Programme Regulations: 2021/22

Programme Title: Degree of Master of Science in Advanced Computer Science - Code: 5178 F/P

Notes:

(i) These programme regulations should be read in conjunction with the University's Taught Programme Regulations.

(ii) A compulsory module is a module which a student must take.

(iii) All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.

(iv) All optional modules are offered subject to the constraints of the timetable and to any restrictions on the number of students who may be taught on a particular module. Not all modules may be offered in all years and they are listed subject to availability.

1. Programme structure

(a) The programme is available for study in both full-time and part-time modes.

(b) The period of study for full-time mode shall be 1 year starting in September. The period of study for part-time mode shall normally be 2 years starting in September. Students seeking to take the programme part-time should contact the DPD to discuss options.

(c) The programme comprises modules to a credit value of 180.

(d) All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Mode*
CSC8208[1]	Research Methods and Group Project in Security and Resilience	20		20		7	Block
CSC8499	Project and Dissertation for MSc in Advanced Computer Science	90		30	60	7	

[1]Candidates with the necessary prerequisites may (at the end of Semester 1) seek DPD permission to replace CSC8208 with CSC8113 below:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Mode*
CSC8113[1]	Research Methods and Group Project in Cloud Computing	20		20		7	Block

(e) All candidates shall normally select one module from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Mode*
CSC8404	Advanced Programming in Java	10	10			7	Block
CSC8406	Object-oriented Programming	10	10			7	Block

Note: Candidates with limited programming experience on entry are strongly advised to take CSC8406 while those with a strong programming background should take CSC8404.

(f) All candidates shall select one of the following optional modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Mode*
CSC8103	Distributed Algorithms	10	10			7	Block
CSC8201	The Challenge of Dependable Systems	10	10			7	Block

(g) All candidates shall select two modules from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Mode*
CSC8104	Enterprise Middleware	10	10			7	Block
CSC8105	System Validation	10	10			7	Block
CSC8112	Internet of Things	10	10			7	Block
CSC8202	Information Security and Trust	10	10			7	Block
CSC8414	Security Tools and Analysis	20	20			7	Block

(h) All candidates select two modules from the following list ***unless*** CSC8414 was selected in (g) above then only one module should be selected.

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Mode*
CSC8102	System Security	10	10			7	Block
CSC8110	Cloud Computing	10	10			7	Block
CSC8111	Machine Learning	10	10			7	Block
CSC8204	High Integrity Software Development	10	10			7	Block

(i) All candidates shall select one of the following optional modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Mode*
CSC8101	Big Data Analytics	10		10		7	Block
CSC8207	Security Analysis of Complex Systems	10		10		7	Block

2. Assessment methods

Details of the assessment pattern for each module are explained in the module outline.

3. Other

This programme is designed to produce graduates who will be expected to be equally capable in theoretical and practical aspects of their subject and it is essential that only students of equally high calibre in both aspects of the programme are eligible for merit and distinction awards. Therefore, the regulations are as follows:

Course Requirements

A number of areas in which specific regulations have been defined for this programme, and approved by the Faculty Learning, Teaching and Student Experience Committee, are documented below, and in these areas these provisions take precedence over other University regulations.

Progression within the MSc degree in Advanced Computer Science

Two assessed components comprise the MSc degree in Advanced Computer Science:

- Component 1: 70 credits of optional modules and a compulsory 20-credit group project and research methods module.
- Component 2: 90-credit individual project with dissertation module.

In order to be permitted to start Component 2 a candidate must:

- obtain a weighted average mark for Component 1 of at least 50,
- and have passed at least 70 credits in Component 1.

Progression to Component 2 can only occur when the above progression thresholds are met.

Award of the MSc degree in Advanced Computer Science

To obtain the MSc degree, candidates must satisfy the examiners in both assessed components as follows.

- A student will be recommended for the *award of MSc with Distinction* if they have achieved a pass mark in 180 credits with a weighted average mark across all 180 credits of at least 70 and have a Component 2 mark of at least 70.
- A student will be recommended for the *award of MSc with Merit* if they have achieved a pass mark in 180 credits with a weighted average mark across all 180 credits of at least 60 and have a Component 2 mark of at least 60.
- A student will be recommended for the *award of MSc* if they have achieved a pass mark in at least 160 credits with a weighted average mark across all 180 credits of at least 50.