

COURSES IN THE ACADEMIC YEAR 2019/2020

STUDY PROGRAMME AT UP FAMNIT: **MATHEMATICS** (1st bologna cycle), in English

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COMPULSORY COURSES

1st YEAR (10 compulsory courses)

Numb.	Course	Year	Semester ¹	Language
1	Analysis I - Foundations of Analysis	1st	Autumn	English
2	Algebra I - Matrix Calculus	1st	Autumn	English
3	Computer Science I	1st	Autumn	English
4	Discrete Mathematics I - Set Theory	1st	Autumn	English
5	Mathematical Practicum I	1st	Autumn	English, Slovene
6	Computer Practicum	1st	Autumn	English
7	Algebra II - Linear Algebra	1st	Spring	English
8	Analysis II - Infinitesimal Calculus	1st	Spring	English
9	Mathematical Topics in English I	1st	Spring	English
10	Discrete Mathematics II - Combinatorics	1st	Spring	English

2nd YEAR (9 compulsory and 1 elective course)

Numb.	Course	Year	Semester ¹	Language
1	Physics	2nd	Autumn	English
2	Algebra III - Abstract Algebra	2nd	Autumn	English
3	Analysis III - Functions of Many Variables	2nd	Autumn	English
4	Introduction to Numerical Calculations	2nd	Autumn	English
5	Computer Science II	2nd	Spring	English
6	Probability	2nd	Spring	English
7	Mathematical Topics in English II	2nd	Spring	English
8	Analysis IV - Real Analysis	2nd	Spring	English
9	Algebra IV - Algebraic Structures	2nd	Spring	English
10	External elective course I	2nd		

3rd YEAR (2 compulsory courses and 8 elective courses)³

Numb.	Course	Year	Semester ¹	Language
1	Mathematical Modelling	3rd	Autumn	English, Slovene
2	Statistics	3rd	Autumn	English
3	Internal elective course I	3rd		
4	Internal elective course II	3rd		
5	Internal elective course III	3rd		
6	Internal elective course IV	3rd		
7	Internal elective course V	3rd		
8	Internal elective course VI	3rd		
9	External elective course II	3rd		
10	External elective course III	3rd		

ELECTIVE COURSES

Numb.	Course	ECTS-credits	Course will be available on the course schedule for the year of study	Internal/external elective course	Course leader ²	Language	Semester ¹
1	Differential Equations	6	3rd	internal or external	Jasna Prezelj	English	Autumn
2	Geometry	6	2nd	internal or external	Istvan Kovacs	English	Autumn
3	Stochastic Processes ⁴	6	3rd	internal or external	Marko Orel	Slovene, English	Autumn
4	Functional Analysis	6	3rd	internal or external	Marko Orel	English	Autumn
5	Permutation Groups	6	3rd	internal or external	Istvan Kovacs	English	Autumn
6	Number Theory	6	3rd	internal or external	Miklavič Štefko	English	Spring
7	Coding Theory	6	3rd	internal or external	Pasalic Enes	English	Spring
8	Complex Analysis	6	3rd	internal or external	Bojan Kuzma	English	Spring
9	Symmetric-key Cryptography	6	3rd	internal or external	Pasalic Enes	English	Spring
10	Graph Theory	6	3rd	internal or external	Martin Milanič	English	Spring
11	Optimization Methods	6	3rd	internal or external	Martin Milanič	English	Spring
12	Algebraic Graph Theory	6	3rd	internal or external	Ademir Hujdurovič	English	Spring
13	Topology	6	2nd, 3rd	internal or external	Russ Woodroffe	English	Spring
14	Measure Theory	6	3rd	internal or external	Marko Orel	English	Spring

NOTES:

[1] Semester: Academic calendar 2019/20 is published on Faculty website <https://www.famnit.upr.si/en/education/general-information#heading2>.

[2] Course leaders will be confirmed by UP FAMNIT Senate in September 2019.

[3] On completing the 2nd year, students can opt for a study field: Theoretical Mathematics, Cryptography, Discrete Mathematics, General Mathematics.

Based on this decision the student then chooses internal elective courses. More on Faculty website: <https://www.famnit.upr.si/en/education/undergraduate/math-first/#heading5>

[4] Student of the programme Bioinformatics who wish to choose the course Stochastic Processes as an elective course, should first pass the course Probability.

ELECTIVE COURSES - IMPORTANT INFORMATION FOR STUDENTS

Syllabus is available on Faculty website <https://www.famnit.upr.si/en/education/undergraduate/math-first/#heading4>

* It is in students' interests that the courses are evenly distributed throughout the entire academic year. Therefore, before choosing elective courses, check in which semester the courses will be implemented.

* beside the listed courses, students may choose some other courses offered within other study programmes. Courses in the field of Computer Science can be chosen also as internal elective courses,

while courses from other fields can only be chosen as external elective courses. (website: Education/Undergraduate Studies).

Notice that their timetable is suitable only for the students of the study programme within the course is offered, which means that in case of overlapping,

students will have to find individually an agreement with the course leader.

Subsequent changes of a chosen elective course (at enrollment) is possible only with a written request. The request must be sent through SIS.

A printed version must be delivered to the Student Services until 10th October 2018 (for courses in the 1st semester) or 28th February 2020 (for courses in Spring semester).

After these dates, all requests will be discussed at UP FAMNIT Committee of Academic and Student Affairs.

In this case students must provide an exhaustive explanation for the change.

SUBSEQUENT CHANGES OF OFFERED COURSES:

Possible subsequent changes of the offered courses will be published on Faculty website on 18th September 2019. Please follow the published information on the Faculty website.