accordance with transition requirements of the second cycle master's study program in Financial Mathematics and the Guidelines for transitions between study programs.

4. Information on the contents and results gained

4.1. *Mode of study*: full-time

4.2. *Study program requirements*:

| | |
|------------------|-----------|
| Lectures | 555 hours |
| Problem sessions | 420 hours |
| Seminars | 135 hours |

The methods for testing the competences, knowledge, and skills are described in the courses syllabi.

For enrollment in the next study year, it is necessary to earn 50 ECTS credits from courses and exams in the current study year.

For re-enrollment in the same study year, it is necessary to earn at least half of all possible credits of the current study year (30 ECTS credits).

Re-enrollment is only possible once in the course of studies. A change of the study program as result of disability of enrollment in the next study year is automatically counted as re-enrollment.

The study program comprises two full academic years based on 120 ECTS credits which can be earned by examinations pertaining to courses, completion of the final exam, preparation and defense of a master's thesis, as well as by acquisition of work experience or publication of a scientific research:

- 3 ECTS credits must be earned by completing core course Mathematical seminar.
- Students earn 60 ECTS credits by completing 10 elective courses from groups M1-M5, R1, and O. They have to choose at least one elective from each but one of the groups M2-M5, and R1, while from group M1 they must choose Measure theory or Introduction to functional analysis.
- 32 ECTS credits may be earned by arbitrary selection of elective courses or a scientific publication.
- The final exam and the master's thesis together account for 25 ECTS credits.

Before graduation, students also have to pass the final exam, where they are requested to answer one question from analysis, one question from algebra, and one question from the field of their master's study program (chosen from among advanced analysis, advanced algebra, geometry and topology, probability and statistics, numerical mathematics, discrete mathematics, and theoretical computer science).

To finish the program, students have to complete all exams and other study program requirements with the total academic load of 120 ECTS credits. From the selection of obligatory and elective courses students can design their own study programme structure. A student's choice of courses has to be approved by the department study committee.

The second cycle master's study program in Mathematics is designed for Bachelors in Mathematics (academic) wishing to take active part in planning, engineering and development in professional

environment, or engage in scientific research in mathematics, theoretical computer science or theoretical mechanics.

Generic competences developed in the program: ability of abstract thinking and problem analysis, ability of sorting out effective solutions and of their critical evaluation, ability of application of knowledge at solving practical problems, ability to work both individually and as part of an (international) team, ability of critical evaluation and presentation of one's results, ability of continuous self-education and following the expert literature.

Subject specific competences developed in the program: familiarity with classical and modern results in pure and applied mathematics as well as closely related areas such as computer science and mechanics, ability of following and understanding hard mathematical proofs, ability of abstraction of practical problems, ability of adequate use of mathematical literature, ability to solve concrete problems with the use of different mathematical methods, ability of computer programming using appropriate programming software.

4.3. Study program details and the individual grades/credits obtained:

Information on the student's exam results and other program requirements, as well as any other relevant student's achievements:

| No. | Course | Year | ECTS credits | Date | Grade |
|-----|---|------|-----------------|-------------|--------|
| 1. | Work experience 1 (O) | 1st | 6 | 20. 1. 2016 | passed |
| 2. | Numerical approximation and interpolation (M4) | 1st | 6 | 10. 2. 2016 | 10 |
| 3. | Computational complexity (R1) | 1st | 6 | 12. 2. 2016 | 10 |
| 4. | Modern physics (O) | 1st | 6 | 15. 2. 2016 | 10 |
| 5. | Measure theory (M1) | 1st | 6 | 19. 2. 2016 | 10 |
| 6. | Probability 2 (M5) | 1st | 6 | 16. 3. 2016 | 10 |
| 7. | Logic (M2) | 1st | 6 | 17. 6. 2016 | 10 |
| 8. | Fluid mechanics (M1) | 1st | 6 | 17. 6. 2016 | 10 |
| 9. | Numerical solutions of partial differential equations (M4) | 1st | 6 | 22. 6. 2016 | 10 |
| 10. | Statistics 2 (M5) | 1st | 6 | 30. 6. 2016 | 10 |
| 11. | Graph theory (M2) | 2nd | 6 | 9. 2. 2017 | 10 |
| 12. | Topics in computational mathematics: Symbolic computation (R1) | 2nd | 6 | 10. 2. 2017 | 10 |
| 13. | Numerical integration and ordinary differential equations (M4) | 2nd | 6 | 16. 2. 2017 | 10 |
| 14. | Work experience 2 (O) | 2nd | 6 | 10. 3. 2017 | passed |
| 15. | Analytical mechanics (M1) | 2nd | 6 | 21. 3. 2017 | 10 |
| 16. | Differential geometry (M3) | 2nd | 6 | 13. 6. 2017 | 10 |
| 17. | Mathematical seminar | 2nd | 3 | 13. 6. 2017 | passed |
| 18. | Final exam and master's thesis | 2nd | 25 | 5. 9. 2017 | passed |

