

**BSc (Hons)**

**Computing & Systems Development**



**Level 6**

**Course Code: 16647**

**Module Specifications 2020 – 2021**

**Module Specifications Contents**

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| MODULE SPECIFICATION TEMPLATE |

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| MODULE DETAILS |
| **Module title** | Individual Project |
| **Module code** | CSD301 |
| **Credit value** | 40 |
| **Level**Mark the box to the right of the appropriate level with an ‘X’ | Level 4 |  | Level 5 |  | Level 6 | X | 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 | None |
| **Co-requisite modules**Specify in terms of module codes or equivalent | None |
| ***Module delivery*** |
| **Mode of delivery** | Taught |  X | Distance |  | Placement |  | Online |  |
|  | Other |  |
|  |
| **Pattern of delivery** | Weekly |  X | Block |  | Other |  |
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| **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 demonstrate the skills they have learned at Levels 4 and 5 and put into practice their understanding of the theory taught in a major piece of practical work. Additionally it provides the opportunity for students to demonstrate self-planning and motivation.

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| **Module team/ author/ coordinator(s)** | Jarod Locke, Kath Lampard |
| **School** | Sussex Coast College Hastings  |
| **Site/ campus where delivered** | Ore Valley |
| ***Course(s) for which module is appropriate and status on that course*** |
| **Course** | **Status (mandatory/ compulsory/ optional)** |
|  BSc (Hons) Computing and Systems Development |  Mandatory |

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| MODULE AIMS, ASSESSMENT AND SUPPORT |
| **Aims** | This module aims to:

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| 1. Enable students to develop a coherent rationale and justification for a major project
2. Demonstrate student knowledge by applying a range of skills to this large practical task
3. Enable students to carry out a largely self-managed, practical task within an area of computing normally appropriate to the individual student’s award
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| **Learning outcomes** | On successful completion of the module the student will be able to:1. Produce a project proposal, justify the choice of the project and identify its relationship to their interests and to prior learning at Level 4 and 5.
2. Identify the methodological, organisational and technological challenges to the successful planning and carrying out of the project, and justify the approaches taken on these issues
3. Develop and work to a specification and set of requirements, document these appropriately and demonstrate the results of their work.
4. Demonstrate a capacity for self-management and sustained independent work, coordinate all the activities needed to produce the agreed deliverables.
5. Demonstrate an awareness of relevant professional, social, legal and ethical issues that need to be considered.
6. Critically appraise his or her own performance of the project and identify the lessons learned from undertaking it.
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| **Content** | * Writing a proposal
* Using the online library catalogue
* Developing an interim research report
* Project Management
* Designing a presentation
* Format of the report
* Project presentation day
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| **Learning support** | A handbook will be supplied to students at the beginning of the project and an introductory briefing will support this.**Indicative reading****Journals:**Hernandez, P 2018, 'Microsoft Sharpens Planner's Time Tools, Floats OneDrive Storage Offer', *Eweek*, p. 1, Business Source Elite, EBSCO*host*, viewed 18 July 2018Hickey, A, & Davis, A 2004, 'A Unified Model of Requirements Elicitation', *Journal Of Management Information Systems*, 20, 4, pp. 65-84, Business Source Elite, EBSCO*host*, viewed 18 July 2018Procaccino, J, & Verner, J 2009, 'Software Developers' Views of End-Users and Project Success', *Communications Of The ACM*, 52, 5, pp. 113-116, Business Source Elite, EBSCO*host*, viewed 18 July 2018Subramanian, C, Krishna, A, & Kaur, A 2018, 'Game Theory-Based Requirements Analysis in the i\* Framework', *Computer Journal*, 61, 3, pp. 427-446, Academic Search Elite, EBSCO*host*, viewed 18 July 2018**Websites:**Agile Alliance. (2018). *Agile Alliance*. [online] Available at: https://www.agilealliance.org/ [Accessed 18 Jul. 2018].Project Smart. (2018). *Introduction to Project Management*. [online] Available at: https://www.projectsmart.co.uk/introduction-to-project-management.php [Accessed 18 Jul. 2018]. Volere.co.uk. (2018). *Volere Requirements home page*. [online] Available at: http://www.volere.co.uk/index.htm [Accessed 18 Jul. 2018].**Texts:**Atul, Gawande, 2011. *The Checklist Manifesto: How to Get Things Right*. Main Edition. ProfileDawson, C. 2015. *Projects in Computing and Information Systems (A students guide)*, 3rd Edition. PearsonOates, Briony, J. 2005. Researching Information Systems and computing. 1st Edition. Sage Publications LimitedProject Management Institute, 2017. *A Guide to the Project Management Body of Knowledge* (PMBOK Guide), Sixth Edition. Project Management InstituteWiegers, K. Beatty, J. 2011. *Software Requirements*, Third Edition, Microsoft Press |
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| ***Teaching and learning activities*** |
| **Details of teaching and learning activities** | A series of lectures/workshops will be delivered to encompass: * Proposal
* Online library catalogue
* Interim research report
* Project Management
* Designing your Presentation
* Report– format etc
* Project presentation Day
* The tasks of general administration and coordination of project related work would be undertaken by a member of staff, who will also lead this module.
* An appropriately qualified member of staff, who will assess the project, will supervise each individual project. Another member of staff, who will also act as second examiner, will give additional input.
* Students will discuss their proposals at an early stage with both examiners.
* Students will make arrangement to meet their supervisor regularly to discuss progress.

