COURSE OUTLINE

BSC DEPARTMENT MANAGEMENT SCIENCE AND TECHNOLOGY

July 2022

University of Patras | Department of Management Science and Technology

Περιεχόμενα

Introduction to business administration (MST_101)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_101	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			x							
COURSE TITLE	INTRODUCTION TO BUSINESS ADMINISTRATION								

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).	3	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialised general knowledge
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	

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*

At the end of this course the student will:

- have been introduced to the science of Business Administration with emphasis on programming, organization, management and control functions, as well as on the roles and skills of executives,
- have been aware of the basic concepts and functions of Business Administration in today's changing business environment,
- have understood the modern trends in organizational theory, especially those who successfully use

the appropriate forms of organizational planning to compete in the complex and uncertain market economy,
- have been informed of the practices that have been implemented by major companies as well as the more specialized knowledge they need to have and be able to manage engineers.

At the end of the course, the student will have further developed the following skills:

- ability to manage and develop in the most effective way both the material and the human capital of an enterprise,
- ability to analyze the information received from the company's internal and external environment, resulting in better decision making,
- ability to understand the operation of production systems,
- ability to draw up a strategy based on the economic and technical data that arise over a given period of time.

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
- Adapting to new situations
- Decision-making
- Project planning and management
- Production of free, creative and inductive thinking

3. SYLLABUS

1. What is and what does science management do
2. Historical Evolution of Administrative Thought: Approaches - Schools of Management
3. The environment of financial institutions
4. Production Systems Design - The systemic approach to management: the production system and its interdependencies with the environment, the economy and society.
5. Study of administrative functions: Programming
6. Study of administrative functions: Organization
7. Study of administrative functions: Management
8. Study of administrative functions: Decision Making and Executives
9. Study of administrative functions: Control
10. New Challenges and Modern Managerial Approaches: Modern Management Tools: Change and Innovation Management, Business processes re-engineering, Comparative assessment, Balanced scorecard, Knowledge management

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x	
	Distance learning (asynchronous)		
	Distance learning (synchronous)		
	Others:		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x	
	E-class	x	
	Virtual (simulated) laboratory training		
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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***	
	Lectures	39	
	Tutorials		
	Laboratory Practice		
	Essay writing		
	Seminars		
	Projects		
	Study and analysis of bibliography		
	Placements		
	Clinical practice		
	Art workshop		
	Interactive teaching		
	Educational visits		
	Artistic creativity		
	Independent study	86	
	Other:		
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***	
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 work, essay/report		
	Problem solving		
	Multiple choice question naires		
	Final exam with Multiple choice questionnaires		
	Oral examination		

	Project			
	Mid-term exam (concluding)			
	Final exam with developing questions	X	(theory,short case studies)	
	Public presentation			
	Mid-term exam (formative)			
	Laboratory work			
	Written work, essay/report			

5. ATTACHED BIBLIOGRAPHY

- E-class notes.
- Books:

  - *Petridou E., "Management - Management, An Introductory Approach", "Sofia" Publications, 2011*
  - *Williams, K. & Johnson, B. "Introduction to Management, A Practical Guide to Development", Critical Publications, 2005*
  - *Tzortzakis, K. & Tzortzaki, A., "Organization and Management", Rosili Publishing, 2002*
  - *Bouradas, D., "Management", G. Benou Publishing, 2002*
  - *Robbins, S., Decenzo, D. & Coulter, M., "Business Administration: Principles and Applications", Critical Publications, 2012*
  - *Shtub, A., "Project Management", Epicenter Publishing SA, 2008*
  - *Bateman, S., "Business Administration", A. Tziola & YII Publishing, 2016*
  - *Xitiris, L., "Management, Principles of Business Administration", Fidimos Publishing, 2013*
  - *Hitt A. M., Black J. S., Porter W. L., "Management", Ion Publications, 2014*

Introduction to Marketing (MST_102)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_102	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			x							
COURSE TITLE	Introduction to Marketing								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course students will be able to:

• Understand marketing importance and its role in business development.
• Identify and evaluate environmental factors that affect the market and define the company's strategy.
• use market research on marketing problem solving.

• choose the appropriate group (target market) to which they will focus.
• determine the factors that affect consumer behavior and purchasing decisions.
• Understand and identify successful strategies for the main firm product.
• Understand pricing principles and identify an effective strategy.
• Understand and define an efficient distribution system strategy.
• Choose an effective communication and promotion strategy.
• Develop and implement an effective marketing program, evaluating its results.

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
- Working independently
- Decision-making
- Adapting to new situations
- Production of free, creative and inductive thinking

3. SYLLABUS

Introduction to the concept and philosophy of marketing. Marketing Mixture
• Business Macroenvironmental and Microenvironmental Analysis.
• Marketing Information System. Marketing Informatics System.
• Marketing research. Market Research
• Distribution of Market. Choice of Market - Target.
• Consumer Behavior. Process of making a Purchasing Decision.
• Product. Trademark. Excellent Product.
• Product Life Cycle. Product Strategies. Development of a new product.
• Factors that affect pricing strategy. Pricing strategies. Discounts.
• Traders. Distribution Network Strategies and Motivation.
• Communication Model. Advertising. Planning an Advertising Campaign.
• Public relations. Personal Sale. Planning a sales process.
• Direct Marketing. E-Marketing.
• Create a Marketing Plan.
• Evaluating and Controlling Marketing Results.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education,*	Slides	
	E-class	x
	Virtual (simulated) laboratory	

communication with students	training

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	13
Seminars	
Exercises	
Project	
Study and analysis of bibliography	13
Placements	34
Independent study	
Clinical practice	
Art workshop	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(60% of the final grade)
Public presentation		
Mid-term exam (formative)	x	(30% of the final grade)
Laboratory work/Term Project		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- William D. Perreault, Joseph P. Cannon, E. Jerome McCarthy, 2012. Βασικές Αρχές Marketing. Εκδόσεις BROKEN HILL PUBLISHERS LTD
- John Fahy, David Jobber, 2014. Αρχές Marketing. Εκδόσεις ΚΡΙΤΙΚΗ
- Καζάζης Νίκος, 2006. Αποτελεσματικό Marketing για Κερδοφόρες Πωλήσεις. Εκδόσεις ΣΤΑΜΟΥΛΗΣ

Business communication English (MST_103)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_103	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			x							
COURSE TITLE	Business Communication English								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	

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 purpose of this course is to teach the basic theoretical principles of English language both in written and oral practice. At the end of this course the student will have:

- deepen its knowledge of the English language by practicing basic communication skill
- have practiced (through written and oral exercises) the principles of Business Communication

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…*
	…….

- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment
- Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

Written communication and correspondence:

- Office Communication Documents (how to write an effective memo or email),
- Job Solicitation Letters (Application letters, Cover letters, CVs)
- Other Business Letters (e.g. Letters of Acceptance, Rejection, General Inquiries)
- Meetings Documentation

Oral communication:

- Interview Skills and Socializing Skills
- Meetings and Discussions
- Telephone Skills
- Essential Skills in Presentations and Public Speaking

4. TEACHING and LEARNING METHODS – EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance (asynchronous)	
	Distance (synchronous)	
	Other:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	
	Essay writing	30
	Seminars	
	Exercises	13
	Project	
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	30
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 20% of final grade)
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	x	(80% of the final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		
	Other : Attendance and participation		

5. ATTACHED BIBLIOGRAPHY

- Taylor, S. Model Business Letters, Emails and other Documents. Broken Hill Publishers Ltd, 2012 (main coursebook)
- Instructor's notes
- 3. Brieger, N. Writing. Collins English for Business, 2011

Accounting I (MST-104)

COURSE OUTLINE

1. GENERAL

SCHOOL	BUISINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_104	**SEMESTER**	1st: x	2nd	3rd	4th	5th	6th	7th	8th
COURSE TITLE	Acounting I								

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**
L: lectures Lab: laboratory exercises	3(L),2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	

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 purpose of this course is to introduce the student to the basic concepts of Accounting Science. Students will be introduced to the basic principles and practices of Accounting, the sources of accounting information, the rules of Accounting and Accounting Equality. More specific the methods of accounting based on the duplicate method will be analyzed and will present in detail the financial statements that a company is required to publish based on both

Greek Accounting Standards and International Financial Reporting Standards. Also, the student will be eligible to understand the ways of book-keeping and be familiar to the General and Analytical Ledgers of the business accounts. Finally, it will be showed how to export the Profit and Loss Account.
At the end of the course the student will be eligible to:

- Prepare Financial Statements such as Balance sheet, the Income Statement, the Panel Equity and Cash Flow Statement.
- To identify the meaning and content of the Financial Statements.
- To determine when an Account is debit or credit.
- To record accounting events by duplicate method.
- To keep the General and Details Ledgers.
- To prepare the Provisional and Final Balance Sheet.
- To understand the full range of accounting procedures.

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
- Adopting to new situations
- Decision-making
- Working independently
- Team work
- Production of free, creative and inductive thinking
- Respect for diversity and multiculturalism

3. SYLLABUS

The course is organized on 13 weeks including the following topics:

- Basic financial and accounting units. Accounting distinctions and introductory concepts.
- Basic Accounting Statements and the Accounting Equity.
- Accounting journal, book-keeping and General and Analytical Ledgers
- Journalize of accounting events in commercial enterprises.
- Acounting entries of expenses and revenues.
- Inventories, account adjustments and accounting errors.
- Depreciation.

- Special Accounts.
- Balances.
- Determination of Profit and Loss Accounts.
- Determination of Outcome Statement.
- Accounting Cycle.
- Revision.

B. Laboratory axis: The axis is covered by the implementation of 13 laboratory courses with the use of computer.

Specifically, the topics of the laboratory lesson include:

- Understanding Accounts
- Understanding exercises of the structure of the Single General Accounting Scheme (groups of accounts)
- Exercises to understand the concept of debit or credit accounts
- Understanding accounting events (purchases, product sales, cash receipts and payments, VAT registrations)
- Exercises for journalize accounting events
- Accounting exercises for book-keeping and entries of year ending
- exercises of General Ledger
- Definition of Profit and Loss Account
- Preparing students for computer accounting application that can meet all the needs of an accounting office in a work environment. Introduction to software - getting to know the environment and its requirements.
- Customization of accounts depending on the purpose of the business
- Start creating accounting entries
- Printing of accounting documents (sales invoices, etc.)
- 14. Printing of accounting books - General Ledger, Records defining result - Printing of General Operating Account, Balance Sheet and Income Statement.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography,*	***Activity***	***Semester workload***
	Lectures	39

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-directed study according to the principles of the ECTS*	Practical demonstration	
	Project	
	Essay writing	
	Study and analysis of bibliography	
	Unsupervised study	60
	Exercises	26
	Course total	***125***

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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions/ Multiple choice questionnaires	X	(full grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Γενική Χρηματοοικονομική Λογιστική (τ.Α'), Φίλιος Βασίλειος, Εκδόσεις Σύγχρονη Εκδοτική, 2013
- Χρηματοοικονομική Λογιστική, Horngren's (2017), Εκδόσεις BrokenHillPublishers
- ΧρηματοοικονομικήΛογιστική, Harrison – Horngren – Thomas (2015), ΕκδόσειςBroken Hill Publishers
- ElliottB. AndElliottJ. (2007), "Financial accounting and reporting", 11th edition, Prentice Hall, 2007.
- Warren C., ReeveJ., and Fess P. (2003), "Financial accounting", 8th edition, South – Western, Thomson Learning, 2003.
- Meigs R.F., Meigs M.A., Bettner M. and Whittington R. (1996), "Accounting: The basis for business decisions, 10th edition, McGraw-Hill.

Introduction to Computers (MST_105)

COURSE OUTLINE

1, GENERAL

SCHOOL	BUISINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_105	**SEMESTER**	1st: x	2nd	3rd	4th	5th	6th	7th	8th
COURSE TITLE	Introduction to Computers								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/BMA421/

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*

This course presents basic concepts of Informatics, the historical development of computing as well as the trends of the use of new technologies in the business environment in. Topics covered include the hardware of a typical computer, how the central processing unit executes programs, number systems and conversions among them as

well as Algebra Boole and logical design simple combinational circuits. There is, also, a parallel lab that covers basic skills in operating a computer such as the creation of documents, spreadsheets and presentations. Finally, the student is introduced to the Internet and its information processing power as well as key security concepts and the applications of information technologies in the modern corporation.

At the end of this course the student should be able to:

- Understand how computers work as well as basic hardware and softwareconcepts,
- Understand how a computer stores and processesinformation,
- Explain how the Internet is structured and how it can be profitablyused,
- Understand the basic security issues in computers andnetworks.
- Understand how the modern corporation can benefit from the use of newtechnologies.

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
- Working independently
- Knowledge of the structure of Computers as well as Competent operation of a computer along with its basic software tools

3. SYLLABUS

- Basic computer concepts,
- The parts of a typical computer,
- The operation of the Central Processing Unit in program execution,
- Numeric systems and conversions,
- Elements of Algebra Boole,
- Design of simple combinatorial logiccircuits,
- Basic concepts of the Internet,
- Security issues of computers and networks,
- The role of computers in the contemporary corporation,
- Basic competences in using a computer (writing documents, creating spreadsheets, creation of presentations- MS OFFICE).

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	

	Distance learning (synchronous)	
	Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
	Others	Basic Software Packages Learning (text processing, spreadsheets, creation of presentations) in the Computer Laboratory

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	26
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	26
Project	
Study and analysis of bibliography	13
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	60
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	Exercises on topics of computer logic design, arithmetic systems and algorithmic thinking and design.

Public presentation			
Mid-term exam (formative)			
Laboratory work/term projects			

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Υλικό, Λογισμικό και Επικοινωνίες Υπολογιστών, Ιωάννης Βογιατζής, Ήρα Αντωνοπούλου, 2017, Εκδόσεις Νέων Τεχνολογιών Μον. ΕΠΕ. (Hardware, Software, and Computer Communications, H. Antonopoulou and I. Voyiagis, New Technologies Publishers, 2017)
- Εισαγωγή στην πληροφορική, Evans Alan, Martin Kendall, Poatsy Mary Anne, 1η έκδοση 2014, Εκδόσεις ΚΡΙΤΙΚΗ.
- Αρχές Λειτουργίας και Προγραμματισμού Η/Υ, Γεώργιος Γιαγλής, 1η έκδοση 2012, Εκδόσεις Οικονομικού Πανεπιστημίου Αθηνών.
- Ανακαλύπτοντας τους Υπολογιστές: Εργαλεία, Εφαρμογές, Συσκευές και οι Επιπτώσεις της Τεχνολογίας, Vermaat Misty, Sebok susan, Freund Steven, Campbell Jennifer, Frydenberg Mark, 1η έκδοση 2017, Broken Hill Publishers Ltd.

Mathematics (MST_106)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	**MST_106**	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			x							
COURSE TITLE	Mathematics								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 aim of this course is to infuse students on basic mathematical concepts of differential and integral calculus. The course focuses on the use of mathematical models in the fields of science and economics.
Upon completion of the course, students will be able to:
• Manage mathematical tools efficiently to optimize univariate functions
• Solve problems in the context of differential and integral calculus

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
- Working independently

3. SYLLABUS

- Basic concepts on sets, functions, limits etc.
- Differential Calculus of Functions
- Integral Calculus of Functions
- Applications of mathematics in management and economic science

4. TEACHING and LEARNING METHODS – EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	53
	Tutorials	
	Laboratory practice	
	Essay writing	13
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*60*
	Others:	
	Total number of hours for the	***125 hours (total student work-load)***

	Course (25 hours of work-load per ECTS credit)		

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 work, essay/report	x	(20% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(80% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Διαφορικός και Ολοκληρωτικός Λογισμός, Μετάφραση της 4ης Αμερικάνικης Έκδοσης, Spivak Michael
- Πραγματική Ανάλυση, 3η Έκδοση, Γεωργίου Δημήτριος, Ηλιάδης Σταύρος, Μεγαρίτης Αθανάσιος
- Μαθηματικά των Επιστημών Οικονομίας και Διοίκησης, Jacques Ian
- Μαθηματικά οικονομικο-διοικητικών επιστημών, Yamane Taro, Κιντής Ανδρέας
- Εφαρμοσμένα Μαθηματικά, Νικόλαος Χαλιδιάς
- Γενικά Μαθηματικά Ι, 2η Έκδοση, Ζαγούρας Χαράλαμπος, Γεωργίου Δημήτριος

Labor relations and law (MST_201)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_201	**SEMESTER**	1st	2nd	3rd	4th	5th	6t	7th	8th
				x						
COURSE TITLE	Labor Relations And Law								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	@ eclass.upatras.gr/cources/…..

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 course offers the necessary legal knowledge in order to manage a company in the field of labor relations according to the principles of management science as well as the rules of labor legislation.

At the end of the course the student will be able to:

- Distinguish the origin of legislation (national law, international law, presidential decrees and regulatory acts) and their formal power and hierarchy.
- Implement the appropriate rules of labor legislation for successful and legally correct management.
- Be aware of the operation of basic labor institutions and procedures that interfere in the labor relation and restrict and define employer's managerial power.
- Implement the special framework of collective legislation (collective agreements, arbitration decisions) for the purpose of correct staff management.
- Evaluate crises and conflicts in work place and implement methods of prevention and solution with respect to the labor legislation.
- Realize the legal position of employers' and employees' as far as their rights and obligations are concerned. Evaluate the facts and apply legal procedures for implementing the managerial and disciplinary power.
- Based on the knowledge above, evaluate the facts and legal data, compound the different opinions and manage any legal or practical problem from any responsible position.

At the end of the course the student will have developed the following skills:

- Familiarization with the labor relations, their organisation, characteristics and operation as well as development of the ability to manage these relations.
- Making decisions that are business appropriate as wellas legally correct according to te needs and goals of the company.
- Taking advantage of the modern models of management in a usefull way for emlpoyees and employers as well.

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…*
	…….

- Decision-making
- Working in an interdisciplinary environment
- Working independetly
- Team work
- Production of free, creative and inductive thinking
- Respect for difference and multiculturalism
- Showing social, professional and ethical responsibility and sensitivity to gender issues

3. SYLLABUS

The course includes the following topics:

- Introduction to Law - Basic concepts - Sources and hierarchy of legal rules
- Work contract - Flexible forms of employment - Telework - Work and internet
- Employee's obligations (Type of work - Hour - place, way of work)
- Abnormal development of the labor contract and resolution of labor disputes
- Employer's obligations - Wages issues - Linking wages to productivity
- Other obligations of the employer - Welfare, equality, accidents at work etc. - Corporate social responsibility in industrial relations
- Termination of the Labor Contract (fixed and indefinite)
- Trade union law - Trade Organizations - trade Action - Trade unionists - Strike - Collective Autonomy – collective contracts / arbitration decisions - Mediation and Arbitration

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	65
	Tutorials	
	Laboratory practice	
	Essay writing	20
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	20
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	20
	Others:	
	Total number of	***125 hours (total student***

	hours for the Course (25 hours of work-load per ECTS credit)	***work-load)***	

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 work, essay/report	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(90% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Zerdelis, Private labor relations, Edition 2019.
- Traulos Tzanetatos, Private labor law in the 4th industrial revolution, Edition 2019.
- Georgiadou, Introduction to labor law, Edition 2019.
- Agallopoulou, Introduction to labor law, Edition 2019.
- Lanaras, Labor and insurance legislation, Edition 2018.
- Vlastos, Changes in private and collective labor relations due to crises, Edition 2013.
- Leventis/Papadimitriou, Private labor law, Edition 2011.

Microeconomic Analysis (MST_202)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_202	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						
COURSE TITLE	Microeconomic Analysis								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (English for Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	@ eclass.upatras.gr/cources/…..

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*

Students learn “microeconomic analysis” towards decision making and develop the contemporary analytical skills to conceptualize dynamics in real-world business and policy issues. Throughout the course contemporary examples are presented to delineate key concepts. “Microeconomic analysis” course explains the basic principles and enable students to understand:

- how markets work (demand, supply, elasticities, economic efficiency, market structures)
- how firms make production decisions (technology, production and costs),
- the role of government in markets,
- Fundamental macroeconomic indicators and the role of stabilisation policies.

Having successfully completed the "microeconomic analysis" course students will acquire the ability to:

- express a fundamental understanding of the key concepts and principles in microeconomics and their application to decision making relevant to real-world business and policy issues,
- express special skills in analysing and interpreting graphical and mathematical material,
- use a range of technical and communication skills to analyse and evaluate relevant information, drawn from a range of sources, in order to demonstrate judgement, creative thinking and analytical skills in interpreting and solving microeconomic-related problems,
- work to elaborate plans and execute tasks to enhance professional knowledge and skills,
- express the ability to recognise, and respond appropriately to a range of ethical issues involved in microeconomic theory and analysis in influencing the practice of business.

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…*
	…….

- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment
- Respect for the natural environment
- Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

"Microeconomic analysis" course is structured around the following topics:

- **The foundations of economics**

Explain the role of scarcity, specialization, opportunity cost and cost/benefit analysis in economic decision-making.

- **Demand and Supply-Price equilibrium**

  Identify the determinants of supply and demand; demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output.

- **Elasticity**

  Calculate supply and demand elasticities, identify the determinants of price elasticity of demand and supply, and demonstrate the relationship between elasticity and total revenue.

- **Consumer Choice**

  Summarize the law of diminishing marginal utility; describe the process of utility maximization.

- **Business Costs and Production**

  Describe the production function and the Law of Diminishing Marginal Productivity; calculate and graph short-run and long-run costs of production.

- **Firms in a Competitive Markets**

  Identify the four market structures by characteristics; calculate and graph the profit maximizing price and quantity in the output markets by use of marginal analysis.

- **Understanding Monopoly**

  Identify the monopolistic competition market structure by characteristics; calculate and graph the profit maximizing price and quantity in the output markets by use of marginal analysis.

- **Market Inefficiencies**

  Externalities and Public Goods: Describe governmental efforts to address market failure such as monopoly power, externalities, and public goods.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	21
	Placements	
	Clinical practice	

	Art workshop		
	Interactive teaching		
	Educational visits		
	Artistic creativity		
	Unsupervised study	*52*	
	Others:		
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***	

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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(100% of final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Κιόχος, Π. Α., Παπανικολάου, Γ. Δ., & Κιόχος, Α. Π. (2013). *Σύγχρονη μικροοικονομική ανάλυση: θεωρία-εφαρμογές*. Αθήνα: Κιόχου, Ε.
- Κώττης Γ., Πετράκη–Κώττη Α. (2002) *Μικροοικονομική: Θεωρία & Εφαρμογές στη Λήψη Αποφάσεων*. Αθήνα Μπένου Γ.
- Acemoglu, D. Laibson, D. & List, J. A. (2015) *Μικροοικονομική*. Σ. Δεληπάλλα, (επιμ.) Αθήνα : Κριτική
- Begg, D., Fisher, S. & Dornbush, R. (2006) *Εισαγωγή στην Οικονομική*, τόμοι Α΄ και Β΄, εκδ. Κριτική.
- Baumol, W. J. (2012). *Μακροοικονομική= Macroeconomics : αρχές και πολιτική: principles and policy*. 11η έκδ. Αθήνα: Π.Χ. Πασχαλίδης, Australia: South-Western Cengage Learning
- Mankiw, N. G., Taylor, M. P., Σακκά, Α., & Λιανός, Θ. Π. (2010). *Αρχές οικονομικής θεωρίας: με αναφορά στις ευρωπαϊκές οικονομίες*. Αθήνα: Gutenberg.
- Mankiw,N.G. & Taylor P.M. (2017). *Οικονομική (Μικροοικονομική).* Α. Μανιάτης (επιμ.). Α. Μήλιος (μετ.). Θεσσαλονίκη: Τζιόλας
- Parkin, M., Powell, M., & Matthews K. (2013). *Αρχές οικονομικής*. Αθήνα: Κριτική.

Acounting II (MST_203)

COURSE OUTLINE – ACCOUNTING II

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_203	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						
COURSE TITLE	Acounting Ii								

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**
L: lectures Lab: laboratory exercises	2(L),2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES in English
COURSE WEBSITE (URL)	@ eclass.upatras.gr/cources/…..

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*

This course aims to introduce the students to the fundamentals of understanding Cost Accounting. To this, the basic concepts, principles and applications of cost accounting are presented both theoretically and in practical terms.
The lectures of the course aim to understand and separate the basic concepts of cost, expense, income, revenue and cost centers. Also, the costing practices are presented. Finally, accounting is presented as a tool of Administrative

Science.

Upon completion of the course, students should be able to:

- Know and use the concepts of cost, expense, loss and revenue.
- Analyze and break down costs by type and by cost center.
- Understand the components that make up the cost of production.
- Fill up cost statements and use accounts for accounting.
- Know how the costs are tracked in industrial enterprises for both mass and personalized production.
- Know about cost accounting techniques such as full absorbent costing, standard costing, marginal costing and activity-based costing.
- Identify the company's Break-Even Point.
- 8. Use Activity Based Management (ABC) for Activity Based Management.

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
- Adopting to new situations
- Decision-making
- Working independently
- Team work
- Production of free, creative and inductive thinking
- Respect for diversity and multiculturalism

3. SYLLABUS

The course is organized on 13 weeks including the following topics:

- Basic concepts of cost accounting.
- Cost behavior.
- Production costs and elements that compose it.
- Production cost report.
- Cost Entries.
- Full Costing.

- Standard Costing.
- Marginal Costing.
- Activity-Based Costing (ABC).
- Activity-Based Management (ABM).
- Break-Even Point.
- Analytical Accounting.
- VAT accounting.

B. Laboratory axis: The axis is covered by the implementation of 13 laboratory courses with the use of computer. Specifically, the topics of the laboratory lesson include:

- Accounting in the program on PC, related to product purchases and sales (1st exercise group)
- Accounting on PC for cash receipts and payments (2nd exercise group)
- Accounting entries in the accounting program relating to expenditure, VAT entries) (3rd exercise group)
- Electronic registration of documents (invoices, etc.)
- Tracking Accounts
- Checking accounting entries
- Printing-analysis of accounts and diaries, Printing of accounting books - general ledger
- VAT Accounting
- Exercise of Full Costing
- Exercise of Standard Costing
- Exercise of Marginal Costing
- ABC Costing
- Determination of Business Outcome with Analytical Accounting

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	26
Practical demonstration	
Project	
Essay writing	
Study and analysis of bibliography	
Unsupervised study	73
Exercises	26
Course total	***125***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(full grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Θεωρία του Κόστους – Πρακτικές Εφαρμογές, Πετροπούλου Γαριφαλλία, Ασβεστά Στυλιανή, Εκδόσεις Αλέξανδρος Σ. ΙΚΕ, 2010
- Κοστολόγηση, Βιομηχανικός Λογισμός (-Διοικητική) Λογιστική Κόστους,Φίλιος Βασίλειος, Εκδόσεις ΟΠΑ 2016.
- Τεχνικές και Διαχείριση Κόστους, Needles, Powers, Crosson, Εκδόσεις BrokenHill, 2016

Structured Programming (MST_204)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS								
ACADEMICUNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVELOFSTUDIES	UNDERGRADUATE								
COURSE CODE	MST_204	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						
COURSE TITLE	Structured Programming								

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**
L: lectures Lab: laboratory exercises	3(L),2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	

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*

Upon successful completion of the course the student will be able to:

• list the basic principles of structured programming and simple algorithmic techniques

• state the fundamental principles of reuse, articulation and hierarchical structuring.

• Design, implement, test, debug and document modular C language programs.

• recall the syntax characteristics of the C language

• organize C code in different files.

• explain the following basic concepts of structured programming: data types, variables, values, memory addresses, parameters, arguments, range of variables, program structure, modular programs.

• use appropriate data types and structures (basic data types, the ability to define new, simple data structures such as tables, associations, records, dynamic data structures using indexes such as queues, lists, etc.).

• Describe the relationship of the data types to the PC memory and recognizes their range.

• use the basic programming structures of sequence, selection, iteration, loops and recursion.

• Explain the structure and operation of C code not written by him/her.

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, analysis and synthesis of data and information using the necessary technologies.
- Autonomous work.
- Teamwork.
- Capability of working in an international environment.
- Promotion of free, creative and inductive thinking.
- Production of new research ideas.