Average grade (arithmetic mean of exams and practical exercises): 10

Final exam grade: 10

Master's thesis and defense grade: 10

Final grade of the study program: 10

Extracurricular courses completed:

Course: Combinatorics (6 ECTS credits), *exam date:* 1. 3. 2016, *grade:* 10

Course: Computer aided (geometric) design (6 ECTS credits), *exam date:* 22. 5. 2017, *grade:* 10

Course: Theory of programming languages (6 ECTS credits), *exam date:* 27. 1. 2016, *grade:* 8

Master's thesis title: SOLVING LINEAR ELASTOSTATIC PROBLEMS USING MESHLESS METHODS

Supervisor: doc. dr. George Mejak; *Co-supervisor:* dr. Gregor Kosec

Other student's achievements:

Jure Slak has received the Dean's Award for Academic Achievement in the first and second study year.

Extracurricular activity:

In the study year 2015/16 and 2016/17, Jure Slak served as a volunteer student tutor.

During the academic years 2015/16 and 2016/17, Jure Slak successfully worked as an undergraduate tutor.

His teaching load was 2,5 hours per week in academic year 2015/16 and 4,5 hours per week in academic year 2016/17.

4.4. *Grading scheme:*

- 10 - (excellent: excellent knowledge with negligible deficiencies)
- 9 - (very good: above average knowledge with minor deficiencies)
- 8 - (very good: average knowledge)
- 7 - (good: average knowledge with deficiencies)
- 6 - (pass: knowledge meets the minimum requirements)
- 5–1 - (fail: knowledge does not meet the minimum requirements)

4.5. *Overall classification of the qualification (in original language):* Not applicable at the Faculty of Mathematics and Physics of the University of Ljubljana.

5. Information on the function of the qualification

5.1. *Admission to further study:*

Third cycle doctoral study programs.

5.2. *Professional status:*

Graduates of the master's study program in Mathematics can find employment in research and development companies (or their branches) using mathematical modelling, software development companies, mathematical or mathematics related research institutions and universities.

6. Additional information

6.1. *Additional information:*

Faculty of Mathematics and Physics bulletins posted on the faculty's webpages.

Further information sources:

University of Ljubljana
Faculty of Mathematics and Physics
Jadranska 19
SI-1000 Ljubljana
phone: +386 1 4766 500
fax: +386 1 2517 281
<http://www.fmf.uni-lj.si>

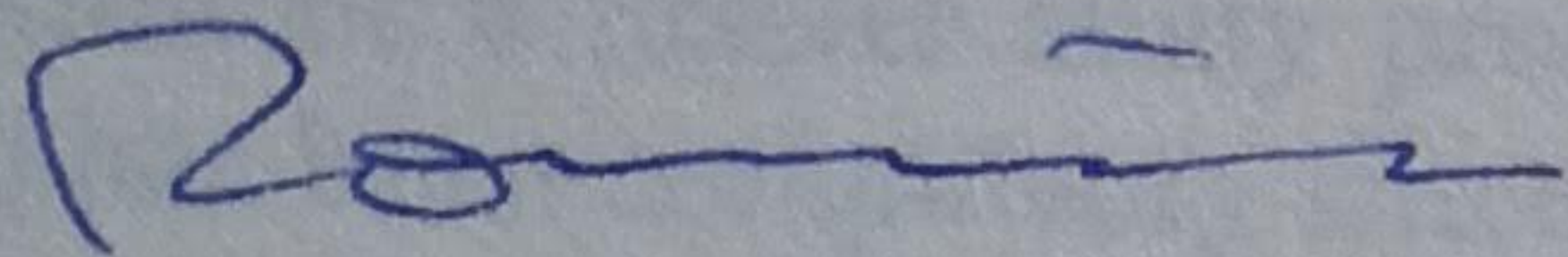
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<http://www.enic-naric.net/>
<http://www.nok.si/en/>

7. Certification of the supplement

7.1. *Date:* 28. 3. 2018

7.2. *Signature:* prof. dr. Anton Ramšak



7.3. *Official capacity:* Dean

7.4. *Official stamp or seal:*

