



# UNIVERSITÀ DI PAVIA

Anno Accademico 2020/2021

## SOFTWARE ENGINEERING

<b>Anno immatricolazione</b>	2019/2020
<b>Anno offerta</b>	2020/2021
<b>Normativa</b>	DM270
<b>SSD</b>	ING-INF/05 (SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI)
<b>Dipartimento</b>	DIPARTIMENTO DI INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE
<b>Corso di studio</b>	COMPUTER ENGINEERING
<b>Curriculum</b>	Embedded and Control Systems
<b>Anno di corso</b>	2°
<b>Periodo didattico</b>	Primo Semestre (28/09/2020 - 22/01/2021)
<b>Crediti</b>	6
<b>Ore</b>	45 ore di attività frontale
<b>Lingua insegnamento</b>	English
<b>Tipo esame</b>	SCRITTO
<b>Docente</b>	MERLINI SIMONE (titolare) - 4 CFU MARCHESI NICOLO' - 2 CFU
<b>Prerequisiti</b>	Fundamentals of web-based programming. Fundamentals of distributed systems.
<b>Obiettivi formativi</b>	<ul style="list-style-type: none"><li>- Software requirements management and analysis processes</li><li>- Software Design techniques</li><li>- Enterprise Software Architectures</li><li>- Software Metrics and Software Quality Processes</li></ul>
<b>Programma e contenuti</b>	<ul style="list-style-type: none"><li>- Software processes</li><li>- Requirements engineering</li><li>- Architectural design</li><li>- Design and implementation</li><li>- Software testing</li><li>- Distributed software engineering</li></ul>

	- Service-oriented architectures
<b>Metodi didattici</b>	Lectures (hours/year in lecture theatre): 19 Practical class (hours/year in lecture theatre): 20 Practicals / Workshops (hours/year in lecture theatre): 6
<b>Testi di riferimento</b>	<p>Steve McConnell (ISBN-10: 0735619670)?Code Complete: A Practical Handbook of Software Construction</p> <p>Roger Pressman (ISBN-10: 0073375977)?Software Engineering: A Practitioner's Approach</p> <p>Ian Sommerville (ISBN-10: 0137035152)?Software Engineering</p> <p>Robert C.Martin (ISBN-10: 0134494164) Clean Architecture: A Craftsman's Guide to Software Structure and Design</p> <p>Robert C.Martin (ISBN-10: 9780132350884) ? The Clean Coder: A Code of Conduct for Professional Programmers</p> <p>Kent Beck (ISBN-10: 9780321146533)? Test Driven Development: By Example?</p> <p>Martin Fowler's Blog - <a href="https://martinfowler.com">https://martinfowler.com</a></p> <p>Robert C.Martin's Blog - <a href="https://blog.cleancoder.com/">https://blog.cleancoder.com/</a></p>
<b>Modalità verifica apprendimento</b>	Each student is required to prepare a group web-based distributed project. The project will show a strong command of object orientation and design principles covered during the course. The project will be carried out along the course and finally discussed during the exam.
<b>Altre informazioni</b>	Course web page: <a href="http://www.simonemerlini.it">http://www.simonemerlini.it</a>
<b>Obiettivi Agenda 2030 per lo sviluppo sostenibile</b>	<a href="#">Gli obiettivi</a>