3. SYLLABUS

- Introduction to C programming language.
- Matching C language attributes with python language.
- Program Structure, Variables, Basic Types of Variables, Constants, Type Conversion, Operators (Numerical, Relational, Logical).
- Input and Output.
- Program Control / repetition Loop: if-else, switch, for, while, do-while, break, continue.
- Tables: definition, initialization, processing, two-dimensional and multidimensional.
- pointers: definition andinitialization, pointers and Tables, pointers and Functions, Memory Management, Dynamic Data Structures (Lists, Queues, Stacks).
- Characters / alphanumeric characters: character manipulation functions (ctype.h), string conversion functions (stdlib.h), alphanumeric functions(string.h), alphanumeric input.
- Functions: Definition, statement, arguments (value or reference pass), return value, call, tables as arguments.
- C libraries of functions (math, input / output, random numbers, etc.). Recursice functions.
- Structures / unions: definition and declaration, complex structures, structures and indicators.

- Files: text / binary, opening, reading / writing, closing.
- Network programming with C.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	26
Laboratory practice	
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	60
Unsupervised study	
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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,

Written work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with		

other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Multiple choice questionnaires			
	Oral examination			
	Mid-term exam (concluding)			
	Final exam with developing questions	X	(exercise solving, multiple choice questions, short term answers100% of the final grade)	
	Public presentation			
	Mid-term exam (formative)			
	Laboratory work/term projects			

5. ATTACHED BIBLIOGRAPHY

- Αντωνοπούλου Η. Βογιατζής Ι ,«ΕΙΣΑΓΩΓΗ ΣΤΟΝ ΠΡΟΓΡΑΜΜΑΤΙΣΜΟ»,Κωδικός Βιβλίου στον Εύδοξο: 68407247, ISBN:978-618-5309-19-0,Εκδότης: ΤΣΟΤΡΑΣ ΑΝ ΑΘΑΝΑΣΙΟΣ, 2η έκδοση, 2018
- Γ. Σ. Τσελίκης, Ν. Δ. Τσελίκας , «C: Από τη Θεωρία στην Εφαρμογή», Ιδιοέκδοση,ISBN: 978-960-93-1961-4, 2η έκδοση, 2012.
- Deitel HarveyM., DeitelPaulJ., «C Προγραμματισμός», Α. Γκιούρδα & ΣΙΑ ΟΕ, ISBN: 978-960-512-590-5, 2010J., Κωδικός Βιβλίου στον Εύδοξο: 18548910, ISBN: 978-960-418-331-9, Εκδόσεις Τζιόλα.

Discrete Mathematics (MST_205)

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Economics & Business		
ACADEMIC UNIT	Department of Management Science & Technology		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	**MST_205**	**SEMESTER**	**2nd**
COURSE TITLE	Discrete Mathematics		

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Compulsory Course, General background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (in English)
COURSE WEBSITE (URL)	Under construction

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 purpose of this course is to study processes consisting of discrete or distinct steps. In this context, the connection of discrete mathematics with computer science is the basis for courses related to algorithm development and optimization, cryptography, as well as other fields of computer science.

Upon completion of the course, students will be able to understand basic concepts of discrete mathematics, such as mathematical induction, combinatorics and graph theory, and to apply basic techniques for solving algorithmic problems

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, analysis and synthesis of data and information, with the use of the necessary technology
- Working independently

3. SYLLABUS

- Set theory
- Cardinality
- Mathematical induction
- Logic
- Combinatorics
- Graph theory
- Generating functions

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	• In teaching slides (* .ppt) • In communication using the e-class platform
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-directed study according to the principles of the ECTS*	

Activity	***Semester workload***
Lectures	52
Essay writing	13
Unsupervised study	60
Course total	***125***

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.*	• Final written examination (100% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Rosen Kenneth H., Διακριτά μαθηματικά και εφαρμογές τους, 7η Έκδοση, ΕΚΔΟΣΕΙΣ Α. ΤΖΙΟΛΑ, Έκδοση: 7η/2014.
- Lipschutz Seymour, Lipson Marc Lars, Διακριτά Μαθηματικά, ΕΚΔΟΣΕΙΣ Α. ΤΖΙΟΛΑ, Έκδοση: 2η έκδ./2003.
- C.L. Liu. Στοιχεία Διακριτών Μαθηματικών (απόδοση στα Ελληνικά: Κ. Μπους και Δ. Γραμμένος). Πανεπιστημιακές Εκδόσεις Κρήτης, 2003.
- S.S. Epp, Διακριτά Μαθηματικά με Εφαρμογές. Εκδόσεις Κλειδάριθμος, 2000

Quantitative methods in economics and administration (I) (MST_206)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_206	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						
COURSE TITLE	Quantitative Methods In Economics And Administration (I)								

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**
L: lectures Lab: laboratory exercises	4(L), 2(LAB)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English if required by Erasmus students
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES (in English)
COURSE WEBSITE (URL)	http://eclass.teipat.gr/eclass/courses/766141/

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*

Statistics are widely used in almost all sciences and most areas of human activity (economy, industry, commerce, demography, meteorology, politics, medicine, etc.). The purpose of the course is a first approach in the field of descriptive statistics (collecting, classifying and presenting data, estimating descriptive measures, correlation and least squares, probability) with applications and case studies in the modern business environment.

After the completion of the theoretical part of the course the student should be able to:

- know the basic concepts and techniques of data collection, organization, summarization and presentation
- mention the three (3) most important sampling methods
- describe the statistical data in the best possible way (using simple tables and double entry tables, intersection tables, coding, classifying, etc.)
- design special imaging diagrams: pie chart, bar chart, histogram, stem & leaf diagram, scatter diagram, etc. exploring the type of data
- outline arithmetic measures to draw appropriate conclusions (central position indicators, volatility indicators)
- apply the numerical methods of descriptive statistics
- design the probabilistic framework using probability theory (Discrete & Continuous Distributions with Emphasis on Normal Distribution)
- evaluate the correlation of two random variables (correlation coefficient)
- compose the least squares analysis
- develop analyzes of real business problems and solve them rationally

After the completion of the laboratory part of the course the student should be able to:

- Know about the environment of SPSS, the options available, and the relationship and association with Excel
- perform qualitative and quantitative data entry, description, organization, data capture
- create statistics tables
- construct, present and interpret simple graphs (circular diagram, bar chart, bibliography, cumulative polygonal diagram, linear diagram, histogram). Presentation and interpretation
- calculate and interpret characteristics of position and dispersion measures
- calculate and interpret correlation tables, linear correlation indices, correlation coefficient, determination coefficient and scatter plot
- calculate and interpret probabilities of discrete random variables (binomial, Poisson). Creating data following a specific distribution
- calculate and interpret probabilities of continuous random variables
- understand normal distribution and calculate standard values

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?

Adaptation to new situations
Decision making
Independent work
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Generation of new research ideas
Project planning and management
Respect for diversity and multiculturalism
Respect for the natural environment
Demonstrate social, professional and ethical responsibility and gender sensitivity
Exercising criticism and self-criticism
Promoting free, creative and inductive thinking

- Search, analyze and synthesize data and information using the necessary technologies
- Independent Work
- Teamwork
- Decision making
- Working in an international environment
- Working in an interdisciplinary environment
- Exercising criticism and self-criticism

- Promote free, creative and inductive thinking

3. SYLLABUS

The course includes the following topics :

- Basic Sampling Methods,
- Description - Organization - Data Capture,
- Chart presentations,
- Numerical Descriptive Measures (Core Measures, Volatility Measures), Introduction to Probabilities (Elemental Rules, Bounded Probability, Bayes Type), Discrete Random Variables and their Probability Distributions,
- Continuous random variables,
- Normal distribution,
- Computer applications.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	
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-directed study according to the principles of the ECTS*	*Activity*	*Semester workload*
	Lectures	52
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	15
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	32
	Total number of hours for the	***125 hours (total student work-***

	Course (25 hours of work-load per ECTS credit)	***load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(Multiple choice questions, short answer questions, solve problems related to quantitative - qualitative data, Comparative evaluation of theory elements)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

-Suggested bibliography:

- Berenson L. Mark, Levine M. David, Szabat A. Kathryn, "Basic Business Statistics - Concepts and Applications" , Brokenhill Publishers Ltd, 2018
- Aczel A., “Statistical Thinking in the Business world”, first edition, Broken Hill Publishers LTD, 2011
- Keller G., “Statistics for Finance and Business Administration”, eighth edition, EPIKENTRO Publishers, 2010

-Relevant Scientific Journals:

- International Statistical Review
- Statistical Science
- Journal of Multivariate Analysis

Quality management (MST_301)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_301	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
					x					
COURSE TITLE	Quality Management								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

This course presents the basic principles and tools related to TQM. It focuses on continuous improvement of all aspects and expressions of a business, from design to production, marketing and after-sales service. It covers the concept of Quality, of Total Quality and TQM, the different approaches of specialists in TQM, quality control, the quality management standards ISO 9000, the quality culture, attitudes and behaviors , design and implementation of a TQM program, measurement of quality costs, measuring customer satisfaction, tools and

methods to improve quality.
Educational objective of this course is to acquire advanced theoretical and laboratory knowledge of methodologies for quality assurance and the development of a statistical quality control skills and certification procedures.
Upon completion of this course you will be able to:

- Know the basic concepts of TQM and its importance
- Use the tools of TQM
- Know the steps to implement the program D.O.P.
- Administered the TQM in the organization, control, cost accounting and its improvement
- Understand the application and significance of TQM in suppliers, in service and support system
- Understand Quality development method and quality certification under ISO systems

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
- Adapting to new situations
- Decision-making
- Working in an international environment
- Project planning and management
- Respect for the natural environment
- Production of free, creative and inductive thinking

3. SYLLABUS

Lectures:

- Introduction to TQM, Characteristics of TQM, Objectives and necessity of TQM
- The contribution of Deming, Juran and Crosby in the TQM.
- Plan of Implementation of TQM, Traditional control, Conscious, Pre-introduction, Introduction of TQM.
- Quality Design: customer identification, customer needs, design and choice of production process.
- Quality Organization: conditions, structure and implications.
- Economic analysis of quality: cost, high cost of low quality.
- Quality control: important reasons, conditions, process.
- Quality Improvement: significance, problems, categories, objectives, conditions.

- Suppliers Quality: Evaluation and selection, collaboration, certification methodology.
- Quality service system: Guarantee for quality, complaints and customer churn.
- Quality of support systems: design, control, improvement.
- Process Quality development: Purpose, process, benefits.
- Quality Certification ISO systems: description standards, importance and advantages.

Laboratory Exercises:

- Refresher course on concepts and processes on SPSS such as data entry, variable transformation (Recode, Compute commands), confidence intervals of large and small samples, regularity audit, process Explore, hypothesis testing (one-sided, two side).
- Introduction to quality tools. Reference to flow and control panels diagram.
- Report on the histogram and on the defects concentration diagram.
- Report on Pareto chart and on the successive values diagram.
- Report on the chart cause - effect and scatter diagrams.
- Basic concepts of Statistical Process Control (SPC).
- General principles of control charts. Interpreting control charts.
- Variable diagrams. Basic statistical theory of control charts.
- Report on mean diagram and range diagram.
- Report on mean diagram and standard deviation diagram.
- Report on individual charts.
- Characteristic diagram. Report on diagram p.
- Report on Chart np.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Lectures	x
	Distance (asynchronous)	
	Distance (synchronous)	
	Other:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	In teaching (slides)	x
	In communication with students (eclass)	x
	Virtual (simulated) laboratory training	
	Other:	

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.*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory Practice	26
	Essay writing	
	Seminars	

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	Projects		
	Study and analysis of bibliography		
	Placements		
	Clinical practice		
	Art workshop		
	Interactive teaching		
	Educational visits		
	Artistic creativity		
	Independent study	57	
	Other:		
	Course total (25 hours of workload per ECTS)	***125 hours (total student work-load)***	
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 examination with development questions	x	theory, short case studies
	Oral exam		
	Public Presentation		
	Problem solving		
	Progress with development questions (concluding)		
	Laboratory work		
	Clinical Patient Examination		
	Progress exam with development questions (formative)		
	Artistic Interpretation		
	Written examination with multiple choice queries		
	Written report / report / work		
	Progress exam with multiple choice queries		

5. ATTACHED BIBLIOGRAPHY

- E-class notes.
- Books:
    - Laloumi, D. & Katsoni, B. "Total Quality Management", Stamoulis Publications SA, 2010
    - Tsiotras, G., "Total Quality Management", Broken Hill Publishing, 2016
    - Binioiris, S., "Total Quality Management T.Q.M", Broken Hill Publications, 2009
    - Kefi, B., "Total Quality Management", Critics Publishing SA, 2014
    - Liararmopoulos, L., "Total Quality Management", Lichnos Publications Graphic Arts, 2007

Operations research (linear programming) (MST_302)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_302	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
					x					
COURSE TITLE	Operations Research (Linear Programming)								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE	SCIENTIFIC AREA, TECHNIQUES DEVELOPMENT
PREREQUISITES:	NONE – LINEAR SYSTEMS SOLVING AND BASIC OPTIMIZATION METHODS (INCLUDING LAGRANGE MULTIPLIERS) STRONGLY RECOMMENDED
TEACHING & LABS LANGUAGE:	GREEK AND/OR ENGLISH (ENGLISH TERMS ALWAYS DELIVERED)
COURSE AVAILABLE TO ERASMUS	YES IN ENGLISH
COURSE URL	https://eclass.upatras.gr/modules/auth/opencourses.php?fc=144

2. LEARNING OUTCOMES

Learning outcomes

Operational Research is an essential tool of modern management for solving problems and decision making across the entire range of businesses and organizations activities (production, marketing, service delivery, financial management, etc.). The course provides insights into the fundamental and important areas of Operational Research and Management Science by studying their methods and their implementation in a range of business situations. Upon successful completion of the course students are expected to have:

KNOWLEDGE so that they can:

• Identify and select potential points, areas, and / or modes of business operations that can be improved

• Identify and construct the appropriate theoretical models of Linear Programming, that lead to optimal decision making.

• Identify the Linear and Integer Programming applications, as well as a number of specific cases.

• Understand and develop various solution proposals through sensitivity analysis

• Produce alternative solutions

• Document the solution,

• Develop appropriate background for the study and application of non-linear programming techniques

SKILLS that lead to:

• Compose / formulate mathematical models that describe / illustrate business functions to be improved

• Generalize / customize mathematical models

• Implement solutions , by applying the methods and algorithms taught,
• Use appropriate mathematical software and develop applications via the use of specific software tools to solve problems
• Explain the proposed solutions

CAPACITIES so that they can:
• Analyze - evaluate the solution and check whether it is applicable
• Propose changes to initial conditions / assumptions for further improvement
• Explain the reasons why a solution is not feasible or cannot be implemented
• Differentiate the model in cases where this is mandatory or recommended
• ultimately take the optimal decision that will lead to the achievement of the predetermined goals.

Upon completion of the laboratory part of the course the student is expected to be able to:
• Solve Linear programming problems by formulating appropriate theoretical models and using programs such as LINDO, Solver
• Solve through programming language and appropriate commands of the software used, the specific problems of OR (transportation, assignment, knapsack, trimloss, maxflow etc.)
• apply the basic software procedures for sensitivity analysis
• compile appropriate report with the capabilities of the software used or by sending results to other s/w for further analysis
• Resolve real-life problems with O.R applications.

GENERAL ABILITIES
As classified in Diploma Supplement

• Search, analyze and synthesize data and information using the necessary technologies
• Independent Work & Teamwork
• Work in an interdisciplinary environment
• Decision making
• Exercising critical viewing and self-criticism
• Promote free, creative and inductive thinking

3. SYLLABUS

- Course Presentation - Introduction: The Origin, Nature - Role & Impact of OR - Modern Trends and Applications, Training & Career in Operations Research - Overview of Analytical Optimization Methods
- Linear Programming: Concept of objective / non objective Variables, Parameters and Constraints, Linear Functions, Expressing constarints with Linear Functions, objective functions, Mathematical Modeling
- Graphical Linear Problem Solving: Point as a Solution, Constraint Graphic representation, Feasible area of Solution – Iso'quant' lines, Optimal Solution, Sensitivity Analysis (graphical)
- SIMPLEX Linear Problem Solving: Concept - Using slack Variables, SIMPLEX Initial Tablle, Simplex Algorithm, Current Solution, Optimal Solution test, Analysis - Solution Implementation
- The dual problem - Sensitivity analysis - Shadow values - Opportunity costs
- Integer Programming - Branch and Bound Methods, 0 - 1 programming
- Specific Cases of Linear Problems: Transportation, Assignment, Transhipment, Traveling salesman Problem, etc.

The laboratory part of the course aims at assimilating theory and solving specific case studies mainly from the field

of industry, business and organizations as well as familiarization with the respective software.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***WorkLoad (h) per Semester***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	20
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	40
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	x	(Multiple Choice questions,Comparative Evaluation of Theory

			Comprehension, Model formulation, Graphical solution, Problem Solving 100% of the final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		
	Evaluation Criteria: • Solution Requirements Fullfillment - 30% • Documentation - 30% • Consistency - 20% • Overall clarity - 20% Evaluation Transparency Exam papers are available to students for reviewing mistakes and understand their assessment		

5. READING LISTS

-*Suggested bibliography :*

- Beyond mutiple bibliography available on loan books at the Library, students are eligible for obtaing free of charge books via EUDOXUS system. Books on list currently offered are:
- Coletsos, J. , Stoyannis, D. " Introduction to Operations Researc", 3η ed (2017) Symeon Publishers
- Taylor, B.W, III - Introduction to Management Science (2017) Broken Hill Publishers ltd
- Taha, Hamdy " Operational Research"
- Anderson David R., Sweeney Dennis J., Williams Thomas A., Martin Kipp "Managerial Science"

-*Journals:*

- European Journal of Operational Research, Elsevier
- Operational Research: An International Journal, Springer
- Annals of Operations Research, Springer

-Scientific / Professional Organizations:

- IFORS (International Federation of Operational Research Societies)
- EURO (The Association of European Operational Research Societies)
- INFORMS (Institute for Operations Research & Management Science)

Human Resources Management -MST_303

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_303	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
					x					
COURSE TITLE	Human Resources Management								

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course students will be able to:

- Understand the importance and role of the human factor in the existence, operation, and efficiency of modern enterprise
- Contribute to Human Resources executives to achieve the strategic objectives of the company
- Apply modern know-how on employee planning, selection, training, rewarding and evaluation

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
- Working independently
- Decision-making
- Production of free, creative and inductive thinking

3. SYLLABUS

- Introduction and Planning, Organization / Basic Elements of Organizational Theory
- Human Resource Management
- Job Analysis and Description
- Human Resources Planning
- Attracting & Developing Human Resources
- Selecting Human Resources
- Human Resources Training
- Sustenance and Evaluation of Human Resources
- Policy - Remuneration Systems and Staff Involvement.
- Communication, Crisis Management & Negotiation
- Leadership development, leadership roles, leadership behavior
- Control Check, Procedures and Control Systems.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	
	Essay writing	26

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-directed study according to the principles of the ECTS*	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	60
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(90% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Gomez-Mejia L., Balkin D, Cardy R., 2014. Διοίκηση Ανθρώπινων Πόρων. Εκδόσεις BROKEN HILL PUBLISHERS LTD
- ΠΑΠΑΛΕΞΑΝΔΡΗ Ν, ΜΠΟΥΡΑΝΤΑΣ Δ, 2003. ΔΙΟΙΚΗΣΗ ΑΝΘΡΩΠΙΝΩΝ ΠΟΡΩΝ. Εκδόσεις ΓΕΩΡΓΙΑ ΣΩΤ. ΜΠΕΝΟΥ
- ΑΝΝΑ – ΜΑΡΙΑ ΜΟΥΖΑ – ΛΑΖΑΡΙΔΗ, 2006. ΔΙΟΙΚΗΣΗ ΑΝΘΡΩΠΙΝΩΝ ΠΟΡΩΝ. Εκδόσεις ΚΡΙΤΙΚΗ

Macroeconomic Analysis (MST_304)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_304	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
					x					
COURSE TITLE	Macroeconomic Analysis								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Microeconomic Analysis
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (English for Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	@ eclass.upatras.gr/cources/…..

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*

Students learn “macroeconomic analysis” towards decision making in macroeconomic environment and gradually develop the contemporary analytical skills to conceptualize dynamics in real-world business and policy issues in the long run. Throughout the course contemporary examples are presented to delineate key concepts concerning the macroeconomic environment.

Having successfully completed the “macroeconomic analysis” course students will acquire the ability to:

- Demonstrate the ability to interpret the core macroeconomic principles and concepts.
- Define the limits of the government's role in the market system.
- Define national income accounts and explain the impact of omitting environmental and other social welfare issues from their calculation.
- Demonstrate knowledge of the nature of economic fluctuations.
- Interpret the measurements and identify the causes of different types of unemployment and inflation.
- Demonstrate understanding of the stabilization function of macroeconomic policy.
- Describe the theory and nature of money and the banking process.
- Identify controversial political, social and ethical issues in macro theory and policy.

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…*
	…….

- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment
- Respect for the natural environment
- Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

"Macroeconomic analysis" course is structured around the following topics:

What macroeconomics tries to explain: Distinction between macroeconomics and microeconomics. Goals and methodological instruments of macroeconomics.

Measurement of economic performance: Gross domestic product (GDP) and national income concepts (expenditure approach, problems with calculating GDP, GDP as a measure of economic well-being, changing nominal GDP (NGDP) to real GDP (RGDP), other national accounts: net national product (NNP), national income (NI), personal income (PI), and disposable income (DI), approaches to measure GNP - The final goods approach and income approach, intermediate goods and value added approach.

Macroeconomic theory and policy: The role of the consumption function, marginal propensities to consume and

save, why the consumption function shifts and how it affects aggregate demand, the role of the investment function, graphing the aggregate expenditure function, consumption and savings – consumption, income and saving, consumption function, determinants of consumption, determinants of investment, investment demand curve and interest rate.
Aggregate demand and supply, national income and price determination: Aggregate demand curve (reasons for its shape), nonprice-level determinants of aggregate demand, aggregate supply curve.
IS-LM Model: Money market and keynesian demand for money function, IS and LM functions, fiscal and monetary policies and their effectiveness, aggregate demand function.
Unemployment and business cycles: Total spending and how it affects the business cycle, types of unemployment, full employment, employed, unemployed, labour force, Okun's law. Economic costs of high unemployment. Types of unemployment, frictional unemployment and job search, structural unemployment and cyclical unemployment, voluntary versus involuntary unemployment.
Inflation: The meaning and measurement of inflation, consequences of inflation: shrinking incomes, consequences in wealth, effect on interest rates, demand-pull and cost-push inflation. CPI and GNP deflator. Index-number problems in measuring the cost of living. Types of inflation – moderate inflation, galloping inflation and hyperinflation.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	21
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*52*
	Others:	
	Total number of hours for the Course (25 hours of	***125 hours (total student work-load)***

	work-load per ECTS credit)		
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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Diulio A. Eugene (2018) *Μακροοικονομική Θεωρία*, Αθήνα ΕΣΠΙ ΕΚΔΟΤΙΚΗ Ε.Π.Ε
- Dornbusch, R. και S. Fischer (1993). *Μακροοικονομική.* Εκδόσεις Κριτική: Αθήνα.
- Baumol, W. J. (c2012). *Μακροοικονομική-Macroeconomics: αρχές και πολιτική: principles and policy*. 11η έκδ. Αθήνα: Π.Χ. Πασχαλίδης, Australia: South-Western Cengage Learning
- Krugman, P. - Wells, R. (2009) *Μακροοικονομική*, Επίκεντρο, Θεσσαλονίκη
- Mankiw, G.N. (2002). *Μακροοικονομική Θεωρία.* Εκδόσεις Gutenberg: Αθήνα.
- Mankiw N. G., Taylor P., Mark, A., Μανιάτης, Σ., Ζήκος (επ) (2018) *Οικονομική (Μακροοικονομική),* 4η Έκδοση, Αθήνα ΕΚΔΟΣΕΙΣ Α. ΤΖΙΟΛΑ & ΥΙΟΙ Α.Ε
- Mishkin, F.S. (2015). *Μακροοικονομική: πολιτική και πρακτική*. Απέργης, Ν., Κύρτσου, Α., & Οικονομίδης, Γ. (επιμ.). Κοταρίδης Κ. (μετ.). Αθήνα: Utopia.
- Stiglitz, J. E. - Walsh,C. E. (2009) *Αρχές της Μακροοικονομικής*, Παπαζήσης, Αθήνα
- Williamson S., D., Γ., Σιουρούνης – Ε., Διοικητόπουλος (επ) (2018) *Μακροοικονομική*, 6η Έκδοση, Αθήνα ΕΚΔΟΣΕΙΣ Α. ΤΖΙΟΛΑ & ΥΙΟΙ Α.Ε

Algorithms and data structures (MST_305)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS									
ACADEMIC UNIT	SCHOOL OF ECONOMICS & BUSINESS									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_305	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
					x					
COURSE TITLE	ALGORITHMS AND DATA STRUCTURES									

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Programming, Mathematics
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 students that attend the class are convinced for the need of fast as it applies to execution time but also productive with respect to their memory needs algorithms and data structures. Emphasis is placed on basic

algorithms and data structures in a constructive and bottom up manner in order for the students to create for themselves a toolbox of tools in order to approach and eventually solve more complex real world problems.
The students can use the basic principles and thinking processes in programming and design exercises and are taught to use abstraction in their approach to realistic problems.

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…*
	…….

Searching, analysis and synthesis of information and data instances with the reusability of existing programs and algorithms. Ability to take decisions, work independently in a constructive and design oriented manner and at the end also present their work.

3. SYLLABUS

Fundamental concepts. Analysis of algorithms. Data structures. Sorting: Import, Sorting tables, Advanced sorting methods, Sequence sorting. Dynamic information structures: Recursive data types, Indexes, Linear lists, Tree structures, Balanced trees, Optimal search trees. Graph, Optimal Paths and Search and Process Optimization Problems that are modeled as graphs.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

TEACHING METHODS	***Activity***	***Semester workload***
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-directed study according to the principles of the ECTS*	Lectures	39
	Tutorials	
	Laboratory practice	20
	Essay writing	
	Seminars	
	Exercises	
	Project	25
	Study and analysis of bibliography	16
	Placements	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*25*

	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***	
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.*	Final written examination, a duration of 2 to 3 hours is considered. It's a closed-book examination. The student is invited to answer questions of theory and to solve exercises from the material taught.		

5. ATTACHED BIBLIOGRAPHY

- Ελένη Γαλιώτου, Χρήστος Κοίλιας, Γιώργος Μπαρδής , «Δομές Δεδομένων & Οργανώσεις Αρχείων» 3η Έκδοση, εκδόσεις Νέων Τεχνολογιών 2018.
- Robert Sedgewick, «Αλγόριθμοι σε C, Μέρη 1-4: Θεμελιώδεις Έννοιες, Δομές Δεδομένων, Ταξινόμηση, Αναζήτηση», 3η Έκδοση, εκδόσεις Κλειδάριθμος 2006.
- Cormen T.H., Leiserson C.E., Rivest R.L., Stein C. «Εισαγωγή στους Αλγόριθμους (Ενιαίος Τόμος)» 1η έκδοση 2012, Πανεπιστημιακές εκδόσεις Κρήτης.

