# Information Technology

## Prof. Paolo Piccinelli

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to help students to become independent in writing high quality texts, to introduce them to the use of data processing programs and to make them aware of the huge number of tools available today to optimise their working time.

## KNOWLEDGE AND UNDERSTANDING

At the end of the course, students will:

* have operational knowledge regarding the use of generic text editors;
* distinguish and identify the best algorithm in relation to the software in use;
* sensibly use the features seen in class;
* be familiar with the various current IT offers.

## ABILITY TO APPLY KNOWLEDGE AND UNDERSTANDING

At the end of the course, students will be able to:

* solve mathematical problems with computer tools;
* carry out basic analyses from the solution point of view;
* design and identify the best choice for the solution of daily problems;
* choose a method appropriate to the context.

Students will achieve an intermediate level of knowledge of each tool used.

***COURSE CONTENT***

## FIRST PART

* Use of Microsoft Word processing software:
  + Page structure and naming.
  + Basic character or paragraph formatting.
  + Page setup and breaks.
  + Advanced formatting through the creation of personal styles.
  + Arrangement of graphic effects such as images, tables, graphs within a web page-style text.

## SECOND PART

* Data processing through Microsoft Excel:
  + Structure of a spreadsheet.
  + Labels and strings.
  + Arithmetic operators.
  + Basic functions and logical functions.
  + Logic functions and the logical operators of conjunction and disjunction.

## THIRD PART

* Creating presentations with Microsoft Power Point:
  + Basic rules for creating a correct presentation.
  + Integrating existing fonts with web resources.
  + Creating a customized layout.

FOURTH PART

* Hints at IT Security with a focus on access management and risks associated with social engineering approaches.

The course will also cover the tools for project scheduling (Trello) and how to install a custom font.

***READING LIST***

During the course, the lecturer will provide students with a course pack, which can be found on the ad-hoc created Dropbox account. We recommend that students buy the following textbooks:

L. SCHIAVINA - Intelligenza Artificiale e Soft computing. applicazioni pratiche per aziende e professionisti – Franco Angeli Editore (2017)

L. SCHIAVINA – Metodi e strumenti per la modellizzazione aziendale. Come gestire il problem solving e il decision making – Franco Angeli Editore (2006)

***TEACHING METHOD***

The lectures will be held in the computer lab.

***ASSESSMENT METHOD AND CRITERIA***

The exam consists of a computer-based oral exam, during which students will be asked to carry out a practical exercise. During the exercise execution, the lecturer will ask students the reasons for specific choices, as well as the basic definitions and technical terminology of each application used. The exam takes place in a single session and students will pass the exam if they obtain at least 18/30.

Completely correct exercises are worth 75%, the remaining 25% will be gained through the correct use of technical terminology (command of the language) and theoretical answers demonstrating knowledge of the subject practical and conceptual tools. If only the practical part is correct, the maximum assessment achievable is 24/30.

***NOTES AND PREREQUISITES***

Students must have good computer skills, basic knowledge of the Windows operating system, and mathematical logic skills, set theory, probability and statistics.

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG or on the Faculty notice board.