The Software Development and Integration course involves the study of different strategies for the integration of software in the field of Service-Oriented Architecture, defined as software architecture for the development of applications that, based on components intended to provide a specific service, implement business processes.

SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general
secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks.

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study.

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues.

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience.

Students must have developed the learning skills needed to undertake further study with a high degree of independence.

**General Skills**

An ability to conceive, draft, organise, plan, develop and execute projects in the field of computer engineering whose purpose is to conceive, develop or exploit computer applications, services and systems.

An ability to design, develop, assess and guarantee the accessibility, ergonomics, usability and security of computer applications, services and systems, and the information managed therein.

An ability to define, assess and choose hardware and software platforms for the development and execution of computer applications, services and systems.

An ability to conceive and develop computer systems or architectures that are centralised or distributed, integrating hardware, software and networks.

**Specific skills**

An ability to develop, maintain and assess software services and systems that meet all user requirements, are reliable and efficient, are affordable to develop and maintain and meet quality standards, applying software engineering theories, principles, methods and practices.

An ability to assess customer needs and specify the software requirements needed to meet these needs, aligning conflicting goals by looking for acceptable commitments within the limitations stemming from the cost, time and existence of developed systems and of organisations.

An ability to identify and analyse problems and design, develop, implement, verify and document software solutions based on suitable knowledge of current theories, models and techniques.

An ability to design suitable solutions in one or more fields of application using software engineering methods integrating ethical, social, legal and economic aspects.

**DISTRIBUTION OF WORK TIME**

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<thead>
<tr>
<th>CLASSROOM-BASED ACTIVITY</th>
<th>INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY</th>
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<tbody>
<tr>
<td>68 hours</td>
<td>82 hours</td>
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