Quantitative methods in economics and administration (II) (MST_306)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_306	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
					x					
COURSE TITLE	Quantitative Methods In Economics And Administration (Ii)								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English if required by Erasmus students
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES (in English)
COURSE WEBSITE (URL)	http://eclass.teipat.gr/eclass/courses/728153/

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*

After the completion of the theoretical part of the course the student should be able to:

- know the basic concepts of Estimation, Point Estimation, Space Estimation as well as Confidence Buildings (for Medium, Medium Difference, Percentage etc)
- know the basic principles of Case Control, Zero - Alternative Case, Control Errors, Significance Level as well as Unilateral - Bilateral Controls (Case Controls for the mean, for dispersion, for the mean difference, for the percentage rate).)
- know the basics of simple regression, the concept of dependent - independent variable, the Scatter Chart and

the Linear Correlation Coefficient

- perform statistical tests of mean values and percentages for one and two samples by sorting and interpreting the results (performed mainly using SPSS statistical package)
- compose statistical tests by interpreting the results (performed mainly using SPSS statistical package) judging the significance of the trends being deleted and assessing - assessing the level of significance or risk of each scenario or choice.
- collaborate with fellow students to create and present a comprehensive and scientifically documented case study that includes developing an appropriate questionnaire for primary research, sound sampling methodology, statistical analysis and data processing, indexing, indexing for comparison and evaluation of results, formulation of evaluation judgments, conclusions and finally composition - definition of proposals

After the completion of the laboratory part of the course the student should be able to:

- solve problems by applying relational tables, SPSS probability calculations, and binomial, geometric, Poisson and regular distribution
- solve problems by applying large and small sample confidence intervals, Regularity Check and Explore procedure
- apply the basic procedure followed in SPSS for one-sided (one-sided) and one-sample t-tests
- apply the Connection of Confidence Interventions to Business Examples
- implement a hypothesis test (one-sided-two-sided) for the mean values of populations through independent samples (Independent t-test)
- implement a hypothesis test (one-sided-two-sided) for the mean values of populations through dependent samples (Paired t-test)
- apply the X2 test as a homogeneity test, as an independence test and as a good fit test
- implements correlation testing, analysis of two-variable correlations, and hypothesis testing for the parameters of a population
- apply simple linear regression analysis and interpret coefficients and indices
- perform a residual study of simple linear regression models, diagrams
- resolve problems with regression applications in business models

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, analyze and synthesize data and information using the necessary technologies
Adaptation to new situations
Decision making
Independent work
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Generation of new research ideas
Project planning and management
Respect for diversity and multiculturalism
Respect for the natural environment
Demonstrate social, professional and ethical responsibility and gender sensitivity
Exercising criticism and self-criticism
Promoting free, creative and inductive thinking

- Search, analyze and synthesize data and information, using the necessary technologies
- Independent Work & Teamwork
- Work in an interdisciplinary environment
- Decision making

- Exercising criticism and self-criticism
- Promote free, creative and inductive thinking

3. SYLLABUS

The course includes the following topics:

- Reminder of basic concepts (Sample-Population Definitions, Random Variable Definition, Basic Distributions and Probability Calculations)
- Probabilities, sampling distributions and introduction to estimation
- Summary / practice exercises
- Introduction to case control and estimation of population parameters
- Summary / practice exercises
- Dispersion analysis, linear regression, x-square control
- Summary / Laboratory practice exercises
- Statistical quality control

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	
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*	*Activity*	*Semester workload*
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	

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-directed study according to the principles of the ECTS

Seminars	
Exercises	
Project	
Study and analysis of bibliography	20
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*40*
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	x	Multiple choice questions, Short answer questions, Solve problems related to quantitative - qualitative data, Comparative evaluation of theory elements.
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

-Suggested bibliography:

- Berenson L. Mark, Levine M. David, Szabat A. Kathryn, "Basic Business Statistics - Concepts and Applications" , Brokenhill Publishers Ltd, 2018

- Aczel A., “Statistical Thinking in the Business world”, first edition, Broken Hill Publishers LTD, 2011
- Keller G., “Statistics for Finance and Business Administration”, eighth edition, EPIKENTRO Publishers, 2010

-Relevant Scientific Journals:

- International Statistical Review
- Statistical Science
- Journal of Multivariate Analysis

Game theory (MST_401)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
TMHMA	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
STUDY LEVEL	UNDERGRADUATE								
COURSE CODE	MST_401	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
						x				
COURSE TITLE	Game Theory								

TEACHING ACTIVITIES	**HOURs/WEEK**	**ECTS**
L: lectures Lab: laboratory exercises	3(L), 1(Lab)	5

COURSE TYPE	specialised general knowledge, skills development
PREREQUISITES:	Not required
TEACHING & LABS LANGUAGE:	Greek And/Or English (English Terms Always Delivered)
COURSE AVAILABLE TO ERASMUS	Yes In English
COURSE URL	http://eclass.teipat.gr/eclass/courses/766218/

2. LEARNING OUTCOMES

Learning outcomes

The purpose of this course is to analyze techniques for strategic decision making in a competitive environment. Unlike decision theory, where the main issue for the decision maker was to deal with and manage uncertainty in the form of random events affecting the outcome of his decisions, game theory highlights the interplay of decisions of different parties in a competition or cooperation.

The techniques and methodologies presented are intended to introduce the student to the basic concepts of game theory and to highlight their application in strategic decision analysis and planning. Game theory has been greatly developed both in terms of the development of corresponding mathematical methods and models and applications, to the extent that it is an autonomous scientific or, more precisely, interdisciplinary field, and the course material includes the basic concepts that directly related to the philosophy of business research as a decision support toolkit.

The main objectives of the course are summarized as follows:

- Highlight the range of applications of business games with emphasis on strategic interaction situations that define the codes of conduct and behavior of modern businesses.
- Understand the criteria for strategic decision-making in business sectors characterized by imperfect competition and intense interdependence.
- Highlight the mechanisms of balancing the business sectors in conditions of rivalry, asymmetry in capabilities and information, lack of confidence and failure of long-term partnerships.
- Enable students to critically analyze cases of strategic moves and business decisions from modern reality.
- Understand overall the importance of effective strategic decision-making for businesses that are not only often interdependent, but also dependent on third-party decisions, in conditions of uncertainty, competition, and time pressure.

After completing the theoretical part of the course the student is expected to be able to:

- understand the role and importance of game theory in strategic decision making in a competitive environment.
- distinguishes between the basic categories and the corresponding types of models used in game theory.
- develop game theory models that describe real-world decision making by identifying the key elements of a game: players, strategies, win.
- apply the basic solution techniques to a game and interpret the resulting solution in operational terms.
- knows the categories of business games and understands the scope of business games with emphasis on strategic interaction situations that define the codes of conduct and behavior of modern businesses
- is familiar with the normal and extended form of game representation
- Identifies dominant and weakly dominant business game strategies
- calculates Nash net and mixed strategic balances
- calculates the Nash Perfect Balance for subgroups
- Identifies balance strategies in finite and infinitely repetitive games
- Identifies balance strategies in games with incomplete information
- Identifies balance strategies in alliance games
- Understands strategic decision-making criteria in business sectors characterized by unfinished competition and strong interdependence
- highlights the mechanisms of balancing the business sectors in conditions of rivalry, asymmetry in capabilities and information, lack of confidence and failure of long-term partnerships
- Critically analyze cases of strategic moves and business decisions from modern reality
- Understand overall the importance of effective strategic decision-making for businesses that are not only often interdependent, but also dependent on third-party decisions, in conditions of uncertainty, competition, and time pressure.

Upon completion of the laboratory part of the course the student is expected to be able to:

- Knows how the GAMBIT program works and all the individual options
- Solves with the help of the GAMBIT program all kinds of business games that are taught in theory, in both normal and extended form of game representation, with two or more players.

GENERAL ABILITIES

As classified in Diploma Supplement

- Search, analyze and synthesize data and information using the necessary technologies
- Independent Work & Teamwork
- Work in an interdisciplinary environment
- Decision making
- Exercising critical viewing and self-criticism
- Promote free, creative and inductive thinking

3. COURSE PLAN

- Introduction to Game Theory
- Zero sum games: mixed strategies, special case solving strategies: (2x2 games, symmetric games, 2xn or mx2 games, dominance), linear programming mixed strategies
- Strictly and weakly dominant and dominant strategies
- Utility or Utility Theory
- Total sum games: security levels and Nash non-cooperative equilibrium in clean and mixed strategies
- Dynamic games, applications and solutions

4. INSTRUCTION – LEARNING METHODS - EVALUATION

TEACHING METHODS	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
ITC USE AND LABS	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

COURSE ORGANIZATION	*Activity*	*WorkLoad (h) per Semester*
	39	39
	13	13
	30	30
	43	43
	39	39
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

GRADING SYSTEM

Written work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	x	(Multiple Choice questions, Comparative Evaluation of Theory Comprehension ,100% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. READING LISTS

-Suggested bibliography :

- Gibbons Robert, 1996. Introduction to Game Theory. National Bureau of Economic Research, 1996
- Osborne Martin 2009An Introduction to Game Theory Oxford University Press,

-Relevant Scientific Journals:

- European Journal of Operational Research

Entrepreneurship (MST_402)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_402	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
						x				
COURSE TITLE	Entrepreneurship								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 course aims at understanding the concept of entrepreneurship, acquiring knowledge and skills related to the entire business process, from identifying the opportunity and evaluating it to mobilizing resources, creating the company and managing its development. The aim of the course is to familiarize students with the contemporary social and economic realities of business and to develop corresponding skills of creativity, communication and leadership. The course also refers to the concept of social entrepreneurship and the development of social

enterprises. More specifically, the lesson includes three parts that refer to:

- The concept and importance of entrepreneurship as well as the environment in which it develops.
- Business process: Business concept capture, business opportunity assessment, business model development, business plan creation, resource finding and agreement formulation, sustainable development model selection, and exploration of exit strategies.
- Sources of funding in all phases.

More specifically, the course attempts to develop and cultivate basic professional and social skills of students, such as

- ability to recognize and evaluate business and innovative "opportunities
- search, analysis and synthesis of data and information
- understanding of economic and technological developments and their implications,
- developing entrepreneurial mindset and attitude,
- exaggeration of the critical spirit,
- team building and management, teamwork
- professional flexibility
- work in an interdisciplinary environment

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
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an international environment
- Project planning and management
- Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

Lectures:

- Introduction to the concept of Entrepreneurship
- Business environment
- Innovation and creativity process - Methods and tools to improve innovation and creativity - Innovation in Greece
- Business idea and business model
- Business Plan (I): Growth
- Business Plan (II): Evaluation
- Software lab for creating business plan financial statements
- Establishment of the business
- Developing the business
- Output strategies
- Finding Resources - Financing at all stages of the business process
- International Entrepreneurship
- Social Entrepreneurship

Laboratory Exercises:

Students are familiarized with methods and tools of creative thinking and analysis, consultation, synthesis of ideas and projects organized in groups - with an emphasis on interdisciplinarity which undertake to compose and present a business idea. For example, it focuses on issues related to:

- what is entrepreneurship and business,
- obligations of the undertaking,
- analysis of social needs and trends,
- exploring business opportunities,
- developing entrepreneurial ideas,
- methods of creative thinking,
- market research and competitors
- budget and costing
- risk management

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning	

	(asynchronous)	
	Distance learning (synchronous)	
	Other:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	Eclass	x
	Virtual (simulated) laboratory training	
	Other:	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory Practice	26
	Essay writing	14
	Seminars	
	Projects	
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	46
	Other:	
	Course total (25 hours of workload per ECTS)	***125 hours (total student work-load)***

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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(theory, short case studies, 70% of the final grade)
	Public presentation	x	(project presentation, 30% of the final grade)
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- E-class notes.
- Books:
  - Mourdokoutas, P., "Entrepreneurship: Institutions and Policies", Kleidarithmos Publications Ltd, 2004
  - Deakins, D. & Freel, M., "Entrepreneurship", Critical Publications, 2007
    Fayolle, A., "Entrepreneurship", Proposbos, 2019
  - Hisrich, P., Peters, M. and Shepherd, D., "Entrepreneurship", Da Vinci Ltd., 2018
    Kuratko F. Donald, "Entrepreneurship - From theory to practice", Broken Hill Publishers Ltd, 2018
  - Sarris, K. and Trichopoulou, A. "Entrepreneurship and Social Economy", 2010 Publishing House
  - Gogas, P. and Prangidis I., "Entrepreneurship Guide", Sofia, 2014
    Storey, D., Greene F., Hassid I., Fafaliou E., "Entrepreneurship for Small and Medium *Enterprises",*
    Critical Publications, 2011

Financial Management (MST_403)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_403	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
						x				
COURSE TITLE	Financial Management								

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**
L: lectures	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (English for Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	@ eclass.upatras.gr/cources/…..

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 the "Financial Management" course is to shape a basic introductory tool focusing on corporate investment decisions. "Financial Management" graduates should be able to apply the concept of the time value of money, the theory of capital structure along with capital budgeting techniques, to assess a firm's leverage and the cost of capital. Having successfully completed the course students will acquire basic knowledge of:

- The difference between systematic and unsystematic risk and techniques for assessing and considering risk.
- The principles of discounting cash flows and the basic methods of investments' evaluation under the conditions of certainty of cash flows (criteria of Net Present Value/NPV, Internal Rate of Return/IRR, cash payback method/CPM, Average rate of return/ARR, Profitability index/PIN e.tc.) applied by financial managers of contemporary corporations of the private or public sector.
- The characteristics of shares and bonds issued by a public or private limited company.
- Main valuation methods of shares and bonds and computation of the investors' returns.
- The operation of security markets and the roles played by businesses and individual investors. Graduates should be able to apply valuation models to estimate the price of financial assets, measure risk and describe the risk-return tradeoff as expressed by the Capital Asset Pricing Model.

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…*
	…….

- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment
- Respect for the natural environment
- Criticism and self-criticism

- Production of free, creative and inductive thinking

3. SYLLABUS

"Financial Management" course is structured around the following topics:

- Financial Tools, supply and demand for financial securities
- Time value of money (present and future value)
- Capital budgeting problems
- Risk, return and cost of capital
- Financial ratios calculation and their significance using data from a firm's financial statements
- Optimal capital structure
- Valuation of securities
- Long-term investment decisions
- Short-term financing decisions

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	21
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*52*
	Others:	
	Total number of	***125 hours (total student work-load)***

	hours for the Course (25 hours of work-load per ECTS credit)		
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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(full grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Αλεξάκης, Π., & Πετράκης, Π. Ε. (1990). *Το ελληνικό χρηματοπιστωτικό σύστημα κάτω από τις εσωτερικές τις κοινοτικές και τις άλλες διεθνείς εξελίξεις: χρηματοδοτικά μέσα και αναλύσεις περιπτώσεων*. Αθήνα: Παπαζήσης.
- Αρσένος, Π. Ι., & Καλδής, Π. Ε. (2008). *Εφαρμοσμένη χρηματοοικονομική επιχειρήσεων*. Αθήνα: Πατάκης.
- Αρτίκης, Γ. Π. (2002). *Χρηματοοικονομική διοίκηση: αποφάσεις χρηματοδοτήσεων*. Αθήνα: Interbooks.
- Βασιλείου, Δ., & Ηρειώτης, Ν. (2008). *Χρηματοοικονομική διοίκηση: θεωρία & πρακτική* (1η έκδ.). Αθήνα: Rosili.
- Θάνος, Γ. Α. (2012). *Χρηματοδοτική των επιχειρήσεων*. Αθήνα: [χ.ό.] Groppelli, A.A. & Nikbakht, E. (2012) Χρηματοικονομική. Αθήνα: Κλειδάριθμος
- Καραθανάσης, Γ. Α. (2002). *Χρηματοοικονομική διοίκηση και χρηματιστηριακές αγορές*. (3η έκδ.). Αθήνα: Μπένος Γ.
- Κιόχος, Π. Α. & Πανάγος, Β. (2015). *Χρηματοοικονομική διοίκηση*. Αθήνα : Κιόχου, Ε.
- Ξανθάκης, Μ., Αλεξάκης, Π. & Ρεπούσης, Σ. Δ. (2006). *Χρηματοοικονομική διοίκηση και διεθνής τραπεζική*. Αθήνα: Σάκκουλας.
- Τζωάννου, Ι. Γ. (2004). *Χρηματοδοτική διοίκηση* (Νέα βελτιωμένη & επηυξημένη έκδ.). Αθήνα: Το Οικονομικό.
- Φράγκος, Χ. (2016). *Μέθοδοι αξιολόγησης επενδύσεων & χρηματοοικονομικής διοίκησης*, Αθήνα : Φράγκος
- Brealy, R. A., Myers, S. C. & Allen, F. (2016). *Αρχές χρηματοοικονομικής των επιχειρήσεων*. (2η ελλ. έκδ.) Ν. Ρούσος (μετ.). Αθήνα: Utopia
- Damodaram, E. A. (2014). *Εφαρμοσμένη χρηματοοικονομική για επιχειρήσεις*. Ε. Τσιριτάκης, (επιμ.). Nicosia, Cyprus: Broken HILL Αθήνα: Εκδόσεις Π.Χ. Πασχαλίδης
- Veale, S. R. (2000). *Stocks, Bonds, Options and Futures.* Prentice Hall Press – New York Institute of Finance

Object oriented programming - MST_404

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_404	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
						x				
COURSE TITLE	Object Oriented Programming								

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE	General Background
PREREQUISITE COURSES:	Structured Programming
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2. LEARNING OUTCOMES

Learning outcomes

The course aims to introduce students to the programming paradigm. This includes understanding the basic concepts of Object-Oriented Programming, and practice with an object-oriented programming language, such as Java.

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

- Have a good understanding of the basic concepts of Object-Oriented Programming, such as classes, objects, encapsulation, and inheritance.
- Have a good understanding of more advanced concepts of Object-Oriented Programming, such as polymorphism, delayed engagement, abstract and generalized classes, event-triggered programming.
- Design simple object-oriented programs for simple problems and implement them in Java language.
- Design complex object oriented programs with multiple classes and objects for complex problems and implement them in Java language.
- Use libraries in their programs and use existing code to create new programs.
- Understand the concepts of Abstract Data Types, Generic Classes and Basic Data Structures, and use them in practice.
- Program the Java language with ease.
- Easily adapt their knowledge of Java programming language to any other object-oriented programming language.

General Competences

- Promoting free, creative and inductive thinking
- Search, analyze and synthesize data, techniques and information, using the necessary techniques
- Combined analysis of methods for problem solving
- Development of algorithmic thinking
- Ability to deduct in problem modeling
- Adapt to new situations
- Autonomous Work
- Teamwork

3. SYLLABUS

Introduction to Programming Models: Review the evolution of programming models and the appearance of Object-Oriented Programming. Introduction to programming with Java: Java virtual machine, program compilation, basic syntax Java programs, program flow control, tables. Classes and Objects: Introduction to the concepts of the class and the object. Define classes and objects in Java. Fields, methods and manufacturers. Encapsulate and hide data. References: References to objects, stack and memory of a program. Passing parameters and using objects as method parameters. Manufacturers-copiers, deep and shallow copies. Report this. Composition and Aggregation: Create complex programs with composition and class accumulation. Use objects as heading fields, method parameters, and return method values. Inheritance: Class heredity, polymorphism, delayed engagement, abstract classes, interfaces, generalized classes. Data structures: Collections and their use: Lists, Summaries, Dictionaries. Exceptions: Error handling in program through exceptions. Archives. Writing in and reading from text files. Specialized Topics: Graphical Interfaces (GUIs). Event-triggered programmingIntroduction to programming models: Review the evolution of programming models and the appearance of Object-Oriented Programming. Introduction to programming with Java: Java virtual machine, program compilation, basic syntax Java programs, program flow control, tables. Classes and Objects: Introduction to the concepts of the class and the object. Define classes and objects in Java. Fields, methods and manufacturers. Encapsulate and hide data. References: References to objects, stack and memory of a program. Passing parameters and using objects as method parameters. Manufacturers-copiers, deep and shallow copies. Report this. Composition and Aggregation: Create complex programs with composition and class accumulation. Use objects as heading fields, method parameters, and return method values. Inheritance: Class heredity, polymorphism, delayed engagement, abstract classes, interfaces, generalized classes. Data structures: Collections and their use: Lists, Summaries, Dictionaries. Exceptions: Error handling in program through exceptions. Archives. Writing in and reading from text files. Specialized Topics: Graphical Interfaces (GUIs). Event-triggered programming.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Slides	
	E-class	x
	Virtual (simulated) laboratory training	
	Others:	Specialized Objective Programming Software.

TEACHING METHODS	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Group Work	20
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	40
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***
STUDENT PERFORMANCE EVALUATION	Assessment language: Greek • Final written examination with knowledge and development questions and control of object-oriented programming programs. The final exam is graded based on the completeness and correctness of the answers, as well as the understanding of the course material. • Workshop exercises in which students will need to create and test Java programs. Students are graded by their ability to successfully complete the programs within the time of the workshop. • Home work. Tasks require larger and more sophisticated programs and be completed over a longer period of time. They are rated based on their correctness and completeness.	

5. ATTACHED BIBLIOGRAPHY

- Java With Uml: Objective Design And Programming, Else Lervik, Vegard B. Havdal.
- Development Of Java Programs: Removals, Specifications And Objectives Design, Barbara Liskov, John Guttag

Information System Engineering (MST_405)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS								
ACADEMICUNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVELOFSTUDIES	UNDERGRADUATE								
COURSE CODE	MST_405	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
						x				
COURSE TITLE	Information System Engineering								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	Under construction

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*

Upon completion of this course, students will be able to:

- explain basic concepts of Information Systems Engineering
- list the objectives of Information Systems Engineering
- describe the concept of the life cycle of Information Systems
- analyze the life cycle phases of Information Systems and their deliverables
- explain the necessity of life cycle phases of Information
- analyze the life cycle models (traditional and modern) of Information Systems
- choose the appropriate model for the development of an Information System
- use tools and techniques to develop an Information System
- utilize effectively the most well-known graphical modeling diagrams (data flow diagram, status transition charts, etc.) to analyze the requirements of an Information System
- use the Visual Paradigm (modeling) Environment
- construct the most important diagrams according to UML modelling language such as class, use case, activity, sequence, collaboration 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
- Working in an international environment
- Project planningandmanagement
- Production of free, creative and inductive thinking

3. SYLLABUS

The purpose of this course is to identify and understand problems in the management of information and processes of an organization and their methodological transformation in order to be solved by information systems. The course focuses on identifying, modeling and documenting requirements from various users and organizations that are affected and influence the development of information systems. It also examines the transformation of requirements into system specifications, the design of the system, as well as the development and integration plan for the organization that will use it. The course focuses on the role of human factor in the development of information systems. The practical part of the course deals with the analysis and design of information systems using the UML modeling language.

At the end of the course, students will be able to understand the process of developing information systems and have the basic theoretical and practical knowledge required to handle it effectively.

The content of the course includes the following basic chapters:

- Introduction to Information Systems in Organizations
- Analysis of Information Systems

- Design of Information Systems
- Design approaches in modeling of Information Systems
- Information systems life cycle
- Basic and modern methodologies for the development of Information Systems
- Techniques and Tools of Information Systems Engineering
- The Information System in the Organization (implementation and evaluation)
- During the course, students become acquainted with the UML modeling language, with the basic diagrams that use and implement exercises.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	13
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	23
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	50
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION
Description of the evaluation procedure

Written work, essay/report		

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.

Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	x	(80% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects	x	(20% of the final grade)

Other: An extra 1 point is given to students that attend and participate in the lectures

5. ATTACHED BIBLIOGRAPHY

(Books in Greek)

- Ανάπτυξη Πληροφοριακών Συστημάτων (Μεθοδολογίες, Τεχνικές και Εργαλεία) (2017), Έκδ. 3η, DavidAvison, GuyFitzgerald, ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 68378511, ISBN: 978-960-578-028-9, Εκδόσεις Νέων Τεχνολογιών.
- Πληροφοριακά Συστήματα, Σύγχρονη Ανάλυση & Σχεδίαση, (2016, 6η εκδ.), Hoffer J., George J., Valacich J., Κωδικός Βιβλίου στον Εύδοξο: 18548910, ISBN: 978-960-418-331-9, Εκδόσεις Τζιόλα.
- Ανάπτυξη προηγμένων πληροφοριακών συστημάτων : Μεθοδολογίες και εργαλεία (2006).DavidAvison, GuyFitzgerald. Επιμέλεια Νικ. Σπ. Βώρος, Γρ. Ν. Μπεληγιάννης, Γ. Αθ. Τσιρογιάννης.ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 1177. ISBN 960-8105-96-X Εκδόσεις Νέων Τεχνολογιών.
- Βασικές Αρχές Τεχνολογίας Λογισμικού (2009), Έκδ. 8η. IanSommerville. ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 13625,ISBN: 978-960-461-220-8, Εκδ. Κλειδάριθμος.
- Αντικειμενοστραφής Ανάπτυξη Λογισμικού με τη UML (2006), Βασίλης Γερογιάννης, Γιώργος Κακαρόντζας, Αχιλλέας Καμέας, Γιάννης Σταμέλος, Πάνος Φιτσιλής, ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 13597, ISBN: 960-209-913-5, Εκδ. Κλειδάριθμος.

Data Bases (MST_406)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_406	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
						x				
COURSE TITLE	Data Bases								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	No required: Students need to have basic knowledge of using office automation software.
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	Under construction

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*

After completing the course the student is expected to be able to:

- mentions the basic concepts and concepts regarding the architecture of a DBMS
- records the requirements and specifications of a DBMS
- model a DBMS as a systematic analysis and planning methodology using the Entities - Relationship model
- builds the Relational Model of a Database from the Entity- Relationship model
- Analyze the types of integrity rules in a Relational Database
- considers a correct database at the level of Logic Design based in Diagram Entity – Relationship
- presents the basic acts of Relational Algebra
- implement relational algebra operations to generate queries
- recognizes the role of key parts of a DBMS, such as the system directory and the data dictionary
- knows the physical way of organizing database files on various storage media and especially on the hard disk
- discerns the advantages of using indexes in a DBMS
- Analyzes how transactions are managed in the programs and the stored access procedures of a Database
- builds simple and complex queries using the SQL language to retrieve data and information from a Database
- designs and implements the appropriate security techniques in a Database
- lists the current trends and the main characteristics of contemporary forms of Databases

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, analyze and synthesize data and information, using the necessary technologies
- Decision making
- Autonomous work
- Teamwork

3. SYLLABUS

- Basic concepts and DBMS architecture

- Physical level of databases
- Database Design
- Conceptual Design and Entity - Relationship Model
- Enhanced Entity - Relationship and Object Oriented Model
- Save Records and Primary File Organizations
- Relational Databases and Relational Algebra
- Logical Design and Representation in the Relational Model
- SQL language
- Editing and Optimizing Queries
- Transaction Processing Concepts
- DB Recovery Techniques and Safety
- Examples of DBMS

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	20
	Essay writing	
	Seminars	
	Exercises	
	Project	25
	Study and analysis of bibliography	16
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*25*
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
	Group work	x	(30% of final grade)
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(50% of the final grade)
	Mid-term exam (formative)		
	Laboratory work/term projects	x	(20% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- Ιωάννης Μανωλόπουλος, Απόστολος Ν. Παπαδόπουλος, «Συστήματα Βάσεων Δεδομένων», 1η Έκδοση, εκδόσεις Νέων Τεχνολογιών 2006.
- Βασίλειος Ταμπακάς, «Εισαγωγή στις Βάσεις Δεδομένων», Εκδόσεις GOTSIS, 2015, Αθήνα.
- R.Elmasri, S.B.Navathe: Fundamentals of Database Systems, 4 edition, Ελληνική έκδοση, 1. Θεμελιώδεις Αρχές Συστημάτων Βάσεων Δεδομένων, Τόμος Α, 4η έκδοση, Δίαυλος 2005 Αθήνα

Operations management (MST_501_1)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_501_1	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Operations Management								

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**
L: lectures De: Demonstrated excercises Lab: laboratory exercises	3(L), 1(De), 1(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Introduction to Business Administration, Introduction to Marketing, Quantitative Methods in Economics and Management (I) and (II), Quality Management, Operational Research
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES in English
COURSE WEBSITE (URL)	http://eclass.teipat.gr/eclass/courses/766138/

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 educational objective of the course is to present modern approaches to issues related to the commitment of significant resources that affect, in the long run, the efficiency and effectiveness of products and services production.

