

**BSc Computer Science** 

# **Module Specification**

Key Information					
Module title	Agile Software Projects				
Level	5	Credit value	15		
Member Institution	Goldsmiths	Notional study hours and duration of course	150		
Module lead author/ Subject matter expert					
Module co-author					

## Rationale for the module

This module aims to provide insights and practice in software development using contemporary methods to produce software that meets the needs of users and supports an organisation's business function. The module will enable you to gain competence in the conceptualisation of a technology-based solution to a real-world problem, fulfilling the requirements of users and taking constraints imposed by the prevailing and foreseen market conditions and lessons learned from prototypes into account.

## Aims of the module

The module goals are to introduce you to a variety of topics around the practicalities of software engineering including professional and agile practice and collaborative development. You will be given the opportunity to present a proposal for a technical project including a structured plan for implementing the solution using the agile development methodology and user-centred development practices. During the whole process from concept to solution presentation, you will be required to work in a distributed team using online collaboration, project tracking and version control tools.

# Topics covered in this module:

The topics listed here are an approximation of what will be covered. The topics presented may be slightly revised to ensure currency and relevance. Students will be advised of any changes in advance of their study.

- 1. Project management & team working
- 2. Requirements gathering and specification
- 3. Market and solutions research
- 4. User-centred design and prototyping
- 5. Project proposal
- 6. Agile development methodologies
- 7. Software testing
- 8. Software validation and user testing
- 9. Professional practice
- 10. Final project

Approximately 10-12 hours of study will be required per topic. The remaining study time is intended for coursework.

## Learning outcomes for the module

Students who successfully complete this module will be able to:

- 1. Understand and apply the agile project management process applied to software development
- 2. Recognise the purpose of prototypes in answering open technical questions and in designing to meet user requirements
- 3. Devise technical tests and user tests to validate the functionality and performance of software
- 4. Work in a distributed team using appropriate online tools
- 5. Apply appropriate professional practices taking societal, ethical, marketing and technical constraints into account

# Assessment strategy, assessment methods

### **Summative and Formative Assessments**

The module will contain a range of summative and formative assessments. Summative assessments are assessments which contribute directly towards your final grade. Formative assessments do not count directly towards your final grade. Instead, they provide you with opportunities for low stakes practice, and will often provide some sort of feedback about your progress. For example, a practice quiz might provide you with feedback about why a particular answer was wrong.

#### **Assessment Activities**

The table below lists the assessment activity types you might encounter taking the module. It also states if that type of assessment can be automatically graded. For example, multiple choice quizzes can be automatically graded, and so can some programming assignments. It also states if that type of assessment will be found in the summative courseworks. More details about the summative assessments are provided below.

Assessment activity type	Can it be automatically graded with feedback in some cases?	CW1 + CW2
Quiz	х	Х
Writing task		Х
Programming task	Х	х
Video task		Х
Peer review task		x

#### **Formative Assessment**

Students will submit a progress tracking document each week detailing the contribution of each team member to the work undertaken. This will be supported by recordings taken from online collaboration events (video-conference, synchronous and asynchronous text exchange) and contributions to version controlled document and code base repositories.

#### **Pass Mark**

In order to pass this module, you must achieve at least 35% in each element of summative assessment and an overall weighted average of 40%, subject to the application of rules for compensation. Please refer to the programme regulations for more information.

#### **Summative Assessment Elements**

This module will primarily be assessed through a substantial project carried out by students working in small teams.

Summative Assessment Component	Components	Percentage of final credit	Deadline
Coursework 1	Preliminary report	30%	Mid
			session
Coursework 2	Project Report and	70%	End of
	Software		session

The main part of the assessment will be the project which will be judged by the project report, the software, and the report of individual contribution in the form of a peer review record. Coursework 1 is a written report which describes preliminary work undertaken on the project. Each student submits a preliminary report which is designed to take up to 15 hours to complete. Coursework 2 comprises the main deliverables for the project including the software and a written report describing the process of carrying out the project and the non-software outputs. The outputs of the project (typically software) are created by the group. The written report is written by each individual student. The written report is designed to take up to 35 hours to write.

# Learning resources

The module will draw on a number of different, largely web-based, public resources as well as the resources produced as bespoke material for this module. The standard text book(s) for the module will be:

J. Preece, Y. Rogers and H. Sharp (Fifth edition, 2019), Interaction Design: Beyond Human-Computer Interaction, John Wiley & Sons

Rob Cole and Edward Scotcher. *Brilliant Agile Project Management:* A Practical Guide to Using Agile, Scrum and Kanban (Chapter 1). Pearson 2015