

# Course Guide 2020 - 2021

Department of Management Science and Technology

School of Economic Sciences  
University of Western Macedonia

## **About**

The Department of Management Science and Technology was established in 2019 (Law 4610/07.05.2019, Governmental Gazette 4610/07.05.2019, issue 70, section 13, paragraph 1, a).

## **Degree Awarded**

B.A. in Management Science and Technology

## **Degree Level**

According to the National Qualifications Framework (NQF), the awarded Degree corresponds to a Bachelor's Degree (level 6 of the NQF).

## **Mission**

Studying at the newly established Department of the University of Western Macedonia –first students admitted in the 2019 -2020 academic year – aims at educating students on modern topics of Management Science and Technology.

More specifically, our mission is educating, training and conducting research at a high level on Management Science which is directly connected to Modern Technologies and Organizational Studies. Emphasis is upon the use of Informatics, and Communication to decision making and using quantitative methods which leads to designing business strategies and reorganizing business activities.

Moreover, the course design of the department caters for certified educational and teaching competency as well as IT competency.

Nowadays, new technologies play a vital role towards the development and operation of businesses and organizations. Moreover, the demand for e-communication of business activities, the need for reorganizing businesses/organizations, the impact of globalization and the highly competitive international environment significantly differentiate the knowledge and skills that modern executives must possess. Taking all of the above into consideration, the course program of the Department of Management Science and Technology aims at preparing highly qualified professionals, based on the integration of the scientific fields of management and technology.

## **Study Requirements**

For the successful completion of studies that will lead to the Department's undergraduate degree, students are required to attend and successfully pass the final examination of a series of courses that correspond to Credit Units (CU) and ECTS units. The ECTS units correspond to the workload that students are expected to cope within each course towards its successful completion based on the European Credit Transfer System, ensuring, thus, the international academic recognition of their studies. According to the European Credit Transfer System, one ECTS unit corresponds to 25 to 30 hours of workload. The Credit Units (CU) correspond to the teaching hours of each course per week. Based on the structure of the program of

studies, the amount of ECTS units offered in the Department of Management Science and Technology is 240 and the amount of Credit Units is 149.

More specifically, in order to graduate successfully, the students of the Department of Management Science and Technology should:

- Attend and successfully pass the exams of 38 compulsory (C) courses (190 ECTS, 113 CU).
- Attend and successfully pass the exams of 2 compulsory (C) courses in a foreign language (English) ( $2 \times 5 = 10$  ECTS,  $2 \times 3 = 6$  CU).
- Attend and successfully pass the exams of 12 compulsory courses on pedagogical competence, which accumulate 54 ECTS ( $6 \times 5 = 30$  ECTS,  $6 \times 4 = 24$  ECTS, 21 CU).
- Attend and successfully pass the exams of 6 elective courses (YE) which accumulate 28 ECTS

Students of the Department of Management Science and Technology attend 12 compulsory courses in Pedagogical Sciences (Compulsory (Y)  $6 \times 5 = 30$  ECTS,  $6 \times 4 = 24$  ECTS, 21 CU), one per semester. Successful attendance of all compulsory courses is essential for obtaining pedagogical competence. The Department also provides the possibility of competence in Informatics thanks to the compulsory and elective program courses.

## **Graduates' Profile**

The modern needs of business corporations and organizations urge for trained executives and consultants of high expertise, who will be able to make effective decisions in management issues, using contemporary methods of decision making, technological means and best practices. The ability to understand, design, and integrate business processes, systems and activities while combining technological applications is considered fundamental for the modern business. Therefore, apart from demonstrating high expertise in the areas of business administration (accounting, marketing, finance, management of human resources etc.), modern professionals should also be able to combine knowledge from the scientific fields

of management science and information technology and apply technological solutions.

Thanks to an integrated training on management, technology and teaching methods, the graduates have the opportunity to become highly competitive executives and consultants of businesses and e-businesses following innovation and rapid organizational changes.

In addition, the pedagogical and teaching methodology courses strengthen the Pedagogical Science and enable our graduates to become skilled leaders, executives, advisors, heads, directors, etc. Finally, along with the competence in Informatics, graduates acquire full professional rights as teachers of Management, Technology, Economics and Informatics courses. Thus, they are exempted from submitting a Computers competence certificate when applying for a position announced by the Supreme Council for Civil Personnel Selection (ASEP).

## **Department Administration**

According to Laws 4009/2011 and 4076/2012, the Department is the educational and academic core of every higher education institution, promoting science, technology or arts respectively based on its scientific field. It is responsible for putting up the course program, organizing the teaching procedures and ensuring a continuous learning development.

The Department of Management Science and Technology was established in 2019 and is one of the eight departments of the School of Economics of the University of Western Macedonia. The School of Economics of the University of Western Macedonia was established in 2019 (Law 4610/2019, Governmental Gazette 70/A/07.05.2019).

According to the existing legal framework for higher education institutions, the administrative bodies of the Department are: a) the Head and b) the Assembly.

The Department's Assembly consists of the academic staff of the former Department of Business Administration – Kozani, the Head of the Department and the Deputy Head of the Department, the students' representatives, comprising the

15% of the Department's Assembly, and three members representing Special Teaching Staff, Laboratory Teaching Staff, Laboratory Technical Staff.

### **Head of the Department**

Head of the Department is Dr. Sotiria Triantari, Professor, Ethic and Social Philosophy, Rhetoric, Communication and Leadership

### **Deputy Head of the Department**

Deputy Head of the Department is Dr. Dimitrios Zisopoulos, Professor, Computer Programming

### **Members of the Department's Assembly**

Panagiotis Serdaris, Professor, Business Psychology & Financial Management & Marketing

Ioannis Antoniadis, Associate Professor, Corporate Governance, Efficiency and Investment

Evangelos Saprikis. Assistant Professor, Electronic Business

Asterios Sormas, Assistant Professor, Economic Policy and Planning

Konstantinos Spinthiropoulos, Assistant Professor, Business Management, Efficiency, Sustainability and Development

Ekaterini Tsiora, Lecturer, English for Specific Purposes – Academic English

Efthimia Tsiatsiou, Laboratory Teaching Staff

### **Secretariat**

Anthi Kyratsou, senior administration officer

Anastasia Liofa

### **Contact**

University of Western Macedonia

School of Economics

Secretariat of Management Science and Technology Department

Kila Kozanis, 50 100, Kozani

Telephone number: +30 24610 68221

## **Course Guide**

The Department's Course Guide is a useful manual for all students containing basic information that will help them navigate throughout their student life. It elaborates on the structures and principles of the Course Program and the students' rights and obligations and describes the academic processes that need to be followed. Moreover, it provides students with information about the Department, its educational processes, the academic staff, the laboratories and contains any other piece of information that every new student will find useful to know, as well as the changes that might have taken place in relation to previous Course Guides of the Department.

More specifically, the Course Program which is followed by every student includes all the courses that are offered in the Department and are required for the successful completion of the studies and the degree. Moreover, it contains useful information such as:

- A Course structure for each semester.
- The type of each course; compulsory courses (C), elective courses (E)
- The weekly teaching hours for each course and their Credit Units (CU).
- The ECTS units of each course according to the European Credit Transfer System.
- The content, the learning outcomes and the scientific and educational field of each course.
- The requirements for obtaining the Degree of the Department etc.

Studying carefully the Course Guide and the obligations deriving from it, is essential for every student. The Course Guide is updated every academic year and is available on the Department's website.

## **Useful Information**

### **Academic Calendar**

The academic year starts on September 1st and ends on August 31st. Each academic year consists of two semesters, the winter and spring semester, comprising 13 tutorial weeks and 2 or 3 exam weeks. The winter semester: end of September (last week) to end of January (last ten days), followed by the winter semester exams. The spring semester: February to end of May, followed by the spring semester exams. The exact dates are defined by the Department's Assembly. There is a re-sit exam period in September for both the winter and spring semesters. The examination period of January-February lasts approximately three weeks, whereas the examination period of September, during which students are entitled to sit for exams for courses taught both in the winter and the spring semester, lasts approximately 4 weeks. The exact dates of the academic calendar are posted on the University's website (<http://uowm.gr>).

### **Registration**

Upon their registration in the Department, students obtain their academic ID. This new ID is accompanied by certain rights and obligations following the guidelines issued by the laws and regulations of the University of Western Macedonia. The academic ID remains valid as long as students renew their registration at the beginning of each semester. Studies can be suspended or completed in part time under certain conditions defined by the legislator.

