# UNIVERSITY OF NORTHAMPTON

# MODULE SPECIFICATION

This document forms the definitive overview as to the nature and scope of this module and is used in the University’s quality assurance processes. The information in this document cannot be changed without approval (except for the Indicative Content).

[A glossary of key terms is available.](https://www.northampton.ac.uk/ilt/current-projects/defining-contact-time/types-of-student-contact-time/)

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| **FACULTY** | Faculty of Art, Science & Technology |
| **SUBJECT AREA** | Technology |
| **SUBJECT FIELD** | Computing |
| **MODULE TITLE** | Computer Systems |

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| **MODULE CODE** | CSY1061 |
| **LEVEL** | 4 |
| **CREDIT VALUE** | 20 |
| **MODULE LEADER** | Yinghui Zhang |

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| **DELIVERY MODE(S)** | Standard |
| **DELIVERY LOCATION(S)** | UON |

**PRE-REQUISITES:**   
  
None

**CO-REQUISITES:**   
  
None

**RESTRICTIONS:**

None

**SUPPLEMENTARY REGULATIONS**:

This module has supplementary regulations No

**MODULE OVERVIEW:**

This module provides knowledge of the hardware and software components that make up a computer system and overview the important concepts in preparation for future study of computer science.

**INDICATIVE CONTENT:**

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| This module introduces students to the concepts necessary to use a modern computer system. The module will also consider ethical and social aspects and their influence on the use and selection of computer systems.  In particular, the following topics will be addressed:   * The computer system * Background to computer systems: * Digital fundamentals * Number representation. * The structure of the hardware of a typical PC. * Memory * Processor * Storage devices * The use and workings of typical peripheral devices * Using computer systems * The function and purpose of an operating system * Issues surrounding current computer systems. For example, virtualisation |

**LEARNING OUTCOMES:**

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| **Module Learning Outcome** |
| **On successful completion of the module with detailed guidance students will be able to:** |
| **Subject-Specific Knowledge, Understanding & Application** |
| 1. use binary numbering system and explain how it is used in computer system to represent numbers, i.e. IEEE standard 754 |
| 1. develop strategies to design logic circuits for CPU calculations |
| 1. Explain how processors work, describing how the CPU interacts with memory. |

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| **Changemaker & Employability Skills** |
| 1. Identify innovative uses of computers and explain their risks and benefits to modern society. |
| 1. effectively communicate information in a structured and appropriate written format appropriate to present an implemented solution |

**Readers are referred to the Programme Specification document for the list of PSRB requirements met by this module.**

**TYPICAL LEARNING, TEACHING AND ASSESSMENT HOURS (for the module as delivered on-site at the University of Northampton):**

[View this table on how learning, teaching and assessment hours map to the KIS Categories.](https://www.northampton.ac.uk/ilt/current-projects/defining-contact-time/kis-guidance/)

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| **Learning and teaching information for this module when delivered off-site by UN partners is available from the partner institution’s NILE site (or equivalent). Any variation in study hours must be approved by the University of Northampton before students are enrolled, ensuring that study hours provision is always appropriate to support student achievement of the module learning outcomes.** |

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| **Learning, Teaching and Assessment activities** | **Study hours** |
| **Contact hours: (total)**  Comprising face-to-face and online contact hours as follows: | **48** |
| * **Face-to-face (total) -** this may include the following: * Specialist space (e.g. laboratories, studio space) | 40 |
| * **Online contact hours** **(total)**  (comprising online activities with mediated tutor input) | 8 |
| **Guided independent study hours  (including hours for assessment preparation)** | **152** |
| **Module Total** | **200** |

**ALIGNMENT OF LEARNING OUTCOMES AND ASSESSMENTS:**

**University of Northampton:**

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| **Assessment Activity** | | | **Learning Outcomes** | **Weighting (%)** |
| **Code** | **Assessment Type** | **Assessment Deliverables** |  |  |
| TC1 | Time Constraint Assessment | Online Tests  2 hours (50%) | a, b, d, e | 50 |
| TC2 | Time Constraint Assessment | Online Tests  2 hours (50%) | c, d, e | 50 |

The assessment items listed above are graded and contribute to the overall module grade (assessment *of* learning). In addition, there are opportunities for formative assessment (assessment *for* learning), which are ungraded, to support students in achieving the module learning outcomes. These are NOT listed.

**APPROVAL/ REVIEW DATES:**

**Version: 1 (was CSY1014)**

Date of approval: