

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Engineering		
ACADEMIC UNIT	Department of Financial and Management Engineering		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	FE0171	SEMESTER	9th
COURSE TITLE	Business Process Management Systems		
INDEPENDENT TEACHING ACTIVITIES <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>	WEEKLY TEACHING HOURS	CREDITS	
	3	5	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Track Elective (Track 1: Management Engineering)		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (Lecture Notes and main educational material in English) English for the ERASMUS students		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	http://www.fme.aegean.gr/el/c/systimata-diaheirisis-epiheirisiakon-diadikasion http://www.fme.aegean.gr/en/c/business-process-management-systems		

(2) LEARNING OUTCOMES

<p>Learning outcomes</p> <p><i>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.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>Upon completion of the course, students will be able to:</p> <ul style="list-style-type: none"> • Understand the concepts of Business Process (in relation with the concept of Operations and with reference to the concept of value chain and value net) • Increase awareness of the concepts and foundations of business process management, process automation and Business Process Management

Systems

- Understand how organizations can improve efficiency and stimulate innovation by using business process management
- Familiarize with the methods and techniques of Business Process Design by using BPMN (Business Process Modeling Notation)
- Learn and practice BPMN elements, rules and requirements and familiarize with Business Process Design tools and applications
- Learn best practices and techniques for modeling business processes in the context of a Business Process Management System (work on the basis of a Process Modeling Framework)
- Create an implementation strategy for orchestrating enterprise IT systems and human tasks through a Business Process Management Systems
- Understand how Business Process Management Systems may support Supply Chain Collaboration

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...

.....

Business Knowledge

Problem Solving

Use of IT applications in Problem Solving

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Team work but also the Capacity of Working Independently within a Team (Role learning)

Working in an Interdisciplinary Environment

Production of Creative and Inductive Thinking

(3) SYLLABUS

Course Description: This course provides a set of fundamental concepts for understanding Business Process Management (BPM), Business Process Automation, Business Process Modeling and the Application of a Business Process Model to solve problems of process automation and services integration in real business environments (enterprise architecture integration). Ultimately, the goal of this course is to help students to model existing business process as well as create their own models for completely new composite business processes.

Course Topics:

- Business Process Analysis
- Business Process Design by using BPMN
- BPMN by example
- Familiarization with Process Modelers (software and applications such as [Bizagi](#) and others)
- Best practices and techniques for modeling business processes (Process Modeling Framework)
- Strategies for orchestrating enterprise IT systems and human tasks through Business Process Management Systems (Business Process Automation)
- Business Process Management Systems in the context of Supply Chain Management

Course Structure:

- Introduction - Scope of the course and method of study
- Business Processes, Business Process Management and Business Process Models
- Business Process Analysis - Business Process Modelling by using BPMN
- A composite service case example to practice the skills and knowledge acquired and apply the proposed Process Modeling Framework
- Business Process Automation
- Business Process Management Systems and Supply Chain Management

(4) TEACHING and LEARNING METHODS - EVALUATION

<p>DELIVERY <i>Face-to-face, Distance learning, etc.</i></p>	<p>Face-to-face; additional short online meetings for coordination and supervision of students' work. Teaching methods for this course are based on lectures and presentation / discussion of theory, methodology, examples and "hands-on" experience (students create business process models by using a Process Modeler application). Working closely with students on concrete process modeling examples is essential and helps students understand the basic concepts and tools of the course.</p>	
<p>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>The second part of the course is developed as a laboratory where students design and verify example cases of process models by using the course Process Modeling Framework.</p>	
<p>TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i></p>	<p>Activity</p>	<p>Semester workload</p>
	<p>Lectures</p>	<p>39</p>
	<p>Study of bibliography</p>	<p>39</p>

<p>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.</p> <p>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</p>	Work Assignment	20
	Personal exercise (non-directed study)	20
	Project Work	20
	Exams	2
	Course total	140
<p>STUDENT PERFORMANCE EVALUATION</p> <p>Description of the evaluation procedure</p> <p>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</p> <p>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</p>	<p>Language of evaluation: Greek for local students, English for ERASMUS students</p> <p>Evaluation:</p> <p>Class Participation (20%)</p> <p>Assignments (30%)</p> <p>Final Essay/Project (no Exams) (50%)</p> <p>(*) Verification of personal work in the Project during Final Exams (orally)</p>	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1/ Διαχείριση Επιχειρησιακών Διαδικασιών, 2η Έκδοση, Weske Mathias, Μάρω Βλαχοπούλου, Κωνσταντίνος Βεργίδης (επιμέλεια)

- <https://www.tziola.gr/book/diachirisi-epichirisiakon-diadikasion/> (GR)
- <https://www.springer.com/gp/book/9783642286155>

2/ Βασικές Αρχές της Διαχείρισης Επιχειρησιακών Διαδικασιών, Dumas Marlon, La Rosa Marcello, Mendling Jan, Reijers Hajo

- <http://www.brokenhill.com.cy/product/dumas-vasikes-arxes-tis-diaxeirisis-epixeirisiakon-diadikasion/>