

## SYLLABUS COURSE DESCRIPTION

<b>COURSE TITLE</b>	<b>Information Security</b>
<b>COURSE CODE</b>	76220
<b>SCIENTIFIC SECTOR</b>	ING-INF/05
<b>DEGREE</b>	Bachelor in Computer Science
<b>SEMESTER</b>	2nd
<b>YEAR</b>	3rd
<b>CREDITS</b>	6

  

<b>TOTAL LECTURING HOURS</b>	40
<b>TOTAL LAB HOURS</b>	20
<b>PREREQUISITES</b>	Students should have a solid mathematical foundation and be familiar with basic programming concepts, data structures and algorithms. These prerequisites are covered in any Bachelor degree in Computer Science.
<b>COURSE PAGE</b>	<a href="https://ole.unibz.it/">https://ole.unibz.it/</a>

  

<b>SPECIFIC EDUCATIONAL OBJECTIVES</b>	<ul style="list-style-type: none"> <li>• Type of course: caratterizzanti</li> <li>• Scientific area: discipline informatiche</li> </ul> <p>The main aim of this exam is to provide an introduction to the field of information security. The students learn about the technical as well as the management side of security in information systems. They acquire knowledge about fundamental principles of security and also about practical approaches to securing information systems.</p>
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<b>LECTURER</b>	Fabrizio Maria Maggi
<b>SCIENTIFIC SECTOR OF THE LECTURER</b>	ING-INF/05
<b>TEACHING LANGUAGE</b>	English
<b>OFFICE HOURS</b>	previous appointment ,Office POS 3.08, 3rd floor, Faculty of Computer science, piazza Domenicani 3
<b>TEACHING ASSISTANT</b>	Same as lecturer

<b>OFFICE HOURS</b>	-
<b>LIST OF TOPICS COVERED</b>	<ul style="list-style-type: none"> <li>• Basic definitions: CIA, threat, attack, vulnerability, access control</li> <li>• Risk assessment</li> <li>• Basics of cryptography</li> <li>• Network attack and defense</li> <li>• Usability</li> <li>• Security policies</li> </ul>
<b>TEACHING FORMAT</b>	Frontal classroom lecture plus lab sessions
<b>LEARNING OUTCOMES</b>	<p><b>Knowledge and understanding:</b></p> <ul style="list-style-type: none"> <li>• know critical security aspects of information systems, the basic concepts of security and techniques for the development of secure systems;</li> </ul> <p><b>Applying knowledge and understanding:</b></p> <ul style="list-style-type: none"> <li>• be able to evaluate the quality of information systems and to identify critical aspects</li> <li>• be able to apply the own knowledge in different working contexts;</li> </ul> <p><b>Making judgements</b></p> <ul style="list-style-type: none"> <li>• Must have the ability to independently select the documentation required to keep abreast of the frequent technological innovations in the field by using a wide variety of documentary sources: books, web, magazines.</li> </ul> <p><b>Communication skills</b></p> <ul style="list-style-type: none"> <li>• Must be able to coordinate the work of a project team and to interact positively with members of the group.</li> </ul> <p><b>Learning skills</b></p> <ul style="list-style-type: none"> <li>• Must also be able to independently keep up to date with developments in the most important areas of Computer Science</li> </ul>
<b>ASSESSMENT</b>	<ul style="list-style-type: none"> <li>• Project work to test knowledge application skills and communication skills</li> <li>• Written exam with verification questions and questions to test knowledge application skills</li> </ul>
<b>ASSESSMENT LANGUAGE</b>	English
<b>EVALUATION CRITERIA AND CRITERIA FOR AWARDING MARKS</b>	<p>Assessment 1: project work (30%) Assessment 2: written examples (70%)</p> <p>Relevant for assessment 1: ability to work in teams, skill in applying knowledge in a practical setting, ability to summarize in own words.</p> <p>Relevant for assessment 2: clarity of answers, ability to recall principles and methods used in system security, skill in applying knowledge such as testing the security of systems.</p>
<b>REQUIRED READINGS</b>	Material provided in the form of slides and scientific papers provided by the teacher.

<b>SUPPLEMENTARY READINGS</b>	Principles of information security 6th edition, Michael E. Whitman, Herbert J. Mattord, ISBN 978-1337102063 CompTIA Security+ Guide to Network Security Fundamentals 6th Edition, Mark Ciampa ISBN 978-1337288781
<b>SOFTWARE USED</b>	Provided by teacher and tutor during lectures / lab sessions