BIC4011-B module descriptor	
Module Title	Computer Systems
Credit Level	20 credits (FHEQ Level 4)
Session	2026/7 academic year
BDA occurrence	Academic Year available at University of Bradford
BDA occurrence	Non Standard Year available at University of Bradford

Transparency notice

This specification for module code BIC4011-B has been generated automatically in advance of the academic year 2026/7. Every effort has been made to ensure that the information is accurate at the time of publication, but changes permitted by our Student Contract Terms and Conditions could be made in the interval between publishing and commencement of teaching; where changes impact the terms and conditions of an applicant's or student's offer, these are communicated to them as soon as possible.

BIC4011-B module aims

This module will provide you with a broad introduction to the discipline of computing.

It focuses on the structure and components of a computer system and the responsibilities and functioning of a computer's operating system. By providing you with an understanding of how your computer and its operating system work, it will provide you with a solid theoretical and practical grounding for the second and third years of your degree programme.

BIC4011-B module learning outcomes

No.	Students completing the module will be able to:
01	Explain in general terms the components of a computer system and its usefulness to a programmer.
02	Provide definitions and describe uses of a CPU, memory and the bus system.
03	Demonstrate an understanding of the Linux system.
04	Describe the different technologies available to connect peripherals.
05	Demonstrate an understanding of visualization tools and of how they may benefit the user.
06	Describe potential legal, ethical, quality and/or safety issues around designing and implementing a computer system.

BIC4011-B module outline syllabus

The content of the module includes:

History and development of computing and related industries.

Central Processing Unit (CPU) - the von Neumann (Princeton) and Harvard models.

Definitions and uses of memory and the bus (communications) system.

Different technologies used to connect peripherals.

Binary data representation.

Role of an operating system from a programmer's perspective.

Introduction to Linux system (overview of shell commands).

Introduction to good editors for programmers.

Introduction to visualization tools like VirtualBox, enabling students to run different operating systems for different purposes on their hardware.

Legal, ethical, safety and quality issues - managing risk and responsibility in computer and information systems.

For more information, visit the VLE (**Canvas**) page, go to our **Reading Lists webpage for this module** or search **https://bradford.rl.talis.com** for this module.

BIC4011-B module notional learning hours

- 140 hours Directed Study
- 60 hours Lectures

The overall expected hours may include contact time, scheduled learning activity, directed and independent study and any minimum expectations for placement learning. Most learning at the University of Bradford has some online content and sessions which are delivered fully by virtual means are labelled as "online".

BIC4011-B module learning, teaching and assessment

Teaching and learning on the module can be divided up in the following ways:
60 hours in small classes using an interactive learning and teaching approach; tutor-led sessions are followed by whole class or group discussions.

140 hours of directed learning - responding to ideas and information received and discussed in classes; further practical sessions; assignments, preparation for classes and assessments; independent learning.

N/A

BIC4011-B mode of assessment

Type	Mode	Assessment description	Weight
Summative	Examination - Closed Book	Interim test, 60 minutes	30%
Summative	Coursework - Portfolio/e-portfolio	Portfolio of written tasks	70%

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