F28SX Software Design

COURSE DETAILS
Course Code: F28SX
Full Course Title: Software Design
SCQF Level: 8
SCAF Credits: 15
Available as Elective: No

DELIVERY LEVEL
Undergraduate: Yes  Postgraduate Taught: No  Postgraduate Research: No

Additional Information:

COURSE AIMS

- An introduction to a range of processes and methods that promote the design of high quality software systems.
- A perspective of where design sits within the development life-cycle.

LEARNING OUTCOMES – SUBJECT MASTERY

- To demonstrate a critical understanding of software process models and design methods.
- To be able to develop design solutions using a range of structured notations.
- To demonstrate a critical understanding of the context in which software design takes place, in particular requirements engineering and the activities of validation and verification (testing).

LEARNING OUTCOMES – PERSONAL ABILITIES

- To be able to use appropriate methods and standards for practice and documentation in software engineering and information systems.
- Demonstrate evidence based approaches to problem solving.
- Use a range of numerical and graphical skills in evaluating and communicating ideas, as well as measuring progress toward achieving goals.
- To be aware of distinctive features of industrial practice
- To be able to identify, define, and analyse alternative project scenarios
- Take moderate responsibility for their work and exhibit critical reflection on development process
- To be able to relate learned knowledge to a work-based environment

SYLLABUS

- Software process models;
- Architectural styles;
- Design methods and associated notations – including function-oriented, object-oriented and component-based design; design patterns;
- Software development life-cycle issues, with particular focus on requirements engineering, validation and verification (testing).

COURSE RELATIONSHIPS

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### LOCATION AND ASSESSMENT METHODS

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