

SYLLABUS COURSE DESCRIPTION

COURSE TITLE	Programming Project
COURSE CODE	76204
SCIENTIFIC SECTOR	INF/01
DEGREE	Bachelor in Computer Science
SEMESTER	2nd
YEAR	1st
CREDITS	9
TOTAL LECTURING HOURS	60
TOTAL LAB HOURS	30
PREREQUISITES	Students should be familiar with the basic knowledge of object oriented programming and Java, as taught in the course "Computer Programming"
COURSE PAGE	
SPECIFIC EDUCATIONAL OBJECTIVES	<p>Type of course: "caratterizzanti" for L-31 Scientific area: "Discipline informatiche" for L-31</p> <p>The course is designed to give specific professional skills. It will provide students with advanced techniques in Java. In particular, students will acquire knowledge in the overall architecture and components of Java SDK and JRE, use of advanced programming techniques (e.g. multi-threads, reading/writing streams, generics, regular expressions, exception handling and testing) and code documentation (e.g. generate API documentation) of the software developed.</p>
LECTURER	TBA
SCIENTIFIC SECTOR OF THE LECTURER	INF/01
TEACHING LANGUAGE	English
OFFICE HOURS	TBA

TEACHING ASSISTANT	TBA
OFFICE HOURS	TBA
LIST OF TOPICS COVERED	<ul style="list-style-type: none"> • Memory models in Java • Virtual functions, late binding, overriding, and overloading • Exception handling • Reflection and runtime type identification • Generics and collections • I/O, serialization and XML/JSON processing • Designing large applications: design patterns • Multithreading • Code optimization
TEACHING FORMAT	Frontal lectures Lab exercises Individual projects

LEARNING OUTCOMES	<p>Knowledge and understanding</p> <ul style="list-style-type: none"> • Know basic and advanced programming techniques • Have a basic knowledge of the most important data structures and their use in programming languages <p>Applying knowledge and understanding</p> <ul style="list-style-type: none"> • Be able to develop small and medium size programs using Java • Be able to solve problems through the application of programming methods <p>Making judgments</p> <ul style="list-style-type: none"> • Be able to work autonomously according to the own level of knowledge and understanding <p>Communication skills</p> <ul style="list-style-type: none"> • Be able to structure and write scientific documentation <p>Learning skills</p> <ul style="list-style-type: none"> • Have acquired learning capabilities to pursue further studies with a high degree of autonomy
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ASSESSMENT	
ASSESSMENT LANGUAGE	English
EVALUATION CRITERIA AND CRITERIA FOR AWARDING MARKS	

REQUIRED READINGS	
SUPPLEMENTARY READINGS	



Fakultät für Informatik
Facoltà di Scienze e Tecnologie informatiche
Faculty of Computer Science

SOFTWARE USED	
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