### COURSE DETAILS

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

### DELIVERY LEVEL

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<th>Undergraduate:</th>
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<th>Postgraduate Taught:</th>
<th>No</th>
<th>Postgraduate Research:</th>
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**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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<th>Course Code</th>
<th>Level</th>
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<th>School</th>
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F28X Software Design

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<th>Course Code</th>
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**LOCATION AND ASSESSMENT METHODS**

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