Università degli Studi della Basilicata
Scuola di Ingegneria

COURSE: Client-Server Programming and Web Development			
ACADEMIC YEAR: 2018/2019			
TYPE OF EDUCATIONAL ACTIVITY: Basic			
TEACHER: GIANVITO SUMMA			
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phone:		mobile (optional):	
Language: ITALIAN			
ECTS: 6	n. of hours: 52 (includes 12 hours of lab)	Campus: Potenza Dept./School: Engineer Program: Master Degree in Engineering in Computer Science	Semester: Annual

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

This course refers to web development in object-oriented programming language (Java).

The educational goals mainly consist in providing skills and abilities for designing and building applications in in a client-server architecture.

By the end of the course, students will know:

- How to use the main programming techniques of both the client-server paradigm and web development process.

Main topics are listed below:

- Protocols and standards of Web;
- Web programming;
- J2EE platform and frameworks;
- Db programming and frameworks..

With respect to Dublin descriptionr goals:

- **Knowledege and understanding**:
  student has to recognize and understand both top elements and characterizing aspects of a system in a client-server architecture, more in details, studente has to know how to interact with databases and how to plan web development.
- **Applying knowledge and undertanding**:
  student has to know how to design and build a web application.
- **Making judgements:**
  student has to prove to be albe to evaluate autonomously all the steps that are needed for defining and building a web application starting from the analysis of both the requirements and the use-cases and adopting a development methodology that is able to build an efficient and suitable web system.
- **Communication:**
  student must have the ability to explain how he intends to design and develop the system by using a scientific-technical language.
- **Lifilelong learning skills:**
- *Student must be able to continuosly update his personal skills and abilities by periodically reading books, magazines, papers and web sites of the web development and databases field.*

PRE-REQUIREMENTS

It is required that students know the following concepts provided by “Databases”, “Object-Oriented Programming” and “Networks” courses. Mainly topics that students must know:

- Inheritance and polymorphism;
- Internet and network communication protocols;
- HTTP protocol and URI standards.

SYLLABUS

Client-side technologies:

- HTML, XHTML, CSS, JavaScript, Usability and Accessability.

Web programming:

- Introduction; Technological issues; Architectures; Conclusions.

Platforms for Web applications:

- Introduction; Web app structure in JEEE; Servlet; JSP; Programming techniques; EL-JSTL; Filters and events.

Web programming frameworks:

- Introduction; Modello2; Struts; Programming techniques; JSF; JSF 2; Functional tests.

TEACHING METHODS

Theoretical lessons, Laboratory tutorials.

EVALUATION METHODS

Written examination, Practical test, Oral examination.

The examination's goal consists in verifying the skills and knowledges acquired by students, as depicted before.

The examination is composed by three parts that take place in three different days. In the order:

- A **written examination** (multiple choice quiz) Students that do not pass this test (the minimum score is 18/30 points) cannot access to the following test parts. The quiz contains 30 questions and students have 40 minutes of time available. Students cannot use anything else during the test (no PC, no smartphone, no calculators….);
- A **practical test** to be done in the lab, consisting in building a web application. This test aims at evaluate if students have acquired skills in designing web applications. To pass this test students have to reach at least 18/30 points and have 5 hours of time available. Students may consult the user guides, Java documentation and slides of the course (all this stuff is available in lab). The test is related to designing skills in order to build a web application;
- An **oral examination**. To pass this test students have to reach at least 18/30 points.

Students that pass both the **intermediate tests** (minimum score of 18/30 points) will have an extra bonus of 2 points upon the practical test. Please note that this bonus has to be used within the third (III) examination session, i.e. September. The intermediate tests consist in quizzes and practical exercises.

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

The slides of the course are available online at http://informatica.unibas.it/moodle/

(click "*Elementi di Programmazione Client-Server*", authentication required).

For further details please consult the link provided before and go to the "Riferimenti Utili" section that contains interesting resources (books and web sites) for each topic of the course.

INTERACTION WITH STUDENTS

In the first lesson, the teacher will explain all useful information about the course and how to consult the online stuff (at the Moodle Learning platform). Office hours: On Monday/Wednesday, from 6pm to 7.30pm, at "Docenti a contratto" office room (DiMIE Department, third floor).

Students may also contact teacher by email.

EXAMINATION SESSIONS (FORECAST)[1]

First intermediate verification: 20th Feb 2019

Second intermediate verification: 19th Jun 2019

Sessions:

I: 3/5th Jul 2019

II: 17/19th Jul 2019

III: 18/20th Sep 2019

IV: 18/20th Dec 2019

V: 19/21st Feb 2020

[1] Subject to possible changes: check the web site of the Teacher or the Department/School for updates.

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VI: 13/15th May 2020
SEMINARS BY EXTERNAL EXPERTS YES □ NO x
FURTHER INFORMATION