



## COMPUTER SCIENCE DEPARTMENT

### ONE-YEAR MASTER PROGRAMME

The structure of the program is as follows:

One-year Master programme in Computer Science		
Semester 1	CS501: Independent study 1: Literature review	(8 ECTS)
	CS502: Independent study 2: Research methods	(8 ECTS)
	CS503: Independent study 3: Practical application of techniques from the selected research area	(8 ECTS)
	CS504: Independent study 4: Formatting academic articles and adapting them to the specifications of the conference or journal in which they will be published.	(8 ECTS)
	CS506: Dissertation	
	Examination /Assessment	
Semester 2	CS507: Dissertation	(40 ECTS)
	Dissertation defense	

The master's dissertation is evaluated with 40 ECTS points. The student starts working on the master's dissertation from the first semester of study, in coordination with the assigned mentor.

As part of the work on the master's dissertation, the following is expected:

- Student and mentor should hold meetings at least twice a month within the framework of a one-year study.
- The student is expected to invest a certain number of hours in research and work on the master's dissertation, as follows:
  - 25 hours per week of the first semester of a one-year study, which is 375 hours of guided / independent work.
  - 40 hours per week of the second semester of a one-year study, which is 600 hours of guided / independent work.

During the first semester of study of the one-year master's program, the student writes seminar papers (See table: *Independent study 1-4*) under the supervision and in cooperation with the mentor. Papers are written on topics relevant to the chosen field of research. Each work is evaluated with 8 ECTS credits.



Lectures will not be organized for the mentioned modules (Independent study 1-4). The modules will be held one-on-one between the student and the mentor.

The student writes one seminar paper for each module, i.e. a total of 4 seminar papers. The student defends four seminar papers (Independent study 1-4) in front of the Scientific and Teaching Committee at the end of the first semester. The academic and teaching committee consists of three members of the academic staff from the field of computer science and information systems, one of whom is a mentor. Other members of the commission can be staff from the Faculty of Computer Science and Information Systems, from the University of Buckingham, other universities from BiH and other countries, or from industry.

The academic and teaching committee further considers the seminar papers and the thesis proposal and decides whether the proposed topic and seminar papers are suitable for the master's level (or rejects the papers or requires the completion of the papers), and approves the continuation of studies, i.e. the start of writing the master's thesis (or refuses the continuation of studies).

A "pass" or "fail" grade is provided for seminar papers from the first year of the one-year Master program. The grade of "pass" or "fail" is given to the student by the subject professor. Before giving the grade, the subject professor can consult with the student's mentor. Successfully completing a course demonstrates that the student has mastered the intended content and can apply the acquired knowledge in practice.

Students can choose to focus their studies and research within the following fields: Artificial Intelligence, Bioinformatics, Cryptography, Serious Games and Immersive Learning, Virtual and Augmented Reality, Big Data and Business Intelligence, Software Engineering, Cyber Security, Smart Solutions in Electrical Energy Systems, Embedded Systems, and others.

Seminar papers submitted for modules from the first semester of a one-year master study should be in the following format:

- Minimum 8 pages
- IEEE format mode.

***During this master's study, the student must submit at least one scientific paper to an international conference or journal. It does not have to be published. The scientific work can be partially or completely created from the seminar papers that the student wrote for the previously described modules.***