BSc (Hons) Computer Science

Computer Science / Faculty of Science and Engineering

Year 1 Modules

The preliminary year is designed to help you develop your English language skills so that you can make the most of your degree programme.

This special English language programme designed by the English for Academic Purposes experts at the University's Centre for English Language Education is carefully integrated with academic content modules so that you are prepared fully for years two to four of your degree programme.

Module Code	Module Title	Credits
CELEF008	Introduction to Academic Skills	10
CELEN086	Introduction to Algorithms	10
CELEF005	Foundation Algebra	20
CELEN056	Electricity and Magnetism	10
CELEN057	Foundation Mechanics	10
CELEF003	Foundation Calculus	20
CELEF006	English for Specific Academic Purposes: Science and Engineering	10
CELEN087	Introduction to Mathematical Software and Programming	15
CELEN058	Further Foundation Mechanics	15

Year 2 Modules

You will be introduced to the fundamental concepts and tools underpinning modern computer science. You will learn how to program in Java, study the architecture and applications of computer systems, and be introduced to the areas of mathematics you will need later in the programme.

Module Code	Module Title	Credits
COMP1036	Computer Fundamentals	10
COMP1038	Programming and Algorithms	20
COMP1046	Mathematics for Computer Scientists	20

COMP1048	Databases and Interfaces	10
COMP1035	Software Engineering	10
COMP1037	Fundamentals of Artificial Intelligence	10
COMP1039	Programming Paradigms	20
COMP1047	Systems and Architecture	20

Year 3 Modules

Compulsory Modules

Module Code	Module Title	Credits
COMP2046	Operating Systems & Concurrency	20
COMP2059	Developing Maintainable Software	20
COMP2043	Software Engineering Group Project	20
COMP2048	Algorithms Correctness and Efficiency	20
COMP2049	Languages and Computation	10

Optional Modules

Module Code	Module Title	Credits
COMP2044	Human Computer Interaction	10
COMP2045	C++ Programming	10
COMP2047	Introduction to Image Processing	10
COMP2051	Artificial Intelligence Methods	20

Year 4 Modules

Compulsory Modules

Module Code	Module Title	Credits
COMP3056	Professional Ethics in Computing	10
COMP3052	Computer Security	10

Optional Modules

Module Code	Module Title	Credits

COMP3048	Compilers	10
COMP3053	Software Quality Assurance	10
COMP3055	Machine Learning	20
COMP3069	Computer Graphics	20
COMP3050	Individual Dissertation Single Honours	40
COMP3059	Mobile Device Programming	20
COMP3065	Computer Vision	20
COMP3067	Fundamentals of Information Visualisation	10
COMP4107	Big Data	10
COMP3060	Development Experience	10
COMP3061	Industrial Experience	10
COMP3062	Schools Experience	10