

Study program Overview: Computer and Software Engineering – MSc 2024-2027

Name of Institution:	University of Prishtina
Faculty / Department:	Faculty of Electrical and Computer Engineering Department of Computer and Software Engineering
Main Campus and / or Branch:	Main campus
Title of Study Program:	Computer and Software Engineering – MSc
NQF level of qualification:	Level VII
Academic degree or denomination of academic degree in diploma:	Master of Science in Computer and Software Engineering
ECTS:	120
Study program profile (specializations):	Computer and Software Engineering
Erasmus Subject Area Codes (ESAC):	06.9
Form of studies:	Regular studies
Minimum duration of studies:	2 years / 4 semesters
Number of places to study:	50

Year of study: I

Semester I

No	M/E	Subjects	L	NE	LE	ECTS	Lecturer
1	M	Advanced algorithms	2	0	2	6	Kadri Sylejmani
2	M	Data preparation and visualization	2	0	2	6	Lule Ahmedi
3	M	Artificial Intelligence	2	0	2	6	Avni Rexhepi
4	M	Information Security	2	0	2	6	Blerim Rexha
5	M	Software Analysis and Design	2	0	2	6	Isak Shabani

Semester II

No	M/E	Subjects	L	NE	LE	ECTS	Lecturer
1	M	Machine Learning	2	0	2	6	Lule Ahmedi
2	M	Service Oriented Computing	2	0	2	6	Isak Shabani
3	M	Research Methodology	2	0	2	6	Dhuratë Hyseni
Elective subjects (select two of the following electives)							
2	E	Semantic Web	2	0	2	6	Lule Ahmedi
3	E	Nature-Inspired Algorithms	2	0	2	6	Kadri Sylejmani
4	E	Internet of Things	2	0	2	6	Besmir Sejdiu

Year of study: II**Semester III**

No	M/E	Subjects	L	NE	LE	ECTS	Lecturer
1	M	e-Governance	2	0	2	6	Isak Shabani
2	M	Resource Management in Cloud Computing	2	0	2	6	Artan Mazrekaj
3	M	Internship Innovation Project	2	0	2	6	Besmir Sejdiu
Elective subjects (select one of the following electives)							
1	E	Natural Language Processing	2	0	2	6	Lule Ahmedi
3	E	Blockchain technologies	2	0	2	6	Blerim Rexha
4	E	Big Data Analytics	2	0	2	6	Dhuratë Hyseni
5	E	Intelligent Multimedia Systems	2	0	2	6	Besmir Sejdiu
6	E	Large Language Models	2	0	2	6	Kadri Sylejmani
Elective subjects (select one of the following electives)							
1	E	Human Resource Management	2	0	2	6	Nora Sadiku Dushi
2	E	Strategic Management	2	0	2	6	Nora Sadiku Dushi

Semester IV

No	M/E	Subjects	L	NE	LE	ECTS	Lecturer
1	M	Master's thesis	-	-	-	30	The thesis mentor is nominated by the Department and appointed by the Faculty Council

Mission, objectives and administration

Mission

The mission of the study program Master in Computer and Software Engineering is to create the future engineers, who are experts in the field of computer and software engineering and have highly specialized, extensive, and deep knowledge and possess innovative, critical, and creative thinking towards technological processes in hardware and software industry.

The Master of Science in Computer and Software Engineering program has been designed by the Computer and Software Engineering department of FECE, while ensuring that it meets the standards set by European, and American universities - making it comparable and compatible with their programs. It is designed to prepare students for professional careers in computer science and engineering while also providing them with the necessary basic research skills for further studies at the master or doctoral level. The program is highly adaptable to meet the demands of both local and international markets, offering a modern and flexible curriculum that includes practical placements in industry. This approach ensures that students gain a comprehensive understanding of the structure, function, and evolution of information technology and develop the skills necessary to keep pace with the rapidly changing landscape of the global labor market. The program's specialized content covers a wide range of topics related to computer and software engineering, including Advanced Algorithms, Internet of Things, Analysis of Networks, Service Oriented Computing, Cloud Computing, Embedded System Programming, Real Time Systems, Artificial Intelligence, Machine Learning, Natural Language Processing and Big Data Analytics. As the first specialized program of its kind in Kosovo, this master's degree program in Computer and Software Engineering plays a crucial role in building national technological capacity and providing a highly skilled workforce for private enterprises, government organizations, and non-governmental organizations. The Faculty of Electrical and Computer Engineering is committed to supporting the triple mission of the University of Prishtina by providing high-quality education, advancing scientific knowledge through research, and offering educational expertise to the local, national, and international community. As such, the objectives of the program are in line with the mission of the faculty and the university, ensuring that the graduates are well-prepared to make meaningful contributions to the field of computer and software engineering.

The program's curriculum is carefully designed to integrate theory and practice, utilizing examples from real-world computer science and engineering applications. This approach enables students to develop relevant research skills in their field of interest, allowing them to stay ahead of the curve in an ever-changing industry.

Objectives

The Master's program in Computer and Software Engineering is designed to equip students with a well-rounded understanding of the field. With this comprehensive approach, students are well-prepared for the demands of the ever-evolving field of Computer and Software Engineering. Upon completion of the program, graduates will be able to demonstrate a comprehensive understanding of computer and software engineering principles.

The program's objectives are based on the mission of the faculty, which prioritizes the following:

- Offering high quality study program that include sharing national and international experiences (by providing lectures through visiting professors from Austria and Sweden),
- Strengthen the links between scientific research and development of industrial organizations in the country and abroad.
- Developing the innovative, critical, and creative skills of students,
- Increasing student performance in their workplace,
- Preparing the students for the competitive market of the outsourcing,
- Attracting high potential students from all HEIs,
- Offering some of the courses in English language

This program is provided by the Department of Computer and Software Engineering and utilizes the shared resources of FECE including student services and other student resources which enable the successful completion of this program. All the staff members (academic and administrative) and students are informed about academic policies and regulations regarding teaching, ethical conduct in scientific research, and all other academic activities, which can be downloaded from the website of faculty. These policies can be changed by the Council of the Faculty depending on the need and the circumstances that might arise in the future.

Program Administration

The development, revision, and approval of new curricula at the University of Prishtina are guided by the legal provisions of the University's Statute. Articles 100-102 of the Statute outline the responsibilities of the Study Committee in each academic unit. The Committee is an advisory body to the Council of the academic unit and is tasked with drafting new study program proposals, adapting and changing existing ones, and continuously revising university textbooks. The Committee also develops concepts, evaluates and comments on requests, and prepares reports for the Senate or Council of the relevant unit. The Faculty management structures have the responsibility of organizing the teaching process, research, quality assurance, and exams for student evaluation. Furthermore, the Head of Department is accountable for ensuring the smooth running of the learning process at the departmental level. The University of Prishtina's Statute and Faculties Regulations for the Organization of Academic Processes are publicly available on the University's website and easily accessible to all. Several regulations and procedures guide the University's academic processes. One of these is the regulation on the development, review, and approval of new curricula. This regulation outlines the procedures and requirements that must be met before any new curriculum can be introduced or any existing curriculum changed. Additionally, the University has a regulation on student evaluation and progress during their studies, which provides guidelines for tracking and assessing students' academic progress.

The University has specific regulations and procedures for MSc diploma theses. These regulations define the requirements and criteria that students must meet when writing their theses and provide guidelines for their evaluation and grading. By adhering to these regulations and procedures, the University of Prishtina ensures that its academic programs meet the highest standards and provide students with the knowledge and skills they need to succeed in their chosen fields.