



UNIVERSITÀ DEGLI STUDI DI PALERMO

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| DEPARTMENT | Scienze Umanistiche | | |
| ACADEMIC YEAR | 2023/2024 | | |
| MASTER'S DEGREE (MSC) | DIGITAL HUMANITIES FOR CULTURAL INDUSTRY | | |
| SUBJECT | COMPUTER NETWORKS AND INTERNET/WEB PROGRAMMING | | |
| TYPE OF EDUCATIONAL ACTIVITY | B | | |
| AMBIT | 50434-Discipline Informatiche | | |
| CODE | 22792 | | |
| SCIENTIFIC SECTOR(S) | ING-INF/05 | | |
| HEAD PROFESSOR(S) | MAZZOLA GIUSEPPE | Ricercatore a tempo determinato | Univ. di PALERMO |
| OTHER PROFESSOR(S) | | | |
| CREDITS | 6 | | |
| INDIVIDUAL STUDY (Hrs) | 120 | | |
| COURSE ACTIVITY (Hrs) | 30 | | |
| PROPAEDEUTICAL SUBJECTS | | | |
| MUTUALIZATION | | | |
| YEAR | 1 | | |
| TERM (SEMESTER) | 1° semester | | |
| ATTENDANCE | Not mandatory | | |
| EVALUATION | Out of 30 | | |
| TEACHER OFFICE HOURS | MAZZOLA GIUSEPPE Wednesday 10:00 - 13:00 Ex Dipartimento di Ingegneria Informatica, edificio 6, terzo piano | | |

DOCENTE: Prof. GIUSEPPE MAZZOLA

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| PREREQUISITES | Basic computer knowledge |
| LEARNING OUTCOMES | <p>KNOWLEDGE AND UNDERSTANDING The student will acquire the basic knowledge of how computer networks work, the main models, network architectures and protocols. You will also have basic knowledge of Web programming.</p> <p>ABILITY TO APPLY KNOWLEDGE AND UNDERSTANDING At the end of the course the student will have acquired the methods of analysis and design of networks of digital devices or their components. You will also have acquired the basic knowledge for creating a website, with the proper tools.</p> <p>AUTONOMY OF JUDGMENT Through the methodological approach acquired during the course, the student will acquire the ability to apply the methods of analysis and design of computer networks in order to solve problems in the field of digital communications or to implement networks of digital devices.</p> <p>COMMUNICATION SKILLS The student will be able to work in a group, to communicate problems relating to the fundamental concepts of computer networks with competence and linguistic properties. He will be able to interact with designers and technicians for the creation of Web sites and network architectures.</p> <p>LEARNING ABILITY During the course the student will acquire the ability to study and learn the concepts of computer networks and communication between digital devices, through the knowledge of network protocols and services, and of the basics of web programming</p> <p>To achieve all these objectives, the course includes: individual and group lessons and exercises. For verification, the exam includes the final interview on the topics of the course; the discussion of the papers prepared during the exercises; the discussion of the thesis prepared independently</p> |
| ASSESSMENT METHODS | <p>The assessment of learning (final exam) is divided into two phases: 1) Development of a term paper and presentation of the same. 2) Oral exam</p> <p>The essay is developed independently by the student and consists in the development of a simple Web site, with the tools studied in class. It aims to ascertain the possession of the skills and abilities to apply knowledge and understanding of the methods and systems studied during the course.</p> <p>The oral test consists of an interview on the topics of the program of the subject. The result of the learning assessment is a grade out of thirty.</p> <p>ASSESSMENT METHODS The result of the test will be considered: EXCELLENT (30-30 honors) if the student demonstrates excellent knowledge of the topics, excellent language skills, good analytical skills and ability to apply knowledge to solve the problems presented; VERY GOOD (26-29) if the student will show a good command of the subject, full ownership of the language and ability to apply the knowledge to solve the problems presented; GOOD (24-25) if the student demonstrates a basic knowledge of the main topics, good command of the language, limited ability to autonomously apply the knowledge to solve the problems presented; MORE THAN SUFFICIENT (20-23) if the student will demonstrate not having full command of the main topics but a good understanding of the same, satisfactory ownership of the language, but lack of ability to independently apply the acquired knowledge; SUFFICIENT (18-19) if the student will show minimum basic knowledge of the main teaching topics and language techniques, minimum ability to apply the acquired knowledge; INSUFFICIENT if the student will not have an acceptable knowledge of the contents of the topics covered during the course.</p> |
| EDUCATIONAL OBJECTIVES | <p>The course aims to provide the methodological and operational tools for a clear understanding of computer networks and the Internet, with particular reference to the architectural aspects and basic services that are provided to users. Furthermore, it aims to provide the basics for the creation of a simple Web site.</p> |
| TEACHING METHODS | <p>The course is developed in 6 teaching units, each consisting of 5 video lessons. Furthermore, exercises are foreseen for the creation of a web site, which will then be the subject of discussion of the exam. Furthermore, moments of comparison are foreseen for the creation of in-depth papers (wiki) on the topics of the course, to be carried out in groups or individually, with the support of the teacher</p> |
| SUGGESTED BIBLIOGRAPHY | <p>Libro di testo: "Reti di Calcolatori e Internet – Un approccio top-down". J.F.Kurose, K.W.Ross, Addison Wesley, 4a edizione o successiva</p> |

SYLLABUS

| Hrs | Practice |
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| 6 | Tools for building Web sites |

| Hrs | Workshops |
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| 6 | creation of in-depth papers on the topics (wiki) of the course, to be carried out in groups or individually, with the support of the teacher. |
| Hrs | Frontal interactive teaching for distance courses |
| 5 | Introduction to computer networks |
| 5 | ISO/OSI e TCP/IP models |
| 5 | The Internet network and services |
| 5 | Management and security in networks |
| 5 | Web programming languages: HTML |
| 5 | Design, creation and management of a website |