New students' registration at the Department of Management Science and Technology takes place in two stages:

- a. Electronically within a certain period of time, based on the guidelines issued by the Ministry of Education, Research, and Religious Affairs.
- b. After step a, registration is complete upon the students' physical presence at the Department's Secretariat office during a certain period of time that is defined and announced by the Secretariat on the Department's website. The required registration documents are the following:
  - A print-out of the Application-Entry form from the electronic platform of the Ministry of Education, Research and Religious Affairs, signed by the student.
  - A special-purpose type of ID photo.
  - A photocopy of the students' identification card. Applications of student registrations that belong to specific categories (such as expatriates, foreign students, athletes, serious illnesses, transfer of status, transfers) take place later on according to the law provisions issued every year by the Ministry of Education, Research and Religious Affairs. Registration is complete once the required, per category, registration documents are submitted to the Department's Secretariat in due time that is defined and announced on the Department's website.

In case of emergency, such as unforeseen natural disaster, military recruitment, or absence abroad, there is a possibility of belated registration supported by the Department Senate's favorable and justified decision, upon request of interested parties. Such a request must be submitted within 30 days after the registration deadline and shall indicate the reasons for the delay.

Students that did not register even according to the aforementioned procedure of belated registration, will not be entitled to register at all. Overdue registration applications will not be accepted, unless the Department decides that they are reasonably justified.

### **Registration in UOWM electronic services**

Students admitted to the Department of Management Science and Technology must register on the online UOWM electronic services platform, by applying online at <https://noc.uowm.gr/www/dimioyrgia-neon-logariasmon-foititon/> , in order to obtain



a username and a password. This procedure is necessary in order for students to be able to have access to the e-University Services (aka electronic Secretariat, e-Secretariat) and UOWM electronic services overall (academic ID editing, login in to Eudoxos platform, remote connection via Virtual Private Network, known as VPN etc). Further details for the registration process are available online at <https://noc.uowm.gr/www/services/>

## **Course Selection Process**

At the beginning of each academic semester and within strict time limits set by the Department and announced by the Department's Secretariat, students are required to submit their course selection statement. The course selection statement is filled and submitted by students electronically at the UOWM e-Secretariat. It is binding and cannot be modified or canceled after the submission deadline. Submitting the course selection statement is a necessary condition for the students' participation in the end-of-semester examination. Students have the right to attend and be examined only in courses included in their submitted course selection statement. Course selection statements are valid for the specific semester they are filled and submitted for, and, thus, for the corresponding academic year.

With their enrolment in an academic semester, students are expected to be successfully examined in the compulsory, core courses of that semester. Moreover, the course selection statement may contain a certain number of courses so as not to exceed the maximum amount of ECTS units as it is defined by the legislation. The ECTS units submitted per semester should be 30.

Submitting a course selection statement along with their enrolment in the academic semester is a necessary condition for students in order to be able to receive a grade for the courses. Students cannot receive a grade for courses that are not included in the course selection statement. If students need to attend again a course in case of failure in it during the previous academic year, they should include it again in the course selection statement for the current semester and academic year.

## **Eudoxus online platform**

Each student is entitled to free textbooks through the digital service of Eudoxus platform by filling in and submitting the corresponding form online (<https://eudoxus.gr>) every semester within the strict time limit announced by the Department's Secretariat. This is a different procedure from the students' electronic submission of course selection statement at the UOWM e-Secretariat. Students can access the Eudoxus online platform by using the username and password they received by the Network Operation and Management Center of UOWM upon their first registration in the Department. In order to be entitled to receive the distributed textbook, students should apply electronically within the strict time limit, as no modifications can be made afterwards either in their course selection statement or the Eudoxus system.

In addition to free textbooks, students are entitled to access the full texts of academic bibliographic databases to which the UOWM has an updated valid subscription via the Hellenic Academic Libraries Association (HEALLink). Furthermore, remote connection and access is available via the University's Virtual Private Network (VPN, further information are available online at <https://noc.uowm.gr/www/services/vpn>).

## **Students' Assessment**

The minimum duration of studying in the Department is 8 semesters (i.e. 4 academic years). Students that have not completed their studies in 4 academic years are classified as "pending degree" graduates. Each academic year consists of two semesters of course teaching, a winter and a spring one. Each semester runs for 13 weeks of teaching. Courses that, for any reason, were taught for less than 13 weeks in a semester are considered not to have been taught at all and will not be examined. If the examination of those courses takes place, it will be considered void and the grade will not be counted in for graduation. Lecture attendance lies among the students' obligations, although it is not formally checked, and is a part of their workload credited for graduation. The attendance of courses on a regular basis, the participation in teaching activities and the direct communication with the instructors are essential in students' education and training and cannot be replaced by

electronic sources of information or any other tools that may serve as complementary ones in the educational process.

Teaching can be complemented by exercises and specialized tutorials. Attending them is compulsory since they differ from lectures and presuppose students' active participation. Exercises include problem solving activities. The purpose of these tutorials is to prepare students for the material to be covered in the lectures and not to teach the curriculum holistically.

The grading scale used for student assessment is 1-10, with 1-4=Fail, 5-6.9=Good, 7-8.4=Very Good and 8.5-10=Excellent. Students' internship is evaluated qualitatively as successful/unsuccessful. Only courses evaluated quantitatively are taken into account for the final grade of the degree. The contribution of each course to the final grade of the degree depends on the ECTS units it is credited with. Each academic year consists of three examination periods: end-of-winter semester examination (January-February), end-of-spring semester examination (June-July) and September examination (i.e. a second-chance examination for both winter and spring semester courses). There is no need for course selection statement in order to participate in the examination period of September. However, if a student fails at a course during the examination periods of an academic year, this course should be again included in the course selection statement of the following academic year and the student is obliged to attend it for a second time along with any other responsibilities (attendance, papers, exercises etc.) in order to be entitled to participate in the exams.

In case of failure in a compulsory course or a elective course, students have to include it again in the course selection statement, re-attend it and be examined again in the following academic year. If the required elective course is not offered by the Department during the academic year for which the students have to fill and submit a new course selection statement, only under these circumstances are they entitled to replace it with another course of the same category.

The exam curriculum (course outline) corresponds to 13 weeks of teaching and is announced by the instructor at the beginning of the course. The method of assessment of each course (written exams, oral examination, mid-term exams,

tests, assignments etc.) is specified at the beginning of each semester. All the relevant information is uploaded on the School's website (and the e-class platform).

When sitting for the exam, students are required to have with them their academic ID or at least their official ID card (for identification purposes). The use of mobile phones or any other electronic device during the examination is strictly prohibited and students are also expected to place their books and notes where indicated. Finally, students are required to fill in their personal details (name, surname, student number, signature etc.) before leaving the exam classroom.

The exam supervisor ensures the validity and legitimacy of the procedure by properly indicating to students their sitting position securing that it will be impossible to copy from one another. No student is allowed to enter the classroom, once the exam topics have been announced and distributed. Then, the instructor provides any necessary clarifications regarding the exam topics. If anyone has further questions, these should be expressed publicly in front of all students. No more clarifications will be given after the first exam papers have been submitted and students have left the classroom.

The supervisor identifies the examinees via their ID cards upon the submission of their exam paper. In case of cheating or other violation, the supervisor informs the course instructor, disqualifies the violator and expels them from the exam, and, finally, fills in the corresponding form stating the violator's improper behavior. In order to ensure the exam credibility, the last two examinees are required to wait for each other to finish and leave the room together, so that no examinee is left alone.

The course instructor keeps the students' exam papers for one academic year. Then, the exam papers can be destroyed.

## **Evaluation of Educational and Training procedures**

Every semester, before the beginning of the exam period, students have the right and obligation to evaluate the courses and their instructors in order to improve the quality of their studies. Further information can be found online at Quality Assurance Unit (MODIP-UOWM, <https://modip.uowm.gr>) and the School's website.

## Course Programme

The course program is designed by the Department's Assembly. The Head of the Department assembles a Program Committee of one year tenure, consisting of members of the Department's Assembly, which submits the relevant recommendations to the Assembly based on the comments and suggestions by the corresponding educational bodies and organizations. Modifications regarding the Course Program are discussed in May. The decision of the Department's Assembly regarding the Course Program is announced to the Dean and published in the Course Guide (section 24, paragraphs 6 and 7 of Law 1268/82). The Course Program is developed based on the minimum duration of studies in order to obtain the degree, which is 8 semesters, by distributing the courses to semesters that correspond to regular study conditions. The following Table presents the courses distributed in the 8 semesters and the corresponding number of Credit (CU) and ECTS Units.

