

## MODULE DESCRIPTOR

MODULE TITLE	Agile Systems Development		
MODULE CODE	CO4608 (L7)	CREDIT VALUE	20 credits / 10 ECTS
SCHOOL	SCHOOL OF SCIENCE		

### MODULE AIMS

1. To apply a range of agile methods in a software or product development project; eliciting requirements, estimating, prioritising, timeboxing, prototyping and planning implementation
2. To demonstrate the need to involve all stakeholders, helping them to understand what technology can and cannot do for them.
3. To reflect on emergent issues, identifying areas where agile principles are not adhered to and devising continuous improvement strategies

### MODULE CONTENT

1. Agility: human interactions, collaboration, minimal documentation, flexibility
2. Agile Business Change Framework: principles, culture & leadership, enablement & governance
3. Agile Project life cycle: prototypes, iterative incremental lifecycles, timebox plans, PRL
4. Business advantage: critical success factors, business roles, negotiating priorities
5. Metrics: financial and risk management.
6. Facilitating workshops, roles, stakeholder analysis, ground rules, warm-up
7. Collaboration: sharing decisions, team work, empowerment
8. Common problems, establishing Framework principles, coping without some principles
9. Tailoring the process, task groups and white papers, continuing personal development.
10. Other agile methods: XP, Scrum, SAFe, etc.

### INTENDED LEARNING OUTCOMES

On successful completion of this module a student will be able to:

1.	Identify, evaluate and justify risk in software or product development.
2.	Judge and/or defend a range of Agile principles, what goes wrong if they are not followed and how to cope with the resulting problems
3.	Debate and agree information systems requirements with stakeholders to develop high-level requirements, plans, prototypes and models.
4.	Reflect on cooperation between stakeholders in a range of Agile roles

### TEACHING METHODS

Although there are some formal lectures, you learn most from looking at a wide range of issues as they arise in workshops:

- Discussing situations that you or fellow students have encountered at work
- Watching facilitated workshops on video then analysing the script
- Playing similar roles yourself in workshops, with video feedback as appropriate

As well as participating in workshops, you will reflect on what happened, identifying what went well, what went badly, why and what to do next time. You will look at how people made decisions, how they should make decisions, how to fulfil the responsibilities of roles defined by the Agile Business Change Framework.

Some lectures cover Framework standards. Other lectures are more like a discussion where we all work through an example, identifying decisions that should be made, discussing issues and criteria that should be considered, and then making a decision.

The assignment on the practical modelling of requirements will involve the elicitation of requirements and their representation in appropriate formats. It will include an evaluation of the elicitation process.

The report will evaluate the management of risk in software or product development through the application of agile principles. This will include evaluation the role of different stakeholders in an agile development process.

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## **ASSESSMENT METHODS**

This module is assessed through a Practical modelling of requirements (50%) and a written report (50%).