

# Program name: Information Systems and Software Engineering

## Program Description:

With the aim of providing high quality education through a balanced combination of theory and practice, the "Information Systems and Software Engineering" degree course aims to provide students with the knowledge, skills and behaviors they need, allowing on the one hand to be competitive in the world of work and on the other hand to pursue research and higher education. In particular, this training aims to target the core pillars of the development of information systems as well as the applications related to them, namely: software engineering, programming (desktop, client/server and mobile), decision-making systems, information retrieval, etc. The detailed program is given on the Table below.

Level	Semester	Subjects taught (modules)	
<b>1<sup>st</sup> year</b>	S1	<ul style="list-style-type: none"> <li>- Algebra 1</li> <li>- Analysis 1</li> <li>- Algorithms and data structure 1</li> <li>- Physics 1</li> </ul>	<ul style="list-style-type: none"> <li>- Machine structure 1</li> <li>- Scientific terminology and written expression</li> <li>- Foreign language 1</li> </ul>
	S2	<ul style="list-style-type: none"> <li>- Algebra 2</li> <li>- Analysis 2</li> <li>- Algorithms and data structure 2</li> <li>- Physics 2</li> <li>- Programming tools for mathematics</li> </ul>	<ul style="list-style-type: none"> <li>- Machine structure 2</li> <li>- Introduction to probability and descriptive statistics</li> <li>- Information and Communication Technology</li> </ul>
<b>2<sup>nd</sup> year</b>	S3	<ul style="list-style-type: none"> <li>- Computer architecture</li> <li>- Algorithms and data structure 3</li> <li>- Information systems</li> <li>- Graph theory</li> </ul>	<ul style="list-style-type: none"> <li>- Numerical methods</li> <li>- Mathematical logic</li> <li>- Foreign language 2</li> </ul>
	S4	<ul style="list-style-type: none"> <li>- Theory of languages</li> <li>- Operating systems 1</li> <li>- Databases</li> <li>- Communication networks</li> </ul>	<ul style="list-style-type: none"> <li>- Oriented-object programming</li> <li>- Web application development</li> <li>- Foreign language 3</li> </ul>
<b>3<sup>rd</sup> year</b>	S5	<ul style="list-style-type: none"> <li>- Distributed information systems</li> <li>- Decision support system</li> <li>- Software engineering</li> <li>- Human-machine interface</li> </ul>	<ul style="list-style-type: none"> <li>- Information Systems Administration</li> <li>- Advanced Programming for the Web</li> <li>- Digital economy and business intelligence</li> </ul>
	S6	<ul style="list-style-type: none"> <li>- Information retrieval</li> <li>- IT security</li> <li>- Semi-structured data</li> <li>- Operating systems 2</li> </ul>	<ul style="list-style-type: none"> <li>- Project</li> <li>- Business intelligence</li> <li>- Scientific writing</li> </ul>