Semester	Compulsory Courses	English language Courses	Required Elective Courses	Credit Units	ECTS Units
1 <sup>st</sup>	7			22	30
2 <sup>nd</sup>	7			22	30
3 <sup>rd</sup>	7	1		22	30
4 <sup>th</sup>	7	1		22	30
5 <sup>th</sup>	6		1	21	30
6 <sup>th</sup>	6		1	21	30
7 <sup>th</sup>	5		2	20	30
8 <sup>th</sup>	5		2	21	30
<b>Total</b>	<b>50</b>	<b>2</b>	<b>16</b>	<b>170</b>	<b>240</b>

The courses offered by the Department of Management Science and Technology in each semester are:

1 <sup>ST</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	Computer Science, Hardware-Software	3	5
2	Mathematics	3	5
3	FinancialAccounting I	3	4
4	Statistics in Management Science I	3	4
5	Introduction in Management Science	3	4
6	Scientific Research Methodology	3	4
7	Pedagogy and Philosophy of Education	3	4
ECTS TOTAL			30

2 <sup>ND</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	Informatics Science and Practice	3	5
2	Microeconomic Analysis	3	4

3	Financial AccountingII	3	4
4	Principles of Marketing	3	4
5	Statistics in Management Science II	3	4
6	Economics Mathematics	3	4
7	Developmental Psychology	3	5
ECTS TOTAL			30

3 <sup>RD</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	World Wide Web Features and Applications	3	5
2	Human Resource Management	3	4
3	Macroeconomic Analysis	3	5
4	Administrative (Managerial) Accounting	3	4
5	English for Management and Technology Purposes I	3	4
6	Law and Economics	3	4
7	Teaching Methodology and Educational Evaluation	3	4
ECTS TOTAL			30

4 <sup>TH</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	Computer Programming I	3	4
2	Leadership, Leadership Theories in Organizations and Business	3	5
3	Sociology	3	4
4	English for Management and Technology Purposes II	3	4
5	Quantitative Methods in Business Administration		4
6	Management Information Systems	3	4

7	Educational Technology for Multimedia and Pedagogical Computer Applications	3	5
ECTS TOTAL			30

5 <sup>TH</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	Object-Oriented Programming	3	5
2	Rhetoric, Communication in Organizations and Business	3	5
3	Databases	3	4
4	Econometrics	3	4
5	Organizational Behaviour	3	4
6	Educational Psychology		
ELECTIVE COURSES(1 out of 4)			
6	Ethics in Decision Making	3	4
7	Datalogy (Data Science)	3	4
9	Development of Internet Applications	3	4
10	Financial Statement Analysis	3	4
ECTS TOTAL			30

6 <sup>TH</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	Public Relations	3	4
2	Financial Management and Business Financing	3	4
3	Electronic Commerce	3	5
4	Negotiations, Mediation and Crisis Management in Organizations and Businesses	3	5
5	Counselling Psychology and Guidance	3	4
6	Computer Setup	3	4



ELECTIVE COURSES(1outof4)			
5	Urban and Natural Environmental Management	3	4
7	English for Academic Purposes I	3	4
8	Computer Programming II	3	4
9	Entrepreneurship and innovation	3	4
ECTS TOTAL			30

7 <sup>TH</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	Ethics in Organizations and Businesses	3	4
2	Business Strategy and Corporate governance	3	4
3	Supply Chain	3	4
4	Digital Marketing	3	4
5	Teaching of Specialty Courses	3	4
ELECTIVE COURSES(2 outof 4)			
5	English for Academic Purposes II	3	5
6	Political and Economic Philosophy	3	5
7	Mobile Application Development and Design	3	5
8	Cloud Computing	3	5
ECTS TOTAL			30

8 <sup>TH</sup> SEMESTER			
	COMPULSORY COURSES	TEACHING HOURS	ECTS
1	Economic Development and International Economic Relations	3	4
2	Evaluation of Investment(s) and Organizations	3	4

3	Information Systems Analysis and Design	3	4
4	Teaching Practicum	3	4
5	Advertising and Modern Technology	3	4
ELECTIVE COURSES(2outof 4)			
4	Content Management Systems (CMS)	3	5
5	Economy and Environment	3	5
6	Informatics law		
7	Business Analytics	3	5
ECTS TOTAL			30

## 1<sup>st</sup> SEMESTER

### Computer Science, Hardware-Software

**Semester:1<sup>st</sup>**

**Course Unit Type:Compulsory Course**

**Weekly Teaching Hours:3**

**ECTS:5**

#### **Learning Outcomes:**

- Introduction in Computer Science
- Computing technology reality after graduation
- Equal knowledge distribution teaching hundreds of diversified tech subjects

#### **Course Content:**

ShortElectronicdigital Stories

InformationSociety

DigitalBusiness

Information Systems Security

Qualificationskills in Computing

Searching-Resourcing  
Computer Applications  
Data bases PL SQL  
MS-WORD THEORY  
EXCEL SPREADSHEET THEORY  
SPREADSHEET PHILOSOPHY  
ERP Introduction  
TAXISNET INFOSYS  
MIND MAP INFOSYSTEM  
Support Software  
FOREX CFD Programming  
AUTOMATED FOREX-CFD  
Research -ACADEMIC PAPER  
Patent EPO-ONLINE-FILING  
Digitally Enabled real world applications& Patents  
Digital Contracting  
Final Judgment Infosys  
It Glossary  
Computerized Quiz  
I do not want to become a machine part

**Student Assessment Method:**Weeklyupload of classroom and laboratory presence and progression, monthly homework, automated remote distributed evaluation, student progression University local automated exams, final written and/or oral exams. Student professor Auditing through examination at a higher level through a professor committee.

**Recommended Bibliography:**

1. Research Methodology 978-960-92833-5-9
2. Advanced Project Management 960-8084-00-8
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24. " HELLASTOURCDI" ,ZissopoulosD, ZafiroopoulosJ,CD-I,1993,TEIDM,Kozani( pgs/MB:/120)
25. " DAAD, DigitalAmphidromicAdvertisment, ISBN 960-8084-00-8" ,DrZissopoulosAth. Dimitrios,τεχνικό βιβλίο,1995,MARC,Kozani( pgs/MB:130/)
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## **Mathematics**

**Semester: 1<sup>st</sup>**

**Course Unit Type:Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 5**

**Learning Outcomes:** The course focuses on basic principles of differential calculus as well as elements of integral calculus. An introduction to the basic principles of linear algebra is also included. The course aims to train students in basic mathematical concepts and methodologies so that they are able to solve problems and exercises on specific fields of mathematics. It also aims to provide the required mathematical background for other courses (economic theory, linear programming, production economics, agricultural economics, etc.), and also provide a solid mathematical background for students who wish to pursue postgraduate studies.

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

- Understand the basic principles of algebra and calculus
- Find the limits and examine continuity of functions

- Apply differentiation rules on various functions
- Understand and apply basic theorems of calculus such as Bolzano's theorem, Rolle's theorem, De L' Hospital rule etc.
- Examine monotonicity and find minima and maxima of functions
- Examine the convexity of functions and find asymptotes
- Analyze problems and make decisions.
- Understand the basics of integral calculus and apply the integration rules
- Understand the basics of linear algebra (vectors, matrices and determinants)

### **Course Content:**

- Introductory concepts of real functions, types of functions, graphs of functions
- Limits and one-side limits of functions
- Continuity and discontinuity of functions
- Derivatives of functions
- Monotonicity and optimization of functions
- Convexity and asymptotes
- Integral calculus
- Introductions to Linear Algebra (Vectors, matrices and determinants)

**Student Assessment Method:** In order to encourage students to manage their time effectively and provide them with alternatives there are three assessment methods:

I. Progress Tests (60%) and Term Paper (40%). The participation of students in the progress tests is optional, the students are examined in each distinct section of the course. The elaboration of a term paper is optional, but it requires intensive student engagement with the subject. Instructions for preparing the term paper as well as the submission date are announced in e-class.

II. Term paper (40%) and Written Final Exam (60%). The elaboration of a term paper is optional, but it requires intensive student engagement with the subject.

