UP FAMNIT
STUDY PROGRAMME: MATHEMATICS (1st bologna cycle), in English
COMPULSORY AND ELECTIVE COURSE IN THE ACADEMIC YEAR 2024/205

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Last change: /

1st YEAR (10 compulsory courses)

NUMB.	COURSE	YEAR	SEMESTER	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	Computer Practicum	1st	Autumn	English
6	Mathematical Practicum I	1st	Spring	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 (8 compulsory and 2 elective courses)

NUMB.	COURSE	YEAR	SEMESTER	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	Analysis IV – Real Analysis	2nd	Spring	English
8	Algebra IV – Algebraic Structures	2nd	Spring	English
9	*Internal elective course* [2]	2nd		
10	*External elective course*	2nd		

3rd YEAR (2 compulsory and 8 elective courses) [1]

NUMB.	COURSE	YEAR	SEMESTER	LANGUAGE
1	Statistics	3rd	Autumn	English
2	Mathematical Modelling	3rd	Spring	English
3	*Internal elective course* [2]	3rd		
4	*Internal elective course* [2]	3rd		
5	*Internal elective course* [2]	3rd		
6	*Internal elective course* [2]	3rd		
7	*Internal elective course* [2]	3rd		
8	*Internal elective course* [2]	3rd		
9	*External elective course*	3rd		
10	*External elective course*	3rd		

ELECTIVE COURSES

NUMB.	COURSE	ECTS CREDITS	AVAILABLE FOR THE YEAR OF STUDY [3]	INTERNAL/ EXTERNAL ELECTIVE	COURSE LEADER	LANGUAGE	SEMESTER
1	Data Structures and Algorithms	6	2nd	internal or external	Andrej Brodnik	English	Autumn
2	Geometry	6	2nd	internal or external	Istvan Kovacs	English	Autumn
3	Number Theory	6	3rd	internal or external	Miklavič Štefko	English	Autumn
4	Measure Theory	6	3rd	internal or external	Marko Orel	English	Autumn
5	Stochastic Processes	6	3rd	internal or external	Marko Orel	Slovene	Autumn
6	Permutation Groups	6	3rd	internal or external	Istvan Kovacs	English	Autumn
7	Cryptography and Computer Safety	6	3rd	internal or external	Pasalic Enes	English	Autumn
8	Symmetric-key Cryptography	6	3rd	internal or external	Pasalic Enes	English	Autumn
9	Galois Theory	6	3rd	internal or external	Lavrauw, Michel	English	Autumn
10	Complex Analysis	6	3rd	internal or external	Bojan Kuzma	English	Spring
11	Topology	6	2nd, 3rd	internal or external	Russ Woodroofe	English	Spring
12	Coding Theory	6	2nd, 3rd	internal or external	Pasalic Enes	English	Spring
13	Game Theory	6	3rd	internal or external	Aljaž Ule	Slovene	Spring
14	Functional Analysis	6	3rd	internal or external	Marko Orel	English	Spring
15	Differential Equations	6	3rd	internal or external	Jasna Prezelj	English	Spring
16	Graph Theory	6	3rd	internal or external	Martin Milanič	English	Spring
17	Algebraic Graph Theory	6	3rd	internal or external	Ademir Hujdurović	English	Spring

NOTES:
[1] On completing the 2nd year, students can opt for a **STUDY FIELD**. In the academic year 2024/2025 students can choose only: General Mathematics.
More on Faculty website: https://www.famnit.upr.si/en/education/undergraduate/math-first/#heading5
[2] Internal elective courses must include **at least 5 MATHEMATICAL COURSES**, 4 of which must be from the core of courses which belong to the chosen study field.
More on Faculty website: https://www.famnit.upr.si/en/education/undergraduate/math-first/#heading5
[3] The elective course will be on the course schedule for the written year of study.
Students can choose the elective course that is offered for his/her year of study. Exceptions must be approved by the study programme coordinator.

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):
* until 30 September 2024: the student informs Student Services (referat@famnit.upr.si) and the change is entered in the students' index;
* from 1 October 2024: the student sends a request through ŠIS in the first 2 weeks of the semester for the course, chosen in the current academic year.
Detailed information (submission, last dates,…) will be published by Student Services at the beginning of each semester, so students should follow
notices from the Student Services (https://www.famnit.upr.si/sl/obvestila). The decision is made by the Committee for Study and Student Affairs UP FAMNIT.

SUBSEQUENT CHANGES OF OFFERED COURSES:
Possible subsequent changes of the offered courses will be published on Faculty website. Please follow the published information on the Faculty website.