

„POLITEHNICA” UNIVERSITY FROM TIMIȘOARA

SYLLABUS

for the discipline:

SOFTWARE PROJECT MANAGEMENT

FACULTY: AUTOMATION AND COMPUTERS

DOMAIN / SPECIALIZATION: MASTER AUTOMOTIVE EMBEDDED SOFTWARE

Year of studies: I

Semester: 1

Course instructor: professor Vladimir Crețu, PhD
Applications instructor: professor Vladimir Crețu, PhD

Number of hours/week/Evaluation/Credits					
Course	Seminar	Laboratory	Project	Evaluation	Credits
3	0	0	1	Exam	8

A. COURSE OBJECTIVES

The course has as objective to present an integrated view of the concepts, skills, tools, and techniques required in the management of the software projects. The graduate will be able to coincide, to organize, to coordinate and to control the development process of a complex software project.

B. COURSE SUBJECTS (42 hours)

1. Introduction (SPM definition, objectives, processes, activities, tasks, software developing process, project life cycles, management process) (3 hours)
2. Technologies for SW products development (MS Technology, Oracle Technology, Rational-Rose Technology, RUP Technology) (6 hours)
3. SW Project Management Fundamentals (terms, fundamental rules, the contract, development cycle) (3 hours)
4. The Definition Phase (Problem analysis, Problem Specification, Analysts): SW Size Estimation Methods, SW Costs Estimation Methods, Cost Estimation Models, The Project Plan, Planning Tools, Acceptance Criteria (9 hours)
5. The Design Phase (The Design Specification, The Designers, Design Guidelines, Design tools); Other activities of Design Phase (Change control, Preparation for Testing, Resource estimation, Documenting, Programming Manual, Project Library, Design Phase Review (6 ours)
6. The Programming Phase, Conventional Organization, Team Organization, Change Control, Programming Tools, Management Activities during Programming Phase, Levels of Management (6 hours)

7. System Test Phase, System Testing, System Test Specification, The Testers, Timing, Conducting the Tests, Customer Training (3 hours)
8. The Acceptance Phase, Acceptance Testing, Acceptance Test Specification, Acceptance Criteria (1,5 hours)
9. The Installation and Operation Phase, Site Testing, Conversion, Maintenance and Tuning, Project evaluation (1,5 hours)
10. Special Considerations, Big projects, Small Projects, Proposal, Writing (3 hours)

C. APPLICATIONS SUBJECTS (Project) (14 hours)

The students will be grouped in teams (3-4 members) and each team will elaborate a project based on course topics. The projects will be presented at the end of the course in a special project session.

D. REFERENCES

1. L. Zells, "Managing Software Projects", QED Information Science, Massachusetts, 2000
2. P.W.Metzger : "Managing a Software Project", Prentice Hall, 1981
3. W.S.Humphrey: "Managing the Software Process", Addison-Wesley, 1989

E. EVALUATION PROCEDURE

Written test	50%
Project content	40%
Project presentation	10%

F. INTERNATIONAL COMPATIBILITY

1. Computing Curricula 2004 Strawman Draft, Project Management
2. UC Berkeley (<http://www.unex.berkeley.edu/>) Software Project Management
3. Goteborgs Universitet (<http://www.gu.se/>) Software Project Management

Date: 25.09.2008

HEAD OF DEPARTMENT

Prof. Dr. Eng. Ioan Silea

COURSE INSTRUCTOR,

Prof. Dr. Eng. Vladimir-Ioan CREȚU