III. Written final exam 100% for students who do not participate in the progress tests and do not prepare term paper.

### **Recommended Bibliography:**

1. Κοντέος, Γ. & Σαριαννίδης, Ν. (2018), Μαθηματικά, ΑΛΕΞΑΝΔΡΟΣ ΙΚΕ, ISBN 978-618-82778-8-5.
2. Δημητρακούδης, Δ., Θεοδώρου, Ι., Κικίλιας, Π., Κουρής, Ν., Παλαμούρδας, Δ. (2002) «Διαφορικός - Ολοκληρωτικός Λογισμός», Εκδόσεις ΔΗΡΟΣ, Αθήνα.

### **Additional bibliography:**

3. Chiang A. (1997). Μαθηματικές Μέθοδοι Οικονομικής Ανάλυσης. Κριτική, Αθήνα. [ISBN:960-218-141-9]

4. Τσουλφίδης Λ. (1999). Μαθηματικά οικονομικής ανάλυσης: μέθοδοι και υποδείγματα. Gutenberg, Αθήνα. [ISBN: 978-960-01-0723-8]
5. K. Sydsæter, P. Hammond (2008) Essential mathematics for economic analysis. Pearson Education. [ISBN-10: 0273713248]
6. T. Bradley, P. Patton (2002) Essential mathematics for economics and business. J. Wiley [ISBN-10: 0470018569]

## **Financial Accounting I**

**Semester: 1<sup>st</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** Upon successful completion of the course:

- The comprehensive methodological framework for the utilization of accounting information has been understood through the detailed theoretical and practical examination of issues.
- Financial statements are prepared by the student to be used for better planning, control, and decision making to optimally utilize an entity's resources.

**Course Content:**

- Accounting principles, accounting equity, accounting books and records, balance sheet, fixed assets, inventories, securities, available, transitional accounts, class accounts, tracking of changes in assets by double-checking method.
- Accounting event concept. Inventory, diary, general ledger, comprehensive ledger, analysis of ACLs account codes, usage results, closing entries. Payroll.

**Student Assessment Method:** Final Examination (100%)

**Recommended Bibliography:**

1. Σόρμας, Α. (2018). Χρηματοοικονομική Λογιστική (Τόμος Α'). ΙΚΕ Αλέξανδρος.
2. Παπάς, Α. (2008). Χρηματοοικονομική Λογιστική (Τόμος Α'). Εκδόσεις Μπένου, Αθήνα.
3. Πατατούκας, Κ. & Μπατσινίλας, Ε. (2017). Σύγχρονη Λογιστική (Τόμος Α'). Εκδόσεις Σταμούλη, Αθήνα.

**Semester:** 1<sup>st</sup>

**Statistics in Management Science\_I**

**Semester:** 1<sup>st</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** The course aims at introducing the student to the basic principles of statistics and probability, present the methodology of collecting, organizing and presenting statistical data, describe the main probability distributions, solve simple problems of combinations and permutations, and in general become acquainted with the statistical methods as a tool for business decision making.

Upon successful completion of the course the student:

- Understand the role and the field of application of statistical methods, particularly in economics problems
- Has knowledge of the basic concepts of probability theory and statistics
- Has knowledge of the basic statistical measures of central tendency and dispersion
- Has knowledge of the characteristics of the main theoretical probability distributions
- Understand the methodology of collecting, analyzing and presenting statistical data

### **Course Content:**

- Introduction to statistics, basic concepts, population – sample – parameters – variables
- Frequency distributions
- Statistical measures of central tendency
- Statistical measures of dispersion
- Measures of asymmetry and kurtosis
- Permutations and combinations
- Probability distributions
- Sampling theory

**Student Assessment Method:** In order to encourage students to manage their time effectively and provide them with alternatives there are three assessment methods:

I. Progress Tests (60%) and Term Paper (40%). The participation of students in the progress tests is optional, the students are examined in each distinct section of the course. The elaboration of a term paper is optional, but it requires intensive student engagement with the subject. Instructions for preparing the term paper as well as the submission date are announced in e-class.

II. Term paper (40%) and Written Final Exam (60%). The elaboration of a term paper is optional, but it requires intensive student engagement with the subject.

III. Written final exam 100% for students who do not participate in the progress tests and do not prepare term paper.

### **Recommended Bibliography:**

1. Σαριαννίδης, Ν. & Κοντέος, Γ. (2016), Εισαγωγή στη Στατιστική, ΑΛΕΞΑΝΔΡΟΣ ΙΚΕ ISBN 978-618-82778-1-6.
2. Κικίλιας, Π., Παλαμούρδας, Δ., Πετράκης, Α. & Τσουκαλάς Δ. (2001), "Στατιστική - Πιθανότητες", Δήρος, Αθήνα, ISBN 960-8271-07.
3. Μπόρα - Σέντα Ε. & Μωυσιάδης, Χ. (1990), "Εφαρμοσμένη Στατιστική", Ζήτη Πελαγία & Σια Ο.Ε., Θεσσαλονίκη, ISBN: 960-431-184-0.



- Gerald, K. (2010) "Στατιστική για οικονομικά και διοίκηση επιχειρήσεων", Επίκεντρο, Θεσσαλονίκη, ISBN: 978-960-458-206-8.

## **Introduction in Management Science**

**Semester: 1<sup>st</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The course is an introduction to the concepts of Business Administration and Organizations, both Private and Public Sector. In particular, the basic concepts of Management Science are examined, as well as the modern trends in the management of modern financial units in an ever-changing business and financial environment. The purpose of the course is to introduce students to the concept and importance of management as applied to the modern work environment, preparing them for specialized business administration courses that they will pursue following their studies.

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

- Understand the basic principles of Business Management.
- Understand the internal and external factors that influence the management and operation of businesses.
- Understand the meaning, nature and organizational structure of a business / organization.
- Analyze problems and make decisions.
- Design, organize and control administrative and organizational structures.

#### **Course Content:**

- Introductory concepts - Principles of Business Administration and Organizations.
- Historical Management Evolution.
- Internal and External Business Environment.
- Management Process - Decision Making.
- Organizational Structure of Businesses / Organizations - Groups.
- Human Resource Leadership and Management.

**Student Assessment Method:** Final Examination (100%)

#### **Recommended Bibliography:**

1. Πετρίδου, Ε. (2011). Διοίκηση – Management (3<sup>η</sup> Έκδοση). Εκδόσεις Σοφία, Θεσσαλονίκη.
2. Robbins, S. P., Decenzo, D. A., Coulter, M. (2012). Business Administration, Principles and Applications. KritikiPublications, Athens.
3. Schermerhorn, J. R. (2012). Introduction to Management, KP. Paschalidis Publications.
4. Μπουραντάς, Δ. (2002). Management, Εκδόσεις Μπένου, Αθήνα.
5. Τζωρτζάκης, Κ. & Τζωρτζάκη, Α. (2007). Οργάνωση και Διοίκηση. Το Management της νέας εποχής, Εκδόσεις Rosili, Αθήνα

## **Scientific Research Methodology**

**Semester:** 1<sup>st</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 2

**ECTS:** 4

**Learning Outcomes:** The students will be able to clearly and adequately manage the basic framework for utilizing qualitative analysis either through theoretical categories and assumptions or through empirically grounded theory and narrative analysis and description.

### **Course Content:**

Introductory remarks: Qualitative and quantitative research respectively, positivism, phenomenology, empiricism and idealism are some of the dilemmas faced by the student and he / she is asked to choose a method or method to develop, reinforce the arguments.

Methodology in administrative science: Particularly in the field of social sciences evolution there is a wide range of social, cultural, intercultural and communication crises explored based on the principles of qualitative research or at best a combination of quantitative and qualitative research respectively.

Methodology in the modern digital age: The methods, techniques and processes used in qualitative research, particularly in the modern digital age, the era of information flows and communication management are well-described and often subject to reflection and criticism in research.

**Student Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Dafermos, M. (2010). Positivism in Psychological Research: An Attempt of Critical Theory. In M. Pourkos / M. Dafermos (Ed.), *Qualitative Research in Psychology and Education: Epistemological, Methodological, and Ethical Issues* (pp. 227-255). Athens: Location.
2. Dimitrakopoulos Mich. (1995). The "Crisis" of European Sciences and the "Heroism" of the Philosophical and Phenomenological Literature of Europe, Athens.
3. Dragona, Th. (1990). Quantitative and Qualitative Approach Joins or When Divisional Walls Collapse. *Scientific Yearbook of the School of Philosophy, University of Ioannina, Dodoni, Volume ITH, 3140.*
4. Zafiroopoulos, K. (2005). *How to do a scientific work. Review*, Athens.
5. Alley, M. (2007). *The craft of scientific presentations: Critical steps to succeed and critical errors to avoid.* Springer Verlag, New York.