 * The choice of project is the student’s, but to assist him/her a list of project suggestions and potential live clients will be maintained by staff and circulated at the start of the year.
* Providing the relevance and academic content of the project can be demonstrated, there are no specific rules governing the choice of topic and the range of possible projects is considerable.
* The size and scope of the task makes it possible to complete some of the work away from college and students are permitted to undertake a practically based project for an external organisation.

**Formative assessment**.You will be required to:* Submit a project proposal at start of term 1 for approval by project supervisor and second examiner.

All Formative assessment will be ungraded and take place as independent study time. The project supervisor will provide verbal feedback. Student will make use of the project diary to record feedback and outcomes.  |
| **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. | 15: Project Supervision12: Taught Session |
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| **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. | 373 |
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| **PLACEMENT** | The placement is a specific type of learning away from the University. It includes work-based learning and study that occurs overseas. | 0 |
| **TOTAL STUDY HOURS** | **400** |
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| ***Assessment tasks*** |
| **Details of assessment on this module** | **Summative**Task 1 5000 word written project report LO2, 3, 4, 5 (85%)Task 2 10 minute presentation combined with Viva. LO1 & 6 (15%) |
| **Types of assessment task[[1]](#footnote-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 | N/A |
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| **COURSEWORK** | Written assignment/ essay, report, dissertation, portfolio, project output, *set exercise* | 85% |
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| **PRACTICAL** | Oral assessment and presentation, practical skills assessment, *set exercise* | 15% |
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| EXAMINATION INFORMATION |
| **Area examination board**  | Sussex Coast College Hastings Course Examination Board |
| Refer to University for guidance in completing the following sections |
| ***External examiners*** |
| **Name** | **Position and institution** | **Date appointed** | **Date tenure ends** |
| **Dr Olufemi Isiaq** | Senior Lecturer in Computing, Southampton Solent University | 1st October 2017 | 30th September 2021 |

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| QUALITY ASSURANCE |
| **Date of first approval**Only complete where this is not the first version | 25/05/2017 |
| **Date of last revision**Only complete where this is not the first version | March 2018 CDR |
| **Date of approval for this version** | March 2018 CDR |
| **Version number** | 2 |
| **Modules replaced**Specify codes of modules for which this is a replacement |  |
| **Available as free-standing module?** | Yes |  | No | x |

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| MODULE SPECIFICATION TEMPLATE |

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| MODULE DETAILS |
| **Module title** | Mobile Application Design |
| **Module code** | CSD302 |
| **Credit value** | 20 |
| **Level**Mark the box to the right of the appropriate level with an ‘X’ | Level 4 |  | Level 5 |  | Level 6 | X | 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 | None |
| **Co-requisite modules**Specify in terms of module codes or equivalent | None |
| ***Module delivery*** |
| **Mode of delivery** | Taught |  X | Distance |  | Placement |  | Online |  |
|  | Other |  |
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| **Pattern of delivery** | Weekly |  X | Block |  | Other |  |
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| **When module is delivered** | Semester 1 |  | Semester 2 |  | Throughout year |  X |
| Other |  |
| **Brief description of module content and/ or aims**Overview (max 80 words) |

