## 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

### 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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F28X Software Design

F27SA 7 Software Development 1 School of Math and Comp Sci. Pre-Requisite

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Coursework 100 Assessment All Year
Coursework 100 Reassessment Semester 1