6. Leedy, P. D. / Ormrod, J. E. (2004). Practical research: Planning and design (8th ed.). Prentice Hall, Upper Saddle River.
7. Tanggaard, L. (2009). The Research Interview as a Dialogical Context for the Production of Social Life and Personal Narratives. *Qualitative Inquiry*, 15, 14981515.

### **Pedagogy and Philosophy of Education**

**Semester:1<sup>st</sup>**

**Course Unit Type:Elective Course**

**Weekly Teaching Hours:3**

**ECTS:4**

**Learning Outcomes:** The aim of the course is to give students an understanding of the importance of the Pedagogical Science and the Philosophy of Education in Management and in particular in Skill Development and Human Resource Management.

#### **Course Content:**

- Elements of Pedagogy, Contemporary Pedagogical Concepts, Relation to the Philosophy of Education
- Interpretation of the basic concepts paideia-education-treatment-socialization-ethics-dogmatism-right-human rights
- Philosophical view of each of the major representatives of Education

- Contribution and importance of the Philosophy of Education in Management and in particular in Counselling Education, Career Guidance, Skills Development, Human Resources Management and the Business Industry.

**Student Assessment Method:**Final Written Examination (100%)

### **Recommended Bibliography:**

1. Βώρος, Φ. Κ. (1997). *Η φιλοσοφία της εκπαίδευσης*. Έκδοση του «Εκπαιδευτικού Συνδέσμου», Αθήνα.
2. Αθανασούλα-Ρέππα, Αν. (2008). *Εκπαιδευτική Διοίκηση και Οργανωσιακή Συμπεριφορά. Η Παιδαγωγική της Διοίκησης Εκπαίδευσης*. Εκδόσεις Ίων, Αθήνα.
3. Τριαντάρη-Μαρά, Σ. (2006-2007). *Η διαχρονικότητα των εκπαιδευτικών απόψεων του Friedrich Nietzsche: Μαθήματα για την Παιδεία*. Εκδόσεις Δαρδανός, Αθήνα.
4. Triantari, S. A. (2012). Rhetoric of Aristotle in «lifelong education». *Lambert Academic Publishing (LAP)*.
5. Τριαντάρη, Σ. Α. (2012). *Η φιλοσοφία του Πραγματισμού στην Εκπαίδευση. Επικαιροποίηση του έργου του John Dewey «Δημοκρατία και Εκπαίδευση»*. Εκδόσεις Σταμούλης, Θεσσαλονίκη.
6. Τριαντάρη, Σ. Α. (2015). *Επίκτητος Εγχειρίδιον. Η τέχνη του βίου: Ο φιλοσοφημένος βίος του πολιτικού*. Εκδόσεις Ζήτρος, Θεσσαλονίκη.
7. *Η Παιδαγωγική Σχέση* (Συλλογικό Έργο) (2010). Εκδόσεις Γρηγόρης, Αθήνα.

## **2<sup>nd</sup> SEMESTER**

### **Informatics Science and Practice**

**Semester:**2<sup>nd</sup>

**Course Unit Type:**Compulsory Course

**Weekly Teaching Hours:**3

**ECTS:5**

**Learning Outcomes:**

- Advanced programming introduction
- Advanced use of Office 2019 (also under AZURE-Google.)
- Excel modelling
- Digital Ledger Technology Introduction Theory and Practice

**Course Content:**

THINK, READ & WRITE redefinition

MS-WORD THEORY

DOCUMENT LAYOUT

AUTHORING & WRITING

HOW to WRITE

WORD, FAQs, exercises, tips,

EXCEL SPREADSHEET THEORY

SPREADSHEET PHILOSOPHY & EPISTEME

SPREADSHEET TOPICS & METHODOLOGY

EXCEL FAQs, exercises, tips,

FUNCTION LIBRARY

ACCESS

PUBLISHER

MATLAB Introduction

Financial Time Series with MATLAB

METATRADER C Language

Monetary intro, trade, Atomic swap

DLT Distributed Ledger Technology

SolidityBlockchain

DigitalCurrencies

Central Bank Digital Currency

Fintech

Lawtech

Managtech

Insurtech

Regtech

Banktech

Agro tech

KYC AML GDPR compliance

Credit coin cards

IoT devices

**Student Assessment Method:** Weekly upload of classroom and laboratory presence and progression, monthly homework, automated remote distributed evaluation, student progression University local automated exams, final written and/or oral exams.

Student professor Auditing through examination at a higher level through a professor committee.

### Recommended Bibliography:

1. Research Methodology 978-960-92833-5-9
2. Advanced Project Management 960-8084-00-8
3. Holistic AUDITING 978-960-98872-0-5
4. OFFICE, Read&WriteRedefinition 960-630-768-7
5. OFFICE, Read&WriteRedefinition 960-630-768-9
6. ADVANCED IT 978-960-92833-0-4
7. INFORMATION SYSTEMS 978-960-92833-6-6
8. SYSTEMS INTELLIGENCE 2009
9. ADVANCED novustempusdigitalis 978-960-92833-4-2
10. DIGITECH 960-87594-1-2 2004
11. INFORMATION SYSTEMS Theory&Applications 978-960-92833-1-1
12. Paean and Lamentation for the BlockChain Economy, Έκδοση: 3/2018,
13. Διαλογισμοί FIN tech, Έκδοση: 2/2018, ISBN: ISBN 978-618-83909-1-1
14. Ελεγκτική LAWtech, Έκδοση: 1/2018, ISBN: 978-618-83909-0-4
15. DIGITAL Agenda 2021, Έκδοση: 1/2016, καθ. ΔρΜηχ. ΔΗΜΗΤΡΙΟΣ ΖΗΣΟΠΟΥΛΟΣ
16. ISBN: 978-618-82777-0-0, (Εκδότης): ΑΝΤΩΝΗΣ Κ. ΠΟΥΓΑΡΙΔΗΣ
17. DIGITAL OFFICE, Agenda 21, Έκδοση: 1/2016, ΔρΜηχ. ΔΗΜΗΤΡΙΟΣ ΖΗΣΟΠΟΥΛΟΣ
18. ISBN: 978-618-82777-1-7, Εκδότης: ΑΝΤΩΝΗΣ Κ. ΠΟΥΓΑΡΙΔΗΣ
19. INFORMATION SYSTEMS, Έκδοση: 1/2010, Συγγραφείς: καθΔρΔρ Μηχ. ΖΗΣΟΠΟΥΛΟΣ ΔΗΜΗΤΡΙΟΣ ISBN: 978-960-92833-6-6,
20. Research Methodology, Έκδοση: 1/2011, Συγγραφείς: καθΔρΔρ Μηχ. ΖΗΣΟΠΟΥΛΟΣ ΔΗΜΗΤΡΙΟΣ ISBN: 978-960-92833-5-9
21. ADVANCED IT, Κωδικός Βιβλίου στον Εύδοξο: 8366
22. Έκδοση: 1/2010 ,Συγγραφείς: καθΔρΔρ Μηχ. ΔΗΜΗΤΡΙΟΣ ΖΗΣΟΠΟΥΛΟΣ ISBN: 978-960-92833-0-4
23. " LEXELAS, Makrygianis" ,Kazazis, Kyriazis, Zissopoulos,CD-ROM,1988,ΕΛΙΜΕΙΑ ΤΕΧ,Kozani (pgs/MB:/640)
24. " HELLASTOURCDI" ,ZissopoulosD, ZafiroopoulosJ,CD-I,1993,ΤΕΙΔΜ,Kozani( pgs/MB:/120)
25. " DAAD, DigitalAmphidromicAdvertisment, ISBN 960-8084-00-8" ,DrZissopoulosAth. Dimitrios,τεχνικό βιβλίο,1995,MARC,Kozani( pgs/MB:130/)
26. " METHODIOS 500 Labs " ,Ζησόπουλος Δημήτριος, Διάφοροι,τεχνικό βιβλίο,2001,ΤΕΙΔΜ,Κοζανη( pgs/MB:11000/)
27. "Διοικητική Τεχνολογία" ,Zissopoulos D, Παπακωνσταντίνου Γ, Παπαθανασίου Δ,CD-ROM,2001,MARC,Kozani (pgs/MB:700/)

## **Microeconomic Analysis**

**Semester: 2<sup>nd</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** Upon successful completion of the course, the students will acquire knowledge and skills that will enable them to:

- Know the functioning of the mechanisms of the household and the business.
- Be aware of the methodology in which these business units make their decisions and how using the factors optimally of production can improve their utility and competitiveness.
- Know the precise role that market forces play, that is to say, supply and demand in balancing the markets for goods and factors of production.
- Know how to maximize profit for businesses in perfectly competitive markets.

