1. **Title of the module**

COMP3240 (CO324) - Computer Systems

COMP3241 (CO324) - Computer Systems

1. **School or partner institution which will be responsible for management of the module**

School of Computing

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 4

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn or Spring

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

BSc Computer Science, BSc Computer Science (Networks), BSc Computer Science (Artificial Intelligence), BSc Computer Science (Consultancy), BEng Computer Systems Engineering, BSc Computing and Business Administration, BSc Computing, BSc Computer Science for Health, BSc Business Information Technology, Computing Joint Honours, including Year in Industry variants.

BEng Electronic and Communications Engineering, BEng Computer Systems Engineering.

Also offered as a wildcard on other programmes.

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to:**

8.1 Describe the purpose of, and the interaction between, the functional hardware and software components of a typical computer system.

8.2 Identify the principal hardware and software components which enable functionality and connectivity of systems ranging in scale from the global Internet down to tiny embedded systems like those that empower the Internet of Things.

8.3 Appreciate the principles and technologies behind the Internet, including layered architectures, and how this can be used to deliver effective network services.

8.4 Describe how networks and other computer hardware interact with operating systems, and can be shared between different programs and computers.

8.5 Assess the likely environmental impact of basic decisions involving computer hardware.

1. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**

9.1 Communicate their understanding of basic computer hardware and software.

9.2 Develop their understanding of how network technologies underpin the Internet.

9.3 Evaluate how computer hardware and software interact to deliver functionality and services at both small and large scales.

1. **A synopsis of the curriculum**

This module aims to provide students with an understanding of the fundamental behaviour and components (hardware and software) of a typical computer system, and how they collaborate to manage resources and provide services in scales from small embedded devices up to the global internet. The module has two strands: ‘Computer Architecture’ and ‘Operating Systems and Networks’. Both strands contain material which is of general interest to computer users; quite apart from their academic value, they will be useful to anyone using any modern computer system.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

McLoughlin, Ian Vince (2011) Computer Architecture: an embedded approach. McGraw-Hill, 512 pp. ISBN 9780-071311-182

Tanenbaum, Andrew & Bos, Herbert (2014) Modern Operating Systems (4th Edition). Pearson Education, 1136 pp. ISBN 978-0133591-620

Kurose, James and Ross, Keith (2009) Computer networking: a top-down approach (5th Edition). Pearson Education, ISBN 978-0131365-483

Mueller, Scott (2012) Upgrading and repairing PCs (20th ed onwards). QUE Press ISBN 978-0-7897-3954-4

1. **Learning and teaching methods**

Total contact hours: 26

Private study hours: 124

Total study hours: 150

1. **Assessment methods**
   1. Main assessment methods

Canterbury and Medway

Coursework 50%

(Test) A1 In-class Test (12.5%)

(Test) A2 In-class Test (12.5%)

(Test) A3 In-class Test (12.5%)

(Test) A4 In-class Test (12.5%)

2-hour unseen examination 50%

13.2 Reassessment methods

Like for like assessment

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *8.5* | *9.1* | *9.2* | *9.3* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |
| **Private Study** | X | X | X | X |  | X | X | X |
| *Classes* | X | X | X | X |  | X |  | X |
| *Lectures* | X | X | X | X | X |  | X |  |
| **Assessment method** |  |  |  |  |  |  |  |  |
| *In-class tests* | X | X | X | X | X | X | X | X |
| *Examination* | X | X |  | X | X | X |  | X |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

Medway

1. **Internationalisation**

The topics addressed by this module relate to a field which is of international importance, given the global role of computers in today's technological innovation. The topics covered by this module are international in nature, being identical worldwide and independent of traditional spoken language.

**FACULTIES SUPPORT OFFICE USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
|  |  |  |  |  |
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Revised FSO Jan 2018