1. **Title of the module**

CO583 An Introduction to Programming and Web Technologies

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

Computing

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

5

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

30 credits (15 ECTS)

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

Autumn

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

None

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

Year in Computing

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

8.1 Understand the principles and practices of programming for the web, and be able to choose appropriate tools and techniques for a given context and purpose

8.2 Understand the principles of web page design and be able to create a basic web page.

8.3 Understand the basic principles of web site design and deployment, and be able to choose appropriate technologies to construct a small dynamic site

8.4 Understand the concepts of data structuring in relational databases

8.5 Specify, design, implement and critically evaluate simple database solutions

* 1. Implement a complete application that uses a database and has a simple (web) user interface

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

9.1 Demonstrate comprehension of the trade-offs involved in design-choices.

9.2 Recognise and be guided by social, professional and ethical issues and guidelines.

9.3 Make effective use of IT facilities for solving problems.

9.4 Manage their own learning and development, through self-directed study and working on continuous assessment.

* 1. Make effective use of a range of tools, such as a web browser and database query browser.

10. **A synopsis of the curriculum**

Principles and practices of programming, using Web technologies as a basis. Including program construction, structuring, debugging and testing.

An introduction to databases and SQL, focussing on their use as a source for content for websites.

Creating static content for websites using HTML5 and controlling their appearance using CSS3.

Using server-side scripting (PHP) to integrate static and dynamic content for web sites.

Securing dynamic websites.

Using browser-based scripting (Javascript) to improve interactivity and maintainability in web content.

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

Jon Duckett HTML & CSS: Design and Build Web Sites, John Wiley & Sons, 2011

Robin Nixon Learning PHP, MySQL, JavaScript, Css & Html5, O’Reilly, 2014

12. **Learning and Teaching methods**

Contact hours 63

Private hours: 237

Total 300 hours.

13. **Assessment methods.**

13.1

Three sets of small-scale problems 35%

Capstone assessment - 15%

Examination (2 hours) - 50%

13.2

Reassessment method is like-for-like.

14. ***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 | 8.6 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |
| **Private Study** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| **Lectures** | **X** | **X** | **X** | **X** |  |  |  | **X** |  |  |  |
| **Practical Sessions** | **X** | **X** | **X** | **X** | **X** |  | **X** |  | **X** |  | **X** |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |
| Three Small-scale practical assessments |  | **X** |  | **X** | **X** |  |  |  | **X** | **X** | **X** |
| Capstone practical assessment | **X** |  | **X** |  | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Examination | **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

16. **Campus(es) or Centre(s) where module will be delivered:**

Canterbury

17. **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) |
| 15/02/19 | Major | September 2019 | 13,14,15 | No |
|  |  |  |  |  |