The course aims at the description and analysis of contemporary subjects of microeconomic theory, as they have evolved in recent years globally, and the student's information on current developments and trends in the field of microeconomic theory, as well as on the microeconomic problems of modern economies. As a result, the students can gain a better understanding of how the economic system works, and at the same time, it becomes easier for them to understand the mechanisms of economic thinking in choosing between alternatives to the financial problem and formulating an effective economic policy.

In order to achieve the above objectives, it was considered appropriate to study the main theories of microeconomics as they have evolved up to recent years.

**Course Content:**



- Introduction to Microeconomics - Analysis of financial problems
- Demand and supply. Elasticities.
- Consumer theory. Preferences and the concept of utility.
- Consumer Options, Income Restriction, Excellent Choice, Income-Consumption Curve and Engel Curves.
- Production and cost theory.
- Minimize cost.
- Fully competitive markets, maximizing profit.
- Incomplete Market, monopoly, oligopoly.
- Study and Analysis of Production and Product Cost Charts.

**Student Assessment Method:** Final Examination (100%)

**Recommended Bibliography:**

1. Παλαιολόγος, Γ. & Πολέμης, Μ. (2018). Μικροοικονομική Θεωρία (Τόμος Α). Εκδόσεις Μπένου, Αθήνα.
2. Mankiw – Taylor (2010). Principles of Economic Theory. Publications Gutenberg, Αθήνα.
3. Nicholson, W. (2008). Microeconomic Theory. Kritiki Publications, Athens.

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**Financial Accounting II**

**Semester:** 2<sup>nd</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** Upon successful completion of the course, the student must acquire the ability to monitor all business activities.

**Course Content:**

- Class Accounts

- Depreciation of fixed assets
- Depreciation calculation methods
- Forecasts
- Inventory and valuation of assets
- Inventory valuation methods
- Foreign currency accounting
- End-of-use operations
- Consolidated balancesheets

**Student Assessment Method:** Final Examination (100%)

**Recommended Bibliography:**

1. Σόρμας, Α. (2018). Χρηματοοικονομική Λογιστική (Τόμος Β'). ΙΚΕ Αλέξανδρος.
2. Παπάς, Α. (2008). Χρηματοοικονομική Λογιστική (Τόμος Β'). Εκδόσεις Μπένου, Αθήνα.
3. Πατατούκας, Κ. & Μπατσινίλας, Ε. (2017). Σύγχρονη Λογιστική (Τόμος Β'). Εκδόσεις Σταμούλη, Αθήνα.

**Principles of Marketing**

**Semester:** 2<sup>nd</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** The aim of this course is to introduce students with the main principles of marketing and the characteristics of the marketing mix. The basic characteristics of the economic environment that affect marketing decisions are also

analyzed, along with the importance of marketing as a crucial growth factor for firms and organisations.

On successful completion of this module students will be able to:

1. Apprehend the meaning and importance of marketing for the operation and development of a firm/organization.
2. Analyze the internal and external marketing environment of a firm/organization.
3. Comprehend the main characteristics of consumers, and the factors affecting their behavior.
4. Formulate and carry out simple market research projects aiming to understand consumer behavior.
5. Understand in depth the elements and tool of marketing mix that are available to marketers, firms and organizations.
- 6.

### **Course Content:**

The following subjects will be examined in the lectures of this course:

- Introduction in marketing and its importance for firms and organizations. The main elements of marketingmix.
- Internal and external business and marketing environment.
- The characteristics of markets. Relations with consumers.
- Consumerbehavior. Segmentation and Targeting
- Introduction in market research and marketing decisions.
- Products/services. The importance of brands and its characteristics. Brand portfolio and management (Brand management).
- Pricing of products/services and marketing considerations.
- Place. Distribution channels. Supply Chain and marketing.
- Promotion. Promotional activities and advertisement.
- 

**Student Assessment Method:** Written Exams (60%) Presentation of individual or team projects (40%)

### **Recommended Bibliography:**

*InEnglish*

1. Philip, K., Armstrong G., (2017). *Principles of marketing*. Pearson higher education.
2. Brassington, F., & Pettitt, S. (2013). *Essentials of marketing (3<sup>rd</sup> edition)*. Pearson education.
3. Kotler, P., & Keller, K. L. (2016). *Marketing management (15th global ed.)*. England: Pearson.

4. Various articles and papers will be provided during the lectures, related to marketing issues

*In Greek*

5. Βλάχβη Α., (2019)., Μαρκετινγκ: αρχές, στρατηγικές, εξελίξεις και νέα δεδομένα., Εκδόσεις Ευγενία Μπένου, Αθήνα. (κωδ. Ευδοξος: 86198072)
6. Πασχαλούδης Δ. (2018)., Εισαγωγή στο Marketing., Εκδόσεις Α. ΤΖΙΟΛΑ & ΥΙΟΙ Α.Ε. (κωδ. Ευδοξος: 77106806)
7. Άρθρα και δημοσιεύματα σχετικά με την σύγχρονη επιχειρηματική πραγματικότητα και τη χρήση του marketing από τις επιχειρήσεις και τους οργανισμούς θα είναι διαθέσιμα στους φοιτητές μέσω του eclass.

## **Statistics in Management Science II**

**Semester: 2<sup>nd</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The course aims at introducing the student to the basic principles of statistical inference: sampling distributions, confidence intervals and hypothesis testing for one and two samples.

Upon successful completion of the course the student:

- Understands the main principles of sampling distributions
- Has knowledge of the main properties of estimators (unbiasedness, normality, sufficiency)
- Has knowledge of the main asymptotic properties of estimators
- Can construct confidence intervals
- Can perform hypothesis testing

### **Course Content:**

- Point estimation and estimators
- Properties of estimators
- Asymptotic properties of estimators
- Confidence intervals
- Hypothesis testing

### **Student Assessment Method:**

I. Term Paper (40%).

II. Written final exam 60%.

### **Recommended Bibliography:**

5. Ανάλυση δεδομένων και μεθοδολογία έρευνας, Νικόλαος Σαριαννίδης, Γεώργιος Κοντέος, ISBN: 978-618-84462-4-3, εκδόσεις ΑΛΕΞΑΝΔΡΟΣ ΙΚΕ
6. Εφαρμοσμένη στατιστική, Μπόρα - Σέντα Ε., Μωυσιάδης Χρόνης Θ., ISBN: 960-431-184-0, εκδόσεις Ζήτη

## **Economics Mathematics**

**Semester: 2<sup>nd</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** On successful completion of this module the learner will be able to:

1. Know the simple interest mechanism, also, the internal and external discount
2. Know the applications of the equation of equivalence

3. Be familiar with the macro financial acts like compound interest and the annuities

Finally, to feel ready to analyze an investment as for the profitability ratio, the internal rate of returns and the loan depreciation.

### **Course Content:**

- Simple interest
- Internal – External discount
- Bill's equivalence
- Compound interest
- Annuities

Investment analysis – Loan depreciation

### **Student Assessment Method:**

Written final exam 100%

### **Recommended Bibliography:**

- Οικονομικά Μαθηματικά, Α. Σόρμας, Ν. Σαριαννίδης, 2010 (Financial Mathematics, Sormas A., Sariannidis, N. 2010)
- Οικονομικά Μαθηματικά, Χ. Φράγκος, εκδόσεις ΣΤΑΜΟΥΛΗ, 2007
- Οικονομικά Μαθηματικά, Κατωπόδης Ε., Π. Κικίλιας, εκδόσεις ΔΗΡΟΣ, 2001

Οικονομικά Μαθηματικά και Στοιχεία Τραπεζικών Εργασιών, Θ. Αποστολόπουλος, Σύγχρονη Εκδοτική, Αθήνα 2003.

### **Developmental Psychology**

**Semester:** 2<sup>nd</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 5

**Learning Outcomes:** The aim of the course is to introduce students to the subject and to the study areas of developmental psychology, the basic theories of development: Sigmund Freud & Eric Erikson & J. Piaget and to recognize the role of genetic and socio-cultural factors in human development. As far as social development is

concerned, the course aims at helping students to recognize and utilize the way in which the social relationships and interactions of a person with the others develop, change, or remain constant over the time.