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| This module will enable students to design, create and deliver content optimised for mobile devices. It examines and analyses the usability of mobile devices and design principles. This module also appraises how users can interact with mobile devices and how this interaction is designed and implemented into new apps.  |

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| **Module team/ author/ coordinator(s)** | Kath Lampard |
| **School** | Sussex Coast College Hastings |
| **Site/ campus where delivered** | Ore Valley |
| ***Course(s) for which module is appropriate and status on that course*** |
| **Course** | **Status (mandatory/ compulsory/ optional)** |
|  BSc (Hons) Computing and Systems Development |  Compulsory |

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| MODULE AIMS, ASSESSMENT AND SUPPORT |
| **Aims** |

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| This module aims to:

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| 1. Enable students to design, create and deliver content optimised for mobile devices.
2. Provide students with the opportunity to examine and analyse the usability of mobile devices and different forms of interaction that technology provides.
3. Enable students to design and develop an app that makes use of mobile device functionality / technology.
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| **Learning outcomes** | On successful completion of the module the student will be able to:1. Competently deploy technologies optimised for mobile clients.
2. Design content for mobile devices.
3. Analyse the usability and solve problems in designing for mobile devices.

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| **Content** | The following topics will be covered: * Optimisation for mobile clients
* Usability and design issues for mobile devices
* Geographical Context
* Device interaction
* Function of aims and objectives within a design brief.
* Research and planning
* Literal and lateral thinking
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| **Learning support** | **Support notes and information maintained on the course managed learning environment:**Web-based resources.Lecture materials / presentationsThe module is supported by resources on the VLE and course website **Indicative reading****Websites:**Codecademy. (2018). *Java Tutorial - Conditionals, Objects and Data Structures*. [online] Available at: https://www.codecademy.com/learn/learn-java [Accessed 18 Jul. 2018].Eu.udacity.com. (2018). *Android Basics: User Interface | Udacity*. [online] Available at: https://eu.udacity.com/course/android-basics-user-interface--ud834 [Accessed 18 Jul. 2018].The Interaction Design Foundation. (2018). *UX Design Articles and Books*. [online] Available at: https://www.interaction-design.org/literature [Accessed 18 Jul. 2018].UXM. (2018). *Homepage - UXM*. [online] Available at: http://www.uxforthemasses.com/ [Accessed 18 Jul. 2018]. Uxmatters.com. (2018). *UXmatters :: Columns*. [online] Available at: https://www.uxmatters.com/columns/ [Accessed 18 Jul. 2018].**Books**Case, A. (2016) Calm Technology: Principles and Patterns for Non-Intrusive Design. O'Reilly MediaFling, B. (2009) Mobile Design and Development. O'Reilly Media, Incorporated.Levin, M. (2013) Designing Multi-Device Experiences. O’Reilly Media.Neil, T. (2014) Mobile Design Pattern Gallery. O’Reilly Media.  |
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| ***Teaching and learning activities*** |
| **Details of teaching and learning activities** | Contact time:* One to one and/or group tutorials
* Creative workshops
* Technical workshops
* Practical and technical demonstrations
* Research and development

Non-contact time: * Independent research
* Development of technical skills
* Development of design ideas
* Completed response to given brief.

