# Data Processing Systems (6 ECTS credits)

## Prof. Emanuele Goldoni

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

*Course aims*

The aim of the course is to provide an understanding of the basic concepts of computing systems and their main applications, leading students to a general understanding of technological innovation, data and information management, the functioning of the internet and the web, the possible risks and implications of using digital tools and the internet, as well as corporate information systems and business and digital promotion tools.

*Intended learning outcomes*

By the end of this course, students will: be familiar with and able to understand digital trends and their impact on businesses and society; appreciate the importance of digital instruments for the promotion and enhancement of tourist resources; and be able to use technical language that allows them to communicate effectively with interlocutors with advanced computer skills. Students will also be able to understand the differences between the main multimedia formats for exchanging data and be able to use, on a basic level, the main individual information technology tools, with a particular focus on processing data using spreadsheets.

***COURSE CONTENT***

The course will cover the following topics:

1. *Technological development:* history, current state and new trends in the digital world and information systems.

2. *Introduction to computer science*: basic concepts and terminology of the world of digital data processing and computer networks.

3. *The internet and the web*: Internet operating principles; introduction to services carried on the internet (email, web); introduction to the main technologies for sharing content via the web.

4. *Multimedia*: analysis of multimedia formats (text, images, audio, and video) that can be used to create promotional content.

5. *Legal and ethical aspects of computerisation*: Ethical issues arising from the use of technologies and legal implications; introduction to the basic principles of computer security.

6. *Data processing*: overview of the main individual computing tools with a focus on spreadsheets for the structured storage and analysis of data.

***READING LIST***

The slides projected in lectures as well as handouts and other materials made available online via the Blackboard platform will be an integral part of the reading list and syllabus, along with notes made in lectures.

***TEACHING METHOD***

The course includes frontal lectures in class with slideshows and the practical demonstration of how certain technology solutions work.

***ASSESSMENT METHOD AND CRITERIA***

Students will be assessed by means of a written test with open questions. The maximum mark is 30.

1. Students may also complete and optional project on using IT in the tourism sector and in promoting the region, with a final presentation. Assessment criteria include the ability to understand the research theme, use of the tools considered to be most appropriate of all those presented on the courses, and the ability to reason and justify choices during the presentation. The project is worth up to three points, which will go towards the mark awarded for the written assessment.

***NOTES AND PREREQUISITES***

As this is an introductory course, it has no prerequisites in terms of contents.

*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.*