COURSE PRESENTATION FORM

COURSE NAME	Introduction to Programming
COURSE CODE	70003
LECTURER	Diego Calvanese
TEACHING ASSISTANT	Christian Mair, Andrei Taljun
TEACHING LANGUAGE	English
CREDIT POINTS	8
LECTURE HOURS	48
EXERCISE HOURS	24
PREREQUISITES	There are no specific prerequisites. Basic notions of mathematics and set theory will be used.
OBJECTIVES	The objective of the Introduction to Programming course is to teach the fundamental principles of programming, making use of the typical aspects of the object-oriented, the functional, and the imperative programming paradigms. Such basic principles are presented by referring to the Java programming language.
SYLLABUS	For students taking the 6CFU exam (old study plan), the syllabus covers the following topics: Introduction to programming and to Java; use of objects; definition of methods and classes; primitive data types; conditional statements; loop statements; arrays; files and input/output; program errors and exceptions. For students taking the 8CFU exam (new study plan), the syllabus additionally covers the topics: recursion; dynamic arrays and linked lists.
TEACHING FORMAT	Frontal lectures; exercises in the computer laboratory
ASSESSMENT	Final lab examination (pass/fail). Final written examination (100%).
READING LIST	• *Lecture Notes for Introduction to Programming*. Diego Calvanese. Available on the course web page. • An additional book covering in depth all aspects of the Java language is suggested, such as *Absolute Java*. Walter Savitch. Addison Wesley, 2nd Edition 2005.
SOFTWARE USED	• Java 2 Standard Edition 5.0 SDK • BlueJ development environment
LEARNING OUTCOME	After the course, students will know the fundamental principles of object-oriented programming, including the use of control structures, functional abstraction, classes and methods, and basic data structures, and will be able to put them into practice, by writing programs in Java.