### **Course Content:**

- The main object of the developmental psychology is to understand the developmental sequence that people go through as they grow and the factors that promote or inhibit the growth.
- Critically are presented the most important existing theories of the individual development, which supported by relevant research.
- The role of genetic and socio-cultural factors in the human development.
- The ways in which Developmental Psychology research data can be applied to everyday life.

**Student Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Cole, M. & Cole, S. R. (2002). *Η Ανάπτυξη των Παιδιών* (Τόμος Γ' Επιμ. Ζ. Παπαληγούρα & Π. Βορριά). Εκδόσεις Τυπωθήτω-Γιώργος Δαρδανός, Αθήνα.
2. Craig, G. J. & Baucum, D. (2007). *Η ανάπτυξη του ανθρώπου* (Τόμος Α'). Εκδόσεις Παπαζήση, Αθήνα.
3. Feldman, R. S. (2011). *Εξελικτική Ψυχολογία, Δια βίου Ανάπτυξη*. Επιμέλεια Η.Γ.Μπεζεβάγκης, Εκδόσεις Γ. Δαρδανός - Κ. Δαρδανός Ο.Ε, Αθήνα.
4. Lehalle, H. & Mellier, Δ. (2009). *Ψυχολογία της ανάπτυξης*. Εκδόσεις Πεδίο, Αθήνα.
5. Salkind, N. (2006). *Εισαγωγή στις θεωρίες της ανθρώπινης ανάπτυξης* (Επιμ. Δ. Μαρκουλής). Εκδόσεις Πατάκη, Αθήνα.
6. Atkinson, R. L., Atkinson, R. C., Smith, E. E., Bem, D. J., Nolen-Hoeksema, S. (2003). *Εισαγωγή στην Ψυχολογία του Hilgard*, Τόμος Α'. (Επιμ. Γ. Βορριά, Μ. Ντάβου, Ζ. Παπαληγούρα). Εκδόσεις Παπαζήση, Αθήνα.

## **3<sup>rd</sup> SEMESTER**

### **World Wide Web Features and Applications**

**Semester: 3<sup>rd</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 5**

**Learning Outcomes:** The purpose of the course is to introduce the student to the concepts of web searching for information. Students gain knowledge of fundamental principles and concepts related to the services offered by the Internet with proper and safe use of the Internet.

#### **Course Content:**

- Networks and ways to connect to the Internet.
- Using and setting up a home modem and wireless Internet access.
- Wi-Fi network telephony and Internet phone calls.
- Browsers, their features, advantages and disadvantages (Mozilla Firefox, Opera, Apple Safari, Google Chrome and Microsoft Edge etc.)
- Search engines and how they are used.
- The File Transfer Protocol (FTP).
- Email, Webmail services, instant messaging services and their capabilities.
- Social networks and their use.
- Sending and receiving data over the Internet.
- The concept of Internet security: Firewalls, viruses, worms, adware-spyware, spamming, cookies etc.
- The use of multimedia on the web.
- Two of the most popular programming languages on the web: HTML and VBScript.

No prerequisite programming experience.

**Student Assessment Method:** Final written examination (60%), assignments (40%)



### **Recommended Bibliography:**

1. Charitoudi G. Sapalidis K. - World Wide Web Capabilities and Applications
2. McCabe James D. Zittrain Jonathan - The Future of the Internet Networks-communications
3. Kurose James, Ross Keith - Computer Networking: A Top-Down Approach, Global Edition

### **Human Resource Management**

**Semester: 3<sup>rd</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of the course is for students to acquire knowledge and understanding of management issues related to work planning, evaluation, the system of remuneration in the management of human resources in businesses and organizations.

#### **Course Content:**

- Concept and content of Human Resource Management.
- Human Resource Planning and Needs Forecasting.
- Job analysis and description.
- Work planning.
- Recruitment.

- Performance Management – Evaluation.
- A Remuneration Systems.
- Employee relationship management.

**Student Assessment Method:**Final Written Examination (100%)

**Recommended Bibliography:**

1. Serdaris, P. (2008). Psychology of Industrial and Business Administration. University Studio Press, Thessaloniki.
2. Tzortzakis, K. & Tzortzakis, A. (1992). Organisation and Management. Management, The Greek approach. Athena.
3. Terzidis, K. & Tzortzakis, K. (2004). Human Resources Management [Management Staff]. Rosili Publications, Athens.
4. Xirotiri-Koufidou, S. (2001). Human Resources Management, The Challenge of the 21<sup>st</sup> century in the working environment. Anikoula Publications, Thessaloniki.
5. Martin, P. N. (1987). Creating a Committed Workforce. London: Personnel Institute Management.

**Macroeconomic Analysis**

**Semester:** 3<sup>rd</sup>

**Course Unit Type:**Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 5

**Learning Outcomes:** Upon successful completion of the course, the student will acquire knowledge and skills that will enable him / her to:

- Know the fundamental economic laws and mechanisms that form the dominant economic system.
- Become aware of the problems arising from its operation as well as learn how to deal with them.
- Familiarize and use the basic conceptual, methodological and technical tools of macroeconomic analysis.

**Course Content:**

- Introduction to Microeconomic Analysis
- Relationship between Microeconomic and Macroeconomic Theory
- Tools of Macroeconomic Theory
- National Accounts and Macroeconomic Theory
- The economic cycle and its functions
- The role of the state
- Determination of income
- National accounts
- Theory of employment and money supply
- The monetary system and monetary policy
- Economic fluctuations
- Economic growth and growth
- Endogenous Enlargement
- Keynesian Analysis of Economics
- Open Economy and Macroeconomic Theory

**Student Assessment Method:** Final Examination (100%)

**Recommended Bibliography:**

1. Σιδηρόπουλος, Μ. (2018). Εισαγωγή στη Μακροοικονομική Ανάλυση. Εκδόσεις Μάρκου & ΣΙΑ Ε.Ε..
2. Πουρναράκης, Ε. (2004). Εισαγωγή στην οικονομική, Εκδόσεις Σύγχρονη Εκδοτική, Αθήνα.
3. Μπένος, Θ. & Λιανός, Θ. (2004). Εισαγωγή στη Μακροοικονομική ανάλυση και Δημοσιονομική Πολιτική. Εκδόσεις Μπένου, Αθήνα.

**Administrative (Managerial)Accounting**

**Semester:** 3<sup>rd</sup>

**Course Unit Type:**Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**LearningOutcomes:** The aim of the course is to understand and familiarize students with the separate branch of Accounting, Administrative (Managerial) Accounting. The main objective of this course is to help students understand the difference between Financial and Administrative Accounting. In addition, upon successful completion of the course, students should be able to:

- Establish budgets in both private and public sector.
- Use accounting information for decision making.
- Analyze with various methods, such as the Balance Scorecard method.
- Derive information about the cost of products and services.

- Create budgets and costing them as well.
- Perform financial monitoring.
- Perform financial analyzes and estimations.

### **Course Content:**

- Introduction
- General about budgets
- Private sector budgets
- Public sector budgets
- Distinction between administrative accounting and financial accounting.
- Explanation of cost identification and cost of production unit or service.
- A description of the cost flow in an industry's stock accounts.
- Comparison of cost reporting in the financial statements of service providers, commercial companies and industries, and how inventories are accounted for.
- Calculation of unit production or service costs.
- An explanation of how management accounting supports the management process to generate business results.
- Recognition of code of ethics standards for administrative accountants.
- Distinguish between the two main product costing systems, and identify the information they provide.
- Explaining the cost flow in an industry-specific cost accounting system.
- Preparation of order costing sheet and calculation of unit cost of customized product or service.
- Explanation of cost allocation, and description of how the overheads are allocated when calculating unit or product unit costs.
- Explain the importance of measuring unit costs in the management process to achieve business results
- Case study

**Student Assessment Method:**Final Examination (100%)

### **Recommended Bibliography:**

1. Needles, B., Powers, M., & Crosson, S. (2016). Techniques and Cost Management, PublisherBrokenHillPublishersLtd., Κύπρος.
2. Καρτάλης, Ν. (2012). Διοικητική Λογιστική – Προϋπολογισμοί, Θεσσαλονίκη.
3. Garrison& Noreen (2005). Administrative Accounting (11th Edition). Klidarithmos Publications, Athens.
4. Νεγκάκης, Χ. &Κουσενίδης, Δ. (2014). Διοικητική Λογιστική, Θεσσαλονίκη.
5. Χατζής Α. (2012). Αναλυτική Λογιστική Εκμετάλλευσης : Θεωρία - Εφαρμογές, Θεσσαλονίκη.
6. Φιλιάς ( 2012). Διοικητική Λογιστική, Εκδόσεις ΟΠΑ ΑΕ, Αθήνα.

