

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCES

COMPUTER SCIENCE

Master of Engineering in Computer Science
Bachelor of Science with Honours in Computer Science
Bachelor of Science in Computer Science
Diploma of Higher Education in Computer Science
Certificate of Higher Education in Computer Science

These regulations are to be read in conjunction with [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.](#)

Mode of Study

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

Place of Study

2. The programme includes an Industrial Placement.

Curriculum

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

First Year

All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CS103	Machines, Languages and Computation	1	20
CS104	Information and Information Systems	1	20
CS105	Programming Foundations	1	20
CS106	Computer Systems and Organisation	1	20
CS101	Topics in Computing 1	1	20
MS113	Introduction to Business Analysis and Technology -S1	1	10
	Elective Module*		10

*With the approval of the Advisor of Studies a student may replace the elective with a 10 credit Vertically Integrated Project (VIP).

Second Year

All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CS207	Advanced Programming	2	20
CS208	Logic and Algorithms	2	20
CS209	User and Data Modelling	2	20
CS210	Computer Systems and Architecture	2	20
CS211	Professional Issues in Computing	2	10
CS259	Quantitative Methods for Computer Science	2	10
CS260	Functional Thinking	2	10
	Elective Module*		10

*With the approval of the Advisor of Studies a student may replace the elective with a 10 credit Vertically Integrated Project (VIP).

Third Year

All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CS308	Building Software Systems	3	20
CS313	Computer Systems and Concurrency	3	20
CS310	Foundations of Artificial Intelligence	3	20
CS312	Web Applications Development	3	20
CS316	Functional Programming	3	20
CS317	Mobile App Development	3	20

Industrial Placement 1

All students on the MEng in Computer Science shall normally undertake the module CS416 Industrial Placement 1 between the third and fourth years. This module shall consist of a placement of approximately 12 weeks on work approved by the Programme Director and shall count for 20 credits at Level 4.

Fourth Year

All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CS418	Computer Science*	4	80
CS408	Individual Project	4	40

*CS418 Computer Science comprises:

Module Code	Module Title	Level	Credits
CS407	Computer Security	4	20
together with 60 credits chosen from the following.			
CS409	Software Architecture and Design	4	20
CS410	Advanced Functional Programming	4	20
CS411	Theory of Computation	4	20
CS412	Information Access and Mining	4	20
CS426	Human Centred Security	4	20
CS414	Digital Forensics	4	20
MS418	Project Management	4	20

Not all optional modules on this list will be available in each academic year. Please check your programme handbook for confirmation of which optional modules will run.

Such other Level 4 or Level 5 modules as may be approved by the Programme Director.

Industrial Placement 2

Students on the MEng in Computer Science who have already taken the module CS416 Industrial Placement 1, may additionally undertake the module CS552 Industrial Placement 2 between the fourth and fifth years. This module shall consist of a placement of approximately 12 weeks on work approved by the Programme Director and shall count for 20 credits at Level 5. This module is not compulsory and if taken is in addition to the 120 compulsory credits to be taken in both fourth and fifth years.

Fifth Year

All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CS555	Computer Science	5	80
CS546	Group Project	5	40

CS555 Computer Science comprises

80 credits of optional classes chosen from:

Module Code	Module Title	Level	Credits
CS547	Advanced Topics in Software Engineering	5	20
CS548	Designing Usable Systems	5	20
CS549	Distributed Information Systems	5	20
CS551	Mobile Software and Applications	5	20
CS982	Big Data Technologies	5	20
CS985	Machine Learning for Data Analytics	5	20

Not all optional modules on this list will be available in each academic year. Please check your programme handbook for confirmation of which optional modules will run.

Such other Level 5 modules as may be approved by the Programme Director.

Progress

4. In order to progress to the second year of the programme in addition to satisfying the requirements of [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#), a student must also gain a non-compensated Pass for the module CS105 Programming Foundations.
5. In order to progress to the third year of the programme in addition to satisfying the requirements of [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#), students must also gain a non-compensated Pass for the module CS207 Advanced Programming.
6. In order to progress to the fifth year of the MEng degree programme in addition to satisfying the [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#), a student must also gain a pass in CS408 Individual Project and the module CS416 Industrial Placement 1.

Final Classification

7. On successful completion of the fourth year, a candidate will be awarded 80 credits at Level 4 under the module code CS418 Computer Science.
8. On successful completion of the fifth year, a candidate will be awarded 80 credits at Level 5 under the module code CS555 Computer Science.
9. The final classification for the degree of MEng in Computer Science will normally be based on the first assessed attempt at all modules taken at Levels 4 and 5.
10. The final classification for the degree of BSc with Honours in Computer Science will normally be based on the first assessed attempt at all modules taken at Levels 3 and 4.

Award

11. **MEng in Computer Science:** Notwithstanding [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#), a candidate must have accumulated no fewer than 620 credits from the programme curriculum including those for the modules CS408 Individual Project, CS546 Group Project, and CS416 Industrial Placement 1.
12. **BSc with Honours in Computer Science:** See [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#), and must include the module CS408 Individual Project.
13. **BSc in Computer Science:** See [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#), and must include 100 credits at Level 3.
14. **Diploma of Higher Education in Computer Science:** See [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
15. **Certificate of Higher Education in Computer Science:** See [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCES

COMPUTER SCIENCE

Graduate Diploma in Computer Science

These regulations are to be read in conjunction with [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).

Admission

16. Every applicant for admission to a programme of study must satisfy the General Entrance Requirements as specified in [University's Admission Policy](#) and any additional Programme Entrance Requirements specified by the Department(s) or School(s) and approved by the relevant Board of Study.

Duration of Study

17. For full-time study, the minimum duration is 9 months, and the maximum is 24 months. For part-time study, the minimum duration shall be the learning equivalent of the full-time study period taking account of the conditions under which the student will work, the maximum duration is 48 months.

Mode of Study

18. The programmes are available by full-time and part-time study

Curriculum

19. All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CS418	Computer Science*	4	80
CS408	Individual Project	4	40

*CS418 Computer Science comprises:

Module Code	Module Title	Level	Credits
CS407	Computer Security	4	20
together with 60 credits chosen from			
CS409	Software Architecture and Design	4	20
CS410	Advanced Functional Programming	4	20
CS411	Theory of Computation	4	20
CS412	Information Access and Mining	4	20

CS414	Digital Forensics	4	20
CS426	Human Centred Security	4	20
MS418	Project Management	4	20

Or other such modules as approved by the Adviser of Study to bring the total studied at Level 4 to at least 100 credits.

Examination, Progress and Final Assessment

20. Candidates are required to pass examinations and to perform to the satisfaction of the Board of Examiners.

Award

21. **Graduate Diploma:** In order to qualify for the award of Graduate Diploma in the chosen programme, a candidate must have performed to the satisfaction of the Board of Examiners and have accumulated no fewer than 120 credits with at least 100 credits from Level 4 or above of which 40 must have been awarded in respect of CS408 Individual Project.