

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	SCHOOL OF ENGINEERING		
<b>ACADEMIC UNIT</b>	DEPARTMENT OF ELECTRONICS ENGINEERING		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	2603004	<b>SEMESTER</b>	3
<b>COURSE TITLE</b>	Project Management - CAD and Construction		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS (ECTS)</b>	
Lectures	2	4	
Laboratory	2		
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	General Background Course		
<b>PREREQUISITE COURSES:</b>	None		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	YES (in English)		
<b>COURSE WEBSITE (URL)</b>	<a href="http://pmc.teipir.gr">http://pmc.teipir.gr</a>		

### (2) LEARNING OUTCOMES

#### Learning outcomes

*The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.*

*Consult Appendix A*

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The main objective of this course is to define and to explain the processes and the methodologies which are developed during the management of a project, taking in account all the steps such as , what, why, and how of executing project steps. These steps are tightly linked together, complete with an implemented project.

Upon successful completion of this course module students possess advanced knowledge, skills and competences in the subject of Project Management and CAD that enable them to:

- Schedule an engineering project,
- Make use of the tools necessary for the project feasibility studies,
- Work as team members,
- Use methodologies and tools according to project requirements,

- Undertake project implementation,
- Implement the project control,
- Complete the project on time and meet all specifications,
- Finally, perform the evaluation of the project.

### General Competences

*Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?*

*Search for, analysis and synthesis of data and information, with the use of the necessary technology*  
*Adapting to new situations*  
*Decision-making*  
*Working independently*  
*Team work*  
*Working in an international environment*  
*Working in an interdisciplinary environment*  
*Production of new research ideas*

*Project planning and management*  
*Respect for difference and multiculturalism*  
*Respect for the natural environment*  
*Showing social, professional and ethical responsibility and sensitivity to gender issues*  
*Criticism and self-criticism*  
*Production of free, creative and inductive thinking*  
 .....  
*Others...*  
 .....

- Working independently
- Team work
- Project planning and management

### (3) COURSE CONTENT

#### Lectures

1. Introduction to Project Management  
Project manager, motivation, communication and cooperation rules and project agenda
2. Define Project  
Set project feasibility report, project initiation and project specifications
3. WBS, Develop Project Team  
Work Breakdown Structure (WBS), skills identification and establishment of project team
4. Initiate Project  
The agenda of the inaugural meeting, presentation of specifications and presentation of project planning
5. List of Tasks  
Preparation for tasks list, affinity diagram, finalize project tasks list
6. GANTT Diagram  
Basics of GANTT diagram, use of MSProject
7. Critical Path  
Introduction to project time planning, linear charts, netting charts, total duration of the project and project critical path
8. Project Quality  
Project quality planning, tools and techniques, quality assurance, tools and techniques and quality control
9. Management of human resources  
Organizational planning, staff acquisition and team development
10. Management of project communication  
Communications planning, information distribution, performance report and administrative closure
11. Risk analysis  
Programming risk management, risk identification, qualitative and quantitative risk analysis, risk response planning, monitoring and risk control

12. Management of project changes

The change structure procedures and change control

13. Closing the project

Project closing characteristics, closing contract, administrative closure and administrative project closure results and project evaluation

Laboratory Experiments:

Project Implementation (from beginning to end) on a weekly basis – Report on the results

**(4) TEACHING and LEARNING METHODS - EVALUATION**

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	Face to face lectures														
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	<ul style="list-style-type: none"> <li>• Use of electronic presentation with multimedia content in class,</li> <li>• Student support through the course webpage and the departmental e-learning platform,</li> <li>• Electronic communication of instructors and students, through the course webpage and by e-mail,</li> <li>• Use of special software for project planning and management.</li> </ul>														
<b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i>  <i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	<p>Lectures, Laboratory experiments, study.</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="background-color: #e0e0e0;">Activity</th> <th style="background-color: #e0e0e0;">Semester workload (hours)</th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td>26</td> </tr> <tr> <td>Study for lectures</td> <td>26</td> </tr> <tr> <td>Laboratory experiments</td> <td>26</td> </tr> <tr> <td>Report on lab experiments</td> <td>26</td> </tr> <tr> <td>Study and preparation for exams</td> <td>16</td> </tr> <tr> <td><b>Course Total</b></td> <td><b>120</b></td> </tr> </tbody> </table>	Activity	Semester workload (hours)	Lectures	26	Study for lectures	26	Laboratory experiments	26	Report on lab experiments	26	Study and preparation for exams	16	<b>Course Total</b>	<b>120</b>
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<b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure</i>  <i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i>  <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	<p>Final grade = Theory part grade x 60% + Lab part grade x 40%</p> <p><u>Theory part grade:</u>            Individual Project (30%):            The individual project contains the following:</p> <ul style="list-style-type: none"> <li>• Solve series of exercises regarding project management and circuit design</li> </ul> <p>Written examination (70%):            Final written examination that includes:</p> <ul style="list-style-type: none"> <li>• Multiple choice questions</li> <li>• General comprehension questions regarding the theory of project management</li> </ul> <p><u>Laboratory part grade:</u></p>														

	<ul style="list-style-type: none"><li>• Implementation of a project (80%)</li><li>• Midterm feasibility study (20%)</li></ul>
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#### **(5) ATTACHED BIBLIOGRAPHY**

##### Recommended Books

1. Kokkosis A.I. (2010), CAD Tools and Electronic Design, 2nd edition, Modern Publications, Athens
2. Kokkosis A.I. (2011), Project management, 2nd edition, Modern Publications, Athens
3. Kokkosis A.I. (2013). Project management and CAD design, Modern Publications, Athens
4. Verzuch E., (2006), Introduction to Project Management, Klidarithmos Publications
5. Maylor, H., (2009), Project Management, 3rd edition, Klidarithmos Publications
6. Kerzner, (2013) Project Management A Systems Approach, John Wiley
7. Heldman, K., (2012), Project Management Professional Study Guide, SYBEX
8. Dawson, C., (2005), Projects in Computing and Information Systems: A Students Guide, Addison Wesley