

Addendum to the Programme Specification

4466 MSc Computer Science

This Addendum has been produced to highlight the key changes made to the existing Programme Specification as a result of the University's response to the Covid-19 Pandemic. You should read it in conjunction with the relevant Programme Specification from the year you started your programme.

[Programme Specification for entry in 2020-21](#)

[Programme Specification for entry in 2019-20](#)

[Programme Specification for entry in 2018-19](#)

University level information

In view of COVID-19, the University has had to make changes to some elements of programme delivery for 2020-21. These changes have included the method of delivery, such as face-to-face and online, and the number of modules available.

The University aims to provide as much of a face-to-face component to your education as prevailing conditions at the time allow, combined with its new blended approach that will develop active independent and group online learning.

As the COVID-19 pandemic develops, the University's response to this and other issues may likewise need to evolve. The University will consult with student representatives as necessary and appropriate and will communicate changes to you as soon as practicable so that you have the information you need to understand how a change may impact you and what steps you need to take next. The University remains committed to supporting you as you learn.

Programme Information

In light of Covid-19, there will be some changes to how some group work tasks and lab works will be organised. ECS aims to reopen the teaching laboratories and hold regular scheduled sessions in S1 2020-21, following social distancing rules and regulations. In some cases, laboratory experiments have been redesigned to be either software based or virtual. In other cases, you may be working on numerical data obtained from physical experiments. Where written examinations are unable to take place due to social distancing measures, an alternative form of assessment will be offered for 2020-21

All timetabled lectures that in a normal (i.e. face-to-face) situation could be recorded will be recorded, and will be made available to all students registered on the module. The lecturing team for each module will organise question-and-answer sessions, or discussion activities aimed at approximating as much as possible personal interaction, as it occurs during lectures or seminars.

Please consider that some optional modules might have limited space available in 2020-21, based on available laboratory space.

Programme Structure

The indicative list of available optional modules can be found in the programme specifications as linked on the previous page. These options are subject to change each academic year, and in some cases there may be limited spaces available on those modules.

Programme:	MSc Comp Science - 4466
Term:	2020-2021 Academic Session (202021)
Area title:	4466-1 - MSc Computer Sci Part 1

Compulsory Modules

You must complete the following modules:

Module	Module Title	Credit	Core?	Semester/Term
COMP 6200	MSc Project	60	Yes	Non-Standard
COMP 6233	Topics in Computer Science	15	No	Semester 1
ELEC 6259	Research Methods & Proj Prep	15	No	Full Academic Year

Optional Modules

You must choose from the following modules:

Module		Credit	Semester/Term
Rule 1	<p>Select 6 modules</p> <p>You may select optional modules in any combination but might want to focus on one or two thematic streams.</p> <p>Please note that some Semester 2 modules have a Semester 1 prerequisite. You should seek advice from the programme lead to identify modules that suit your academic background.</p>		
Rule 1 GROUP 1	<p>Select 0 to 6 modules</p> <p>Software engineering</p>		
COMP 3211	Advanced Databases	15	Semester 2
COMP 6201	E-Business Strategy	15	Semester 2
COMP 6204	Software Project Management and Secure Development	15	Semester 1

COMP 6209	Automated Code Generation	15	Semester 2
COMP 6226	Software Modelling Tools and Techniques for Critical Systems	15	Semester 1
COMP 6241	Advanced Topics in Human-Systems Interaction	15	Semester 2
Rule 1 GROUP 2	Select 0 to 3 modules Web science/technology		
COMP 6215	Semantic Web Technologies	15	Semester 2
COMP 6239	Mobile Applications Development	15	Semester 2
COMP 6250	Social Media and Network Science	15	Semester 2
Rule 1 GROUP 3	Select 0 to 6 modules Artificial intelligence		
COMP 6202	Evolution of Complexity	15	Semester 2
COMP 6203	Intelligent Agents	15	Semester 1
COMP 6207	Algorithmic Game Theory	15	Semester 2
COMP 6208	Advanced Machine Learning	15	Semester 2
COMP 6211	Biometrics	15	Semester 2
COMP 6212	Computational Finance	15	Semester 2
COMP 6223	Computer Vision (MSc)	15	Semester 2
COMP 6231	Foundations of Artificial Intelligence	15	Semester 1
COMP 6247	Reinforcement and Online Learning	15	Semester 2
COMP 6248	Deep Learning	15	Semester 2
ELEC 6212	Biologically Inspired Robotics	15	Semester 2
ELEC 6213	Image Processing	15	Semester 2

Rule 1 GROUP 4	<p>Select 0 to 1 modules</p> <p>Machine learning (artificial intelligence)</p> <p>COMP6245 assumes prior knowledge of linear algebra (including eigenvectors), calculus (including partial differentiation), probability and statistics.</p> <p>For COMP6246, students should be comfortable with basic linear algebra and the fundamental concepts of calculus.</p>		
COMP 6245	Foundations of Machine Learning (MSc)	15	Semester 1
COMP 6246	Machine Learning Technologies (MSc)	15	Semester 1
Rule 1 GROUP 5	<p>Select 0 to 5 modules</p> <p>Data science</p>		
COMP 6214	Open Data Innovation	15	Semester 2
COMP 6234	Data Visualisation	15	Semester 1
COMP 6235	Foundations of Data Science	15	Semester 1
COMP 6237	Data Mining	15	Semester 2
Rule 1 GROUP 6	<p>Select 0 to 4 modules</p> <p>Cyber security</p>		
COMP 6224	Foundations of Cyber Security	15	Semester 1
COMP 6230	Network and Web Based Security	15	Semester 1
COMP 6236	Software Security	15	Semester 2
ELEC 6242	Cryptography	15	Semester 2

Compulsory Modules

You must complete the following modules:

Module	Module Title	Credit	Core?	Semester/Term
COMP 6200	MSc Project	60	Yes	Non-Standard