Formative assessment will take place half-way through term two.Students will be required to submit initial designs for a mobile application along with group planning documentation indicating individual student. This will be carried out through independent study. Written feedback will be provided but ungraded.  |
| **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. | 50 |
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| **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. | 150 |
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| **PLACEMENT** | The placement is a specific type of learning away from the University. It includes work-based learning and study that occurs overseas. | 0 |
| **TOTAL STUDY HOURS** | **200** |
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| ***Assessment tasks*** |
| **Details of assessment on this module** | Task 1 1,500-word report (Individual): Discussing and evaluating research into mobile usability issues (40%). LO1.Task 2 20 hours to design and implement a mobile App to a professional brief (Group): The app will be designed and created making use of relevant mobile device technologies and gestures. (including a Peer assessment to assess individual contribution) (60%). LO2 & 3. |
| **Types of assessment task[[2]](#footnote-2)**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 | N/A |
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| **COURSEWORK** | Written assignment/ essay, report, dissertation, portfolio, project output, *set exercise* | 100% |
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| **PRACTICAL** | Oral assessment and presentation, practical skills assessment, *set exercise* | N/A |
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| EXAMINATION INFORMATION |
| **Area examination board**  | Sussex Coast College Hastings Course Examination Board |
| Refer to University for guidance in completing the following sections |
| ***External examiners*** |
| **Name** | **Position and institution** | **Date appointed** | **Date tenure ends** |
| **Dr Olufemi Isiaq** | Senior Lecturer in Computing, Southampton Solent University | 1st October 2017 | 30th September 2021 |

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| QUALITY ASSURANCE |
| **Date of first approval**Only complete where this is not the first version | 25/05/2017 |
| **Date of last revision**Only complete where this is not the first version | March 2018 CDR event |
| **Date of approval for this version** | March 2018 CDR event |
| **Version number** | 2 |
| **Modules replaced**Specify codes of modules for which this is a replacement |  |
| **Available as free-standing module?** | Yes |  | No | X |



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| MODULE SPECIFICATION TEMPLATE |

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| MODULE DETAILS |
| **Module title** | Emerging Computing Technologies |
| **Module code** | CSD303 |
| **Credit value** | 20 |
| **Level**Mark the box to the right of the appropriate level with an ‘X’ | Level 4 |  | Level 5 |  | Level 6 | X | 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 | None |
| **Co-requisite modules**Specify in terms of module codes or equivalent | None |
| ***Module delivery*** |
| **Mode of delivery** | Taught |  X | Distance |  | Placement |  | Online |  |
|  | Other |  |
|  |
| **Pattern of delivery** | Weekly |  X | Block |  | Other |  |
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| **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 the student to plan, design and carry out research into an emerging technology. The research will be presented to the group and the student will carry out a critique of a peers research. |
| **Module team/ author/ coordinator(s)** | Jarod Locke |
| **School** | Sussex Coast College Hastings  |
| **Site/ campus where delivered** | Station Plaza |
| ***Course(s) for which module is appropriate and status on that course*** |
| **Course** | **Status (mandatory/ compulsory/ optional)** |
|  BSc (Hons) Computing and Systems Development |  Compulsory |

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| MODULE AIMS, ASSESSMENT AND SUPPORT |
| **Aims** | This module aims to:

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| Provide students the opportunity to carry out independent, guided research, which will focus on trends and future developments in computer technology.  |

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| **Learning outcomes** | On successful completion of the module the student will be able to:1. Identify and define a relevant emerging technology research topic.
2. Critically review appropriate research resources.
3. Develop a high-quality research report on their chosen approach/ emerging technology.
4. Produce a peer critique.
 |
| **Content** | * Design and plan a research activity.
* Define a research context (scope, setting, methods)
* Critical evaluation of current research and literature
* Writing, citing and referencing a literature review (peer review)
 |
| **Learning support** | **Support notes and information maintained on the course managed learning environment:**Web-based resources.Lecture materials / presentationsThe module is supported by resources on the VLE and course website**Journals**Aazam, M, Zeadally, S, & Harras, K 2018, 'Offloading in fog computing for IoT: Review, enabling technologies, and research opportunities', *Future Generation Computer Systems*, 87, pp. 278-289, Business Source Elite, EBSCO*host*, viewed 18 July 2018Strategy Analytics, I 0007, 'Strategy Analytics: On Device Artificial Intelligence Already Powers One Third of Smartphones', *Business Wire (English)*, 7, Regional Business News, EBSCO*host*, viewed 18 July 2018**Websites**MIT Technology Review. (2018). *You’ll want to keep an eye on these 10 breakthrough technologies this year*. [online] Available at: https://www.technologyreview.com/lists/technologies/2018/ [Accessed 18 Jul. 2018].Socscidiss.bham.ac.uk. (2018). *Formulating the research question*. [online] Available at: http://www.socscidiss.bham.ac.uk/research-question.html [Accessed 18 Jul. 2018].Socscidiss.bham.ac.uk. (2018). *Research methodologies*. [online] Available at: http://www.socscidiss.bham.ac.uk/methodologies.html [Accessed 18 Jul. 2018].**Books**Follett , J. (2013) *Designing for Emerging Technologies: UX for Genomics, Robotics, and the Internet of Things.* O ‘Reilly.Thomas, G. (2013) *How to Do Your Research Project*. Sage Publications LtdScientific American. (2018). *Tech*. [online] Available at: https://www.scientificamerican.com/tech/ [Accessed 3 May 2018].Royalsociety.org. (2018). *New and emerging technology*. [online] Available at: https://royalsociety.org/topics-policy/new-emerging-technology/ [Accessed 3 May 2018]. |
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| ***Teaching and learning activities*** |
| **Details of teaching and learning activities** | Delivered through:* Lectures and practical sessions.
* Learning activities include discussion,
* Practical workshops,
* Research activities (including reviews of current research papers).

