COURSE MODULE OUTLINE

General information

SCHOOL	Science and Technology		
PROGRAM COURSE	Engineering Project Management		
LEVEL OF STUDY	Postgraduate		
COURSE UNIT CODE	DXT 50	**Year of study**	1st
COURSE TITLE	Principles of Project Organization and Management		
INDEPENDENT TEACHING ACTIVITIES *in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits*		**WEEKLY TEACHING HOURS**	**CREDITS**
Weekly teaching hours * 30 weeks		18-19	20 ECTS
Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4			
COURSE TYPE Compulsory, Optional, Optional mandatory	Compulsory		
PREREQUISITE COURSES:	No prerequisites		
LANGUAGE OF INSTRUCTION AND EXAMS:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://www.eap.gr/education/postgraduate/annual/construction-management/topics/#d50		

(2) LEARNING OUTCOMES

Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult:

APPENDIX A

- *Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications Framework.*
- *Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and*

APPENDIX B

- *Guidelines for writing Learning Outcomes*

Upon successful completion of DXT 50, students will be able to:

- ✓ Describe the organizational and economic structure of enterprises and in particular of construction enterprises, management systems, strategic planning, and financial management of enterprises.
- ✓ Describe the organizational structure of the construction site (technical and administrative staff, machinery, mechanical and other facilities).
- ✓ Apply rules for the management of the company and site staff.
- ✓ Apply rules for the management of the company's and the site's equipment and materials for the construction of the project.
- ✓ Evaluate alternatives concerning the location and layout of the site and its specific characteristics according to the size and characteristics of the project under construction.
- ✓ Carry out the necessary analyses – studies for the organization and installation of the site.
- ✓ Prepare technical and financial bids for participation in tenders for works and studies and apply the procedures for the award and execution of works.
- ✓ Select and use information systems for the management of technical projects at the head office of the contractor and at the construction site.
- ✓ Use application software in the management of technical projects (project management packages, databases, spreadsheets).
- ✓ Use advanced information systems and technologies in the management of engineering projects.

General Competences

Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

Search for, analysis and synthesis of data and information by the use of appropriate technologies,
Adapting to new situations
Decision-making
Individual/Independent work
Group/Team work
Working in an international environment
Working in an interdisciplinary environment
Introduction of innovative research
Project planning and management
Respect for diversity and multiculturalism
Environmental awareness
Social, professional and ethical responsibility and sensitivity to gender issues
Critical thinking
Development of free, creative and inductive thinking
……
(Other…….citizenship, spiritual freedom, social awareness, altruism etc.) …….

Search for, analysis and synthesis of data and information by the use of appropriate technologies
Individual/Independent work
Project planning and management
Critical thinking
Development of free, creative and inductive thinking

(3) COURSE CONTENT

- ✓ Basic concepts and theories of Management Science. The business environment, the overall quality, and social responsibility. Administration systems. Company strategic programming. Companies organizational structure. Construction companies' organizational and economic structure. Company personnel. Company equipment management. Financial management, analysis, and prediction. Preparation and presentation of technical and financial tenders for participation in open-bid projects and studies. Construction companies' operational issues.
- ✓ Construction site concept and layout. Construction site information systems. Preparatory research. Construction site personnel. Construction site productivity. Construction site mechanical equipment. Construction site equipment management. Value management. Quality assurance. Project implementation. Case studies.
- ✓ Technical projects management information systems. Software technical traits in project management. Case studies in project management using software programs. Project management software and business. Database systems in construction project management. Logistic spreadsheets in construction project admeasure. Advanced systems and information technologies in project construction management.

The key subjects of the course are:

- ✓ Principles of business administration
- ✓ Site organization and management
- ✓ Information systems in technical project management

(4) TEACHING METHODS--ASSESSMENT

MODES OF DELIVERY *Face-to-face, in-class lecturing, distance teaching and distance learning etc.*	Distance education with five Group Counseling Meetings (OSS) during the academic year on weekends.
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY *Use of ICT in teaching, Laboratory Education, Communication with students*	For the OSS, use is made of: - remote meetings tools (cisco WebEx), - presentation software (e.g. powerpoint), - specialized software, free or student versions, relative to the subject of the course

COURSE DESIGN

Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc.

The study hours for each learning activity as well as the hours of selfdirected study are given following the principles of the ECTS.

Activity/Method	***Annual workload***
5 OSS (* 4 hours)	20
Tutorials	8
Preparation of Assignments (5 assignments * 20 hours)	100
Examination	3
Individual study	420-440
Total	**551-571**

STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS *Detailed description of the evaluation procedures:* *Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other……etc.* *Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.*	Five (5) written assignments over the course of the academic term, the average grade of which makes up 30% of the final grade, on the condition that a passing grade is achieved in the final or repeat examinations. Final examinations, the grade of which makes up 70% of the final grade. Students must use specialized software for at least one of the aforementioned five written assignments. Certain software is accessible on the internet (student editions), while students may obtain other software through the 'Structural Technology and Applied Mechanics' Laboratory.

(5) SUGGESTED BIBLIOGRAPHY:

- Suggested bibliography:

- Volume A: Goutsos St., Korres G., Kostouros I., Principles of Business Administration, EAP, Patras 2003.
- Volume B΄: Alesta Aik., Kantounis Stef., Manoliadis Od., Baronou Ath., Pantouvakis P., Tsolas I., Organization and Management of Construction, EAP, Patra 2003.
- Volume C΄: Manoliadis O., Souflis I., Souflis K., Tzamos T., Information Systems in the Management of Technical Projects, EAP, Patras 2003.
- Cleland, D. I. (2007). Project management: strategic design and implementation. McGraw-Hill Education.
- Harrison, F., & Lock, D. (2017). Advanced project management: a structured approach. Routledge.
- Nicholas, J.M., & Steyn, H. (2020). Project management for engineering, business and technology. Routledge.

- Related scientific Journals:

- International journal of project management.
- Project Management Journal
- International Journal of Construction Project Management
- Journal of Construction Engineering and Project Management