1. KentVision Code and title of the module

COMP5830 An Introduction to Programming and Web Technologies

## Division and School/Department or partner institution which will be responsible for management of the module

Computing, Engineering and Mathematical Sciences (CEMS)

School of Computing

## The level of the module (Level 4, Level 5, Level 6 or Level 7)

Level 5

## The number of credits and the ECTS value which the module represents

30 credits (15 ECTS)

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

Autumn

## Prerequisite and co-requisite modules and/or any module restrictions

None

## The course(s) of study to which the module contributes

Year in Computing

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

On successfully completing the level 5 module students will be able to:

8.1 Understand the principles and practices of programming.

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.

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

On successfully completing the level 5 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.

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

## 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.

## Reading list

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

[Jürgen Wolf](https://www.amazon.co.uk/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=J%C3%BCrgen+Wolf+%28author%29&text=J%C3%BCrgen+Wolf+%28author%29&sort=relevancerank&search-alias=books-uk) HTML and CSS: The Comprehensive Guide, SAP Press, 2023Robin Nixon Learning PHP, MySQL, JavaScript, CSS & HTML5, O’Reilly, 2014

Jon Duckett PHP & MySQL, Wiley, 2022

## Contact Hour

Contact hours 63

Private study: 237

Total 300 hours.

## Assessment methods

* 1. Main assessment methods

Class exercises (20%) (20 hours)

Take home assessment 1 25% (25 hours)

Take home assessment 2 25% (25 hours)

Capstone assessment (mini project) 30% (30 hours)

13.2 Reassessment methods

Reassessment method is like-for-like.

## Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section 12) and methods of assessment (section 13)

**Module learning outcomes against learning and teaching methods:**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 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** |
| **Lectures** | **X** | **X** | **X** | **X** |  |  | **X** |  |  |  |
| **Practical Sessions** | **X** | **X** | **X** | **X** | **X** | **X** |  | **X** |  | **X** |

**Module learning outcomes against assessment methods:**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |
| Class exercises | **X** | **X** |  | **X** | **X** | **X** |  | **X** | **X** | **X** |
| Take home Assessment 1 | **X** | **X** | **X** |  |  | **X** |  | **X** | **X** | **X** |
| Take home Assessment 2 | **X** | **X** | **X** |  |  | **X** | **X** | **X** | **X** | **X** |
| Capstone practical assessment | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |

## Inclusive module design

The Division 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

## Campus(es) or centre(s) where module will be delivered

Canterbury

## 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.

**DIVISIONAL USE ONLY**

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

| Date approved | New/Major/minor revision | Start date of delivery of (revised) version | Section revised  (if applicable) | Impacts PLOs (Q6&7 cover sheet) |
| --- | --- | --- | --- | --- |
| 11.04.2022 | Minor | September 2022 | 8, 13 and 14 | No |
| 07/06/2023 | Minor | September 2023 | 2, 8, 11, 13 and 14 | No |