GMIT
INSTITIÚID TEICNEOLAÍOCHTA NA GAILLIMHE-MAIGH EO
GALWAY-MAYO INSTITUTE OF TECHNOLOGY

COMP08030
Agile Software Development

Full Title	Agile Software Development		
Status	Uploaded to Banner	**Start Term**	2012
NFQ Level	08	**ECTS Credits**	05
Module Code	COMP08030	**Duration**	13 weeks - (13 Weeks)
Grading Mode		**Department**	Comp Science & Applied Physics
Module Author	Gabriel Hicks		
Co Authors	Dr. John Healy		

Module Description

This is part of a conversion course for qualified level eight graduates (or equivalent) to immerse them in agile development methodologies and project control

	Learning Outcomes ***On completion of this module the learner will/should be able to:***
1.	Understand the agile philosophy and its place in modern software development.
2.	Develop software using an agile software development lifecycle.
3.	Use automated testing frameworks such as JUnit and FIT
4.	Use refactoring techniques to evolve application design
5.	Analyse the quality of source code using industry standard code and coverage metrics

Indicative Syllabus

Agile Philosophy and Key Methodologies: Limitations of the waterfall model. Agile Manifesto. Agile development model and the agile value Stream. Use-cases, stories & velocity estimation. Refactoring and continuous design. Extreme Programming (XP), Test-Driven Development, Scrum.

Agile Practices: Unit Testing, JUnit and white-box testing strategies, mock objects. Code coverage and code metrics. Acceptance testing with the FIT framework. Continuous integration, CVS, and deployment with Apache Ant. Refactoring software in Eclipse.

Teaching and Learning Strategy

Assessment Strategy

Repeat Assessment Strategies

Indicative Coursework and Continuous Assessment:		**50 %**		
Form	***Title***	***Percent***	***Week (Indicative)***	***Learning Outcomes***

UNKNOWN	Assignment Use agile development techniques to build and test a software artifact.	50 %	End of Term	2,3,4,5

End of Semester / Year Formal Exam:		**50 %**		
Form	***Title***	***Percent***	***Week (Indicative)***	***Learning Outcomes***
UNKNOWN	Final Exam Terminal examination	50 %	End of Term	1,2,4,5

Full Time Delivery Mode Average Weekly Workload:			**4.00 Hours**		
Type	***Description***	***Location***	***Hours***	***Frequency***	***Weekly Avg***
Lecture	Agile Development Lecture	Lecture Theatre	2	Weekly	2.00
Practical	Programming Practical	Computer Laboratory	2	Weekly	2.00

Literary Resources

- *Extreme Programming Explained: Embrace Change (2nd Edition)*, K. Beck, C. Andres, Addison-Wesley Professional, 2004, ISBN: 0321278658
- *Test Driven Development: By Example*, K. Beck, Addison-Wesley Professional, 2002, ISBN: 0321146530

Other Resources

None

Additional Information

None

Programme Membership

GA_KSOFG_L08 201700 Higher Diploma in Science in Software Development