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TM03_DIP_INF

Teach Mob – Visiting Professors
Academic year 2015/2016

2nd term
COURSE TITLE **Software Applications Development (lab.1)**
Scientific area **Computer Science**
Department of Computer Science"
Language used to teach **Italian**
Course summary Software engineering: waterfall models, UP and extreme programming, testing (unit testing, acceptance test, white and black box testing), version control. Introduction to UML: use case diagram, class diagram, object diagram, sequence diagram, communication diagram, state chart, activity diagram. An agile methodology, the Unified Process: the UP methodology is discussed in detail and applied to a case study in the lab. The main steps are: Process planning, First phase (inception), Second phase (elaboration), Third phase (inception), Fourth phase (elaboration).
Learning objectives The course covers the essentials of a software engineering course. It takes on the guidelines for the development of software applications modeled in UML and interfaced with DBMS, using the agile methodology Unified Process (UP). The student must develop an application clearly identifying significant application logic, interaction with databases and interfaces from the requirements. The work has to be planned according to the canons of the development of the projects: teamwork, goal setting and development phases. The presentation of the results will have to be summed up by a brief report. The course has a strong experimental characterization.
Other activities besides the course: i.e. seminars and conferences addressed to PhD students and research fellows, dissemination conferences Research seminars on the following topics: a) current researches on languages and methodologies for data bases and information systems design, and b) models and techniques for enterprise modelling and analysis.

Visiting Professor Profile Software engineering, from the perspective of this announcement, concerns methods and tools for development and maintenance of large and complex software systems, with an empirically oriented and applied perspective.

The applicant should be acquainted with the arguments taught in the course, with current research on large and complex systems; important areas include:

- Languages and methodologies for data bases and information systems design,
- Enterprise modelling and architectures,
- Design, analysis, evaluation of modelling languages for modelling and method engineering.

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