F29SY Software Engineering

**COURSE DETAILS**

- **Course Code:** F29SY
- **Full Course Title:** Software Engineering
- **SCQF Level:** 9
- **SCAF Credits:** 15
- **Available as Elective:** No

**DELIVERY LEVEL**

<table>
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<th>Undergraduate:</th>
<th>Yes</th>
<th>Postgraduate Taught:</th>
<th>No</th>
<th>Postgraduate Research:</th>
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**Additional Information:**

**COURSE AIMS**

- To equip students with skills for the effective management of a work-based project, encompassing the software development life-cycle.

- To enable students to reinforce their knowledge gained in software processes, internet technology, database management, and interaction design.

- To acquire knowledge in systems analysis, requirements capture, system specification and, planning, execution, management and evaluation of software projects.

- To build teamwork, time management and efficient communication skills as well as capability in the understanding and critical analysis of work-based software development projects.

- To enable students to develop a broader comprehension of the interrelationship between work-based software development projects and software engineering theory, methodologies, tools and methods.

- To give students the opportunity to work on projects that contribute and matter to their employment.

- To enable students to apply what they've learned in their academic courses to real-world software projects as full-time employees do.

**LEARNING OUTCOMES – SUBJECT MASTERY**

- A broad and theoretical knowledge and understanding of the various development and programming paradigms, software development life cycle, and software development methodologies
- Detailed and practical knowledge of the use of methodologies for the design, development, deployment and evaluation of systems integrated within their work places.
- Practice in the application of software design, software development, databases or, web development theory to a real-world project
- Demonstrate comprehensive knowledge and critical understanding of project planning, risk assessment and management.
LEARNING OUTCOMES – PERSONAL ABILITIES

- Identification, critical analysis and evaluation of the development of a software system (PDP)
- Ability to work as part of a team to plan, execute and evaluate software projects
- Practice in taking responsibility for own work, reaching a consensus, effective communication, and working with others to a deadline (PDP)
- Relate and integrate their work-based experience with the knowledge and skills acquired in their academic courses.

SYLLABUS

- Review and extension of the components studied in earlier years which contribute to software projects.
- Software project management including team work, project planning and costing, management and, risk assessment.
- Use of Industry-level Standards for software development and documentation, covering aspects such as change control and requirements traceability.
- Further study of software development tools and methodologies.

COURSE RELATIONSHIPS

<table>
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<tr>
<th>Course Code</th>
<th>Level</th>
<th>Title</th>
<th>School</th>
<th>Type</th>
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<tbody>
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<td>F28SX</td>
<td>8</td>
<td>Software Design</td>
<td>School of Math and Comp Sci.</td>
<td>Pre-Requisite</td>
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<tr>
<td>F28DD</td>
<td>8</td>
<td>Database Management Systems</td>
<td>School of Math and Comp Sci.</td>
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<td>F29RD</td>
<td>9</td>
<td>Professional Development</td>
<td>School of Math and Comp Sci.</td>
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<td>F28ED</td>
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<td>User-Centred Experimental Design</td>
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LOCATION AND ASSESSMENT METHODS

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