1. **Title of the module**

COMP6550 (CO655) Software Project

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

School of Computing

1. **The level of the module (e.g. 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 (7.5 ECTS)

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

Spring

1. **Prerequisite modules**

COMP3200 (CO320) Introduction to Object Oriented Programming
COMP3230 (CO323) Databases and the Web
COMP5520 (CO552) Agile Development and Software Security A

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

This module will be a compulsory module in Stage 2 in the following programmes:

* BSc Computing
* BSc Computing with a Year in Industry
* BSc Computing (Consultancy)
* BSc Computing (Consultancy) with a Year in Industry

This module will be an optional module Stage 3 in the following degree programmes:

* BSc Business Information Technology
* BSc Business Information Technology with a Year in Industry
1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**
2. Identify and evaluate alternative solution strategies to a software problem;
3. Plan and document the process by which a software solution is achieved;
4. Construct a solution to an approved software problem;
5. Verify the solution to an agreed specification;
6. Present and demonstrate system software solution.
7. Critically evaluate the proposed solution and the means by which it was achieved;
8. Demonstrate a commitment to quality in the production of project deliverables.
9. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**
10. Develop a strategy for solving a problem;
11. Monitor progress and modify strategies to achieve agreed objectives;
12. Evaluate the realized solution;
13. Evaluate the experience of working in an individual project and suggest alternative actions that might have improved the eventual outcome.
14. **A synopsis of the curriculum**

The aim of this module is to provide an opportunity for students to apply a disciplined and structured approach in the development of a software system.

Students undertake an individual project, which involves the specification and development of a software solution. Two members of academic staff will be involved in the supervision and monitoring of the project work. One member of academic staff will assume the role of client and the second that of mentor. Students will meet regularly with the client to review progress and validate development to-date. The mentor will support students to ensure the client’s desired functionality is interpreted correctly and to encourage the adoption sound software engineering principles.

Towards the end of the project, each student will:

* Prepare a technical report that describes their solution strategy, the result of their project and reflections on what the student earned from the project;
* Present and give a demonstration of their software solution to the academic supervisors and other students.

Successful completion of the module will require students to provide evidence that they are able to develop a satisfactory solution to a prescribed problem in a disciplined and structured fashion observing acknowledged good practice.

Students will be required to produce:

* Software solution;
* Documentation appropriate to the software development methodology employed:
	+ Product requirements;
	+ Product milestones;
	+ Time and cost management artefacts, etc.
* Presentation and demonstration material.
1. **Reading List (Indicative list, current at time of publication. Reading lists will be published annually)**
* Beck, K, Extreme Programming Explained: Embrace Change, 2nd Edition, Addison-Wesley, 2004
* Barnes, D J; Kolling, M Objects First with Java: A Practical Introduction using BlueJ, 5th Edition, Pearson, 2011
* Nixon, R, Learning PHP, MySQL, JavaScript, and CSS: A Step-by-Step Guide to Creating Dynamic Websites, 2nd Edition, O'Reilly Media, 2012
* Welling, L; Thomson, L PHP and MySQL Web Development (Developer's Library), 4th Edition, Addison Wesley, 2008
1. **Learning and Teaching methods**

**22 contact hours**

**128 hours of private study**

**150 hours total**

1. **Assessment methods.**

13.1 Main assessment methods

Project software solution (approximately 86 hours) 85%

4 page technical report 15%

 Note: the technical report is a “prescribed element of assessment” which needs to be passed as a requirement for passing the module.

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* | *8.5* | *8.6* | *8.7* | *9.1* | *9.2* | *9.3* | *9.4* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |
| Practical - Client supervision |  | **x** | **x** | **x** | **x** | **x** | **x** |  |  | **x** |  |
| Practical - Mentor Supervision | **x** | **x** | **x** |  |  | **x** | **x** | **x** | **x** |  |  |
| Private study | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |
| *Coursework (software solution)* | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** |  | **x** | **x** |
| *Technical report* |  |  |  |  |  |  | **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:**

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) |
| 13/03/18 | Major | January 2019 | 6-11, 13 | No |
| 26/02/19 | Major | January 2020 | 8,10,11,12,13,14 | No  |