Formative assessment will take place half-way through the module. You will be required to submit a research Question including Defining the research context (scope, setting, methods) with a bibliography and a research. This will be completed through independent study. You will receive verbal and written feedback. This will be ungraded. |
| **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. | 22: Lectures30: Practical workshops |
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| **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. | 148 |
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| **PLACEMENT** | The placement is a specific type of learning away from the University. It includes work-based learning and study that occurs overseas. | 0 |
| **TOTAL STUDY HOURS** | **200** |
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| ***Assessment tasks*** |
| **Details of assessment on this module** | **Either** complete both tasks belowTask 1 2000 word research paper (Individual): Discussing and evaluating research into a chosen Emerging Technology (50%). LO1 & 3**And** Task 2 1500 word critique of a peers’ research paper (50%) LO2 & 4**Or** Task 1 20 minute academic presentation to tutor. This must be supported with notes. LO1, 2, 3, 4 (100%)  |
| **Types of assessment task[[3]](#footnote-3)**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 | N/A |
|  |
| **COURSEWORK** | Written assignment/ essay, report, dissertation, portfolio, project output, *set exercise* | 100% or 0% |
|  |
| **PRACTICAL** | Oral assessment and presentation, practical skills assessment, *set exercise* | 0% or 100% |
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| EXAMINATION INFORMATION |
| **Area examination board**  | Sussex Coast College Hastings Course Examination Board |
| Refer to University for guidance in completing the following sections |
| ***External examiners*** |
| **Name** | **Position and institution** | **Date appointed** | **Date tenure ends** |
| **Dr Olufemi Isiaq** | Senior Lecturer in Computing, Southampton Solent University | October 2017 | September 2021 |

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| QUALITY ASSURANCE |
| **Date of first approval**Only complete where this is not the first version | 25/05/2017 |
| **Date of last revision**Only complete where this is not the first version | March 2018 CDR event |
| **Date of approval for this version** | March 2018 CDR event |
| **Version number** | 2 |
| **Modules replaced**Specify codes of modules for which this is a replacement |  |
| **Available as free-standing module?** | Yes |  | No | x |



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| MODULE SPECIFICATION TEMPLATE |

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| MODULE DETAILS |
| **Module title** | Web and Network Management |
| **Module code** | CSD304 |
| **Credit value** | 20 |
| **Level**Mark the box to the right of the appropriate level with an ‘X’ | Level 4 |  | Level 5 |  | Level 6 | X | 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 | None |
| **Co-requisite modules**Specify in terms of module codes or equivalent | None |
| ***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) |

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| This module enables students to develop skills in order to manage web servers and networks using appropriate tools and protocols such as SNMP. Students will consider standards and technologies relating to the operation of the Web servers and networks to prepare them for current and future developments in the field.  |

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| **Module team/ author/ coordinator(s)** | Jarod Locke |
| **School** | Sussex Coast College Hastings  |
| **Site/ campus where delivered** | Station Plaza |
| ***Course(s) for which module is appropriate and status on that course*** |
| **Course** | **Status (mandatory/ compulsory/ optional)** |
|  BSc (Hons) Computing and Systems Development |  Compulsory |

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| MODULE AIMS, ASSESSMENT AND SUPPORT |
| **Aims** | This module aims to:

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| 1. Allow students to explore the issues surrounding the management of web servers and networks.
2. Provide students with the experience of the design and implementation of a tool for interacting with the web server in order to monitor specific parameters from configuration / log files.
3. Provide students with the experience of the planning, documenting, configuration and implementation of appropriate network management protocols for a professional brief
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| **Learning outcomes** | On completion of the module students should be able to:1. Undertake informed research into current and future Web developments.
2. Install and configure a Web-based server and associated software, both for static and dynamic delivery of Web content.
3. Effectively monitor and control the operations of a web server and network devices.
4. Design and implement a tool to help manage web server faults, security concerns and configuration.

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| **Content** | The following topics will be covered: * Protocols and standards (e.g. HTTP, HTML, XML)
* Server-based Web application technologies (e.g. CGI, PHP, JSP, Java Servlets) – server management concerns
* The ISO model of network management
* Roles of a network manager
* Network simulation
* Management of change in networks
* Management protocols (e.g. SNMP)
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| **Learning support** | **Support notes and information maintained on the course managed learning environment:**Web server monitoring software (e.g. Analog) Web servers and associated software (e.g. Apache) Web application development software (e.g. PHP, Perl, ASP, JSP) Network management software (e.g. SNMP, Network Monitoring, Server management) The module is supported by resources on the VLE and course website**Indicative reading****Journals:**Guan, J, Wei, Z, & You, I 2018, 'GRBC-based Network Security Functions placement scheme in SDS for 5G security', *Journal Of Network & Computer Applications*, 114, pp. 48-56, Business Source Elite, EBSCO*host*, viewed 18 July 2018'Introducing IEEE Collabratec' 2018, *IEEE Transactions On Electromagnetic Compatibility*, 60, 4, p. 1026, Academic Search Elite, EBSCO*host*, viewed 18 July 2018**Websites:**Omnisecu.com. (2018). *Free Networking tutorials, System Administration Tutorials and Security Tutorials - omnisecu.com*. [online] Available at: http://omnisecu.com/ [Accessed 18 Jul. 2018].Netnea.com. (2018). *Apache / ModSecurity Tutorials – Welcome to netnea*. [online] Available at: https://www.netnea.com/cms/apache-tutorials/ [Accessed 18 Jul. 2018].**Books**Hu & Khali & Tari & Wen. (2017) *Mobile Networks and Management (9th International Conference).* Springer.Ross, K, W & Kurose, J. (2017) *Computer Networking: A Top-Down Approach*. Pearson Subramanian, M. (2010) *Network Management: Principles and Practice.* Pearson.Zalewski, M. (2011) *The Tangled Web: A guide to securing modern web applications*. Penguin |
|  |
| ***Teaching and learning activities*** |
| **Details of teaching and learning activities** | Delivered through: * Lectures and practical sessions
* Learning activities include discussion
* Practical workshops
* Research activities

Students will be formatively assessed through online tests and practical lab completion during timetabled sessions. The feedback will be automatic as part of the online tests and verbal feedback at end of practical labs. |
| **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. | 22: Lectures30: Practical workshops |
|  |
| **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. | 148 |
|  |
| **PLACEMENT** | The placement is a specific type of learning away from the University. It includes work-based learning and study that occurs overseas. | 0 |
| **TOTAL STUDY HOURS** | **200** |
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| ***Assessment tasks*** |
| **Details of assessment on this module** | Task 1 A 1000 word individual Report: Discussing and evaluating research into current and future web and network management technologies (40%). LO1Task 2 Group Portfolio: Consisting of a created tool for web server management and critically evaluated evidence of monitoring network devices. Group portfolio will involve 20hrs group student effort (including a Peer assessment to assess individual contribution) (60%). LO2, 3, 4. |
| **Types of assessment task[[4]](#footnote-4)**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 | N/A |
|  |  |
| **COURSEWORK** | Written assignment/ essay, report, dissertation, portfolio, project output, *set exercise* | 100% |
|  |  |
| **PRACTICAL** | Oral assessment and presentation, practical skills assessment, *set exercise* | N/A |
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| EXAMINATION INFORMATION |
| **Area examination board**  | Sussex Coast College Hastings Course Examination Board |
| Refer to University for guidance in completing the following sections |
| ***External examiners*** |
| **Name** | **Position and institution** | **Date appointed** | **Date tenure ends** |
| **Dr Olufemi Isiaq** | Senior Lecturer in Computing, Southampton Solent University | October 2017 | September 2021 |