Upon successful completion of the course the student will be able to:

- know the organizational structure and the essential elements - subsystems - functions of a product and service delivery system

- Describe what is the operations management, the main features and the role of product and service managers
- Describe the strategic role of the production function and analyze its performance objectives as well as the internal and external benefits resulting from the achievement of each objective
- Distinguish the differences between the different strategies of production operation
- Define the ways in which the production strategy can be formulated
- Analyze the objectives of the design activity and the ways in which the processes are designed in detail
- Explain why designing products and services is important
- Analyze and distinguish the phases of product and service design, as well as ways of managing interactive design
- looks at ways of arranging the supply network and identifying the location of production
- Analyze how the nature of demand affects programming and control and what planning and control involves
- Examine and manage demand fluctuations, as well as planning and controlling the level of capacity
- Know the main elements of the lean production and evaluate ways to use the JIT technique in programming and control
- Analyze, model and solve problems using the spreadsheets (and The Management Scientist, LINDO) about facility location selection and capacity allocation, aggregate planning, transhipment, ingredients mix (production) and workforce allocation.

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
- 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
- Production of free, creative and inductive thinking

3. SYLLABUS

The course is structured in the following thematic units:

- Introduction to Operations Management
- Operations Strategy and Competitiveness
- Product Design and Process Selection
- Supply Chain Management
- Total Quality Management
- Just-in-Time and Lean Systems
- Capacity Planning and Facility Location
- Aggregate Planning
- Project Management
- Mathematical modeling of problems and solving them using MS Excel - Solver and OpenOffice Calc-Solver on location selection and capacity allocation, aggregate planning, uploading, ingredients mix (production) and

workforce allocation.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	20
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*40*
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(80% of the final grade)
	Final exam with problem solving	X	(20% of the final grade)
	Public presentation		
	Mid-term exam (formative)		

	Laboratory work/term projects			

6. ATTACHED BIBLIOGRAPHY

- Reid D. & Sanders N., 2015. Operations Management: An Integrated Approach, 6th Edition. Wiley.
- Jacobs R. & Chase R., 2017. Operations and Supply Chain Management 15th Edition. McGraw-Hill Education.
- Russell R., Taylor, B., 2017. Operations and Supply Chain Management, 9th Edition. Wiley

Business decision making (MST_501_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_501_2	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Business Decision Making								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

After the completion of the theoretical part of the course the student should be able to:

- addresses decision making as a systematic documentation methodology
- identifies the appropriate technical options as appropriate, depending on the nature of the problem and the constraints that govern (data, information technology, etc)
- understand the types, levels and common decision-making structures and develop the rational approach to decision making
- constructing influence diagrams and resolves them with the method of decisions trees
- knowing the utility theory and the meaning of creativity
- assessment of the abilities offered by information systems as tools for selecting optimal decision
- systematically explores the implications of alternative decisions and strategies
- to implement the above in a wide range of business functions such as: financial management, Production Scheduling and inventory management, Marketing Management, Transport Planning and Distribution, human recourse management etc.

After the completion of the laboratory part of the course the student should be able to:

- know the DPL program (Decision Program Language), influence diagrams and decision analysis model
- resolves problems relating influence diagrams with Discrete and Continuous Uncertain facts and decision analysis model
- resolves problems on sensitivity analysis of diagrams and charts in DPL (Value Tornado & Base Case Tornado)
- resolves problems with advanced charting effects on sensitivity analysis and the Rainbow Chart DPL
- solves problems about constructing decision trees in DPL and the expected value of complete information in DPL
- solves problems regarding the construction model in the DPL with importing data from Microsoft Excel
- resolves problems on tables strategy in DPL solves problems on multiple variables by maximizing EMV.
- resolves problems with tables strategy in DPL
- solves problems on multiple variables in the objective function of a model in DPL
- solves problems about utility functions in a model of DPL resolves problems on decision trees in Tree Plan and decision analysis model

- resolves problems on the sensitivity analysis decision trees in Tree Plan
- solves problems regarding the effect on Plan Tree diagrams

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…*
	…….

- Decision-making
- Working in an interdisciplinary environment
- Working independetly
- Team work
- Production of free, creative and inductive thinking

3. SYLLABUS

The course includes the following topics:

- Rational approach to decision making
- Problem definition and structure
- Common decision structures
- Resolving decision problems by maximizing the Expected Monetary Value
- Setting goals and creating value trees
- Identifying alternatives and creativity
- Prediction and subjective perception

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND	Slides	x

COMMUNICATIONS TECHNOLOGY

Use of ICT in teaching, laboratory education, communication with students

E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	*20*
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	40
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	x	(Multiple choice questions, Short answer questions, Solve problems related to quantitative - qualitative data, Comparative evaluation of theory elements, 60% of final grade)
Public presentation		

	Mid-term exam (formative)		
	Laboratory work/term projects	x	(optional, 40% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Golub a.,2007., "Decision Analysis: An Integrated Approach" ed. Gotsis, Greece
- Goodwin P., Wright G. 2015, "Decision Analysis: Rational management", Broken Hill Editions, Cyprus

Operational Policy and Strategy (MST_501_3)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_501_3	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Operational Policy and Strategy								

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

This course draws examples from large and small Greek and international businesses to introduce students to the theory and practice of strategic thinking. At the same time it familiarizes them with the relevant tools for

understanding the internal and external environment of an enterprise, and the developing a competitive advantage.

The objectives of the course are:

- understanding the terms strategic and strategic management,
- familiarity with the application of models and tools for the analysis of the internal and external strategic environment of enterprises, with the aim of creating a competitive advantage,
- the cultivation of students' strategic thinking by presenting and analyzing examples of business placement and strategy from a large number of Greek and international companies,
- the presentation and discussion of the benefits of the various development and consolidation strategies, and
- the analysis of implementation and evaluation issues of strategic organizations in the private and non-profit sector.

At the end of this course, the student will be able to:

- understand the key visions of strategy,
- identify factors and resources that lead to competitive business activity,
- analyze strategically the external and internal environment of an organization,
- recognize and analyze the advantages of strategies to achieve a competitive advantage.
- Student will have developed the following skills:
- Formulation and theoretical analysis of general strategic problems,
- Analyze the nature of competition within the industry and identify factors that determine the degree of attractiveness,
- Assessing the competitive advantage of an organization,
- Theoretical interpretation of general business strategies.

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…*
	…….

- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an international environment
- Production of new research ideas

3. SYLLABUS

The course examines a set of concepts, frameworks, methods and tools, from the strategy formation of a business to its realization. It also aims at acquiring application skills of concepts and tools. It refers to both

theories that have developed in the field and business practices with examples from the Greek and international spheres. The aim is to understand the strategic issues in the complex processes that take place in the business environment. Specifically:

- Introduction to the strategy. Conceptual approaches, and documentation of necessity, modern concepts of strategy.
- Strategic goals, strategic levels, corporate strategies, competitiveness strategies.
- Analysis of the wider-macro of the external environment.
- Analysis of the competitive environment of the company, structural analysis of competition, analysis of strategic groups - determination of competitive position.
- Strategic analysis of the indoor environment - resource and competence analysis, "value chain".
- Corporate mission-vision, formulation of effective strategic intent.
- Porter's general business strategies.
- Strategies to achieve a competitive advantage.
- Implementation and evaluation of strategy.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
	Slides	
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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory Practice	
	Essay writing	
	Seminars	
	Projects	40
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Independent study	46
	Other:	

	Course total (25 hours of workload per ECTS)	***125***	
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 examination with development questions	x	theory, short case studies (70%)
	Oral exam		
	Public Presentation	x	Project Presentation (30%)
	Problem solving		
	Progress with development questions (concluding)		
	Laboratory work		
	Clinical Patient Examination		
	Progress exam with development questions (formative)		
	Artistic Interpretation		
	Written examination with multiple choice queries		
	Written report / report / work		
	Progress exam with multiple choice queries		

5. ATTACHED BIBLIOGRAPHY

- E-class notes.
- Books and relevant articles:
    - *Papadakis, V. (2016). Business Strategy: Hellenic and International Experience, Volume I: Theory, Athensy, Mpenou Publications (7th Edition).*
    - *Thompson.,A, Strickland III., A.J. & Gamble, J.E. (2010). Business Strategy Planning & Implementation: Competitive Advantage Search. Athens, Utopia Publications.*
    - *Porter, M (1996). What is Strategy? Harvard Business Review. 74(3), November-December, 61-78.*
    - *Porter, Michael E. (1987): "From competitive advantage to corporate strategy." Harvard Business Review, 65(3):43-59.*
    - *Bowman, E., & Helfat C. (2001). Does Corporate Strategy Matter?. Strategic Management Journal, 22, 1-23.*
    - *Wu, Q., He, Q., Duan, Y., & N. O'Regan (2012). Implementing Dynamic Capabilities for Corporate Strategic Change Toward Sustainability. Strategic Change, 21, 231-247.*
    - *Tsoukas, H. and E. Vladimirou (2001).'What is organisational knowledge?', Journal of Management Studies 38(7), pp.974–93.*

International relations and institutions (MST_501_4)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_501_4	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	International Relations And Institutions								

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**
L: lectures	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 course provides the necessary background of legal knowledge for the purpose of understanding the position and operation of a company outside the internal market, at international level and mainly in the European Union of which Greece is a member.

At the end of the course students are able to understand:

- The legal meaning of the State and the International Organizations and their types, the way in which they are constituted and their consequences.
- The historical evolution and formation of the states on the European continent, their evolution over time, the pursuit of economic advantages and the relationships between them due to geographical, historical and other conditions that have occured through their historical route.
- Their position on the world market. The historical and timeless ways of developing their cooperation, and in particular their cooperation through the EU institutions.
- The way in which the EU governing bodies are set up, the relationships between them and the consequences of their work for citizens and businesses operating within the EU.
- The analysis of the legal framework within which citizens and businesses move within the EU..
- Underastand that the EU's ultimate goal is, first of all, the economic integration of its Member States and their future transformation into a possible state entity of international law.
- Can describe the real and legal context of the relations of states at international level and in particular within the EU.
- Can recognize the way that the EU as well as its Member States institutions operate.

At the end of the course, the student will have developed the following skills:

- Familiarity with the way EU and its governing bodies work.
- Understand how a business operates in an international environment, in particular within the EU.
- The ability to search the EU legal framework for the way businesses operate.

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…*
	……..

- Decision-making
- Working in an interdisciplinary environment
- Working independetly
- Team work
- Production of free, creative and inductive thinking

3. SYLLABUS

The course includes the following topics:

- Public International Law. International Conventions – Types of them and their Relation to Private International Law.
  - International organizations. Establishment and different types of international organizations.
  - The historical background of the creation of the EU - EEC - ECSC - EAEC. The evolution of the EEC, ECSC, EAEC over time
  - The creation of the EU - Its evolution until today through international treaties, the 3 pillars of the EU and the EU Funds

• The EU institutions and sub-bodies • EMU and EU economic freedoms and policies. • The rights of European citizens.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	23
	Placements	
	Clinical practice	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*50*
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	x	(Full grage)
	Public presentation		

	Mid-term exam (formative)			
	Laboratory work/term projects			

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Vrellis S (2008) Private International Law, Law Library, Athens
- Gortsos Chr. (2011) Introduction in the international monetary law, Law Library, Athens
- Maravegias Nap (2016) European Union, Editions Kritiki SA, Athens
- Moussi N. (2018) European Union, A. Papazisis, Athens
- Pliakas Asterios (2018) EU Law, Law Library, Athens
- Stefanou K. (2015) EU Legal System, Law Library, Athens
- Christianos B (2012) EU Treaty and TFEU Article Interpretation, Law Library, Athens

Introduction to Tourism and the Tourism Economy (MST_501_5)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_501_5	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			X
COURSE TITLE	Introduction To Tourism And The Tourism Economy								

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Field of science
PREREQUISITE COURSES:	No prerequisite course
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	

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 course aims at a better understanding of the tourism market and at gaining knowledge about the economic and social impact of tourism on a destination and about the importance of tourism for the Greek economy.
By the end of this course, students will be able to:

- Determine and analyze key tourism data about supply and demand at the destination level (e.g. a country, an island or a city),
- assess the competitive position of a tourist destination
- understand the performance and further outlook concerning the development of a tourist destination (at the

local or national level).

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
- Adapting to new situations
- Decision-making
- Respect for difference and multiculturalism
- Criticism and self-criticism
- Production of free, creative and inductive thinking

Other: At the end of the course the student will have further developed the following skills/competences: understanding of the economic and social impact of tourism, ability of analyzing key tourism data, knowledge of the international tourism market.

3. SYLLABUS

- Key concepts of tourism
- Typology of tourism
- Development of tourism in Greece and internationally
- Tourism-related economic sectors – The tourism market
- Tourism as an economic phenomenon – The Tourism Satellite Accounts
- Governmental involvement in tourism – Planning and executing tourism-related policies
- Role of tour operators in a country's tourism development
- Multinational companies and tourism
- Technology and tourism
- Social and environmental impact of tourism – The discourse about sustainable tourism

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
	Others:	
TEACHING METHODS *The manner and methods of teaching are described in detail.*	***Activity***	***Semester workload***
	Lectures	39

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-directed study according to the principles of the ECTS*	Tutorials		
	Laboratory Practice		
	Essay writing		
	Seminars		
	Exercises		
	Projects		
	Study and analysis of bibliography		
	Placements		
	Clinical practice		
	Art workshop		
	Interactive teaching		
	Educational visits		
	Artistic creativity		
	Independent study	86	
	Other:		
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***	

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 examination with development questions		
	Oral exam		
	Public Presentation		
	Problem solving		
	Progress with development questions (concluding)		
	Laboratory work		
	Clinical Patient Examination		
	Progress exam with development questions (formative)		
	Artistic Interpretation		
	Written examination with multiple choice queries	x	
	Written report / report / work		
	Progress exam with multiple choice queries		

5. ATTACHED BIBLIOGRAPHY

- Tsartas, Paris (2010). Greek Tourism Development. Athens: Kritiki Publications
- Lagos Dimitris (2005). Tourism Economics. Athens: Publications Review
  Giannopoulos, K. and Diakomichalis, M. (2012). Satellite Tourism Account. Athens: Ed. Papazzi
  Coccosis, Haris, Paris Tsartas and Freedom Grimba (2011). Special and Alternative forms of Tourism. Athens: Publications Review
  Zacharatos, Gerasimos (2003). Package Tour: Production and distribution of tourist travel. Athens: Ed. Propombos
- Cooper, Chris and Hall, C. Michael (2008). Contemporary Tourism: An international approach. Oxford:

Butterworth-Heinemann

- Horner, Susan and Swarbrooke, John (2004). International Cases in Tourism Management. Oxford: Elsevier Butterworth- Heinemann
- Tribe, John (2011). The Economics of Recreation, Leisure and Tourism. 4th edition. Oxford: Butterworth-Heinemann
- Goeldner, Charles and Ritchie, J.R. Brent (2009). Tourism: Principles, Practices, Philosophies. 11th edition. Hoboken, NJ :John Wiley & Sons
- Vanhove, Norbert (2011). The Economics of Tourism Destinations 2nd edition. London: Elsevier

Acounting Statements Analysis (MST_501_6)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_501_6	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Acounting Statements Analysis								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 purpose of this course is to develop the ability of students to use the information provided by published

accounting statements for decision making. The course will focus on the ability to use the accounting information needed for business management to produce the accounting numbers that appear in the statements. In addition, the critical ability will be developed for the student to make the necessary convergences and choices. Critical development is developed through the study and analysis of 'case studies' of different companies.
Upon completion of the course, students should be able to:

- Analyze a business and assess its financial risk.
- Calculate the liquidity and profitability of the business.
- Prepare the Cash Flow Statements.
- Calculate the financial value of a business

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
- Adopting to new situations
- Decision-making
- Working independently
- Team work
- Production of free, creative and inductive thinking
- Respect for diversity and multiculturalism

3. SYLLABUS

The course is organized on 13 weeks including the following topics:

- Introduction to the concepts of Accounting / Financial Statements Analysis.
- Accounting Statements based on Greek Standards and IAS / IFRS.
- Accounting Analysis - Assets Recognition and Valuation, Assets Reforms
- Accounting Analysis - Recognition and Valuation of Obligations
- Accounting Analysis - Recognition of Income and Expenses, Recognition of Equity
- Efficiency Analysis – The Classic Analysis.
- Efficiency Analysis – The Alternative Analysis.
- Credit Risk Analysis - Liquidity.
- Credit Risk Analysis –Cash Flows Analysis – Direct Method.
- Credit Risk Analysis –Cash Flows Analysis – IndirectMethod.

- Credit Risk Analysis - Capital Structure Analysis and Common Size Statements.
- Bankruptcy Forecasting Templates.
- Profits.

B. LABORATORY AXIS

The workshop of this course will analyze business exercises and case studies for each of the above 13 thematic units. Cost behavior.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Practical demonstration	
	Project	
	Essay writing	
	Study and analysis of bibliography	
	Unsupervised study	60
	Course total	***125***

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 examination with development questions	X	
	Oral exam		
	Public Presentation		
	Problem solving		
	Progress with development questions (concluding)		
	Laboratory work		
	Clinical Patient Examination		
	Progress exam with development questions (formative)		
	Artistic Interpretation		
	Written examination with multiple choice queries	x	
	Written report / report / work		
	Progress exam with multiple choice queries		

5. ATTACHED BIBLIOGRAPHY

- Suggestedbibliography:

- Ανάλυση Χρηματοοικονομικών Καταστάσεων, Wild - Subramanyan Εκδόσεις BrokenHillPublishers, 2016
- Ανάλυση και Διερεύνηση Χρηματοοικονομικών Καταστάσεων, Παπαδέας – Συκιανάκης, Εκδόσεις Δανάη Παπαδέα, 2017.
- Ανάλυση και Αποτίμηση Επιχειρήσεων, Γκίκας – Παπαδάκη – Σιουγλέ, Εκδόσεις Γεωρ. Μπένου, 2010.

Optimization Methods in Management Science (MST_501_7)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_501_7	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Optimization Methods In Management Science								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 purpose of this course is to introduce students to the optimization theory as well as to discuss concepts relevant to this subject in order to better understand the fields of application. In this context a wide range of optimization algorithms are analyzed and connected to a multitude of activities found in modern organizations.

Upon completion of the course, students will be able to:

• Apply the appropriate analysis techniques depending on the cases under consideration

• Design algorithms used in the optimization field

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
- Working independently
- Decision-making

3. SYLLABUS

- Optimization
- Heuristic Algorithms
- Local Search Algorithms
- Variable neighborhood search

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography,*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	

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-directed study according to the principles of the ECTS

Essay writing	13
Seminars	
Exercises	
Project	
Study and analysis of bibliography	13
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*47*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(90% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Μαρινάκης Ι., Μαρινάκη Μ., Ματσατσίνης Ν., Ζοπουνίδης, Μεθευρετικοί και Εξελικτικοί Αλγόριθμοι σε Προβλήματα Διοικητικής Επίστημης, Εκδόσεις Κλειδάριθμος, 2011.
- Wil Michiels, Jan Korst, Emile Aarts, Theoretical Aspects of Local Search, HEAL-Link Springer ebooks, 2007
- Thomas Stutzle, Mauro Birattari, Holger H. Hoos, Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics, HEAL-Link Springer ebooks, 2009

ΔΙΚΑΙΟ ΔΗΜΟΣΙΑΣ ΔΙΟΙΚΗΣΗΣ & ΨΗΦΙΑΚΗΣ ΔΙΑΚΥΒΕΡΝΗΣΗΣ (MST_501_8)

Business Intelligence and Big Data Analysis (MST_502_1)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_502_1	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Business Intelligence and Big Data Analysis								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE	Special Background
PREREQUISITE COURSES:	Databases
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 course will present key technologies for the collection, storage and processing of large data and the role of these technologies in the economic science. Particular emphasis will be placed on the processing of such data in order to show that they contribute to decision-making processes. The course also focuses on case studies.

Upon successful completion of the course the student will be able to:

• has understood the concept of large data,

• Has understood the basic concepts of Business Intelligence,

• is aware of their importance in modern business activities and empirical research,

• is familiar with the basic technologies of collecting and manipulating large data,

• use data management algorithms to draw conclusions useful to business management,

• devises "problems" involving Big Data in a structured, semi-structured or unstructured form,
• Draw and shape relevant data from various sources,
• choose technologies to use and tools / methods (statistics, etc.) for efficient data processing and analysis,
• Applying data analysis and mechanical learning techniques to effectively detect trends, hidden or repetitive patterns, predicting predictions, and, more generally, discovery of valuable knowledge,
• integrates relevant systems and technologies into traditional or real-time information systems,
• work with its fellow students to create and present a large data management application.
Students will also gain practical experience in modern data management tools and techniques, including NoSQL (like MongoDB), Hadoop / MapReduce, and Apache Spark.

General Competences

- Promoting free, creative and inductive thinking
- Search, analyze and synthesize data, techniques and information, using the necessary techniques
- Combined analysis of methods for problem solving
- Use of tools for big data analysis
- Adapt to new situations
- Autonomous Work
- Teamwork

3. SYLLABUS

Basic concepts. Applications. Cases of use. Definitions. 6Vs -Volume, Variety, Velocity, Veracity, Validity, and Volatility. Advanced Modeling Techniques Related to Big Data. Problem solving. Requirements for large-scale data management platforms. Opportunities and research challenges. The Large Data Analysis Process. Challenges related to large-scale data. Advanced and modern data management issues: transaction processing, master memory databases, column-oriented systems. Large scale data management systems: MapReduce, Hadoop and tools, NoSQL systems.

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	X (Specialized tools for managing big data)

TEACHING METHODS	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	20
	Study and analysis of bibliography	
	Placements	

	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	40
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***
STUDENT PERFORMANCE EVALUATION	Written work, essay/report	x
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	X
	Public presentation	
	Mid-term exam (formative)	
	Home work	x

ATTACHED BIBLIOGRAPHY

- Özsu, M. T., Valduriez P. (2011): Principles of Distributed Database Systems, Third Edition. Springer, ISBN 978-1-4419-8833-1, pp. I-XIX, 1-845.
- Jagadish, H. V., Gehrke, J., Labrinidis, A., Papakonstantinou, Y., Patel, J. M., Ramakrishnan, R., Shahabi, C. (2014): Big Data and Its Technical Challenges. Communications of the ACM, Vol. 57 No. 7, pages 86-94.
- Marz, N., Warren, J. (2015): Big Data: Principles and best practices of scalable realtime systems. Manning publications. ISBN: 9781617290343.
- White, T. (2012): Hadoop: The Definitive Guide, 3rd Edition. O'Reilly Media, ISBN-10: 1449311520.
- Karau, H., Konwinski, A., Wendell, P., Zaharia, M. (2015): Learning Spark: Lightning-fast big data analysis. O'Reilly Media. ISBN-10: 1449358624.
- Golab, L., Özsu, M.T. (2010): Data Stream Management. Morgan & Claypool Publishers, Synthesis Lectures on Data Management.
- Kleppmann, M., (2017): Designing data-intensive applications. O'Reilly Media. ISBN-10: 1449373321.

Operating Systems (MST_502_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS		
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	MST_502_2	**SEMESTER**	**E'**
COURSE TITLE	Operating Systems		
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**
L: lectures Lab: laboratory exercises		3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).			
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Direction INFORMATION SYSTEMS *Specialised general knowledge, skills development*		
PREREQUISITE COURSES:	Not required		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	Under construction		

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*

This course introduces students to the fundamental principles of Operating Systems (OS). After completing the course (Theoretical and Laboratory parts) the student is expected to be able to know:

- the basic concepts and principles for designing OS,
- the categories, mode of operation, capabilities and services provided by OS.

Students through laboratory exercises and practice gain experience in the use of different types of OS.

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*
	Respect for the natural environment

Decision-making	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Working independently	*Criticism and self-criticism*
Team work	*Production of free, creative and inductive thinking*
Working in an international environment	*……*
Working in an interdisciplinary environment	*Others…*
Production of new research ideas	*…….*

At the end of this course, students will further develop the following skills:

- Ability to demonstrate knowledge and understanding of basic concepts and principles related to Operating Systems (OS).
- Ability to use this knowledge and understanding as a basis for expanding into more complex objects accosiated to OS, as well as to approach with some other different non-familiar problems.
- Ability to investigate and study the evolution of OS.
- Ability to interact with others users, on interdisciplinary issues about OS.

Generally, upon completion this course, students will be able to develop the following general competencies (from the list above):

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Working independently
- Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

- Theoretical Approach to Operating Systems (OS), What is Operating System, The main objectives of OS, Tasks that performed by OS, The OS role in executing a program. The OS main categories, The services that OS provides to the user, The OS architectural structure. Memory, Processes, Prolonged deprivation or starvation, Memory management, Processor routing.
- Operating Systems, presentation (MS-Windows, MAC, UNIX, Linux), Unix or Linux simulation at PC, Using Unix and Linux Operating Systems, Basic directories in Linux and Unix, Unix Text editors, Using commands in Unix and Linux enviroments, Managing files,

The Bash shell (Bourne again shell), Unix and Linux file system, Users rights in Unix and Linux, Processes, Shell script,

The network usage (user communication, email, ftp applications)

- The Virtual Machines usage. Virtualization, Virtual Machines - VM, Emulators, Desktop and Server Virtual Machine Operating Models, Virtual Server Clustering, Virtual Infrastructure Virtual Machine, Virtual Machine Applications, Software Suite VMware Workstation, Microsoft Virtual PC, Parallels Workstation.
- How to learn MS-DOS OS (syntax method and commands, Bach files - Creation and examples).

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	60
Placements	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(100% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Operating Systems, Garmpis Aristogianns, Version: 1/2010, ARAKYNTHOS, ISBN: 978-960-89768-9-4 [EUDOXOS Code: 3123]

- Operating Systems, Stallings William, Version: 8/2017, TZIOLAS, ISBN 978-960-418-715-7 [EUDOXOS Code: 68374433]

Software Engineeringin Practice (MST_502_3)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_502_3	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Software Engineeringin Practice								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialised general knowledge
PREREQUISITE COURSES:	*No prerequisites: Students are strongly recommended to have attended course MST_405: Information System Engineering prior to this.*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	Under construction

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*

Upon completion of this course, students will be able to:

- explain basic concepts of Software Engineering
- list the objectives of Software Engineering
- understand in-depth, modern object-oriented software development methodologies (eg ICONIX), as well as the phases and activities they involve
- apply modern object-oriented methodologies for software design and development
- implement the software analysis and design activities by using UML
- design use cases using the corresponding diagrams
- design the domain model using the corresponding diagrams
- model the rest of the system using sequence, robustness diagrams
- transform the system model into code (software)
- describe the different approaches and explain the different strategies used for the validation and verification of the software

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
- Decision-making
- Working in an international environment
- Working in an interdisciplinary environment
- Project planningandmanagement
- Production of free, creative and inductive thinking

3. SYLLABUS

Most software engineering courses traditionally deal with the analysis and design of new software systems without emphasizing in activities that follows the software development phase where most software engineers spend most

of their time.
The aim of this course is to provide students with the necessary skills to study, understand, develop, evaluate, verify, validate and maintain software using modern methodologies. Also within the context of this course, concepts such versioning, performance measurement and management, evaluation, inspection and code validation and verification. Having attended this course, students will be able to implement software development projects with emphasis not only on the initial phases of development (analysis, design) but also on subsequent phases such as writing the code, checking (validating, verifying), the delivery (training, documentation) of the system and its maintenance. In the practical part of the course, examples of software analysis and design are implemented using the well-known ICONIX methodology and code writing.
The content of the course includes the following basic chapters:

- The Importance of Software Technology - Software Life Cycle
- Modeling of software development processes
- Design and project management
- Requirements engineering
- The design of the software
- Code writing
- Checking the software
- Software implementation and maintenance

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	13
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	23
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	

	Unsupervised study	*50*
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(100% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

Other: An extra 1 point is given to students that attend and participate in the lectures.

5. ATTACHED BIBLIOGRAPHY

(Books in Greek)

- Τεχνολογία λογισμικού - Θεωρία και πράξη, (2011), 2η έκδοση.Shari Lawrence Pfleeger. ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 13009253, ISBN: 978-960-461-477-6, Εκδόσεις Κλειδάριθμος.
- Βασικές Αρχές Τεχνολογίας Λογισμικού (2009), Έκδ. 8η. IanSommerville. ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 13625,ISBN: 978-960-461-220-8, Εκδ. Κλειδάριθμος.
- Αντικειμενοστραφής Ανάπτυξη Λογισμικού με τη UML (2006), Βασίλης Γερογιάννης, Γιώργος Κακαρόντζας, Αχιλλέας Καμέας, Γιάννης Σταμέλος, Πάνος Φιτσιλής, ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 13597, ISBN: 960-209-913-5, Εκδ. Κλειδάριθμος.
- Unified Modelling Language (Βασικές Αρχές Αντικειμενοστρεφούς Σχεδίασης Συστημάτων και Εφαρμογών) (2009). Νικόλαος Σπ. Βώρος, 'Αγγελος Σπ. Βώρος, ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 1119, ISBN: 978-960-6759-31-4, ΕΚΔΟΣΕΙΣ ΝΕΩΝ ΤΕΧΝΟΛΟΓΙΩΝ.

