

# Computer sciences (01JCJ-GH)

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MS Nanotechnologies for ICT



## Teacher

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## Office hours

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- Class-time (break, end of lesson)
- Or send e-mail to schedule an appointment



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## Timetable

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- Monday 8.30 – 10.30 –
  - ♦ Room 10D
- Monday 10.30 – 12.30 –
  - ♦ Room 10D / Laib 2



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# Syllabus / objectives

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- Object-Oriented analysis and design
  - ♦ Learn the object-oriented approach
  - ♦ Learn to think in terms of classes
  - ♦ Learn to model an object-oriented program
- Java programming language
  - ♦ Learn the Java syntax
  - ♦ Learn to code, test, and debug Java programs

# Requirements

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- Procedural programming (e.g. C)
- Abstract data types
  - ♦ Lists, trees, etc.
- Algorithms
  - ♦ Sort, list insert, etc.

# Polling the room...

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- How many (what) courses about programming?
- Can you write a simple C program?
  - ♦ Simple algorithm, no pointers
- Can you write a “complex” C program?
  - ♦ Data structures, pointers

# Classware – Java

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- Java Tutorial
  - ♦ [java.sun.com/tutorial](http://java.sun.com/tutorial)
- Java Documentation
  - ♦ [java.sun.com/j2se](http://java.sun.com/j2se)
- Eckel, “Thinking in Java”, Prentice Hall, 2nd Ed., 2000
  - ♦ [www.BruceEckel.com/books](http://www.BruceEckel.com/books)
- Horstmann, Cornell, “Core Java 2 – Vol. 1”, Prentice Hall
- Arnold, Gosling, Holmes. “The Java Programming Language – 4<sup>th</sup> edition” Addison-Wesley, 2006

## Classware – UML

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- [www.cetus-links.org](http://www.cetus-links.org)
- M.Fowler, K. Scott, UML Distilled, Addison–Wesley, 2nd ed.

## Web site

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- <http://softeng.polito.it/01JCJ/>
- News about the course
- Material
  - ♦ Slides, exercises, tools

## Labs

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- Exercises
  - ♦ New programs
  - ♦ Programs to be completed/modified
- No points (but *essential* for final exam)

## Final

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- Student will be required to develop a Java application, given the textual specification of requirements
  - ♦ 2 hours
  - ♦ Books and notes allowed
- E–submission system with Eclipse (see tutorial)