University of Brighton

MODULE SPECIFICATION

MODULE DETAILS

Module title	Computing technologies												
Module code	CI405												
Credit value	20												
Level Mark the box to the right of the appropriate level with an 'X'	Level 4	X	Level 5		Level 6		Level 7		Level 8				
	Level 0 (for modules at foundation level)												
Entry criteria for registration on this module													
Pre-requisites Specify in terms of module codes or equivalent													
Co-requisite modules Specify in terms of module codes or equivalent													
Module delivery													
Mode of delivery	Taught	X	Distance		Placement		Online						
	Other												
Pattern of delivery	Weekly	X	Block		Other								
When module is delivered	Semester 1		Semester 2		Throughout year	X							
	Other												
Brief description of module content and/ or aims Overview (max 80 words)	The module enables students to gain an understanding of the basic principles underlying the architecture and operations of a computer system including the storage and retrieval of data.												
Module team/ author/ coordinator(s)	Goran Soldar Jennie Harding												
School	School of Computing, Engineering and Mathematics												
Site/ campus where delivered	Moulsecoomb												

Course(s) for which module is appropriate and status on that course

Course	**Status (mandatory/ compulsory/ optional)**
BSc (Hons) Computer Science	Compulsory
BSc (Hons) Computer Science for Games	Compulsory
BSc (Hons) Computer Science with Artificial Intelligence	Compulsory
BSc (Hons) Computing for Web and Mobile	Compulsory
BSc (Hons) Digital Games Development	Compulsory
BSc (Hons) Computer Science with Cyber Security	Compulsory

MODULE AIMS, ASSESSMENT AND SUPPORT

Aims	This module aims to:

	• Engender an understanding of the key hardware and software components that underpin computing systems. • Develop skills in using operating systems and data management tools
Learning outcomes	On successful completion of the module the student will be able to: 1. Demonstrate an understanding of the main hardware and software components of a computer system 2. Utilise the basic features of an operating system 3. Apply mathematical approach to represent and convert numbers from different number bases 4. Appreciate the business needs for modern information systems 5. Describe approaches to large scale data storage and management 6. Use SQL to create database queries according to selection criteria
Content	• Computer organisation and architecture • Computer arithmetic, binary and hexadecimal number systems • System software • Software tooling • Data storage and management • Relational database implementation • Introduction to SQL
Learning support	**Indicative reading** Latest editions of the following: • Stallings, W., *Computer Organization and Architecture Designing for Performance*, Pearson • Tanenbaum, A., *Structured Computer Organization*, Pearson • Negus, C., *Linux Bible*, Wiley • Connolly and Begg, *Database Systems: A Practical Approach to Design, Implementation, and Management*. Addison-Wesley **Software** Linux and open source tools such as MySQL will be used. **Online resources** Web links will be provided on Studentcentral during module delivery. These will include links to on-line tutorials such as those available at Lynda.com.

Teaching and learning activities	
Details of teaching and learning activities	**Face to face learning:** This will take the form of a combination of weekly lectures and lab based tutorials. **Online learning:** All study materials will be made available on Studentcentral. **Formative assessment:** During semester one, this will involve the creation of a small database following a supplied specification which will confirm students understanding of using SQL to implement and

	query a database. Feedback will be provided verbally by the module team and/or peers. During semester two, formative feedback will be provided within the context of assessment task 2 (see below.). Feedback will be provided as each student completes a section of their learning journal and will take the form of verbal comments from both the module team and peer review.

Allocation of study hours (indicative) Where 10 credits = 100 learning hours		**Study hours**
SCHEDULED	This is an indication of the number of hours students can expect to spend in scheduled teaching activities including lectures, seminars, tutorials, project supervision, demonstrations, practical classes and workshops, supervised time in workshops/ studios, fieldwork, and external visits.	48
GUIDED INDEPENDENT STUDY	All students are expected to undertake guided independent study which includes wider reading/ practice, follow-up work, the completion of assessment tasks, and revisions.	152
PLACEMENT	The placement is a specific type of learning away from the University. It includes work-based learning and study that occurs overseas.	
	TOTAL STUDY HOURS	**200**

Assessment tasks	
Details of assessment on this module	**Task 1: 1 hour multiple choice examination 40%** (LO 4, 5,6) The unseen examination assesses knowledge and skills mainly gained through practical exercises undertaken in semester 1 lab classes. **Task 2: Coursework 60%** (LO 1-3) Students create a learning journal based on a set of lab exercises. Each student will submit their learning journal demonstrating and evaluating their completed work. (equivalent to 1,750 words).

Types of assessment task[1] Indicative list of summative assessment tasks which lead to the award of credit or which are required for progression.		**% weighting** (or indicate if component is pass/fail)
WRITTEN	Written exam	40%
COURSEWORK	Written assignment/ essay, report, dissertation, portfolio, project output, *set exercise*	60%
PRACTICAL	Oral assessment and presentation, practical skills assessment, *set exercise*	

EXAMINATION INFORMATION	
Area examination board	Computing

[1] Set exercises, which assess the application of knowledge or analytical, problem-solving or evaluative skills, are included under the type of assessment most appropriate to the particular task.

Refer to University for guidance in completing the following sections

External examiners			
Name	**Position and institution**	**Date appointed**	**Date tenure ends**
Suraj Ajit	University of Northampton	1/12/18	30/9/22

QUALITY ASSURANCE					
Date of first approval Only complete where this is not the first version	CDR April 2018				
Date of last revision Only complete where this is not the first version	Editorial change Mar 2019, January 2019, January 2020				
Date of approval for this version	Editorial June 20				
Version number	3.1				
Modules replaced Specify codes of modules for which this is a replacement					
Available as free-standing module?		Yes		No	X