Management Information Systems (MST_502_4)

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Economics & Business								
ACADEMIC UNIT	Department of Management Science & Technology								
LEVEL OF STUDIES	Undergraduate								
COURSE CODE	MST_502_4	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Management Information Systems								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background
PREREQUISITE COURSES:	Not required. Although, it is recommended that students have at least a basic knowledge of Databases and Office Automation.
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (in English)
COURSE WEBSITE (URL)	Under construction

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*

This course presents the various models of Management Information Systems from the viewpoint of the developer. It presents the analysis and design methodologies for MIS, within the context of resource, information, employee and customer management.
At the end of this course the student should be able to formulate for MIS:

- Fundamentals
- Architecture
- Design and analysis methodologies
- Differentmodels

Also, student should be able to:

- apply the SSADM and RUPmethodologies
- use the UMLmethodology
- use the Microsoft Visio commercialsoftware

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, analysis and synthesis of data and information, with the use of the appropriate technology
- Decision-making
- Project planning and management

3. SYLLABUS

- Fundamentals of MIS (benefits, cost, ethics, evolution, technological infrastructure)
- Data FlowDiagrams
- Entity Life HistoryDiagrams
- The SSADM methodology
- Other design and analysis methodologies (STRADIS, RUP,etc.)
- Related methodologies (PRINCE II, Gap Analysis, etc.)
- MIS types (Decision Support Systems, ERP, CRM,SCM)
- UML

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	x

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*60*
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(100% of the final grade)
	Public presentation		

	Mid-term exam (formative)			
	Laboratory work/term projects			

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Διοίκηση Επιχειρήσεων και Πληροφοριακά Συστήματα, Δουκίδης Γεώργιος, Εκδόσεις Σιδέρη, 2009.
- D. Avison, G. Fitzgerald, (Επιμέλεια: Ν.Σ. Βώρος, Γ.Ν. Μπεληγιάννης, Γ.Α. Τσιρογιάννης), «Ανάπτυξη Προηγμένων Πληροφοριακών Συστημάτων: Μεθοδολογίες & Εργαλεία», Εκδόσεις Νέων Τεχνολογιών, 2006.
- Γ. Οικονόμου & Ν. Γεωργόπουλος, «Πληροφοριακά συστήματα για τη διοίκηση επιχειρήσεων», 2004
- Ν. Ματσατσίνης, «Συστήματα Υποστήριξης Αποφάσεων», Εκδόσεις Νέων Τεχνολογιών, 2010.

Internet Technologies (MST_502_5)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	**MST_502_5**	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Internet Technologies								

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**
L: lectures, Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required.
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (in English)
COURSE WEBSITE (URL)	Under construction

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 aim of this course is to introduce students to the basic technologies related to the Internet. The learning outcomes of the course include:

- understanding of the basic principle of the operation of the Internet
- understanding of the syntax and semantics of HTML andCSS
- a basic understanding of JavaScript and its mainstatements

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, analysis and synthesis of data and information, with the use of the appropriate technology
- Adapting to new situations
- Production of free, creative and inductive thinking
- Web sites development

3. SYLLABUS

- introduction to the architecture and operation of theInternet
- Main elements ofHTML
- introduction toCSS
- introduction toJavaScript

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	x

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	13
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*73*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x
Problem solving	
Multiple choice questionnaires	
Final exam with Multiple choice questionnaires	
Oral examination	
Mid-term exam (concluding)	
Final exam with developing questions	X
Public presentation	
Mid-term exam (formative)	
Laboratory work/term projects	

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Α. Καράκος, "Προγραμματισμός Στατικών και Δυναμικών Ιστοσελίδων", Εκδόσεις Α. Τζιόλα & Υιοί Α.Ε., 2016.
- J Meloni, "Μάθετε HTML 5, CSS και JavaScript Όλα σε Ένα", Εκδόσεις Γκιούρδας & ΣΙΑ, 2015.
- C. Rafe, J. Kyrnin, L. Lemay, "Πλήρες Εγχειρίδιο HTML 5, CSS και JavaScript", Εκδόσεις Γκιούρδας & ΣΙΑ,2016.

Electronic government (MST_502_6)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_502_6	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Electronic Government								

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	5

COURSE TYPE	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 course aims to provide a supervisory picture of the term 'eGovernment'. The objectives of the course are summarized as follows:

- Understanding essential eGovernment components.
- Functional quote of internal and external information systems of e-government.
- Recognize key transition challenges to eGovernment.
- Critique of existing eGovernment sites and setting up improvement margins.
- Understanding horizontal eGovernment issues.
- Case studies from Greek and international reality.

- Upon completion of the theoretical lectures, students will be able to:
- To acquire the necessary conceptual and theoretical background of the application of information and communication technologies for the automation of public administration.
- To be able to assess the current level of public administration function and to identify scope for improvement.
- Be aware of recent developments and trends in the implementation of IT and communications technologies to improve public administration.
- Be able to evaluate existing eGovernment initiatives.
- • Be able to develop e-government technology solutions.

General Competences

- Promoting free, creative and inductive thinking
- Search, analyze and synthesize data, techniques and information, using the necessary techniques
- Combined analysis of methods for problem solving
- Adapt to new situations
- Autonomous Work
- Teamwork

3. SYLLABUS

- Introduction to eGovernment
- eGovernment Challenges and Introduction to eGovernment
- Internal Information Systems of Public Administration
- Outsourced Information Systems for Public Administration
- Public Domain Certification Framework
- Electronic Democracy and Electronic Supplies
- System Interoperability and eGovernment
- Business Process Reengineering and eGovernment
- Digital Authentication Framework and eGovernment
- Innovative forms of eGovernment
- E-Governance Case Studies

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

TEACHING METHODS	***Activity***	***Semester workload***
	Lectures	29
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	

	Exercises	
	Project	30
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	40
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***
STUDENT PERFORMANCE EVALUATION	Written work, essay/report	
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	X
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/term projects	x

5. ATTACHED BIBLIOGRAPHY

- Pomportsis A. (2006) Introduction to eGovernment, TZIOLAS Publications

Services and Transactions on The Web (MST_502_7)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_502_7	**SEMESTER**	5th						
			1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Services and Transactions on The Web								

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	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2. LEARNING OUTCOMES

Learning outcomes

The course aims to teach theory and practical themes that govern the design of automated trading mechanisms on modern digital platforms (auction sites, product service and product sales, online advertising). In particular, modern algorithmic techniques that facilitate the digital realization of electronic markets are taught.

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

- be aware of the economic and algorithmic background that governs the functioning of e-markets.
- designing e-commerce platforms, choosing the appropriate financial mechanisms and their algorithmic implementation techniques.
- evaluate the performance of financial mechanisms and implementation algorithms in relation to the requirements of a given e-market and its peculiarities.
- design, implement and evaluate automatic pricing mechanisms.

General Competences

- Promoting free, creative and inductive thinking
- Search, analyze and synthesize data, techniques and information, using the necessary techniques
- Combined analysis of methods for problem solving
- Adapt to new situations
- Autonomous Work
- Teamwork

3. SYLLABUS

• Introduction to Game Theory for Online Transactions
• Strategic Gaming and Nash Balance for Online Transactions
• Efficiency Balance for Electronic Transactions
• Oligopoly Models: Cournot and Bertrand oligopolies.
• Auctions: First and Second Price, Variations of Multiple Units.
• Algorithmic Mechanism Design.
• Subsidized Search Auctions.
• Combined Auctions.
• Principles / Pricing Methods.
• Forecasting Techniques.
• Direct Auctions.

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Slides	
	E-class	x
	Virtual (simulated) laboratory training	
TEACHING METHODS	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	30
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	30

	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***	
STUDENT PERFORMANCE EVALUATION	Written work, essay/report	x	
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects	x	

5, ATTACHED BIBLIOGRAPHY

- N. Nisan, T. Roughgarden, E. Tardos, V. Vazirani. Algorithmic Game Theory. Cambridge University Press, 2006.
- T. Roughgarden. Twenty Lectures on Algorithmic Game Theory. Cambridge University Press, 2016.

Business Analytics and Personilisation Technologies (MST_502_8)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_502_8	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
							x			
COURSE TITLE	Business Analytics and Personilisation Technologies								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Information Systems, Data Structures and Algorithms
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English if required for Erasmus students
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under Construction

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

At the end of the lesson the student will be able to:

- identify and describe the basic concepts of information technology personalization
- describe ways of recording and modeling user navigation behavior
- describe algorithms and techniques of user personalization and representation
- report metrics for evaluating the efficiency and accuracy of forecasting and recommendation algorithms
- describe and apply ways to determine optimal stock and safety-stock levels
- use knowledge of Vendor-Managed Inventory Demand Forecasting and Inventory Management

Techniques
- describe and apply basket data analytics techniques
- report dynamic pricing and market segmentation techniques

General Competences

- Promoting free, creative and inductive thinking
- Search, analyze and synthesize data, techniques and information, using the necessary techniques
- Combined analysis of methods for problem solving
- Adapt to new situations
- Autonomous Work
- Teamwork

3. SYLLABUS

Analyzing and exploiting the enormous amount of data (information, products, services, product evaluations, etc.) gathered when users interact with e-commerce applications either in the standard web environment or in specific applications and platforms can be a powerful tool for more efficient purposes. managing business relationships with their customers through personalization services. The course aims to introduce students to the techniques of behavioral data processing from heterogeneous sources and to familiarize them with predictive behavior and information personalization algorithms. In addition, the course focuses on data analysis with the aim of more efficient supply chain management and optimal response to consumer needs. Following the introduction of the basic theoretical background and the functionality provided by supply chain management systems, techniques and case studies focusing on data extraction and business impact on the practical application of this knowledge are presented. The course is structured in the following themes:

• Basic concepts of information technology personalization and behavioral models
• Navigation behavior modeling and modeling
• Personalization algorithms and user representation
• Design and implementation of predictive algorithms and recommendation calculation systems
• Evaluation of the accuracy of forecasting and proposal generation algorithms
• Supply chain collaboration and data exchange
• Determination of optimal stock and safety-stock levels
• Demand forecast
• Vendor-Managed Inventory Inventory Management
• Collaborative Planning, Forecasting and Replenishment (CPFR)
• Basket analytics
• Dynamic pricing
• Market segmentation

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with student*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
TEACHING METHODS *The manner and methods of teaching are described in detail.*	***Activity***	***Semester workload***
	Lectures	39

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-directed study according to the principles of the ECTS*	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	25
	Study and analysis of bibliography	**15**
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	20
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***
STUDENT PERFORMANCE EVALUATION	Written work, essay/report	x
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	X
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/term projects	x

5, ATTACHED BIBLIOGRAPHY

- Miller, T. W. (2015). Marketing data science: modeling techniques in predictive analytics with R and Python. FT Press.
- Unemyr, M., & Wass, M. (2018). Data-Driven Marketing with Artificial Intelligence: Harness the Power of Predictive Marketing and Machine Learning. Independently published.
- Robert Jacobs, Richard B Chase (2017). "Operations and Supply Chain Management" 15th edition, McGraw-Hill Education.

Stochastic Modeling and Simulation (MST_601_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
TMHMA	MANAGEMENT SCIENCE & TECHNOLOGY								
STUDY LEVEL	UNDERGRADUATE								
COURSE CODE	MST_601_2	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Stochastic Modeling and Simulation								

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*	**HOURs/WEEK**	**ECTS**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITES:	Not required
TEACHING & LABS LANGUAGE:	Greek and/or English (english terms always delivered)
COURSE AVAILABLE TO ERASMUS	Yes
COURSE URL	http://eclass/courses/766144/

2. LEARNING OUTCOMES

Learning outcomes

The purpose of the course is to outline the applications of mathematical models to decision making. The emphasis is primarily on model building and its applications with the help of specialized software packages, so that students can discern how these models are used in management and in general in commerce and industry today. The main themes of the course are: Queuing Theory, Simulation, Markov Chains, Inventory Planning and Control

After completing the theoretical part of the course, the student is expected to be able to:

• use the basic concepts of Queuing Theory as well as M / M / 1, M / M / s, M / G / 1 systems, with a limited waiting area, with a finite population

• use the relevant typology to select alternatives to optimize the operation of the queue system

• know the basic concepts of simulation and how Monte Carlo simulation works

• be familiar with the basic concepts of the Markov process

• select the best alternatives that can be analyzed as a Markov process

• calculate the optimum order quantity, optimum production batch, optimum order quantity with quantitative discounts

Upon completion of the laboratory part of the course the student is expected to be able to:

• simulate real systems using the EXTEND program

• perform an economic analysis of the models

• perform statistical analysis of results, sensitivity analysis and consideration of alternative scenarios

• Interpret response and graph reports to select the best alternative

GENERAL ABILITIES
As classified in Diploma Supplement

- Search, analyze and synthesize data and information using the necessary technologies
- Independent Work & Teamwork
- Work in an interdisciplinary environment
- Decision making
- Exercising critical viewing and self-criticism
- Promote free, creative and inductive thinking

3, SYLLABUS

Queuing Theory (1-4)
- Introduction to queuing theory
- The basic queue model M / M / 1
- Advanced queuing Systems
- Economic analysis

Simulation (5-6)
- Simulation (Aims and Design of Simulation Applications)
- Random Numbers, Probabilistic Simulation or Monte Carlo Simulation

Markov Chains (7-10)
- Markov process analysis
- Matrix algebra application, equilibrium states
- Chains with absorbent states
- Markov process and the choice of the best alternative

Inventory Planning and Control (11-13)
- Cost and maintenance of inventories
- Economic order quantity, the basic EOQ model
- Stochastic Inventory Models

Laboratory part
- Analysis of simulation processes, flow charts
- Extend handling, discrete and continuous simulation with Extend examples
- Extend components
- Build a basic template in Extend, Settings, Time, Run simulation
- Model Economic Analysis, Statistical Analysis of Results - Number of Repeats,
- Sensitivity analysis, consideration of alternative scenarios, Response Reports and graphs
- Modelling and simulation of complex systems

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory	

	training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	20
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	40
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(Multiple Choice questions, Comparative Evaluation of Theory Comprehension, 100% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5, ATTACHED BIBLIOGRAPHY

-Suggested bibliography :

- Anderson D. Sweeney D. Williams T. Camm J. Cochran J. (2015). Quantitative Methods for Business, (13th Edition). Cengage Learning
- Hillier F. Lieberman G. (2015). Introduction to Operations Research (10th Edition). McGraw-Hill Education

Relevant Scientific Journals:

- European Journal of Operational Research

Marketing – Brand Management -MST_601_3

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_601_3	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Marketing – Brand Management								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course students will be able to:

• Understand the importance and the role of brand management in business development.
• Understand the interdependence between business strategy and brand strategy.
• Understand the connection of the brand with innovation as a lever for the company's dynamic growth.
• Link the value of the brand to the customer or to the cash flow.

• develop growth and management methods for the brand product as a means of diversifying the business and eliminating competition.
• choose a brand strategy based on low-cost competition and competitive advantage.

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
- Working independently
- Decision-making
- Adapting to new situations
- Production of free, creative and inductive thinking

3. SYLLABUS

- Introduction of brand value and analysis.
  - Strategic consequences of brand building.
  - Brand and business models. Brand Diversity.
  - Private Brand Management.
  - Creating the Identity of Brand and position strategy.
  - Introducing the brand in the market.
  - Developing the brand.
  - Long-term brand viability.
  - Brand and products. Brand identity.
  - Groth through brand extension.
  - Structure of Brand Portfolio.
  - Portfolio with many Brands.
  - Manage the change in Brand Name and Owner Change.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory	

training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	13
Seminars	
Exercises	
Project	
Study and analysis of bibliography	13
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	34
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(90% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

Mariotti John L., 2006. Έξυπνες Ιδέες - Μάρκα και επιλογή ονομασίας. Εκδόσεις Χ. Γκιούρδα & ΣΙΑ ΕΕ

Sales Organisation and Management (MST_601_5)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_601_5	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Sales Organisation and Management								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course students will be able to:

• Understand the role of sales within the marketing strategy.
• Understand the sales process.
• Understand the process of making a purchase decision
• Understand the importance of sales forecasting.
• Understand the sales organization and sales model.
• Analyze the concepts of planning - designing, implementing, implementing and evaluating sales control.
• Use appropriate methodologies and sales tools based on the theoretical background they have gain.
• Develop sales management abilities as a tool to increase business competitiveness.

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…
…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Working independently
- Decision-making
- Production of free, creative and inductive thinking

3. SYLLABUS

• The importance of planning the sales process
• Purchase decision process
• Forms - Types of Sales
• Sales forecast
•Define sales targets
• Design Sale area
• Determine the size of seller power
• Organize the Sale force
• Recruitment, selection, and hiring of sellers
• Sellers training
• Involve and pay sellers
• Motivation and seller evaluation
• Analysis of Cost sales and their results
• Sales evaluation of information systems

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	
	Essay writing	13
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	*13*
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*47*
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(90% of the final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- JOBBER D., LANCASTER G., 2005. ΟΡΓΑΝΩΣΗ ΚΑΙ ΔΙΟΙΚΗΣΗ ΠΩΛΗΣΕΩΝ. 6η Έκδοση. Εκδόσεις ΚΛΕΙΔΑΡΙΘΜΟΣ ΕΠΕ.
- Αυλωνίτης Γ., Σταθακόπουλος Β., 2008. Αποτελεσματική οργάνωση και διοίκηση πωλήσεων. 2η Έκδοση. Εκδόσεις ΣΤΑΜΟΥΛΗ ΑΕ.

Digital Marketing (MST_602_1)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_602_1	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Digital Marketing								

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	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes

The main objective of the course is to acquire the appropriate skills to design, create and implement digital marketing programs through appropriate software in the context of their use of e-commerce systems (B2B, B2C, 'Not-for-Profit' marketing and PR).

Individual goals are to recognize the differences between traditional and digital marketing and to understand the roles of consumers and competitors in the online internet market.

By successfully attending the course the students will be able to:

- Analyze digital marketing strategies based on online value propositions and market / product development.
- use digital media to create an online presence through B2B and B2C e-commerce software,
- create a strong digital presence and recognize the importance of properly planning, developing and maintaining a PR through digital media,
- create a consumer personality, define the purposes of marketing, and conduct a status analysis as part of the digital marketing planning,

- calculate the performance of digital marketing efforts using performance parity indices.
- Identify strategies for websites that deliver value, value, effective content and consumer confidence, recognize the value of interactive marketing communications, search engine marketing, and interactive public relations for a business.

Students will also gain practical experience in modern digital marketing tools and techniques such as Google Adwords, Google Analytics, Facebook plug-in and Twitter add-ins. They will also gain experience in e-store creation tools and learn to link them to digital marketing tools.

General Competences

- Search, analyze and synthesize data and information, using the necessary technologies
- Teamwork
- Using digital marketing software
- Use e-shop software

3, SYLLABUS

Basic types of digital marketing (Web marketing, Email marketing, Mobile Marketing, Video Marketing, Social Media Marketing, Content Marketing). Linking e-marketing and e-commerce systems. Electronic consumer, Virtual communities, Online marketing research, Special technology strategic e-marketing issues. Efficient use of digital tools on popular platforms (Google, Facebook, Twitter, Micro-blogs, Instagram, YouTube). Digital public relations campaign support tools.

Case studies related to search engine optimization, Web Analytics, data visualization. Linking digital marketing software with ecommerce software.

Creating an integrated enterprise-to-consumer e-shop platform with embedded digital marketing tools. Design and implementation of a targeted digital marketing campaign.

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	Specialized Digital Marketing Software. Specialized e-shop software. Support Learning Process via the e-class e-class platform

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	

	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	30
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***
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 work, essay/report	40%
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/term projects	

5, ATTACHED BIBLIOGRAPHY

- Vlachopoulou Maro, Dimitriadis Sergios, e-business and marketing. Innovative models in digital environment, Publisher: Rosili.
- G. Siomkos & I. Tsami, "Strategic E-Marketing", Stamoulis Publications.
- David King, Deborrah C. Turban, Efraim Turban, Jae Lee, Ting-Peng Liang. Principles - Developments - Strategy with Focus on Social Networks from the perspective of the Manager. M. Giourdas Publications.

eLearning and Didactics of Informatics (MST_602_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_602_2	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	eLearning and Didactics of Informatics									

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**
L: lectures Lab: laboratory exercises	3(L),2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialised general knowledge
PREREQUISITE COURSES:	*No prerequisites: Students are strongly recommended to have attended course MST_405: Information System Engineering prior to this.*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	Under construction

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*

Upon completion of this course, students will be able to:

- describe the concept of e-learning
- dscribe the concept of educational technology
- describe the concept of distance learning and other alternative forms of education
- describe the basic operations, the advantages and disadvantages of the most important learning management systems (LMS)
- list key learning theories and educational strategies
- use learning theories and educational strategies in designing and organizing an e-course
- recognize the different types of educational material / software
- understand the pedagogical principles applied in the design of educational software
- select and implement the appropriate lifecycle model of educational software
- apply ABCD and SMART techniques for writing learning outcomes
- separate the different categories and types of educational material / software
- choose appropriate tools for developing educational material / software
- create axes, criteria and metrics for evaluating educational software
- develop knowledge and skills nesessary in teaching of Information Technology and Information and Communication Technologies in Primary and Secondary level education
- acquire skills to design, develop and evaluate appropriate teaching interventions (learning scenarios) aimed at learning basic concepts of IT (programming, general purpose software, internet)

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
- Decision-making
- Working in an international environment
- Working in an interdisciplinary environment
- Project planning and management
- Production of free, creative and inductive thinking

3. SYLLABUS

The aim of this course is to provide students, knowledge in the modern trends in e-Learning as well as in computer science teaching. This lesson includes topics such as: The concept of e-learning and educational technology. Distance learning and alternative forms of education. Learning Management Systems (Moodle, Open-eClass, LAMS). Learning theories and educational strategies. Designing and organizing e-learning (methodologies and models, goals and educational objectives, learning outcomes, learning objects, learning activities, evaluation (axes, criteria, metrics)). Educational material / software (categories, types, life cycle model of educational software, applications and tools for development of educational material / software, evaluation). New trends in e-learning (serious games, gamification, MOOC).
At the same time this lesson deals with ways of teaching Informatics in primary and secondary education. Issues such as Theories on Knowledge and Learning, Teaching Approaches, Teaching Techniques, Modern Teaching Approaches, etc. are presented as well.
In the practical part of the course, learning management systems and tools for the implementation of an e-learning course are presented, while the students carry out exemplary teaching (project) of selected IT subjects for Primary and Secondary Education.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	13
	Essay writing	
	Seminars	
	Exercises	
	Project	30
	Study and analysis of bibliography	13
	Placements	
	Interactive teaching	
	Educational visits	
	Artistic creativity	

	Unsupervised study	*30*
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(100% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

Other: Extra 3 pointsare given to students that participate in the optional project

Other: An extra 1 point is given to students that attend and participate in the lectures

5. ATTACHED BIBLIOGRAPHY

(Books in Greek)

- Online Εξ Αποστάσεως Εκπαίδευση – Από τη Θεωρία στην Πράξη, (2015), Σοφός (Λοΐζος) Αλιβίζος, Κώστας Απόστολος, Παράσχου Βασίλειος, Εκδόσεις ΣΕΑΒ, Ελληνικά Ακαδημαϊκά Ηλεκτρονικά Συγγράμματα και Βοηθήματα (www. kallipos .gr).
- Θεωρίες Μάθησης, μια εκπαιδευτική θεώρηση, (2010), Schunk H. Dale, Κωδικός Βιβλίου στον Εύδοξο: 24332, ISBN: 978-960-455-769-1, Μεταίχμιο Εκδοτική Α.Ε..
- Ηλεκτρονική Μάθηση: Θεωρητικές προσεγγίσεις και εκπαιδευτικοί σχεδιασμοί (2017), ΤζιμογιάννηςΑθανάσιος. ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 68379927, ISBN: 978-960-586-196-4, Εκδόσεις Κριτική.
- Εισαγωγή στη Διδακτική της Πληροφορικής (2005), Κόμης Βασίλης. ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 13678, ISBN: 960-209-838-4. Εκδόσεις Κλειδάριθμος.
- Θεωρίες Μάθησης & Εκπαιδευτικό Λογισμικό, (2015), Σταύρος Ν. Δημητριάδης, Εκδόσεις ΣΕΑΒ, Ελληνικά Ακαδημαϊκά Ηλεκτρονικά Συγγράμματα και Βοηθήματα (www. kallipos .gr).
- Το εκπαιδευτικό λογισμικό και η αξιολόγησή του, (2003), Παναγιωτακόπουλος Χ., Πιερρακέας Χ., Πιντέλας Π., ΚΩΔΙΚΟΣ ΕΥΔΟΞΟΥ: 24301, ISBN 978-960-375-579-1, Εκδόσεις Μεταίχμιο.
- Σχεδιασμός Εκπαιδευτικού Λογισμικού, (2005), Παναγιωτακόπουλος Χ., Πιερρακέας Χ., Πιντέλας Π., ISBN 978-960-375-579-1, Εκδόσεις Ελληνικό Ανοικτό Πανεπιστήμιο.

Advanced Databases (MST_602_3)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_602_3	**SEMESTER**	1st	2nd	3rd	4th	5th	6h	7th	8th
								x		
COURSE TITLE	Advanced Databases									

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	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes

The main objective of the course is to introduce in-depth concepts as well as to design Cloud Data Warehousing applications.

The objectives of the course are to learn techniques related to (a) the processing of complex questions (issues of processing aggregate questions, ranking questions etc.) and (b) data management in non-traditional formats & environments emphasis on spatiotemporal data, time series, multidimensional data, or data privacy management)

By successfully attending the course the students will be able to:

- know the basic concepts of Data Stores and star shape,
- Organize data with the appropriate representation structures, both logically and physically, so that they can be retrieved easily and quickly,
- use ROLAP / MOLAP data query algorithms, depending on their form - set up queries for more efficient execution,
- Set up a relational database design for the purpose of data reliability and performance in answering questions,
- can implement an integrated project in which they will need to apply their acquired design and

algorithmic knowledge to manage complex datasets,
- can build Cloud Data Warehousing applications.

General Competences

- Search, analyze, and synthesize data and information, using the necessary ones
- Promoting free, creative and inductive thinking
- Search, analyze and synthesize data, techniques and information, using the necessary technologies
- Adapt to new situations
- Analysis of requirements for problem solving
- Development of algorithmic thinking
- Ability to deduct in problem modeling
- Autonomous work
- Teamwork

3, SYLLABUS

Introduction to multidimensional data. Reduce dimension to multimedia data. Top-K questions & horizons questions. Spatial databases. Historical data. Basic Data Warehouse Concepts. Basic principles of design. Data source identification, compression, distribution and sorting. ETL techniques. Designing efficient ROLAP and MOLAP queries. Edit aggregate queries. Time series & Forecast. Design and Operation of Non-computational Data Warehouses.

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Slides	
	E-class	x
	Virtual (simulated) laboratory training	Specialized Non-computerized Data Warehouse Software
TEACHING METHODS	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	30
	Study and analysis of bibliography	
	Placements	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	20
	Total number of hours for the Course (25 hours	***125 hours (total student work-load)***

	of work-load per ECTS credit)		
STUDENT PERFORMANCE EVALUATION	Written work, essay/report	40%	
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	60%	
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5, ATTACHED BIBLIOGRAPHY

- Nanopoulos, Alexander. Introduction to Data Mining and Warehouses / Alexandros Nanopoulos, Ioannis Manolopoulos. - 1st edition - Athens: New Technologies Publishing, 2010.