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| QUALITY ASSURANCE |
| **Date of first approval**Only complete where this is not the first version | 25/05/2017 |
| **Date of last revision**Only complete where this is not the first version | March 2018 CDR event |
| **Date of approval for this version** | March 2018 CDR event |
| **Version number** | 2 |
| **Modules replaced**Specify codes of modules for which this is a replacement |  |
| **Available as free-standing module?** | Yes |  | No | x |



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| MODULE SPECIFICATION TEMPLATE |

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| MODULE DETAILS |
| **Module title** | Advanced Databases |
| **Module code** | CSD305 |
| **Credit value** | 20 |
| **Level**Mark the box to the right of the appropriate level with an ‘X’ | Level 4 |  | Level 5 |  | Level 6 | X | 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 | None |
| **Co-requisite modules**Specify in terms of module codes or equivalent | None |
| ***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) | This module allows students to develop advanced knowledge on different ways of representing, managing and manipulating data. The introduction of a number of advanced topics including distributed data, data warehousing and online analytical processing will be covered. |
| **Module team/ author/ coordinator(s)** | Kathrine Lampard |
| **School** | Sussex Coast College Hastings  |
| **Site/ campus where delivered** | Ore Valley |
| ***Course(s) for which module is appropriate and status on that course*** |
| **Course** | **Status (mandatory/ compulsory/ optional)** |
| BSc (Hons) Computing and Systems Development  | Compulsory |

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| MODULE AIMS, ASSESSMENT AND SUPPORT |
| **Aims** | This module aims to:1. Underpin students knowledge of Entity Relationship Modelling, RDBMS and Structured Query Language
2. Develop students knowledge and skills in further concepts associated with RDBMS such as transactions, concurrency control, recovery and security and Relational Algebra
3. Provide students with experience of a variety of database architectures and apply this knowledge to DBMS selection according to application requirements
4. Allow students to explore advanced aspects of data warehousing, distributed data, and evaluate the adoption of these systems to aid business intelligence practices for business advantage
 |
| **Learning outcomes** | On successful completion of the module the student will be able to:1. Choose appropriate database technology to support a range of business requirements
2. Critically evaluate the adoption/use of data warehouse systems and business intelligence practices for achieving organisational benefits.
3. Argue the emerging means of achieving database interoperability and argue the issues and trade-offs concerned with the distribution of data
4. Exploit enterprise data to gather business intelligence
 |
| **Content** | * Data policies
* DBMS selection
* Data management with XML technologies
* Transactions and concurrency management
* Database Design for Bi applications
* Data warehouses and data marts
* OLAP
* Data mining algorithms and processes: building, testing and deploying mining models
 |
| **Learning support** | **Indicative Texts****Journals:**Bani-Hani, I, Tona, O, & Carlsson, S 2018, 'From an information consumer to an information author: a new approach to business intelligence', *Journal Of Organizational Computing & Electronic Commerce*, 28, 2, pp. 157-171, Business Source Elite, EBSCO*host*, viewed 18 July 2018Cohen, R 2017, 'Seven Principles for Enterprise Data Warehouse Design', *Information-Management.Com*, p. 1, Business Source Elite, EBSCO*host*, viewed 18 July 2018**Websites:**Brunet, P., Shapira, G., Bisson, S., Orenstein, G., Linthicum, D., Oliver, A., Hiskey, M., Kanjilal, J. and Linthicum, D. (2018). *Database information, news, and how-to advice*. [online] InfoWorld. Available at: https://www.infoworld.com/category/database/ [Accessed 18 Jul. 2018].Docs.microsoft.com. (2018). *About SQL Server Analysis Services*. [online] Available at: https://docs.microsoft.com/en-us/sql/analysis-services/analysis-services?view=sql-server-2017 [Accessed 18 Jul. 2018].Docs.microsoft.com. (2018). *SQL Server Management Studio (SSMS)*. [online] Available at: https://docs.microsoft.com/en-us/sql/ssms/sql-server-management-studio-ssms?view=sql-server-2017 [Accessed 18 Jul. 2018].Guru99.com. (2018). [online] Available at: https://www.guru99.com/data-warehousing.html [Accessed 18 Jul. 2018].Silverstein, A., Bertucci, P., Gallelli, C. and Rankins, R. (2018). *OLTP Application Examples | Examples of SQL Server Implementations | InformIT*. [online] Informit.com. Available at: https://www.informit.com/articles/article.aspx?p=1627815&seqNum=2 [Accessed 18 Jul. 2018].YouTube. (2018). *SQL & Data Analytics for Beginners: Introduction*. [online] Available at: https://www.youtube.com/watch?v=6a-o4ALSe64 [Accessed 18 Jul. 2018].**Books**Tang & Steinbach & Karpatne & Kumar. (2018) *Introduction to Data Mining (what’s new in Computer Science).* PearsonLarson B. (2012) Delivering Business Intelligence with Microsoft SQL Server 2012. McGraw-Hill EductaionElmavri & Navathe. (2016) Fundamentals of Database Systems, Global Edition. Pearson.Connoly & Begg. (2014) *Database Systems, A practical approach to design, implementation and management, global edition*. PearsonThe module is supported by resources on the VLE and course website |
|  |
| ***Teaching and learning activities*** |
| **Details of teaching and learning activities** | Contact;* Theoretical issues will be addressed through lectures and group discussion. The concepts will be reinforced in workshop exercises using database systems such as SQL Server 2012.
* Practicel use of XML technologies, constructing and querying data marts, as well as experimentation with query analysis and concurrency tools.

