COURSE OUTLINE

(1) GENERAL

SCHOOL	ENGINEERING		
ACADEMIC UNIT	ELECTRICAL AND COMPUTER ENGINEERING DEPT.		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	**ECE_GE820**	**SEMESTER**	**8**
COURSE TITLE	ADMINISTRATION AND MANAGEMENT OF ELECTRICAL AND COMPUTER ENGINEERING PROJECTS		

INDEPENDENT TEACHING ACTIVITIES *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*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	
Seminars / Practice exercises	1	
Laboratory		
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (4).	4	5

COURSE TYPE *general background, special background, specialised, general knowledge, skills development*	General Knowledge Skills development
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes.
COURSE WEBSITE (URL)	https://www.ece.uop.gr/

(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 goal of the course is to provide the necessary means to people who wish to upgrade their professional prospects by acquiring skills related to modern project management and administration methods, project budgeting, management principles and tools used in its implementation, human resources management, as well as the formation of an effective control policy, so that the trainee is able to effectively use the full range of tools, techniques and methods necessary for the effective project design and implementation.

After the successful completion of the course, the students will be able to:

<u>At the knowledge level:</u>

- know the basic concepts and the international standards and methodologies of project management and administration,

- know methods and techniques for the preparation of a project feasibility and viability study, and the design of all the necessary stages for the project implementation,
- know methods for work scheduling and for the necessary human and material resources specification,
- be familiar with the procedures for cost estimation and project budgeting,
- understand the need to implement control methods at all stages of the project, in accordance with the required quality standards, its time planning and within the available resources,
- understand the necessity and the structure of communication procedures,
- be knowledgeable in human resource management, integration management and project close-out and handover processes.

<u>At the skills level:</u>

- apply methods and techniques for the preparation of a feasibility and viability study, and the design of all the necessary stages for the project implementation,
- apply methods for work scheduling and for the necessary human and material resources specification,
- implement cost estimation and project budgeting procedures,
- follow control methods,
- follow communication procedures,
- follow human resource management methods, integration, and project close-out and handover processes.

<u>At the level of abilities:</u>

- apply knowledge and skills acquired from their studies in technical projects of their specialty
- participate in the preparation of economic and technical studies
- be efficient in teamwork and communicate effectively
- participate in project management and the preparation of the necessary reports and documents such as specification documents, deliverables, verification plans, timetables, etc.

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	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Project planning and management
- Decision-making
- Working independently
- Team work
- 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

(3) SYLLABUS

The course covers key topics in the management, organization and planning of technical projects in the field of electrical and computer engineering. This basic knowledge of project management is combined with examining practical problems and applying methodologies and tools to deal with them and in combination with a variety of examples and exercises offers students a quick acquaintance with useful applications of project administration and management.

The course lectures cover the following thematic areas:

1. Introduction to the basic concepts and terminology of Project Management, International standards in project management, Project management methodologies
2. Project definition, Project management definition, Feasibility study, project charter and project management plan
3. Project life cycle, project phases and project process interaction
4. Similarities and differences between technical projects and IT projects, Software project management standards, software development process models and software life cycle
5. Work Breakdown Structure
6. Project team, Project scope management
7. Project time management, Project schedule, Gantt diagram
8. Project network diagrams
9. Critical Path Method.
10. Project cost management, resource planning and supplies time schedule
11. Project implementation, monitoring and control, Project quality management
12. Project communication management, Human resource management
13. Procedures for project close-out and handover.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face in-class lecturing
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	• Use of slides in electronic form (ppt). • Lecture notes posted on the e-Class platform. • Suitable software. • Support of learning process through e-class platform. • Use of e-mail to communicate with students
TEACHING METHODS *The manner and methods of teaching are described in detail.* *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.* *The student's study hours for each learning activity are given as well as the hours of non-*	

Activity	***Semester workload***
Lectures	39
Study of lectures and bibliography	39
Exercises and case studies	32
Preparation for exams	15
Course Total	***125 hours (5 ECTS)***

directed study according to the principles of the ECTS	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *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* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	• Written Final Examination (WFE) on the theoretical part of the course and includes both evaluation of theory elements and solving exercises and problems of graduated difficulty. The partial grade points corresponding to each query are listed. • Evaluation exercises and assignments. Deliverables in electronic form and oral evaluation (EOE) on their content. • The final grade of the course is calculated as 0.7xWFE + 0.3xEOE. • The examination process and the evaluation criteria are publicly available to the students through e-Class. • Language of evaluation: Greek

(5) ATTACHED BIBLIOGRAPHY

- *Suggested bibliography:*

- R. Burke, Διαχείριση έργου: Αρχές και τεχνικές, Εκδόσεις Κριτική, 2014
- R. Burke, Διαχείριση έργου (project management): Τεχνικές σχεδιασμού και ελέγχου, Εκδόσεις Κριτική, 2002
- Σ. Πολύζος, Διοίκηση και διαχείριση των έργων: Μέθοδοι και τεχνικές, Εκδόσεις Κριτική, 2018
- Α. Δημητριάδης, Διοίκηση - διαχείριση έργου (Project Management), Εκδόσεις Νέων Τεχνολογιών, 2009.
- Α. Κοκκόσης, Διαχείριση Έργων, Εκδόσεις Σύγχρονη Εκδοτική, 2016
- Η. Kerzner, Διοίκηση έργων, Εκδόσεις Τζιόλα, 2018
- H. Maylor, Διαχείριση έργων (project management), Εκδόσεις Κλειδάριθμος, 2005
- E. Verzuh, Εισαγωγή στη διαχείριση έργων (project management), Εκδόσεις Κλειδάριθμος, 2002
- J. K. Pinto, Project management: Achieving competitive advantage, Prentice Hall, 2012
- Επισκόπηση Μεθοδολογίας Διαχείρισης Έργων PM², Εκδόσεις Ευρωπαϊκή Επιτροπή - Κέντρο Αριστείας για τη Διαχείριση Έργων (CoEPM²), 2018

- *Related academic journals:*