

First Year University Studies in Information and Computer Science

In all Brunel University London information and computer science degrees, students develop a range of skills valued by employers such as communication, teamwork, analysis and project management. Each programme has a strong contemporary feel and relates information and computer management theory and concepts to the practical issues facing managers in the 21st Century. Successful completion of the degree can lead to career opportunities in business, project management, computing, social networking and business analysis.

In Stage 2/ level 1 of the programme you will take the following core modules, five in the first semester and four in the second.

In Semester One you will study:

- Interactive Learning Skills and Communication
- Group Project Semester1
- Introductory Programming Semester 1
- Data and Information Semester 1
- Information Systems & Organisations Semester 1
- Logic and Computation Semester 1

In Semester Two you will study:

- Group Project cont.
- Introductory Programming cont.
- Data and Information cont.
- Information Systems & Organisations
- Logic and Computation cont.

Module Overview

Interactive Learning Skills and Communication

This module will help you learn how to study effectively at University. Students will be introduced to higher level techniques and strategies to help support and enhance your learning at undergraduate level.

Group Project

This Group Project module seeks to integrate skills covered by the level 1 modules into a practical group task including a significant degree of programming and technical engagement. It is also intended to help the student gain confidence in their technical abilities.

Introductory Programming

The aim of the module is primarily to develop problem-solving skills. Java programming is used as a vehicle to empower the student with the means and techniques to develop software solutions. Students will be taught good programming practice and some of the underlying principles shared by all programming languages and those particular to object oriented programming.

Data and Information

This Data and Information module aims to provide students with a comprehensive introduction to different kinds of data and the means by which it can be collected, stored, retrieved, analysed and then communicated in order to achieve the goal of satisfying user information needs.

Information Systems & Organisations

This module aims to develop understanding of the complex, dynamic, and emergent behaviour of information systems (IS) with particular emphasis on the way these characteristics are modelled in the modern working environment.

Logic and Computation

The Logic and Computation module aims to introduce students to key novel computational paradigms starting with basic logic programming using PROLOG and expanded through the use of models of uncertainty. This will be accompanied by techniques such as compiler principles applied to modern formats/techniques such as XML, Turing Machines and more advanced computational techniques such as agent-based processing models, and Artificial Intelligence approaches such as Neural Networks and Genetic Algorithms.