Non-Contact;* Use a range of research methods to explore subject related and wider themes of theoretical issues.

Formative assessment * A draft of the text is required by the end of the term 1 prior the published submission date. You will receive written feedback that will be un-graded.
* You will be required to submit initial designs for the database and data warehouse half way term 2. This will be carried out as part of your independent studies. You will receive verbal feedback from your tutor. Your response should be recorded as part of your reflection.
 |
| **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. | 26: Lectures26: Tutorials |
|  |
| **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. | 148 |
|  |
| **PLACEMENT** | The placement is a specific type of learning away from the University. It includes work-based learning and study that occurs overseas. | 0 |
| **TOTAL STUDY HOURS** | **200** |
|  |
| ***Assessment tasks*** |
| **Details of assessment on this module** | Task 1 A 2000 word report (Individual): On the selection of Database Technology to support a range of business requirements and evaluation of the adoption of data warehouse systems and business intelligence practices based on a professional brief. (75%) LO1, 2, 4.Task 2 A 1,500 word report (Individual): Arguing interoperability issues and trade-offs concerned with the distribution of data (25%). LO3. |
| **Types of assessment task[[5]](#footnote-5)**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 | N/A |
|  |
| **COURSEWORK** | Written assignment/ essay, report, dissertation, portfolio, project output, *set exercise* | 100% |
|  |
| **PRACTICAL** | Oral assessment and presentation, practical skills assessment, *set exercise* | N/A |
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| EXAMINATION INFORMATION |
| **Area examination board**  | Sussex Coast College Hastings Course Examination Board |
| Refer to University for guidance in completing the following sections |
| ***External examiners*** |
| **Name** | **Position and institution** | **Date appointed** | **Date tenure ends** |
| **Dr Olufemi Isiaq** | Senior Lecturer in Computing, Southampton Solent University | October 2017 | September 2021 |

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| QUALITY ASSURANCE |
| **Date of first approval**Only complete where this is not the first version | 25/05/2017 |
| **Date of last revision**Only complete where this is not the first version | March 2018 CDR event |
| **Date of approval for this version** | March 2018 CDR event |
| **Version number** | 2 |
| **Modules replaced**Specify codes of modules for which this is a replacement |  |
| **Available as free-standing module?** | Yes |  | No | x |

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. [↑](#footnote-ref-1)
2. 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. [↑](#footnote-ref-2)
3. 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. [↑](#footnote-ref-3)
4. 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. [↑](#footnote-ref-4)
5. 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. [↑](#footnote-ref-5)