Business Software (MST_602_4)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_602_4	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Business Software								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/BMA575

2, LEARNING OUTCOMES

Learning outcomes

The Business Intelligence discipline uses the most up-to-date IT techniques by transforming them into business assets and aiming to assist decision makers in the decision support process. The purpose of this course is to present some of the most up-to-date such techniques for analyzing and exploiting business operating data in general.
At the end of this lesson the student will know the theoretical foundation of:

- On-Line Analytical Processing (OLAP), which enables the user to view the operating data of the company as a whole, regardless of where it is recorded, at different analytical levels than the most detailed as the most central, from different angles.
- Balanced Scorecard, which converts a company's strategy and goals into a specific set of interactive indicators, that is, measurable financials and non-financials.
- Business Process Modeling, which aims to represent business processes through strictly standardized representation techniques.
- Activity Based Costing, which is a method of costing products / services based on the calculation of the cost of the business processes performed to produce those products / services.

General Competences

- Search, analyze and synthesize data, techniques and information, using the necessary techniques
- Combined analysis of methods for problem solving

3, SYLLABUS

- "On-line" Data Analysis (OLAP) & Data Warehouse
    - Introductory Concepts On Line Analytical Processing (OLAP)
    - OLAP functions
    - Case study
- Balanced Scorecard
    - Import
    - Indicators-Groups
    - Implementation guidelines
    - Case study
- Business Process Modeling
    - Import
    - IDEF0 methodology
    - IDEF3 methodology
    - BPMN methodology
    - Case study
- Activity based Costing
    - Import
    - Basic Methodology
    - Link to other techniques
    - Case study

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

Slides	
E-class	x
Virtual (simulated) laboratory training	

TEACHING METHODS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	25
Study and analysis of bibliography	15
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	

	Unsupervised study	**20**	
	Others:		
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***	
STUDENT PERFORMANCE EVALUATION	Written work, essay/report		
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	100%	
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5, ATTACHED BIBLIOGRAPHY

- "Business Intelligence Issues - Theoretical Foundations and Applications", Voutsinas Vassilios, Kostaraki P. Evridiki Publications, 2003, Athens.
- "BASIC PRINCIPLES OF DATABASE SYSTEMS", VOLUME A ', CHAPTER 29, FIFTH EDITION REVISED, R. ELMASRI & S.B. NAVATHE (TRANSLATION by M. CHATZOPOULOS), BILL EDITIONS, 2007
- "The Balanced Scorecard: Translating Strategy into Action", R.S. Kaplan and D.P. Norton, HBS Press, Boston, 1996.
- “The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling”, R. Kimball, M. Ross, 2013.

Algorithmic Marketing (MST_602_5)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	**MST_602_5**	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Algorithmic Marketing								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	*Electronic Marketing, Business Intelligence and Big Data Analysis*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course the student will:

- Have understood the basic concepts and principles of algorithmic marketing

- be able to describe examples of applications of the particular technology from the modern e-business environment
- Understand the mathematical prediction models used in algorithmic marketing
- be able to describe and describe the business objectives and the main algorithmic techniques used to target and promote products and advertisements.
- Understand how campaign management techniques, targeting and LTV models work, and reports metrics of responsiveness and efficiency.
- Be able to describe and describe the business objectives and the main algorithmic techniques used in the calculation of recommendations and related quality metrics
- Understand how neighborhood-based, regression, latent factors, filtering techniques and associated hybrid techniques work.
- Be able to describe the business objectives and the main algorithmic techniques used in product search (matching and ranking, semantic analysis, learning-to-rank)
- Be able to describe business objectives and the main algorithmic techniques used in pricing (demand forecasting techniques, price optimization, differentiation and dynamic pricing).

At the end of the course the student will have developed the following skills:

- Developing arguments for the advantages and limitations of this technology
- Selection of appropriate performance and quality metrics according to the business objective of each algorithmic marketing technique
- Implementation of data science and machine learning algorithms in R for algorithmic marketing purposes through specific case studies with available datasets.

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
- Decision-making
- Working in an international environment
- Working in an interdisciplinary environment
- Production of free, creative and inductive thinking

3. SYLLABUS

Modern e-marketing is a technological field that is rapidly evolving with the contribution of techniques and algorithms from the field of machine learning and data science. The aim of the course is to familiarize students with the necessary theoretical background of modern automated techniques of electronic advertising on a business and especially a technological level. It covers major marketing applications, such as targeted offers and promotions, product search and bidding, recommendations and pricing, using engineering and data science techniques to understand customer behavior, personalize product offerings, improve service delivery incentives and customer retention. The course is structured in the following topics:

Basic concepts and principles of algorithmic marketing with representative case studies

- Mathematical prediction models used in algorithmic marketing
- Product and ad promotion techniques (business goals, campaign targeting and campaign management algorithms, placement and LTV models, response metrics, and efficiency).
- Computation of recommendations (proposed products), business objectives, recommendation quality metrics, content-based filtering techniques and neighborhood-based regression, latent factors, hybrid techniques.
- Algorithmic marketing applications in product search (matching and ranking techniques, semantic analysis, learning-to-rank) and pricing (demand forecasting techniques, price optimization, differentiation and dynamic pricing).

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	
	Essay writing	16
	Seminars	
	Exercises	13
	Project	30
	Study and analysis of bibliography	20
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	

	Artistic creativity	
	Unsupervised study	7
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(60 % of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects	x	(30% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Katsov, I. (2017). Introduction to Algorithmic Marketing: Artificial Intelligence for Marketing Operations. Ilia Katcov.
- Kosorin, D. (2016). Introduction to Programmatic Advertising. Dominik Kosorin.
- Kosorin, D. (2018). Data in Digital Advertising: Understand the Data Landscape and Design a Winning Strategy. Dominik Kosorin.
- Miller, T. W. (2015). Marketing data science: modeling techniques in predictive analytics with R and Python. FT Press.
- Unemyr, M., & Wass, M. (2018). Data-Driven Marketing with Artificial Intelligence: Harness the Power of Predictive Marketing and Machine Learning. Independently published.

Data Management (MST_602_6)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_602_6	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Data Management									

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes

The course introduces students to the basic concepts of the semantic and social fabric. It familiarises them with basic knowledge representation techniques and related methodologies. The aim of the course is to familiarize students with the standard technologies and languages of modeling / representation of data / metadata used on the web and web services. In particular, students are taught the basic technologies and then through the development of properly designed laboratory exercises they are expected to gain practical experience in XML, XSL, OWL and XMLSchema

Upon successful completion of the course the students:

- have understood the basic characteristics of the two regions, namely the semantic and social fabric,
- Be aware of the basic tools, algorithms and methodologies that enable them to be managed in the context of today's computing online systems,
- Be able to design ontologies for business problems,
- Have basic knowledge of RDF, RDF (S), XML and OWL standards,
- will be able to ask questions through inference mechanisms.

General Competences

- Search, analyze, and synthesize data and information, using the necessary ones
- Promoting free, creative and inductive thinking
- Search, analyze and synthesize data, techniques and information, using the necessary technologies

- Adapt to new situations
- Analysis of requirements for problem solving
- Development of algorithmic thinking
- Ability to deduct in problem modeling
- Autonomous work
- Teamwork

3, SYLLABUS

- Historical data.
- Information models and structures for efficient data management of the Web.
- Organization of information on the Web: semantics, ontologies and semantics languages (RDF, OWL).
- Open Interconnected Data.
- Introduction to sign language and semantic web
- Introduction to XML, Basic XML Document Structure
- Create valid XML documents / XML document modeling using DTD
- Displaying XML documents using CSS
- XML namespaces
- View XML documents using data binding
- View Document Documents Using Document Templates (DOM)
- Transform and display XML documents using XSLT / XSL
- Modeling XML documents with XML Schema
- XML applications
- The OWL language

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	Ontology design software

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	

	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	30
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	40%
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/term projects	

5, ATTACHED BIBLIOGRAPHY

- Antonios Grigoris, Harmelen Frank. Van. Introduction to the Semantic Web. Klidarithmos Publications.
- Steven Holzner, XML Guide, 1st Edition, Ed. M. Giourdas.
- Michael J. Young, XML Step-Step, Klidarithmos Publications.

Software Quality, Validation and Verification (MST_602_7)

COURSE OUTLINE

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_602_7	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Software Quality, Validation and Verification									

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	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes

Upon successful completion of the course, the student will be able to:

- Identify software verification and validation (R & D) activities and understand their place in the software life cycle.
- To distinguish static nonstandard R & D techniques from dynamic non-standard R & D Techniques
- Describe static R & D techniques (static analysis, browsing, overview, etc.) and know their goals, their application points and the advantages of each.
- Describe and explain the three control phases: unit testing, assembly test, validation test.
- Explain and implement the most important control case design techniques for software functional control (opaque box control), such as: equalization classes, limit value analysis, cause and effect graph.
- Explain and implement the most important control case design techniques for building software control (transparent box control), such as: controlling base paths, controlling repeat structures.
- Explain and implement effectively the most important control case design techniques to control the interfaces between the segments constituting a software system.
- Know what software quality is and how it is ensured.
- Recognize the differences in the software quality assurance process with respect to other products.
- Be aware of widespread software quality assurance models and effectively implement ISO9126.
- Know what internal and external software quality metrics are, what is the process of measuring them, and to what extent they are related to each other.
- Know and be able to effectively implement Halstead metrics and interpret the significance of the results.

General Competences
• Search, analyze, and synthesize data and information, using the necessary ones • Promoting free, creative and inductive thinking • Search, analyze and synthesize data, techniques and information, using the necessary technologies • Adapt to new situations • Analysis of requirements for problem solving • Development of algorithmic thinking • Use software quality standards • Autonomous work • Teamwork

3, SYLLABUS

Factors that affect software quality. ISO 9126 standard and ISO25000 family of standards. Quality assurance through software auditing and reliability. Quantification of software quality. General Software Testing, Software Validation and Validation Review in Software Life Cycle, Standard Verification Methods as opposed to control techniques, Importance of Systemic Control Methods, Program Analysis Techniques, Software Control Techniques, Control Data Generation. Ensuring data and information quality. Applications in business software.

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	
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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	30
	Study and analysis of bibliography	
	Placements	
	Interactive teaching	
	Educational visits	
	Unsupervised study	30
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	40%
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/term projects	

5, ATTACHED BIBLIOGRAPHY

- Xenos, Michalis. Software Quality / Michael Xenos. - Patras: Gotsis Publications
- Diomedes Spinellis. Code quality. The prospect of open source software. Klidarithmos Publications.
- Pressman Roger S. Software Technology: A Practical Approach. Tziola Publications.

Digital Content Management & Human-Computer Inetraction (MST_602_8)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS									
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_602_8	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								x		
COURSE TITLE	Digital Content Management & Human-Computer Inetraction									

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course the student will:

- have comprehended the basic concepts and the theoretical background of Human-Computer Interaction
- be able to list usability guidelines, describe modern interaction techniques and their basic principles of operation
- understand the requirements for user-friendly interaction design and positive user experience
- be able to describe intelligent interface development techniques that are tailored to user attributes (adaptive interfaces).
- Be able to apply analytical and experimental usability evaluation techniques and will be familiar with the basic statistical analysis methods used in experimental usability evaluation.
- Understand the capabilities of data analysis and be able to interprete them for improving the effectiveness of a web site (google analytics, a / b testing, SEO, etc.).

At the end of the course the student will have developed the following skills:

- The ability to design usable interfaces and prototypes
- Selection of appropriate techniques for evaluating interactive systems and deciding on effective redesigning
- Application of statistical analysis
- Identify web site features that affect search engine indexing
- Interpretation of analytics data to identify usability problems and improve the user experience.

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
- Decision-making
- Working in an international environment
- Working in an interdisciplinary environment
- Respect for difference and multiculturalism
- Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

The volume of available digital content, the variety of devices, applications, and interaction modes for its

management pose a series of challenges for efficient access to it through the appropriate design of interaction. The aim of the course is to familiarize students with the basic concepts and principles of the human-computer interaction domain and to provide them with the knowledge and skills necessary for the design of usable interfaces and the evaluation of existing applications with an emphasis on the field of modern e-commerce. The course studies where content customization techniques, usage analytics, techniques for search engine optimization (SEO), and product recommendation algorithms in the modern web entrepreneurship environment. The course is structured in the following subjects:

- Human-Computer Interaction concepts and interactive systems design.
- Cognitive models, perception and representation, attention and memory, representation and organization of knowledge. Mental Models, Interaction Models.
- Interaction styles and devices (tactile interfaces, gestures, eye-tracking)
- Methods and principles for designing usable interactive systems. Technology and usability patterns. Interactive systems prototyping tools and methods, Usability evaluation techniques. Special-purpose design guidelines.
- Methodology of usability evaluation experiments, statistical analysis of experiment data and presentation of results
- Search engine optimization techniques
- Website data analysis (Google Analytics)
- Recommender systems and improvement of e-commerce applications efficiency

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	25
	Study and analysis of	15

directed study according to the principles of the ECTS	bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	20
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(project, 15% of final grade)
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(85 % of the final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Jonathan Lazar, Jinjuan Heidi Feng, Harry Hochheiser (2017). "Research Methods in Human-Computer Interaction" 2nd Edition, Morgan Kaufmann.
- Helen Sharp, Jennifer Preece, et al. (2019). "Interaction Design: Beyond Human-Computer Interaction" 5 edition, Wiley.
- Κουτσαμπάσης, Π., 2015. Αξιολόγηση διαδραστικών συστημάτων με επίκεντρο τον χρήστη. [ηλεκτρ. βιβλ.] Αθήνα:Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών. Διαθέσιμο στο: http://hdl.handle.net/11419/2765
- Mike Grigsby (2018). "Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques" 2nd Edition, Kogan Page.

The bibliography will be updated and extended with current online sources regarding CMSs, SEO techniques and web analytics management platforms.

Managing Customers Relationships in e-CRM (MST_701_1)

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Economics & Business								
ACADEMIC UNIT	Department of Management Science & Technology								
LEVEL OF STUDIES	Undergraduate								
COURSE CODE	MST_701_1	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Managing Customers Relationships in e-CRM								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Introduction to Marketing
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course students will be able to:

• understand the concepts and the content of e-marketing and the importance of more effective monitoring of the customer of the company through e-CRM as a lever of the development company.

• understand the trends and the prospects of electronic markets by associating with important indicators of electronic activities.

• know their business models on the internet.

• analyze the factors of digital environment which affect the strategy of the company.

• identify the factors and the individual statistics relating to electronic marketing.

• analyze the behavior of electronic consumer and define the role of co-creator value.

• implement a Web survey.

• determine the factors and the methodology development of a new product and the development of commercial names in an online environment.

• analyze the value of communication in the digital environment.

• study pricing ways on the internet.

• develop effective electronic marketing strategies.

• analyze the relations of the company with the customer, emphasize on the consumer orientation, the satisfaction and maintaining satisfied clients.

• analyze the role of the strategy of e-CRM in the context of broader business strategy.

• identify the factors and the steps in the creation and a strong system of customer service.

• create the consumer profile of their customers by means of data extracting for them, as means of growing the business through new activities.

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
- Working independently
- Decision-making
- Adapting to new situations
- Production of free, creative and inductive thinking

3. SYLLABUS

- Digital environment and marketing.
- Consumer behavior in the digital age.
- Market research and information management.
- Strategic planning of digital business actions.
- Innovative business models and marketing.
- Value creation - products, services, content.
- Revenue and online pricing.
- Multi-channel distribution and sales.
- Communication – presentation in the digital environment.
- Sales of products and services on the internet.
- Measurement of e-business and marketing efficiency.

- Management of Customer Relationship - CRM.
- CRM and technologies. Management of Customer's lifecycle.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	13
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	13
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*34*
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
	Problem solving		
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with	X	(90% of the final

developing questions		grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Σιώμκος Γιώργος, Τσιάμης Ιωάννης, 2004. Στρατηγικό Ηλεκτρονικό Μάρκετινγκ. Εκδόσεις ΣΤΑΜΟΥΛΗΣ
- Αρσένης Σπύρος, 2011. Σχεδιασμός πετυχημένων ιστοσελίδων. Μάρκετινγκ και πωλήσεις προϊόντων και υπηρεσιών μέσω διαδικτύου. Εκδόσεις ΚΛΕΙΔΑΡΙΘΜΟΣ
- Dave Chaffey, 2008. Ηλεκτρονικό Επιχειρείν και Ηλεκτρονικό Εμπόριο. Εκδόσεις ΚΛΕΙΔΑΡΙΘΜΟΣ
- Κοσμάτος Δημήτρης, 2004. CRM: Διαχείριση πελατειακών σχέσεων. Εκδόσεις ΚΛΕΙΔΑΡΙΘΜΟΣ

Quantitative Methods for Business Decision Making (MST_701_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION										
TMHMA	MANAGEMENT SCIENCE & TECHNOLOGY										
STUDY LEVEL	UNDERGRADUATE										
COURSE CODE	MST_701_2	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Quantitative Methods For Business Decision Making										

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*	**HOURs/WEEK**	**ECTS**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITES:	Not required
TEACHING & LABS LANGUAGE:	Greek And/Or English (English Terms Always Delivered)
COURSE AVAILABLE TO ERASMUS	Yes
COURSE URL	https://eclass.pat.teiwest.gr/eclass/courses/766172/

2. LEARNING OUTCOMES

Learning outcomes

The aim is to make students understand the mathematical and technical concepts of management science by approaching practical problems in business and organizations. The course focuses on the intuitive deepening of the methods and their physical interpretation as well as on their rigorous mathematical foundation. The main reasons that make "Quantitative Methods for Business Decision Making" a particularly useful in business environment are:

• Has a huge range of applications. The scope of the course is impressive: it covers decisions in almost every business function, at all hierarchical levels, across all disciplines. For example, applications from production, marketing, sales, distribution, financial management, human resources management, organizational planning, etc. can be cited.

• Allows risk and uncertainty management. Today's business environment is characterized by uncertainty stemming from the frequent changes in the internationalized environment, the rapid evolution of technology and more. Thus, the course examines advanced methodologies by which the main business functions can be designed and implemented efficiently and effectively.

After completing the theoretical part of the course, the student is expected to be able to:

• Model and solve complex linear and integer programming problems

• Uses binary variables (0.1) to construct logical scenarios

• Analyzes multi-criteria decision-making problems
• Applies the appropriate solution methodology to a multi-criteria problem
• Determines the efficiency and the objectives of improving the production units
• Combines different methodologies to create decision support systems
• Upon completion of the laboratory part of the course the student is expected to be able to:
• uses Excel in Linear Programming, Integral Programming, Multicriteria Analysis, Objective Programming, DEA
• Uses the Expert Choice program to build a new model-synthesis, final ranking and sensitivity analysis, response reports and graphs, and accurate result analysis
• Model and solve complex problems related to marketing and sales, production planning, networks and transport, financial uncertainty and human resources planning.

GENERAL ABILITIES

As classified in Diploma Supplement

• Search, analyze and synthesize data and information using the necessary technologies
• Independent Work & Teamwork
• Work in an interdisciplinary environment
• Decision making
• Exercising critical viewing and self-criticism
• Promote free, creative and inductive thinking

3. SYLLABUS

• Integral programming
• Problems with 'logical variables'
• Problems with fixed costs and /or discounts
• Complex problems
• Multiple criteria decision making
• Multi-criteria linear programming
• The method of goal programming
• Multicriteria analysis
• Data envelopment analyses
• Analytic hierarchy process
• Introduction to Decision Support Systems
• Business analytics
• Applications

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography,*	***Activity***	***WorkLoad (h) per Semester***
	Lectures	39

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-directed study according to the principles of the ECTS

Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	*20*
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	40
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(Multiple Choice questions, Comparative Evaluation of Theory Comprehension,100% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

-Suggested bibliography :

- Anderson D. Sweeney D. Williams T. Camm J. Cochran J. (2015). Quantitative Methods for Business, (13th Edition). Cengage Learning
- Hillier F. Lieberman G. (2015). Introduction to Operations Research (10th Edition). McGraw-Hill Education

Elements of Commercial Law (MST_701_3)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS		
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	MST_701_3	**SEMESTER**	
COURSE TITLE	Elements of Commercial Law		
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		4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).			
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge		
PREREQUISITE COURSES:	Not required		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	Under construction		

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 course offers the necessary legal knowledge about the possible types of companies' organization (companies' legislation) and the possible types of act in the field of commercial transactions (general commercial law, commercial acts).

At the end of the course the student will be able to:

- Distinguish the origin of legislation (national law, international law, presidential decrees and regulatory acts) and their formal power and hierarchy.
- Implement the appropriate rules of commercial legislation for successful and legally correct management.

- Be aware of the operation of basic institutions and procedures that interfere in the commercial activity and restrict and define decision making.
- Apply the special framework of securities' legislation while undertaking a commercial activity or any other related activity.
- Be aware of the bankruptcy proceedings and their results for the persons involved as well as the modern types of companies' reorganization.
- Evaluate crises and conflicts in companies' place and implement methods of prevention and solution with respect to the commercial legislation.
- Understand the problems in the field of competition and the legal means of protection against unfair competition acts.
- Realize the legal position of traders, businessmen, partners, shareholders and other persons involved in trade as far as their rights and obligations are concerned. Evaluate the facts and apply legal procedures for implementing the managerial and disciplinary power.
- Based on the knowledge above, evaluate the facts and legal data, compound the different opinions and manage any legal or practical problem from any responsible position inside the company.

At the end of the course the student will have developed the following skills:

- Familiarization with the commercial relations, their organisation, characteristics and operation as well as development of the ability to manage these relations.
- Making decisions that are business appropriate as wellas legally correct according to te needs and goals of the company.
- Taking advantage of the modern types of trade in a way that is useful for the company as well as the persons involved in the trade.

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…*
	…….

- Decision-making
- Working in an interdisciplinary environment
- Working independetly
- Team work
- Production of free, creative and inductive thinking

3. SYLLABUS

- The course includes the following topics:
- Commercial Transactions - Consequences of acts' commerciality - Systems of identification of commercial

acts - New forms of contracts in modern economy

- Trader - Incompatibilities - Limitations - Prohibitions - Commercial books
- Commercial Name - Trademark Law
- Companies - Types of companies
- Securities - Currency - Check
- Bankruptcy Law - Bankruptcy Conditions - Bankruptcy Insolvency Proceedings - Termination - Rehabilitation of the Poor

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	ICT is used for communicating with students and for sharing educational material, mainly through the eclass platform (announcements, lecture slides and additional educational resources, posting and receiving projects and assignments, students groups, for a, email, exercises, glossary, multimedia resources), as well as via typical email.
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-directed study according to the principles of the ECTS*	

Activity	***Semester workload***
Lectures	52
Essay writing	20
Study and analysis of bibliography	33
Unsupervised study	20
Course total	***125***

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 examination (90% of the final grade) • Essay (written report with oral examination, 10% of final grade)

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

Argiros, G., Commercial Law, Publication 2019.

Avgitidis, D., The New Law of Corporate Transformations, Publication 2019

Perrakis,E., SA new legislation, Publication 2019.

Panagiotou, p., Commercial Law, Publication 2019.

Spiliopoulos, O., Basic concepts of commercial law, DIONIKOS Publications, 2016

Rokas, I., Commercial Law, Legal Library, 5th Edition, 2015.

Psychomanis, Sp., Law of Commercial Companies, Sakkoula Publications, 2013.

Topics in Operations Research and Decision Systems (MST_701_4)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS									
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_701_4	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Topics in Operations Research and Decision Systems									

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (in English)
COURSE WEBSITE (URL)	Under construction

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 course focuses on the application of modern computational techniques to decision-making issues/in search of the optimal solution.
Upon completion of the course students will be able to understand basic techniques of computational intelligence

and solve real problems related to decision-making in organizations by using appropriate algorithms

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
- Working independently
- Decision-making

3. SYLLABUS

- Genetic Algorithms
- Evolutionary computation
- Scatter search
- Memetic Algorithms
- Ant colony optimization
- Applications to Financial Classification Problems

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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*	***Activity***	***Semester workload***
	Lectures	52
	Tutorials	
	Laboratory practice	
	Essay writing	13

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-directed study according to the principles of the ECTS

Seminars	
Exercises	
Project	
Study and analysis of bibliography	13
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*47*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(90% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Μαρινάκης Ι., Μαρινάκη Μ., Ματσατσίνης Ν., Ζοπουνίδης, Μεθευρετικοί και Εξελικτικοί Αλγόριθμοι σε Προβλήματα Διοικητικής Επίστημης, Εκδόσεις Κλειδάριθμος, 2011.
- Wil Michiels, Jan Korst, Emile Aarts, Theoretical Aspects of Local Search, HEAL-Link Springer ebooks, 2007
- Thomas Stutzle, Mauro Birattari, Holger H. Hoos, Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics, HEAL-Link Springer ebooks, 2009

Forecasting Techniques (MST_701_5)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_701_5	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Forecasting Techniques								

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**
L: lectures, Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (in English)
COURSE WEBSITE (URL)	Under construction

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 aim of this course is to obtain the appropriate knowledge on how to design and implementation of surveys and to familiarize students with forecasting methods and, more specifically, the method Box-Jenkins. This methodology is of particular interest for economic science, one hand on the predictive accuracy and low cost, secondly, for purely theoretical reasons. This methodology outperforms other statistical methods because they are free from unrealistic assumptions such as those that characterize the econometric models. The teaching of this methodology requires advanced knowledge of Statistics and some knowledge of econometrics in order to make the necessary conceptual connections.
After the end of the course the students will be able to:

- handle real data.
- apply different time series model and use them for forecasting.
- apply Box-Jenkins methodology
- solve various business problems.
- Be familiar with a statistical way of thinking that will enable them to understand more specialized concepts

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, analysis and synthesis of data and information, with the use of the appropriate technology
- Working independently
- Production of new research ideas
- Production of free, creative and inductive thinking

3. SYLLABUS

- Concepts: Definition-Components of time series. Examples of Time Series.
- Methods for Time Series Analysis. Statistics Forecasting.
- Descriptive Approach Time Series. Technical Time Series. Smoothing Methods.
- Methods of Time Series Analysis. Moving Average Methods. Indicators seasonality.
- Mathematical Approach Time Series. Stationarity, autocovariance. Exercises
- Autocorrelation, Partial Autocorrelation, White Noise.

- Models & Stationary time series. Autoregressive Models
- Moving Average Models
- Mixed Models. Applications
- Non-Stationary Time Series Models. Seasonal Time Series Models.
- Identification, Estimation of Models.
- Diagnostics Time Series Models

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	SPSS

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	*13*
Placements	
Interactive teaching	
Educational visits	
Unsupervised study	*47*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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,

Written work, essay/report		
Problem solving		
Multiple choice questionnaires		

other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Final exam with Multiple choice questionnaires			
	Oral examination			
	Mid-term exam (concluding)			
	Final exam with developing questions	X	(90% of the final grade)	
	Public presentation			
	Mid-term exam (formative)	x	(10% of final grade)	
	Laboratory work/term projects			

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Σίμος Θ., 2009. Τεχνικές οικονομετρίας και ανάλυσης χρονολογικών σειρών. Εκδόσεις Σ. ΠΑΤΑΚΗΣ
- ΒΕΝΕΤΗΣ Ι., 2013. ΕΙΣΑΓΩΓΗ ΣΤΗΝ ΟΙΚΟΝΟΜΕΤΡΙΑ. Εκδόσεις ΓΚΟΤΣΗΣ ΚΩΝ/ΝΟΣ & ΣΙΑ Ε.Ε.
- Χρήστου Γ., 2007. Εισαγωγή στην οικονομετρία. Εκδόσεις Γ. ΔΑΡΔΑΝΟΣ - Κ. ΔΑΡΔΑΝΟΣ Ο.Ε.

Managerial Economics (MST_701_6)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_701_6	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7h	8th
									x	
COURSE TITLE	Managerial Economics								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	*Introduction to Business Administration, Microeconomic Analysis, Quantitative Methods in Economics and Management (I) and (II), Quality Management, Operational Research*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes in English
COURSE WEBSITE (URL)	https://eclass.pat.teiwest.gr/eclass/courses/766187/

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 educational objective of the course is to enable students to apply and combine economic theory and methodology into decision-making practice as well as to use the techniques of economic analysis, administrative science and decision science to solve problems encountered by economic units and, in particular, businesses.

