

Course Interaction Design and Programming

SDS SPS/08, INF/01

ETCS 9

Course modules (if any) 3 ECTS Interaction Design (SPS/08),
6 ECTS Programming Web & Mobile (INF/01)

Year I year

Semester II semester

Professor(s) Eliseo Sciarretta

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Office hour At the end of the lesson or by appointment agreed by e-mail.

LEARNING OUTCOMES

The aim of the course is to achieve the following learning outcomes:

1. **KNOWLEDGE AND UNDERSTANDING SKILLS:** Fundamental principles of Interaction Design; Basics of programming languages; Tools and techniques for the creation of websites.
2. **APPLIED KNOWLEDGE AND UNDERSTANDING SKILLS:** Application of programming bases and principles of interaction in a project work for the creation of a web service.
3. **COMMUNICATION SKILLS:** Mastery of technical terminology related to programming languages.

DETAILED PROGRAM

The Interaction Design & Programming class has strategic importance within the degree course, and is divided into two modules.

The Interaction Design module lays the theoretical foundations of the discipline, necessary to fully understand it.

The main topics that will be covered in the module are:

- Introduction to interaction design
- Design the interaction
- Values, principles and patterns of interaction
- Platforms and postures
- The design for intermediate users
- Orchestrated and flow-oriented design
- Techniques for reducing user workload
- Interaction metaphors

The Programming Web & Mobile module, on the other hand, is more laboratory-based and applies the teachings of the "Interaction Design" module to the contexts of the world wide web and mobile telephony.

The main languages for creating web and mobile content and services will be examined: HTML5, CSS3.

Furthermore, attention will also be paid to techniques to guarantee accessibility and

consequently the inclusiveness of digital services.

The Programming Web & Mobile module includes continuous exercises in the classroom, therefore it is necessary for each student to have a computer with an Internet connection.

RECOMMENDED PRE-REQUISITES (IF ANY)

None

TEACHING METHODOLOGIES

The educational activities will be carried out through lectures and lab exercise.

FINAL EXAMINATION METHODOLOGIES

The final exam will consist of an oral interview aimed at evaluating the knowledge acquired by the students regarding the Interaction Design module and the evaluation of a project work (to be agreed with the lecturer: e.sciarretta@unilink.it) for the Programming Web & Mobile module.

The project must contain at least one web page created using html/css.

EVALUATION CRITERIA

At the end of the course, the following skills of the student will be evaluated:

1. **KNOWLEDGE AND UNDERSTANDING SKILLS:** the final exam will assess the student's knowledge about the basic notions related to the topics listed in the detailed class program.
2. **APPLIED KNOWLEDGE AND UNDERSTANDING SKILLS:** the final exam will assess the student's ability to connect the different topics covered and the ability to apply the knowledge acquired within a project work for the creation of web services.
3. **COMMUNICATION SKILLS:** the final exam will evaluate, in addition to the contents of the answers, also the ability to appropriately express the technical terms related to programming languages and to effectively expose the topics studied.

FINAL GRADING INFORMATION AND CRITERIA

The final score is expressed in thirtieth grade, with the possibility of honors.

The final score will be awarded as the division into modules suggests: the project work will account for 66% of the grade, while the oral exam for the remaining part.

For the project work, the completeness and quality of the work will be assessed.

The final score reflects the student's preparation as follows:

Score	Description
< 18 not sufficient	Fragmentary and superficial knowledge of contents, errors in applying concepts, insufficient exposure.
18-20	Sufficient but still general knowledge of contents, elementary exposure, uncertainties in the application of theoretical notions.
21-23	Appropriate, but not deep, knowledge of contents, good ability in applying



	theoretical notions as well as presenting them in a simple way.
24-25	Appropriate and vast knowledge of contents, discrete ability in applying them, good ability in presenting notions in a comprehensive way.
26-27	Precise and comprehensive knowledge of the topics, good ability in applying the acquired knowledge, good analytical skills, clear and correct exposure.
28-29	Extensive, comprehensive and deep knowledge of contents, good applicative skills, good ability of analysis and synthesis, confident and correct exposure.
30 30 with honors	Very broad, comprehensive and deep knowledge of the contents, well-established ability to apply the acquired notions, excellent ability of analysis, synthesis as well as ability to create interdisciplinary links, fluency of exposure.

COURSE MATERIAL

For the preparation of the exam, in addition to the material provided during the lessons, the following **mandatory texts** are needed:

- About Face: The Essentials of Interaction Design – Alan Cooper, Robert Reimann, David Cronin, Christopher Noessel. Wiley, 2014 (chapter 1 and 7 to 14)
- HTML & CSS: Design and Build Websites – Jon Duckett

OTHER ADVICES

None.