FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCES

ADVANCED COMPUTER SCIENCE

Master of Science in Advanced Computer Science
Master of Science in Advanced Computer Science with Software Engineering
Master of Science in Advanced Computer Science with Artificial Intelligence
Master of Science in Advanced Computer Science with Data Science
Postgraduate Diploma in Advanced Computer Science
Postgraduate Diploma in Advanced Computer Science with Software Engineering
Postgraduate Diploma in Advanced Computer Science with Data Science
Postgraduate Diploma in Advanced Computer Science with Artificial Intelligence
Postgraduate Certificate in Advanced Computer Science
Postgraduate Certificate in Advanced Computer Science with Software Engineering
Postgraduate Certificate in Computer Science with Data Science
Postgraduate Certificate in Advanced Computer Science with Artificial Intelligence

These regulations are to be read in conjunction with General Academic Regulations - Postgraduate Taught Degree Programme Level.

Admission

1. The General Academic Regulations - Postgraduate Taught Degree Programme Level shall apply subject to the following requirements. Applicants shall possess:

    i. a first or second class Honours degree from a United Kingdom university (in Computer Science or a closely related subject); or
    ii. a qualification deemed by the Head of Department acting on behalf of Senate to be equivalent to (i) above.

2. In all cases, applicants whose first language is not English, shall be required to demonstrate an appropriate level of competence in the English language.

Duration of Study

3. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Mode of Study

4. The programme is available by full-time study only.

Curriculum

5. All students shall undertake an approved curriculum as follows:

    i. for the Postgraduate Certificate no fewer than 60 credits
    ii. for the Postgraduate Diploma no fewer than 120 credits
    iii. for the degree of MSc no fewer than 180 credits including a project.

Compulsory Modules

Module Code	Module Title	Level	Credits
CS957	Research Methods	5	10
CS978	Legal, Ethical and Professional Issues for the Information Society	5	10
CS958	Project	5	60

Advanced Computer Science

Optional Modules

No fewer than 100 credits of which no more than 20 may be at level 4 chosen from the available modules listed in this Regulation, or any other module as approved by the programme director.

Advanced Computer Science with Software Engineering

A total of 100 credits from the following list:

Module Code	Module Title	Level	Credits
SU902	Concepts & theories of Sustainable development	5	10
CS547	Advanced Topics in Software Engineering	5	20
CS548	Designing Usable Systems	5	20
CS549	Distributed Information Systems	5	20
CS551	Mobile Software Applications	5	20
CS982	Big Data Technologies	5	20
CS888	Advanced Information Retrieval	5	20
CS409	Software Architecture and Design	4	20

Or any other module as approved by the programme director.

Advanced Computer Science with Data Science

A total of 100 credits from the following list:

Module Code	Module Title	Level	Credits
SU902	Concepts & theories of Sustainable development	5	10
CS549	Distributed Information Systems	5	20
CS826	Deep Learning Theory and Practice	5	20
CS985	Machine Learning for Data Analytics	5	20
Together with 40 credits chosen from the following:			
CS547	Advanced Topics in Software Engineering	5	20
CS551	Mobile Software Applications	5	20
CS971	Evolutionary Computation for Finance	5	20

CS888	Advanced Information Retrieval	5	20
CS975	Business Analysis	5	10
CS988	Big Data Tools and Techniques	5	10

Or any other module as approved by the programme director.

Advanced Computer Science with Artificial Intelligence

A total of 100 credits from the following list:

Module Code	Module Title	Level	Credits
CS823	Reasoning for Intelligent Agents	5	20
CS824	Quantitative Methods for Artificial Intelligence	5	10
CS825	Game Theory and Multi-agent Systems	5	10
CS826	Deep Learning Theory and Practices	5	20
CS827	Deep Learning in Visual Computing Applications	5	10
Together with 30 credits chosen from the following:			
CS549	Distributed Information Systems	5	20
SU902	Concepts & theories of Sustainable development	5	10
CS551	Mobile Software Applications	5	20
CS815	AI Finance	5	20
CS986	Fundamentals of Machine Learning for Data Analytics	5	10
CS888	Advanced Information Retrieval	5	20
CS975	Business Analysis	5	10
CS983	Evolutionary Computation for Finance 1 (not with CS815)	5	10
CS988	Big Data Tools and Techniques	5	10

Or any other module as approved by the programme director.

Examination, Progress and Final Assessment

6. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

7. The final award will be based on performance in the examinations, coursework and the project, where undertaken.

Award

8. **Degree of MSc**: In order to qualify for the award of MSc in the chosen programme, a candidate must have accumulated no fewer than 180 credits of which 60 must have been awarded in respect of the Project CS958.

9. **Postgraduate Diploma**: In order to qualify for the award of the Postgraduate Diploma in the chosen programme, a candidate must have accumulated no fewer than 120 credits from the modules of the programme.

10. **Postgraduate Certificate**: In order to qualify for the award of the Postgraduate Certificate in the chosen programme, a candidate must have accumulated no fewer than 60 credits from the modules of the programme.