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## **CO2012 Software Project Management and Professionalism**

**Credits:** 10    **Convenor:** Dr R. Craggs    **Semester:** 1<sup>st</sup>

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**Prerequisites:** *Essential: CO1003, CO1005, CO1007, CO1019*

**Lectures:** 11 hours

**Laboratories:** 10 hours

**Class Test Hours:** 1 hours

**Independent Study:** 53 hours

**Assessment:** *Coursework: 100%*

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### **Subject Knowledge**

**Aims** This module will teach you techniques and technologies to manage and collaborate on a software project.

**Learning Outcomes** At the end of the module a student should:

- be able to compare traditional and agile approaches to project planning and monitoring.
- be able to explain and undertake the roles of Project Manager, Scrum Master and Product Owner.
- describe the benefits of continuous integration.
- behave professionally on a software project.
- formulate technical problems and their solution in a methodical way;
- research an issue and present their findings in writing in a balanced manner

**Methods** Curated video content, lectures, classroom activities, worksheets, supervised labs for mini project group work.

**Assessment** Marked coursework, class test.

### **Skills**

**Aims** To have the skills required to collaborate on a software project.

**Learning Outcomes**

- be able to plan a software project using a traditional approach and an agile approach.
- be able to use git version control;
- be able to apply continuous integration to projects and work productively on projects that use it;
- be able to demonstrate what professionalism means in the context of the software industry, and be aware of ethical and legal issues, like the Data Protection Act, likely to affect every professional in the software industry.

**Methods** Class sessions, labs with worksheets

**Assessment** Marked coursework, class test

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**Explanation of Prerequisites** It is essential that students have a good working knowledge of Java, up to and including the use of abstract classes and exceptions. No specific knowledge about multimedia data is required. It is beneficial if students taking this module have a very rudimentary understanding of 3 dimensional space and its coordinate geometry.

**Module Description** This module teaches the techniques required for working in a team on a software project. It provides practice in applying these within lab exercises and a mini-project done in a group.

## **Syllabus**

1. Project Planning and Gantt Charts
2. Team collaboration on software projects;
3. Version control using Git
4. Continuous integration
5. Agile project planning and monitoring
6. The scrum software development framework

**Resources** Video Content, Slides, study guide, worksheets, lecture rooms with projector.

**Module Evaluation** Course questionnaires, course review.