

UP FAMNIT

STUDY PROGRAMME: **COMPUTER SCIENCE (1st bologna cycle), in English**  
COMPULSORY AND ELECTIVE COURSE IN THE ACADEMIC YEAR **2024/2025**

Published: 15 July 2024

Last change: /

**1st YEAR (10 compulsory courses)**

NUMB.	COURSE	YEAR	SEMESTER	LANGUAGE
1	Mathematics I - Analysis I	1st	Autumn	English
2	Mathematics II - Algebra I	1st	Autumn	English
3	Programming I	1st	Autumn	English
4	Computer Practicum I	1st	Autumn	English
5	Theoretical Computer Science I – Discrete Structures	1st	Autumn	English
6	Systems I – Hardware	1st	Spring	English
7	Systems II – Operating Systems and Computer Networks	1st	Spring	English
8	Programming II – Concepts of Programming Languages	1st	Spring	English
9	Theoretical Computer Science II – Formal Languages and Computability	1st	Spring	English
10	Computer Practicum II	1st	Spring	English

**2nd YEAR (7 compulsory and 3 elective courses)**

NUMB.	COURSE	YEAR	SEMESTER	LANGUAGE
1	Data Structures and Algorithms	2nd	Autumn	English
2	Computer Networks	2nd	Autumn	English
3	Programming III – Concurrent Programming	2nd	Autumn	English
4	Introduction to Database Systems	2nd	Autumn	English
5	Systems III – Information Systems	2nd	Spring	English
6	Mathematics III – Algebra II	2nd	Spring	English
7	Mathematics IV – Combinatorics with Graph Theory	2nd	Spring	English
8	Internal elective course	2nd		
9	Internal elective course	2nd		
10	External elective course - English Language <sup>1</sup>	2nd		

**3rd YEAR (4 compulsory, 6 elective courses and seminar - final project paper)**

NUMB.	COURSE	YEAR	SEMESTER	LANGUAGE
1	Software Engineering	3rd	Autumn	English
2	Information Technology Management	3rd	Spring	English
3	Theoretical Computer Science III – Information Theory	3rd	Spring	English
4	Seminar – Final Project Paper	3rd	Autumn & Spring	English
5	Internal elective course	3rd		
6	Internal elective course	3rd		
7	Internal elective course	3rd		
8	External elective course	3rd		
9	External elective course	3rd		
10	External elective course	3rd		

**ELECTIVE COURSES**

NUMB.	COURSE	ECTS CREDITS	AVAILABLE FOR THE YEAR OF STUDY <sup>2</sup>	INTERNAL/ EXTERNAL ELECTIVE	COURSE LEADER	LANGUAGE	SEMESTER
1	English Language (B2) <sup>1</sup>	6	2nd	external	Martina Paradiž	English	Autumn
2	Multimedia Design	6	3rd	internal or external	Matjaž Kljun	English	Autumn
3	Introduction to Machine Learning and Data Mining	6	3rd	internal or external	Branko Kavšek	English	Autumn
4	Geographic Information Systems	6	3rd	internal or external	Mojca Poklar	English	Autumn
5	Human-Computer Interaction	6	2nd, 3rd	internal or external	Matjaž Kljun	English	Autumn - 1st quarter
6	Adaptive Interactive Systems	6	3rd	internal or external	Marko Tkalčič	English	Spring
7	Graph Theory	6	3rd	internal or external	Martin Milanič	English	Spring
8	Augmented Reality	6	2nd, 3rd	internal or external	Klen Čopič Pucihar	English	Spring
9	Data Programming	6	3rd	internal or external	Uroš Godnov	English	Spring

NOTES:

[1] The first external elective course in the 2nd year is the English Language Course. The student may substitute this course with any course that falls within the areas of Mathematics or Computer Science and is taught in English.

[2] 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/cs-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 (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.