1. **Title of the module**

COMP7010 (CO701) Database Design and Development

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

School of Computing/Mid Kent College

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

Level 5

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 and Spring

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

COMP4040 (CO404) System Analysis and Design (pre-requisite)

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

Foundation Degree in IT, HND in IT; HNC in IT

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to:**
2. Use programming languages tools and packages, computer applications and structure data and information.
3. Carry out problem identification and analysis, the design, development, testing and evaluation of software systems.
4. Specify, design and implement computer-based systems.
5. Apply the principles of effective information management, information organisation, and information retrieval skills to information of various kinds.
6. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**
7. Demonstrate a knowledge and understanding of modelling and design of computer-based systems in a way that shows a comprehension of the trade-off involved in design choices.
8. Identify and analyse criteria and specifications appropriate to specific problems and plan strategies for their solution.
9. Deploy appropriate theory, practices and tools for the specification, design, implementation, and evaluation of computer-based systems.
10. Use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis.
11. Demonstrate an understanding of, and be able to present, cases involving a quantitative dimension.
12. **A synopsis of the curriculum**

This module considers the place, importance and operational characteristics of the relational model in database design. The student will create, in a step-by-step fashion, a complete Client-Oriented solution. The module examines issues of security, concurrency and distribution in modern database systems. The delivery will be very practically oriented with students working towards building a ‘complete’ system solution to a given case study.

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

Database Systems: A Practical Approach to Design and Implementation; 2014; Connolly T and Begg C; Pearson

Database Design and Relational Theory; 2012; Date C J; O’Reilly

MySQL Cookbook: Solutions for Database Developers; 2014; DuBois P; O’Reilly

Database Design for Mere Mortals; 2013; Hernandez M; Addison-Wesley

1. **Learning and teaching methods**

Total contact hours: 70

Private study hours: 80

Total study hours: 150

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

Written/practical assignment 1 – 35%

Written/practical assignment 2 – 35%

Examination (1.5 hours) – 30%

13.2 Reassessment methods

Like for like

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* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |
| **Private Study** | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| *Lecture* | √ | √ |  | √ |  | √ |  | √ |  |
| *Laboratory* | √ |  | √ |  | √ |  | √ | √ | √ |
| *Tutorial* |  | √ | √ |  | √ | √ | √ |  | √ |
| **Assessment method** |  |  |  |  |  |  |  |  |  |
| *Written Assignments* | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| *Examination* | √ |  | √ | √ | √ | √ | √ | √ |  |

1. **Inclusive module design**

The Partner Institution 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**

Mid Kent College (Maidstone)

1. **Internationalisation**

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

1. **Partner College/Validated Institution**

Mid Kent College

1. **University School responsible for the programme**

School of Computing

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**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) |
| 18/05/17 | Minor | September 2018 | 10-13 | No |
|  |  |  |  |  |

Revised FSO Feb 2018