Upon successful completion of the course the student will be able to:

- Understand how to use decision-making tools in analyzing the impact of various alternative activities
- Use optimization techniques to make business decisions

- Interpret the consumer behavior, estimate demand functions and demand forecasts
- Understand the behavior of the producer by utilizing the production functions
- Explore alternative ways to improve the productivity and efficiency of a production unit
- Know cost theory, evaluate cost functions, and use break-even analysis
- Understand how price is determined in the various forms of the market
- Know and apply the basic principles of risk analysis in business decisions
- Know and apply the basic decision-making principles with uncertainty regarding investments planning

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
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an interdisciplinary environment
- Project planning and management

3. SYLLABUS

The course is structured in the following thematic units:

- Methodological approach to the phenomena of the particular sector of economics, the basic pursuit of the consumer and, its interpretation by the enterprise.
- Understanding the core of the production process by determining the ways and the methods wealth is produced and how to maximize the business results. Additional factors taken into account beyond the traditional microeconomic model.
- Production of new wealth, cost and maximization of profit: production process approach, determination and analysis of cost factors, profit of the enterprise and its deeper content.
- Markets' structure and the competitive environment, methods and techniques that companies use to overcome barriers, forecasts for their investment strategy, the institutional and regulatory framework within which they operate.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	52
Tutorials	
Laboratory practice	
Essay writing	23
Seminars	
Exercises	
Project	
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*50*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(40% of the final grade)
Final exam with problem solving	X	(60% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. RECOMMENDED BIBLIOGRAPHY

- Baye M. & Prince J., 2016. Managerial Economics & Business Strategy, 9th Edition. Mcgraw-hill Series Economics
- Salvatore D, 2014. Managerial Economics in a Global Economy, 8th Edition. Oxford University Press
- Mankiw G., Taylor M., Ashwin A., 2016. Business Economics, 2nd Edition. Cengage Learning; UK

Mobile and Pervasive Electronic Commerce (MST_702_1)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_702_1	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Mobile and Pervasive Electronic Commerce								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes
The main objective of the course is to acquire the appropriate skills for the design, creation and implementation of mobile and diffused e-Commerce applications. By successfully attending the course the students will be able to: • are aware of the basic principles of mobile e-commerce, • know the infrastructure needed to develop and operate mobile e-commerce applications, • use specialized software to develop mobile apps on Android and iOS, • Designing secure and reliable e-commerce applications for mobile devices, • understand the lifetime of a mobile app, • builds efficient, user-friendly user interfaces - e-shop, • adds popular network features, social features, and location features to mobile ecommerce applications, • internationalize, test and publish a mobile e-commerce application,

- Understands the basic principles of diffuse e-commerce.

General Competences

- Search, analyze and synthesize data and information, using the necessary technologies
- Teamwork
- Use ecommerce application app creation software

3, SYLLABUS

Basic principles of mobile e-commerce. Design principles for mobile applications. Process flow in mobile applications. Basic principles of Android and iOS operating systems. The ecosystem of mobile e-commerce: consumers, providers, networks. Components of Mobile Ecommerce: Mobile Commerce websites, Mobile Wallets, Mobile Payments, Mobile Coupons and Mobile Vouchers. Applications of mobile e-commerce in the retail, transport and banking sectors. Apps that depend on the user's location. User-Device Interface.
Basic principles of Internet of Things. Diffuse calculation. Smart cities. Basic concepts of diffuse e-commerce. Virtual / Enhanced Reality and E-Commerce.
Create an integrated mobile e-commerce application on an Android or iOS platform.

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	30
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	40%
Problem solving	
Multiple choice questionnaires	
Final exam with Multiple choice questionnaires	
Oral examination	
Mid-term exam (concluding)	
Final exam with developing questions	60%
Public presentation	
Mid-term exam (formative)	
Laboratory work/term projects	

5, ATTACHED BIBLIOGRAPHY

- Gary P. Schneider, Electronic Commerce, M. Giourdas Publishing.
- Gavalas Damianos. Mobile Technologies: Mobile Web - Mobile Apps on the Android Platform - Spatial Reality - Athens: New Technologies Publishing.

Enterprise Resource Planning Systems (MST_702_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_702_2	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Enterprise Resource Planning Systems									

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**
L: lectures Lab: laboratory exercises	3(L),2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific area, skills development
PREREQUISITE COURSES:	*Information Systems Technology, Databases*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

At the end of the course the student will:

- know the technologies on which ERP systems are based on,
- identify and record the business processes,
- implement the business processes reengineering in a business or organization,
- plan to implement an ERP project in a business or organization,
- choose the appropriate ERP system tailored to the needs of the business or organization,
- know precisely all functional sectors of an ERP system,
- know the process of planning the operational resources;
- adapt the production process to the dependent demand for final products,
- Customize the general business processes of an ERP system.

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
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Project planning and management
- Production of free, creative and inductive thinking

3. SYLLABUS

The sovereignty of business resource management systems in the marketplace, aiming to exploit business information for the efficient operation of businesses, makes it necessary for students to be trained in them. The course aims at understanding the concepts on which this technology is based, while at the same time to familiarizethe student with a business environment simulation.
Specifically, the course "Enterprise Resource Management Systems" includes: description of Integration Information Systems for the management of business resources / information within a unified system of relations between enterprises, employees, customers, suppliers and partners, e-business, Resources (application areas, development methodologies, evaluation, case studies), Integration of Enterprise Applications (architectures, types, evaluation), Customer Relationship Systems (architectures, types, evaluation), Supply Chain Management Systems (architectures, types, evaluation, RFID, Logistics), Learning specialized software for these systems and practical use of the implementation scenarios.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	36
Placements	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*20*
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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

Written work, essay/report	x	(written report with oral examination, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice		

given, and if and where they are accessible to students.	questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(60% of the final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects	x	(30% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- G. Ioannou, "Integrated Enterprise Resourse Planning Apllication to Microsoft Business Solutions Navision",Ath. Stamoulis editions, ISBN: 960 351 634 1, 2006.
- G. A. Pollalis, A. P. Vozikis, «InformationandEnterpriseResource Planning Systems: Strategies & Applications», Utopia editions, 2009.
- ChainasKostas, «BasicIssuesofEnterpriseResource Planning Systems (E.R.P.)», Giourdas ed., ISBN: 9603874590, 2006.
- Joseph Brady, Ellen Monk, Bret Wagner, (2001), Concepts in Enterprise Resource Planning, Course Technology ISBN: 0619015934.
- Thomas F. Wallace, Michael H. Kremzar, ERP: Making It Happen: The Implementers' Guide to Success with Enterprise Resource PlanningWiley; (July 27, 2001) ISBN: 0471392014.
- DimitrisFolinas, VassilikiManthou, MaroVlachopoulou, Integrated Information Management & ERP Systems, Annikoula Ed., Thessaloniki 2007.

Development of Web and Cloud Based Applications (MST_702_3)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_702_3	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Development of Web and Cloud Based Applications									

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**
L: lectures Lab: laboratory exercises	3(L),2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	*Information Systems Technology, Databases, Software Engineering in Practice, Object Oriented Programming, Algorithms and Data Structures, Structured Programming*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

Upon completion of the course, students will have to acquire theoretical and practical knowledge, understanding and application and analysis capabilities regarding:

- Architectures for the development of client-server and key infrastructure components for web servers.
- Fundamental concepts for the development of web-based systems (state, session, application, request, response).
- Server Side programming using 3rd Generation Languages (PHP).
- CMS systems (eg WordPress, Joomla, Drupal).
- Web application development using CMS systems. Management and Optimization of Applications.
- Frameworks for developing Ajax-based web systems (eg jQuery, Mootools). Rich Internet Applications.
- Development of Internet web systems using .NET (use C #, VB).
- Development of web-based systems using Python and JavaScript.
- .NET Framework Class Library related to the development of web applications & systems.
- Metadata and their management in the development of web-based systems.
- Scalability & Efficiency.
- Web Services technology.

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
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Project planning and management
- Production of free, creative and inductive thinking

3. SYLLABUS

Objective of the course is to understand and learn all the necessary technologies, programming languages and methods for the development of web-based systems and applications with emphasis on web applications and cloud

computing technologies.
The main goal is to design and deploy systems &dynamic applications of the web, where a significant part of them is running server-side.
Students will acquire the necessary knowledge to develop advanced Web applications through either content management systems (eg Joomla) or the direct use of programming languages such as PHP, ASP .NET.
The goal is also to understand the methods for developing Web 2.0+ systems and applications as well as advanced architectures for the development of Internet based systems and applications (APIs).
Finally, a series of development technologies (Django, Node.js, React, Angular) in different languages (Python, JavaScript) and production technologies (continuous integration, cloud computing technologies, production integration technologies) will be mentioned.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	36
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*20*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 work, essay/report	x	(written report with oral examination, 10% of final grade)
	Multiple choice questionnaires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Mid-term exam (concluding)		
	Final exam with developing questions	X	(40% of the final grade)
	Final exam with problem solving	X	(60% of the final grade)
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Fundamentals of Web Development, Randy Connolly & Ricardo Hoar (translation Milios Agamnenon) 1st ed. ISBN: 978-960-512-6902
- Internet & World Wide Web How to Program, 4th Edition, Harvey M. DeitelPaul J. Deitel (translation Samaras Ioannis) ISBN: 978-960-512-612-4
- SAMS TEACH YOURSELF PHP, MYSQL AND APACHE ALL IN ONE, MELONI C. JULIE (translation Metaxas Michael), 5ήΈκδοση, ISBN: 978-960-512-6551
- TEACH YOURSELF AJAX, JAVASCRIPT AND PHP - ALL IN ONE, BALLARD PHIL & MONCUR MICHAEL, ISBN: 978-960-512-562-2

Virtual Enterprises and New Technologies (MST_702_4)

COURSE OUTLINE

1, GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_702_4	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Virtual Enterprises and New Technologies									

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	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes

The course aims to introduce students to the basic concepts of e-commerce through e-business support systems, both from a technological perspective and from business management. In this context, the structure of the course covers the following subjects:

- E-commerce and E-Commerce
- Basic e-business concepts.
- Online retailing.
- B2B e-business.
- Value-added e-commerce services (eg eGov, eHealth)
- Electronic transactions infrastructure (eg Payments, security, privacy protection, etc.).
- New trends in e-commerce and e-commerce (wireless and mobile applications, diffused CPs).
- Business dimension of e-business.

Upon completion of the theoretical and laboratory lectures, students will be able to:

- To acquire the necessary conceptual and theoretical background of e-business, e-commerce and e-commerce,
- Get the skills to help implement e-commerce solutions, and deal effectively with the various practical issues.
- Understand the technological issues related to the development of e-business applications.
- Understand the critical factors and benefits associated with the effective management of UN initiatives. and evaluate an e-business strategy or business model.
- Be informed about recent developments and trends around e-business.
- Be able to evaluate the business extensions of e-business applications management.

General Competences

- Search, analyze and synthesize data and information, using the necessary technologies
- Teamwork

3, SYLLABUS

Introduction to Digital Economy and e-Business.

- Basic Definitions.
- Electronic Commerce vs. EBusiness.
- Models and Applications of B2B (B2B) e-Business.
- B2C-based e-business models and applications.
- Develop an online store.
- Digital marketing.
- Other Value Applications in Digital Economy (Enterprise Portals, eGovernment, Customer Relationship Management - CRM).
- Electronic Payment Systems (e-Payment).
- Technologies and Network Infrastructures (Intranets / Extranets, VPNs).
- Security and Protection in e-Business.
- Legislative Framework and Ethics in e-Business.
- Strategic Management of e-Business.
- • New forms of e-business (Mobile and Wireless Business).

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	

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.

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	

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	Exercises	
	Project	30
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	30
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***
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.*	Homework	
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/workshop	x

5, ATTACHED BIBLIOGRAPHY

- "E-Commerce", G.P. Schneider, A. Giouda Publications, ISBN 9789605126759, 2015
- "E-Commerce", Turban E., King D., Lee J., Liang, T.P., Turban, D., Publishing A. Giourda, 2010

Data Mining and Machine Learning (MST_702_5)

COURSE OUTLINE

1, GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_702_5	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Data Mining and Machine Learning									

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes
Upon completion of this course, students will be able to: • Understand the basic principles of data mining • modeling data mining problems in an appropriate mathematical way. • Compare the efficiency and suitability of different algorithmic techniques to solve a problem. • have understood the problems of mechanical learning. • have understood the concepts of learning and generalization • evaluate the performance of a learning system. • solve learning problems with supervision and unattended. • use knowledge mining algorithms through Weka's specialized software.

General Competences
• Search, analyze and synthesize data and information, using the necessary technologies • Teamwork

3. SYLLABUS

Introduction to data mining, data preparation, data bases, languages and systems of data mining. Description of concepts, characterization and comparison. Extracting correlation rules from large databases. Categorization and prediction. Grouping. Complex data extraction, e.g. text, images, internet. Extracting large sets of data using parallel and distributed environments. How to learn a learning program, learning, learning, classification, interpolation, clustering, correlation rules, combination of multiple models, model / learning evaluation, deep learning and neural networks, mining as an application of engineering learning algorithms, mining work overview, qualitative control in knowledge mining, mining. The Weka software.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	
TEACHING METHODS	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	30
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	30
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION	Homework	x
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/workshop	x

5. ATTACHED BIBLIOGRAPHY

- Margaret Dunham, Data Mining: Introductory and Advanced Knowledge Mining Themes, 2004.
- M. Halkidis, M. Vazirgiannis, Knowledge Mining from Databases and the World Wide Web, 2005.

Information Systems Auditing (MST_702_6)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	GRADUATE								
COURSE CODE	MST_702_6	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Information Systems Auditing								

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	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, students will be able to: • have a good knowledge of the operation of the Information System control, • Perform audits in Information Systems, • use quality standards to certify information security in IP, • use techniques to organize and optimize Processes / Systems of Information Technology, • Evaluate risks related to governance and Management of Information Systems.
General Competences
• Search, analyze and synthesize data and information, using the necessary technologies • Teamwork

3, SYLLABUS

Business processes and standards. Quality systems. Certification of business quality assurance. Comparative assessment. Modern Quality Audit, Quality Standards, ISO 9001/2008 and HACCP, Quality Management System, Responsibilities of Management, Resource Management, Product Implementation, Measurement, Analysis and Improvement, Gap Completion Activity, Matching Activity, quality standards. Greek quality standards - ELOT. Different types of PI control. The importance, objectives and benefits of PS control. Sectoral Frameworks (Industry Frameworks) for operational risk management and their relation to CP control. The operation of CP control in an organization. CP control design (plan and scope, legal and regulatory issues). Required skills (hard and soft IT Audit skills). Technical Issues and Control Mechanisms. Objectives and means of control. Methodologies and control frameworks.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	30
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION	Homework	x
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/workshop	x

5. ATTACHED BIBLIOGRAPHY

Katsikas, S., Gritzalis, D., & Gratzalis, S. (2004). Security of Information Systems. Athens: New Technologies Publishing.

Electronic Marketing, Electronic Business Planning and Security Systems (MST_702_7)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
DEPARTMENT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF COURSE	UNDERGRADUATE								
COURSE CODE	MST_702_7	**SEMESTER OF STUDIES**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Electronic Marketing, Electronic Business Planning and Security Systems								

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*	**TEACHING HOURS PER WEEK**	**ECTS CREDITS**
Lectures	3	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Field of Science
PREREQUISITE COURSES:	Not required
TEACHING AND ASSESSMENT LANGUAGE:	Greek
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No
COURSE WEBPAGE (URL)	https://eclass.upatras.gr/courses/BMA505/

2. LEARNING OUTCOMES

Leraning 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 course involves two major sections.

In the first section we examine the electronic marketing strategy, the e-buyer characteristics, the optimization and the evaluation of e-marketing performance. Specifically, we integrate the business marketing strategies with the e-

business applications' potentials. In this scope, we focus on such marketing concepts and tools, as database marketing, customer segmentation and targeting, the customized product bundle, the on-line direct marketing, the e-payment systems, the customer retention and recalling through the WWW, the mobile phone and other Internet platforms and tools. The objectives are the optimization of business visibility, buyers' accessibility and e-business strategy performance.

The second section discusses principles and basic techniques of information systems and electronic transactions security.
By the end of this course the student should be able to understand:

- The electronic marketing concepts, such as interactivity, personalization-customization and information density.
- The e-business evaluation models, such as value proposition, revenue model, market opportunity.
- The e-business strategy models, such as business-to-consumer, business-to-business, customer-to-customer, customer-to-business, auctions, reverse auctions, Customer Relationship Management (CRM) Systems, Search Engine Optimization (SEO), etc.
- The optimization of the Web page design, focusing at differentiated marketing communication targets.
- The e-payment systems.
- The optimization of e-business performance.
- The evaluation tools of e-business strategies.
- Understanding of security issues of information systems and electronic transactions.

General Abilities

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…*
	…….

At the end of the course the student will be able to:

- Develop a marketing plan in various electronic contexts
- Develop and manage a business webpage and presence
- Develop and manage various social network and on-line communities
- Use various e-business performance optimization and evaluation tools and models
- Understanding of security issues of information systems and electronic transactions.

3. COURSE CONTENT

- E-commerce, basic concepts and tools
- Major e-business models
- Internet and WWW characteristics and potentials
- Organizing the E-business presence
- Management of social networks and electronic communities
- Criteria and tools of the e-business performance optimization
- Evaluation of e-business strategy
- Introduction to cryptography and protection of personal data.
- Basic principles of information and communication systems security.

4. TEACHING AND LEARNING METHODS - ASSESSMENT

TEACHING METHOD
Face-to-face, Distance learning, etc

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

TEACHING ORGANIZATION
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-directed study according to the principles of the ECTS

Δραστηριότητα	***Φόρτος Εργασίας Εξαμήνου***
Lectures	39
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	
Project	26
Study and analysis of bibliography	
Placements	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*60*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

STUDENT ASSESSEMENT
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.

Workshops		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(60% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects	x	(40% of the final grade)

5. RECOMMENDED LITERATURE

- eMarketing in the Internet, G. Siomkos and I. Tsiamis, 1st edition, 2015, LIVANIS Publications (in Greek).
- eCommerce and Marketing, Vlachopoulou M and Dimitriadis S., 1st edition, 2013, ROSILI Publications.
- Digital enterprises and eCommerce: Strategy, Implementation and Application, Dave Chaffey, 1st edition, 2016. KLEIDARITHOS Publications (in Greek, also in English).
- General Marketing Principles and eCommerce, C. Skiadas and M. Markaki, 1st edition, 2001, Papasotiriou Publications (in Greek).
- Notes of lecturers and slides in Greek.

Business Networks (MST_702_8)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_702_8	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
									x	
COURSE TITLE	Business Networks									

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**
L: lectures Lab: laboratory exercises	3(L),2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific area, skills development
PREREQUISITE COURSES:	*Introduction to Computer Science, Information Systems Technology*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

Upon completion of the course, students will have to acquire theoretical and practical knowledge, understanding and application and analysis

capabilities regarding:

- *the basic principles of network design, communication protocols and architectures of computer networks, as well as modern trends*
- *Analysis and design of computer networks*
- *principles of structured cabling*
- *the usefulness of the OSI / ISO standard to monitor the operation of the various protocols*
- *Network technologies such as Ethernet networks*
- *maintenance and management of computer networks*
- *basic practices in computer network technology, mainly from the point of view of the user of networked information systems within a business*
- *Explaining the concepts of IP Address, Subnet Mask, MAC Address, and Port*
- *Classification of networks based on connection type, geographic scale and operation model*
- *Network IP, Broadcast IP, IP range,*
- *Assessing whether a business network is suited to the needs of an enterprise in terms of the number of computing devices and / or subnetworks*
- *developing a network taking into account the needs of the company in a number of subnetworks and / or a number of computing devices per subnet*

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
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Project planning and management
- Production of free, creative and inductive thinking

3. SYLLABUS

Computer networks are one of the most important areas of research in Computer Science and Technology. They are (through the Internet) one of the most important levers of the modern world economy, with a very large penetration of the population of the developed countries.
The rapid development of technology in modern times is mainly due to the development of computer networks and the convergence of Information and Communication Technologies and has the effect of making changes in important areas of life, education, work, society in general. Although technological progress is extremely fast in relation to computer networks (satellite communications, wireless networks, the Internet), the basic principles of the networks remain topical and training is needed for every executive of a modern enterprise involved in processes network design, deployment and management, as well as network application development.
The main purpose of the course is to learn the basic principles of network design, communication protocols and computer network architectures, as well as modern trends.
In this context, acquiring basic knowledge about computer communication networks is an important resource for graduates of the department.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	36
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*20*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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.

Workshops	x	(written report, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(60% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects	x	(30% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- DouglasE. Comer, «Networksand ComputerNetworks and Internet apllications», 4th ed., Kleidarithmos pubs, 2007
- WalrandJean, MiltiadisAnagnostou, «Communivcation Networks», 1stedition, Papasotiriou pubs., 1997
- AndrewS. Tanenbaum, DavidJ. Wetherall, «Computer Networks», 5th edition, Kleidarithmos, 2011

Research Methodology (MST_801_1)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
TMHMA	MANAGEMENT SCIENCE & TECHNOLOGY								
STUDY LEVEL	UNDERGRADUATE								
COURSE CODE	MST_801_1	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Research Methodology								

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*	**HOURs/WEEK**	**ECTS**
L: lectures Lab: laboratory exercises	4(L), 1(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITES:	Not required
TEACHING & LABS LANGUAGE:	Greek And/Or English (English Terms Always Delivered)
COURSE AVAILABLE TO ERASMUS	Yes In English
COURSE URL	https://eclass.pat.teiwest.gr/eclass/courses/766171/

2. LEARNING OUTCOMES

Learning outcomes
The course content aims to equip students with the knowledge necessary to complete a research project from conception of the research subject to the final report. Upon successful completion of the course the student should: • Understands the purpose and objectives of educational research. • It raises clear research questions and hypotheses. • Recognize and select the main research strategies to achieve a coherent research design. • Recognize the different types of data and understand the impact of the data type on the choice of analytical methods. • Understands the methodology and method of data collection. • Produce and use questionnaires. • Ensures validity and reliability. • Understands ethical issues at every stage of the research and knows the approaches that will help him / her to address them. • Writes and presents a research proposal.

GENERAL ABILITIES *As classified in Diploma Supplement*
• Search, analyze and synthesize data and information using the necessary technologies • Independent Work & Teamwork • Work in an interdisciplinary environment • Decision making • Exercising critical viewing and self-criticism • Promote free, creative and inductive thinking

3. SYLLABUS

- Introduction to educational research
- Recognition of the research problem
- Review of bibliography
- Data and variables
- Complex measures in quantitative research: Indicators, scales and dimensions
- Sampling
- Data collection - construction of questionnaires
- Use of secondary data
- Collection of primary data by observation
- Analysis of qualitative data
- Quantitative data analysis
- Summary
- 13. Presentations of term projects

4. Teaching and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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-directed study according to the principles of the ECTS*	***Activity***	***WorkLoad (h) per Semester***
	Lectures	53
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	
	Study and analysis of bibliography	20
	Placements	
	Clinical practice	

Art workshop		
Interactive teaching		
Educational visits		
Artistic creativity		
Unsupervised study		*26*
Others:		
Total number of hours for the Course (25 hours of work-load per ECTS credit)		***125 hours (total student work-load)***

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.

An overall mark of at least 50% obtained by:

Workshops		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(Multiple choice questions, comparative evaluation of theory comprehension,60%of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects	x	(40% of the final grade)

5. ATTACHED BIBLIOGRAPHY

-Suggested bibliography :

- Creswell JW (2014). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. Pearson Education.
- Gay LR, Mills G, Airasian P (2017). Educational Research: Competencies for Analysis and Applications. Pearson Education.
- Cohen L, Manion L, Morrison K. (2013). Research Methods in Education. Routledge.
- Babbie E (2011). Introduction to Social Research. Wadsworth Cengage learning
- Gall M, Borg W, Gall J (1996). Educational research: an introduction. Longman.

Supply Chain Management (MST_801_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_801_2	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Supply Chain Management								

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**
L: lectures De: Demonstrated excercises Lab: laboratory exercises	3(L), 1(De), 1(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	*Introduction to Business Administration, Introduction to Marketing, Quantitative Methods in Economics and Management (I) and (II), Quality Management, Operational Research, Operations Management*
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES in English
COURSE WEBSITE (URL)	http://eclass.teipat.gr/eclass/courses/766126/ http://eclass.teipat.gr/eclass/courses/766125/

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 educational objective of the course is the student to understand the need for an enterprise to operate within an integrated supply chain, in order to satisfy the needs of final customers in the modern globalized environment in the most efficient and effective way.

Upon successful completion of the course the student will be able to:

- recognize the need for a business to operate in an integrated supply chain

- be familiar with the basic concepts of Supply Chain Management, structural elements and flows of a supply chain
- understand that it is the final customer's behavior that after all stimulates the supply chain
- analyze how supply chain management strategies are linked to value creation
- explore the ways in which cost information can generate more value
- identify supply chain activities that do not create value to the customer
- explain the ways that supply chain compete through the management of tolerance time
- be aware of the flow planning and implementation processes in a centralized enterprise and among partners in a supply chain
- analyze the options for tackling bad coordination in the retail supply chain
- be aware of the different types of relationships between companies in the chain supply management, as well as the potential benefits and difficulties of supply chain relationships
- explore ways in which broader relationships can be established between trading partners in the supply chain
- analyze, model and solve problems with the use of spreadsheets (and The Management Scientist, LINDO) about the design of a supply chain and the cycle inventory management within a supply chain

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
- 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
- Production of free, creative and inductive thinking

3. SYLLABUS

The course is structured in the following thematic units:

- Introduction to Supply Chain Management - Materials and information flow
- Supply Chain Management and Competitive Strategy
- Supply chain management and customer value - Customer service and customer retention– Defining customer service objectives
- Distribution channels as value-added systems
- Measuring the cost and performance of supply chains - Customer profitability analysis - Direct product profitability - Cost drivers and activity-based costing
- Matching supply and demand - Forecast for capacity, execute against demand - Demand management and planning
- creating the responsive supply chain– Product 'push' versus demand 'pull'- The foundations of agility - A routemap to responsiveness
- Strategic Time Management Satisfaction – Time-Based Competition
- The synchronous supply chain - The extended enterprise and the virtual supply chain

- Complexity and the supply chain, Sources and Cost of complexity, Mastering complexity
- Managing risk in the supply chain
- Supply chain network design: purpose, basic concepts, required data, expected results, modeling and problem solving in PC
- Cycle inventory management: purpose, key concepts, Economic Order Quantity - EOQ, Cycle inventory management costs, Economic Order Quantity for multiple products, Economic Order Quantity determination in a 2-tier supply chain, modeling and problem solving in PC

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	13
Essay writing	20
Seminars	
Exercises	
Project	
Study and analysis of bibliography	13
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*40*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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

Workshops		
Final exam with problem solving	X	(20% of the final grade)
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.	Oral examination			
	Mid-term exam (concluding)			
	Final exam with developing questions	X	(80% of the final grade)	
	Public presentation			
	Mid-term exam (formative)			
	Laboratory work/term projects			

5. RECOMMENDED BIBLIOGRAPHY

- Christopher, M., 2016. Logistics και Supply Chain Management. 5th Edition. Pearson.
- Harrison A. & van Hoek R, 2014. Logistics Management and Strategy 5th edition: Competing through the Supply Chain 5th Edition. Pearson.
- Chopra S. & Meindl P., 2012. Supply Chain Management 5th Edition. Pearson.
- Bowersox D., Closs D., Cooper M. & Bowersox J., 2012. Supply Chain Logistics Management 4th Edition. McGraw-Hill Education.

English V – Advanced Academic Business English (MST_801_3)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_801_3	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	English V – Advanced Academic Business English								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	No prerequisite course: It is recommended that students who are interested in the course have a B1 / B2 level of language proficiency for successful completion of the course.
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/BMA483/

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 purpose of this course is to introduce students to the subject of Business Culture and in particular to the study of terminology in the disciplines of administrative science and information technology while covering the key features of intercultural communication. It explores basic cultural dimensions and examines selected case studies. Emphasis is also placed on non-verbal communication while enriching vocabulary in Business terminology.

At the end of this course the student will have:

- deepen its knowledge of the English language by practicing the four basic skills.
- taught the importance of business communication
- deepen the concept of culture and intercultural communication by learning its basic concepts
- acquired knowledge of the most important theoretical representatives of intercultural
- communication and have studied their key positions.

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…*
	…….

- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment
- Respect for difference and multiculturalism
- Criticism and self-criticism
- Production of free, creative and inductive thinking

Other: At the end of this course the student will have developed the following general competencies: The ability to demonstrate knowledge and understanding of the concepts, theories and applications studied in the course related to the theory of Intercultural Business Communication. The skills required for its continued academic and professional development in the teaching of English as a Foreign Language and of English for General Academic and Business Purposes. The ability to converse on issues related to operational or interdisciplinary issues.

3. SYLLABUS

- The Importance of Culture
- Cultural Dimensions (Survey of Research; Hall, Hofstede, Mole, Trompenaars)
- Types and stereotypes
- Profiling national cultures
- Profiling corporate cultures
- Profiling group cultures
- Culture and Communication

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	

	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	52
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	13
Project	
Study and analysis of bibliography	20
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*30*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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 examination with development questions	x	90% The evaluation criteria are detailed in the syllabus which is distributed to the students at the beginning of the semester and announced in the e-class of the course.
Oral exam		
Public Presentation	x	10%
Problem solving		
Progress with development questions (concluding)		
Laboratory work		
Clinical Patient Examination		
Progress exam with development questions (formative)		
Artistic Interpretation		
Written examination with multiple choice queries		
Written report / report / work		
Progress exam with multiple choice queries		

Other: Attendance and participation: 10%

5. ATTACHED BIBLIOGRAPHY

- Utley, D., Intercultural Resource Pack – Intercultural communication resources for language teachers. Cambridge University Press, 2011
- Pilbeam, A., Working Across Cultures, Market Leader. Pearson Longman, 2010
- Gibson, R., Intercultural Business Communication. Oxford University Press, 2002
- Chaney, L. & Martin, J., Intercultural Business Communication. Pearson International Edition, 2013
- Dignen, B., Working Across Cultures, Cambridge University press, 2010

Project Management (MST_801_4)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMICS AND BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_801_4	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Project Management									

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Field of science
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

Upon successful completion of this course, students will be able to:

- perceive project management as a distinct area of management science and to understand the impact that it can have on firms and organizations of all kinds and sizes
- fully understand all aspects of a project, beginning with the formulation of a project-centric strategy going through to the successful completion of a project
- be able to use a set of tools and techniques applied by project managers during the various stages of a project
- develop realistic plans when designing a project
- take advantage of the potential provided by software tools in designing, implementing and monitoring a project
- assess the risks and uncertainties of the current business environment within which most projects are designed and implemented

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

- Design and project management
- Decision making
- Autonomous work
- Critical thinking and self-critique

3. SYLLABUS

Project management has been an important sub-field of operational research. However, it is no longer just about the management of the sequence of events and actions required for the timely completion of a project. That is, modern project management does not only relate to time-optimization and Gannt diagrams. The current goals of project management also include systematic input from the project owner-client, the creation of a disciplined prioritization of the whole process, concurrent work on all aspects of project, as well as a series of other topics in order to create a realistic and holistic approach. In this sense, project management is a kind of a “meeting point” for decision-making, operational research, statistics, information technology, accounting, economics and total quality management. Given that many firms now operate using a project-based, that is, a great part of their operations that create added value are based on projects, it is very important to elaborate on current project management topics and approaches.

Attending this course, students will be asked to use a realistic and holistic approach to project management, and to acquaint themselves with current relevant techniques and tools. Students will need to develop skills to systematically control issues that arise during the project definition and design stages, as well as issues related to organizing, staffing, time and economics planning, as well as skills to assess a project’s outcome.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education,*	Slides	
	E-class	x

communication with students	Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	
Final Exams	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*86*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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.

Workshops		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(75% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects	x	(25% of the final grade)

5. ATTACHED BIBLIOGRAPHY

Suggested reading:

Larson, E. και Gray, C (2018) Project Management: the managerial process, 7th ed., McGraw-Hill, ISBN 978-125-966-094

Maylor, H. (2003) Project Management, 3rd ed., Pearson, ISBN: 960-209-853-8

Shtub, A, Bard, J and Globerson, S (2005) Project Management, Processes, Methodologies and Economics, 2nd ed., Pearson, ISBN 978-013-041-331-4

Kerzner, H. (2017) Project Management: a systems approach to planning, scheduling and controlling, 12th ed., Wiley, ISBN 978-1-119-16535-4

Organizational Behavior (MST_801_5)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_801_5	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Organizational Behavior								

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Field of science
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek – English when required
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

Upon successful completion of this course, students should be able to:

- critically use existing organizational behavior theoretical approaches and relevant management practices
- conceptualise the firm as a social, historic and psychological entity and as an organism, understanding the complexities of organizational life
- analyze the nature of human behavior within firms

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

- Adaptation to new contingencies
- Decision-making
- Autonomous work
- Teamwork
- Consideration for diversity and multiculturalism
- Critical thinking and self-critique

3. SYLLABUS

The goal of this course is to present students with the notion of the firm as an organization (thought of as a living organism), that has its own behavioral patterns. As a scientific area, organizational behavior mainly deals with issues related to human resources, at the individual, group and organizational levels.

To this end, we elaborate on issues related to (a) diversity, personality and values, (b) perception, determinism and learning, emotions, perceptions and satisfaction form work, (c) topics related to motivation and to performance, (d) the nature of groups, teamwork and team efficiency and performance, (e) decision making and creativity, (f) conflict, negotiation and communication, (g) effective and efficient communication, (h) power and intra-firm politics, (i) leadership, leaders' characteristics and behavioral patterns, (j) organizational culture and the relationship with innovativeness.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	

TEACHING METHODS	***Activity***	***Semester workload***
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-directed study according to the principles of the ECTS*	Lectures	39
	Tutorials	
	Laboratory practice	
	Essay writing	
	Seminars	
	Exercises	29
	Project	
	Study and analysis of bibliography	
	Final Exams	
	Clinical practice	
	Art workshop	

	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*57*
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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.

Assessment in English for cases of Erasmus+ students.

Workshops		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(100% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects		

5. ATTACHED BIBLIOGRAPHY

Suggested reading:

- Uhl-Bien, M., Schermerhorn, J. and Osborn, R. (2014) Organizational Behavior, 13th ed., Wiley, ISBN: 13-978-1-118-51737-6
- Cook, C., Hunsaker, P. and Coffey, R. (1997) Management and Organizational Behavior, McGraw – Hill, ISBN 0-256-20807-7
- Robbins, S. and Judge, T. (2014) Essentials of Organizational Behavior, Pearson, ISBN 978-0-12-296850-8

Management of Tourism Orgaanizations (MST_801_6)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_801_6	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Management of Tourism Orgaanizations								

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Field of science
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	Under construction

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 course aims at a better understanding of how tourism organizations operate as in the case of tour operators from the private sector or destination management/marketing organizations (DMOs) from the public sector. Students will get acquainted with key aspects of management such organizations.

By the end of this course, students will be able to:

- understand the importance and the way tourism organizations operate
- assess the impact of tour operators on a tourism destination like Greece
- comprehend the role of DMOs in tourism planning and in promoting tourism development in a destination
- know key principles of managing such organizations.

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

Adapting to new situations

Decision-making

Respect for difference and multiculturalism

Criticism and self-criticism

Production of free, creative and inductive thinking

3. SYLLABUS

- Key characteristics of tour operators
- Packaged tours
- Impact of tour operators on the development of tourism in Greece
- Organizational structure and management of tour operators
- Key characteristics and typology of DMOs
- DMOs operating in Greece
- Organizational structure and management of DMOs
- Tourism planning and tourism policy
- Preparation of a tourism campaign

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	x
	Distance learning (synchronous)	x
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	
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.*	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	
	Essay writing	
	Seminars	
	Exercises	

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	Project	86
	Study and analysis of bibliography	
	Final Exams	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***
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 examination with development questions	
	Oral exam	
	Public Presentation	x
	Problem solving	
	Progress with development questions (concluding)	
	Laboratory work	
	Clinical Patient Examination	
	Progress exam with development questions (formative)	
	Artistic Interpretation	
	Written examination with multiple choice queries	
	Written report / report / work	x
	Progress exam with multiple choice queries	

5. ATTACHED BIBLIOGRAPHY

- Zacharatos, Gerasimos (2003). Package Tour: Production and distribution of tourist travel. Athens: Ed. Propombos
- Coccosis, Haris, Paris Tsartas and Freedom Grimba (2011). Special and Alternative forms of Tourism. Athens: Publications Review
- Page, Stephen (2006). Introduction to tourism. Athens: Ed. Papazzisi
- Tsartas, Paris (2010). Greek Tourism Development. Athens: Kritiki Publications
- Pike, Steven (2008). Destination Marketing: An integrated marketing communication approach. Oxford: Butterworth-Heinemann
- Agarwal, Sheela and Shaw, Gareth (eds.) (2007). Managing Coastal Tourism Resorts: A Global
- Perspective. Clevedon, England: Channel View Publications
- Horner, Susan and Swarbrooke, John (2004). International Cases in Tourism Management. Oxford: Elsevier Butterworth-Heinemann
- Maitland, Robert and Ritchie, Brent (eds.) (2009). City Tourism: National Capital Perspectives. Wallingford, England: CABI
- World Tourism Organisation (2003). NTO Marketing Activities. Madrid: WTO

Advanced Data Management (MST_802_1)

COURSE OUTLINE

1, GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_802_1	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Advanced Data Management									

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes

The main objective of the course is to introduce into Deep Learning and Computational Statistics for business applications.

By successfully attending the course the students will be able to:

- Know the basic concepts of Deep Learning and Computational Statistics techniques,
- are aware of the use of techniques and related software technologies that support them,
- analyze and understand the characteristics and performance of techniques in various computational environments,
- know the use of the R language as well as important libraries and programming tools for deep learning techniques,
- solve data approach and optimization problems with deep learning techniques.

General Competences
• Search, analyze, and synthesize data and information, using the necessary ones • Promoting free, creative and inductive thinking • Search, analyze and synthesize data, techniques and information, using the necessary technologies • Adapt to new situations • Analysis of requirements for problem solving • Development of algorithmic thinking • Ability to deduct in problem modeling • Autonomous work • Teamwork

3, SYLLABUS

Introduction to multidimensional data. Supervised and unsupervised learning, reinforcement learning. Softmax, cross entropy, gradient descent, stochastic gradient descent. Neural networks, multi-layer Perceptrons (MLPs), backpropagation, vanishing gradient, activation functions. Recurrent neural networks, (RNNs), convolutional neural networks (CNNs). Regularization, dropout, optimization.
Introduction to the language R. Computational statistics with the language R. Charts, statistical distributions and linear models with the language R. Analysis of time series. Business Intelligence Applications with Language R.

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	x
	Virtual (simulated) laboratory training	Specialized Computing Statistics Software - R language

TEACHING METHODS	***Activity***	***Semester workload***
	Lectures	39
	Tutorials	
	Laboratory practice	26
	Essay writing	
	Seminars	
	Exercises	
	Project	30
	Study and analysis of bibliography	
	Final Exams	
	Educational visits	
	Artistic creativity	
	Unsupervised study	*30*
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION	Workshops	x
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/term projects	x

5, ATTACHED BIBLIOGRAPHY

- Keller Gerald, Statistics for Business and Business Administration, Epicenter Publishing.
- Georgiadis Fotis, Triantafyllou S. Ioannis Elements of Probability and Statistics in Computer Science, Theory and Applications, Stamoulis Publications.

Distance Learning Systems (MST_802_2)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_802_2	SEMESTER	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Distance Learning Systems								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Direction INFORMATION SYSTEMS *Specialised general knowledge, skills development*
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek or English (if required by Erasmus students)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/MST133

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*

After completing the course (Theoretical and Laboratory parts) the student is expected to be able to know:

- the technological and educational principles of Distance Learning Systems,
- to design and develop interactive information systems with the help of appropriate software tool or to customize an existing open-source software.

Students through laboratory exercises and practice gain experience in the analysis and design of an interactive distance learning system.

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…*
	…….

At the end of this course, students will further develop the following skills:

- Ability to demonstrate knowledge and understanding of the basic concepts and principles related to Distance Learning Systems.
- Ability to design and develop interactive information systems.
- Be able to explore and study the stracture (technical characteristics and learning models) of Distance Learning Systems in real-world conditions.
- Ability to interact with others on interdisciplinary issues related on Distance Learning Systems

Generally, upon completion this course, students will be able to develop the following general competencies (from the list above):

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Working independently
- Criticism and self-criticism
- Production of free, creative and inductive thinking

3. SYLLABUS

- Technological and educational principles of distance learning systems
- Learning theories and modeling
- Educational models and technology.
- Interaction technologies.
- Methodologies for designing interactive systems.
- Metrics, standards, e-learning software evaluation techniques.
- Examples of software for supporting the distance learning process.
- Courses designing.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	30
Study and analysis of bibliography	30
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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.

Workshops		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(60% of the final grade)
Public presentation		

	Mid-term exam (formative)		
	Laboratory work/term projects	x	(40% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- "New Trends in Educational Technology". Solomonidou Christina, Edition 1/2006, Metaichmio, ISBN 978-960-455-046-3 [Book Code in EUDOXOS: 24194]
- "Flexible learning using information and communication technologies". Dimitriadis Stavros N., Karagiannidis Charalambos, Pomportsis Andreas S., Tsatsos Thrasyvoulos. Version 1st /2007, TZIOLA, ISBN 978-960-418-142-1 [Book Code in EUDOXOS:18549114].

Virtual Enterprise Informations Systems (MST_802_4)

COURSE OUTLINE

1, GENERAL

SCHOOL	SCHOOL OF ECONOMICS & BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_802_4	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Virtual Enterprise Informations Systems								

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	5

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

2, LEARNING OUTCOMES

Learning outcomes

The course aims to introduce students to the basic concepts of e-commerce software design and information technology support systems for virtual enterprises in general. The course examines different business models and the corresponding e-commerce architectural applications, the required technological infrastructure, their design, interconnection issues of systems and organizations, and more generally technological issues related to the business utilization and implementation of e-business applications. Presentation of specific case studies and the technologies that support them, as well as practice and application development, using modern open source platforms.

By successfully attending the course the students will be able to:

- To provide students with the necessary conceptual and theoretical background of e-commerce applications, understanding the need and the challenge of the multidisciplinary approach.
- Be able to understand the opportunities presented for developing new services for consumers, citizens, businesses etc. through the use of new technologies, new interactive and social media, emerging

communication channels,

- Understanding students the critical factors and benefits associated with effective e-business initiatives management and being able to evaluate a given strategy or business model in the digital environment.
- To provide students with the skills to help implement e-commerce solutions, and effectively address the various practical issues of designing and developing the software.
- Understanding students' technological issues related to the development of e-commerce applications, as well as becoming familiar with the use of ready-made open source software packages for e-shop development.
- To inform students about recent developments and trends around e-business at global level on academic research, entrepreneurial activity and technological developments.

General Competences

- Search, analyze, and synthesize data and information, using the necessary ones
- Promoting free, creative and inductive thinking
- Adapt to new situations
- Analysis of requirements for problem solving
- Development of algorithmic thinking
- Ability to deduct in problem modeling
- Autonomous work
- Teamwork

3, SYLLABUS

Analysis and design of an electronic business computer system based on business model requirements using UML. Technology infrastructure requirements. E-commerce software platforms. Product catalog and user experience. Application hosting and bandwidth management. The cloud model. Security and electronic payments. Interface of subsystems and web services. Electronic document exchange and XML. Implement a B2B business model. Case studies B2B. Cooperative E-Commerce.
Business e-commerce design and the corresponding implementation of the idea using a known open source software package for the development of Web Stores (Magento, osCommerce).

4, TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	
E-class	x
Virtual (simulated) laboratory training	x

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.

Activity	*Semester workload*
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	

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	Exercises	
	Project	30
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Unsupervised study	30
	Others:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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.*	Workshops	x
	Problem solving	
	Multiple choice questionnaires	
	Final exam with Multiple choice questionnaires	
	Oral examination	
	Mid-term exam (concluding)	
	Final exam with developing questions	60%
	Public presentation	
	Mid-term exam (formative)	
	Laboratory work/term projects	x

5, ATTACHED BIBLIOGRAPHY

- Kendal & Kendal Systems Analysis & Design. M. Yirdas publications
- Dave Chaffey, "E-Commerce and e-Business", Klidarithmos Publications.
- Laudon K., Traver C. C., "E-Commerce: Business, Technology, Society", Papasotiriou Publications.

Innovation and Technology Management (MST_802_5)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_802_5	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Innovation and Technology Management								

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Field of science
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek – English when required
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

By successful completion of this course, students will be able to:

- manage change and innovation (product, process or organizational), at an individual, business and strategic level

- associate advanced market issues with technological and organizational change aimed at improving firm competitiveness
- have an integrated approach to managing organizational change and innovation
- comprehend the tools to analyze unpredictable problems related with the effort for innovation and change
- systematically examine the repercussions of each alternative decision and strategy in decision-making, when relevant to organizational change and innovation in evolving business environment
- become practically acquainted with the theoretical concepts of technology and innovation management
- fully understand how to start a business, the operating and financing framework for a small start-up firm

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…*
	…….

- Adjust to new circumstances
- Decision making
- Autonomous work
- Teamwork
- Critical thinking and self-critique
- Advancement of free, creative and inductive thinking

3. SYLLABUS

Innovation is about a firm's attempt to acquire competitive advantage and, along with that, a temporary monopoly within a market space/niche. The concept refers to the creation and market launch (commercialization) of a new or of an improved product, the creation of a new or of an improved service. Innovation can also be about creating and introducing new organizational and managerial techniques and methods (organizational innovation), as well as about introducing new processes (e.g. for improving efficiency or for reducing cost). The pursuit of innovation is naturally related to uncertainty and incurs significant and, to a degree, unpredictable cost. Thus, a systematic effort to organize and manage any innovation effort is crucial.

The goal of this course is to present and elaborate on topics such as what can be considered marginal or radical, product, process, procedural or organizational innovation. We study the ways with which a firm can manage their effort to become consistently more innovative.

Within the main goal, we also study the strategic role of change and of innovation at the levels of the individual employee, the firm, the business sector and the national system of innovation. The types of innovation, the models for describing the patterns of innovation and the approaches to organizational change and to innovation as a management process are also discussed. Relations between innovation and competitive advantage are emphasized, whilst we also emphasize the importance of effective and efficient relationships with external players, as well as of the strategies for research. Finally, we discuss the concept of entrepreneurship and how it is related to small businesses, as well as topics related to financing small startups.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*		
	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	

	Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

.

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	
Final Exam	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	86
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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.

Assessment in English for cases of Erasmus+ students.

Workshops		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam (concluding)		
Final exam with developing questions	X	(75% of the final grade)
Public presentation		
Mid-term exam (formative)		
Laboratory work/term projects	x	(25% of the final grade)

5. ATTACHED BIBLIOGRAPHY

Suggested reading:

- Schilling M. (2013) Strategic Management of Technological Innovation, McGraw-Hill, ISBN: 978-0-07-805923-3
- Tidd J. & Bessant J. (2014) Strategic Innovation Management, Wiley, ISBN: 978-1-118-86322-0
- White M. & Bruton G. (2007) The Management of Technology and Innovation: a strategic approach, Thomson South-Western, ISBN: 978-960-218-674-9

Computational Logic & Logic Programming (MST_802_6)

COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF ECONOMICS AND BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	UNDERGRADUATE									
COURSE CODE	MST_802_6	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Computational Logic & Logic Programming									

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	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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*

- Upon successful completion of the course "Logic & Logic Programming", students will be able to:
- Become familiar with mathematical logic and understand basic problems
- Design and implement methods of mathematical logic solving in logical programming systems.
- Represent and solve logical expressions
- Plan with the Prolog programming language
- Transform an application's needs into mathematical logic rules.

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
- Decision-making
- Working in an international environment
- Working in an interdisciplinary environment
- Team work
- Production of free, creative and inductive thinking

3. SYLLABUS

Procedural and Declarative Programming. Logic Programming, as a programming approach based on Predicate Logic. Propositional Logic. Syntax and Semantics.Logical Inference.Truth tables, proof systems, and Propositional Logic. Axiom schemes and the notion of provability. Soundness and Completeness. Resolution in Propositional Logic and search strategies. Syntax and Semantics of Predicate Logic. Herbrand's Method. Proof systems for Predicate Logic. Resolution and Unification in Predicate Logic. Horn clauses. The Prolog programming language. Writing Prolog programs. Lists, operator, and arithmetic. Backtracking control. Negation in Prolog. Built-in predicates. Handling data structures. Simple Prolog applications in search problems, symbol processing, and natural language understanding.

4. TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>DELIVERY
Face-to-face, Distance learning, etc.</td><td>Face-to-face</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>ICT is used for communicating with students and for sharing educational material, mainly through three class platform (announcements, lecture slides and additional educational), as well as via typical email.</td></tr>
<tr><td>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-directed study according to the principles of the ECTS</td><td>
<table>
<tr><th>Activity</th><th>Semester workload</th></tr>
<tr><td>Lectures</td><td>39</td></tr>
<tr><td>Practical demonstration</td><td></td></tr>
<tr><td>Project</td><td></td></tr>
<tr><td>Essay writing</td><td></td></tr>
<tr><td>Study and analysis of bibliography</td><td>36</td></tr>
<tr><td>Unsupervised study</td><td>50</td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td>Course total</td><td>125</td></tr>
</table>
</td></tr>
<tr><td>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.</td><td>• Written examination (100% of the final grade)</td></tr>
</table>

5. ATTACHED BIBLIOGRAPHY

- I. Bratko, "Prolog Programming for Artificial Intelligence", Third Edition, Addison-Wesley, 2000.
- L. Sterling, E. Shapiro, "The Art of Prolog", The MIT Press, 1994.
- C. F. Mellish, W. F. Clocksin, "Programming in Prolog: Using the ISO Standard", Springer Verlag, 2003.
- J. W. Lloyd, "Foundations of Logic Programming", Springer Verlag, 1993.
- K. R. Apt, M. G. Wallace, "Constraint Logic Programming Using ECLiPSe", Cambridge University Press, 2007.
- P. Deransart, A. Ed-Dbali, L. Cervoni, "Prolog: The Standard - Reference Manual", Springer Verlag, 1996.
- Μητακίδης Γιώργος, "Από τη λογική στο λογικό προγραμματισμό και την Prolog", Εκδόσεις ΚΑΡΔΑΜΙΤΣΑ, 1992.

Applications of Computational Methods (MST_802_7)

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Economics & Business								
ACADEMIC UNIT	Department of Management Science & Technology								
LEVEL OF STUDIES	Undergraduate								
COURSE CODE	MST_802_7	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
										x
COURSE TITLE	Applications of Computational Methods								

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**
L: lectures Lab: laboratory exercises	3(L), 2(Lab)	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (in English)
COURSE WEBSITE (URL)	Under construction

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*

As the need to understand real-world phenomena is growing rapidly, simulations and modeling tools are becoming increasingly accepted as a mean of analyzing and studying such problems. In this context, the course introduces students to some of the basic computational techniques used in the modeling and simulation of real problems/cases.

Upon completion of the course students will be able to:

• Understand basic concepts and principles of computational science

• Understand and apply basic computational techniques to problem solving

• Implement and apply numerical methods in matlab.

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, analysis and synthesis of data and information, with the use of the appropriate technology
- Working independently
- Production of new research ideas
- Production of free, creative and inductive thinking

3. SYLLABUS

- Error analysis
- Numerical stability and convergence
- Curve fitting
- Polynomial Interpolation
- Approximation of Intergrals
- Numerical methods for ODE (one step and multistep methods)
- Numerical integration of initital and boundary value problems

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	MatLab

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory practice	26
Essay writing	
Seminars	
Exercises	
Project	
Study and analysis of bibliography	13
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	47
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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.

Workshops		
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Mid-term exam	x	(30% of final grade)
Final exam with developing questions	X	(60% of the final grade)
Public presentation		
Laboratory work/term projects	x	(10% of the final grade)

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Αβδελάς Γ., Σίμος Θ., Αριθμητική Ανάλυση, Εκδόσεις Συμεών,2004.
- Gander Walter, Hrebicek jiri, Solving Problems in Scientific Computing Using Maple and Matlab, 4th edition, Springer, 2004
- KreyszigErwin, Ανώτερα Μαθηματικά, 10η έκδοση, Εκδόσεις Α. ΤΖΙΟΛΑ & ΥΙΟΙ ΑΕ, 2018
- Ακριβης Γ.Δ., Δουγαλης Β.Α., Εισαγωγή στην Αριθμητική Ανάλυση, 4η Έκδοση, Ιδρυμα Τεχνολογίας & Έρευνας-Πανεπιστημιακές Εκδόσεις Κρήτης, 2015

Law Of Computer Science And Internet (MST_802_8)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES & BUSINESS ADMINISTRATION								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	UNDERGRADUATE								
COURSE CODE	MST_802_8	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
								X		x
COURSE TITLE	Law Of Computer Science And Internet								

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	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge, skills development
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	Under construction

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 course introduces the rules governing the information computer science society from the legal point of view (private, commercial, public and criminal law).

At the end of the course, the student will be able to:

• Distinguish the sources of information and internet law (laws, international law, decrees, normative acts) and the formal validity of individual legal arrangements and their hierarchy.

• Apply the appropriate rules of the legislation for successful and legally correct use of the Internet as a means of business activity, promotion and development.

• Be aware of the legal protection afforded to digital goods (software, databases, multimedia, websites, digital works, etc.) based on intellectual and industrial property law.

• Be aware of the protection of online features, including site names and web page tags.

• Familiarize with electronic transactions, the legal framework of e-commerce, consumer protection in these transactions, electronic signatures, but also a number of individual issues of electronic transactions, such as electronic payments and electronic auctions

• Know the urgent protection of personal data based on the new regulatory framework of GDPR.

At the end of the course the student will have developed the following skills:

- Taking advantage of the internet and its tools for developing business and improving its organization in a way that benefits businesses and their participants.
- Follow international and national legal rules to tackle successfully the issues arising from Internet engagement and online transactions and aids across the entire range of transactions.
- An immediate, modern and detailed approach to the legal protection of personal data.

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…*
	…….

- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an interdisciplinary environment

3. SYLLABUS

The course includes the following topics:

• digital goods (software, databases, multimedia, websites, digital works, etc.) and their legal protection under intellectual and industrial property law,

• the legal protection of distinctive features on the internet, including site names and web page tags.

• electronic transactions, the legal framework of e-commerce, consumer protection in these transactions,

electronic signatures, but also a number of individual issues of electronic transactions such as electronic payments and electronic auctions

- the protection of personal data based on the new regulatory framework of GDPR.
- e-crime, as formulated in criminal law and special laws.
- the legal framework of eGovernment.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY
Face-to-face, Distance learning, etc.

Face to face	x
Distance learning (asynchronous)	
Distance learning (synchronous)	
Others:	

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Slides	x
E-class	x
Virtual (simulated) laboratory training	

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-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	52
Tutorials	
Laboratory practice	
Essay writing	20
Seminars	
Exercises	
Project	
Study and analysis of bibliography	33
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Unsupervised study	*20*
Others:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***125 hours (total student work-load)***

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

Workshops	x	(written reportwith oral examination, 10% of final grade)
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		

given, and if and where they are accessible to students.	Oral examination			
	Mid-term exam (concluding)			
	Final exam with developing questions	X	(90% of the final grade)	
	Public presentation			
	Mid-term exam (formative)			
	Laboratory work/term projects			

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Igleszakis, Law of Computer Technology, 3rd Edition, Sakkoulas, 2018
- G. Zekos, Internet, Computers & Telecommunications in Greek Law, Sakkoulas, 2017
- P. Jougleux, European Law of the Internet, Sakkoulas, 2016
- Karakostas, Law and Internet, Legal issues of the Internet, 3rd Edition, Sakkoulas, 2009.