## **English for Management and Technology Purposes I**

**Semester: 3<sup>rd</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of this course is to encourage students to use manuals and reference bibliography related to their special field of studies. Emphasis is upon the acquisition of reading comprehension skills. Terminology and grammar structure teaching.

### **Course Content:**

- Business English Level Test
- Do you have a job?
- Jobs and Duties
- Setting Up a Business

- Meeting, Agendas Minutes
- Business and Cultures
- Stocks and Shares – Stock Market
- Accounting
- Human Resources

**Student Assessment Method:** Final written exam (100%)

### **Recommended Bibliography**

1. Peppas, I. (2017). English for Accounting and Business. Disigma Publications, Thessaloniki.
2. Perdiki, F. & Malivitsi, Z. (2012). Economic and Business English in a Nutshell, KETHEA SCHEMA AND CHROMA.
3. Belari-Petrianidi, L. & Kolethra, E. (2014). English for Economics and Business, New Tech Pub.
4. Tsionga, H. & Hatzistergiadou, A. (2016). First Steps at Work. Disigma Publications, Thessaloniki.

## **Law and Economics**

**Semester:** 3<sup>rd</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** Law and Economics is a basic introductory course on the relations of law and economics.

The course content aims at the acquisition of specific knowledge and skills and the introduction of students to the basic concepts and principles of economic analysis of law and its disciplines.

The Economic Analysis of Law (EAL) is the first independent interdisciplinary branch of economic and legal science, establishing the scientific position of interdependence and interaction between the two sciences and interdisciplinary / methodological research, applying economic calculations to legal settings. Indeed, it is the only

genuine scientific theory that seeks to see how legal arrangements affect economic behavior, economic relations, and economic outcomes, while also respecting the religious institutions enshrined in the Economic Constitution: the principle of the general public, interests, individual economic freedom, security of financial transactions, economic equality, etc.

Economic thought is pervasive in the rules of law: Large sections of law, e.g. both transactional law (contracts), but also delinquency, the law of protection of economic competition and the consumer and even criminal law are infiltrated by the economic thought. The acquisition of basic knowledge of economic law and economic analysis is a key aspect of the course. The modules are accompanied by examples, case studies and practical applications from Greek and international contexts that help students understand the modules.

### **Course Content:**

- Introductory remarks on the relations of law and economics.
- General part, Introduction - fundamental problems - fundamental concepts.
- The economic analysis of law.
- Global economic law (comparative overview).
- Concept and definition of economic law.
- State financial intervention.
- The economic legal order and the public interest.
- The originality and uniqueness of Economic Law.
- The Sources and Principles of Economic Law.
- The interpretation and application of the rules of economic law.
- The Functions of Economic Law.
- Economic competition.
- Financial Constitution.
- Financial Administration.
- Fiscal Policy.
- Financial planning.
- State tax intervention.
- Forms of contracts of the modern economy.

**Student Assessment Method:** Final written examination (60%) - Written assignments (40%).

### **Recommended Bibliography:**

1. Βελέντζας, Γ. (2019). Οικονομικό Δίκαιο, ΙuS, Θεσσαλονίκη.
2. Βελέντζας, Γ. & Πάνου, Γ. (2011). Οικονομικό Δίκαιο. Ελληνικό και Ευρωπαϊκό, ΙuS, Θεσσαλονίκη.
3. Πλιάκος, Α. (2011). Εισαγωγή στο Οικονομικό Δίκαιο. Εκδόσεις Νομική Βιβλιοθήκη.

## **Teaching Methodology and Educational Evaluation**

**Semester: 3<sup>rd</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS:4**

**Learning Outcomes:** The aim of the course is for students to understand the phenomenon of teaching in its complexity and its diversity by realizing its importance for education, in order to build the theoretical foundations and to develop the capacity and the readiness for planning, organization, implementation and evaluation of the teaching practice. Basic elements of educational evaluation are (a) the student's cognitive model in a cognitive field, (b) the types of observations, (c) interpretation.

### **Course Content:**

- The interaction of learning and teaching and the themes of Didactic science.



- Lesson designing by formulating their goals and their objectives, justifying their methodological choices, employing activities and competence development activities and teaching evaluation techniques through distinct phases.
- Types and forms of evaluation. Diagnostic, Initial / Predictive- Configurative / Continuous - Cumulative / Final evaluation, External - Internal, Criterion evaluation. Evaluation as a diagnostic, prognostic and receiving feedback tool.
- The evaluation of the school unit; Assessment of educational work.

**Student Assessment Method:**Final Written Examination (100%)

### **Recommended Bibliography:**

1. Γιαννούλης, Ν. (1993). *Διδακτική Μεθοδολογία*. Αυτοέκδοση, Αθήνα.
2. Ματσαγγούρας, Η. (2001). *Στρατηγικές Διδασκαλίας. Η κριτική σκέψη στη Διδακτική Πράξη, Θεωρία και Πράξη της Διδασκαλίας*. Εκδόσεις Gutenberg, Αθήνα.
3. Τριλιανός, Α. (2004). *Μεθοδολογία της Σύγχρονης Διδασκαλίας. Καινοτόμες επιστημονικές προσεγγίσεις στη διδακτική πράξη* (Τόμοι Α΄ και Β΄, 3η Έκδοση). Αυτοέκδοση, Αθήνα.
4. Φλουρής, Γ. (2005). *Η αρχιτεκτονική της διδασκαλίας και η διαδικασία της μάθησης* (6η Έκδοση). Εκδόσεις Γρηγόρη, Αθήνα.

## **4<sup>th</sup> SEMESTER**

### **Computer Programming I**

**Semester:** 4<sup>th</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3 hours

**ECTS:**4

**Learning Outcomes:** The purpose of the course is to enable students to automate more complex tasks in their work with the use of Visual Basic for Applications (VBA) code, such as: high-volume typing, immediate report generation such as monthly sales reporting a company, creating personal orders, creating special math and statistics functions.

### **Course Content:**

- Inserts VBA code into macros

- Numeric Representation & Function Introduction & Special Functions
- Macro security
- Creating programs.
- VBA Basic Commands.
- Data types
- Basic properties and methods
- User-defined functions
- Creating a function without arguments
- VBA functions.
- Decision Making and Duplication Structures
- Grouping many commands, which we frequently execute
- Creating our own add-ins
- Creating our own functions
- Creating our own add-ins
- Developing our own applications
- Property of an Object,
- Optimization and Linear Programming
- Integrated Examples - Applications

**Student Assessment Method:** Final written examination (60%), assignments (40%)

**Recommended Bibliography:**

1. Charitoudi G. VISUAL BASIC and VISUAL BASIC FOR APPLICATION
2. Evan, C. (2001). Introduction to Visual Basic for Applications in Microsoft Access 2000. Kleidarithmos, Athens.
3. Schmuller J. Statistical Analysis with Excel For Dummies. John Wiley & Sons, Inc., USA.
4. Etheridge D., Microsoft Office Excel 2007 Programming: Create your own visual blueprint for creating interactive spreadsheets. Wiley Publishing, Inc, USA.

**Leadership. Leadership Theories in Organizations and Business**

**Semester:4<sup>th</sup>**

**Course Unit Type:Compulsory Course**

**Weekly Teaching Hours:3**

**ECTS:5**

**Learning Outcomes:** The course aims for students to understand the meaning and relationship of the orator with the leader through a historical-philosophical overview, the key theories of the leadership, the leadership models, the personality, the communication skills, and the role of the leader, the essentials of effective leadership in organizations and in business.

## **Course Content:**

- Definition of the Orator, the Leader, and Management. Identify the relationship of the Orator with the Leader. Historical-Philosophical Review of the Leadership and the Leader from the Antiquity to Modern Times.
- Aristotle's philosophical view of Leadership and Leader, the Relationship to Rhetoric, and the positions of Ancient and Contemporary Philosophers on Leader's Management.
- Clarifying the definition of Leadership and the nature of the Leader, recognizing the key competences and skills that constitute and distinguish the nature of the Leader-mediator.
- An introduction to the basic theories of Leadership, a presentation of the key principles of Leadership, Models of Leadership and their basic characteristics.
- Practical importance of key considerations for effective Leadership in Organizations / Businesses.
- Demonstrate leadership styles and their communicative behavior to their subordinates. Analysis of the Basic Theories of Leadership in incitement.
- The presence of the Leader through the basic theoretical currents and the effective Leader's planning in decisions making.

**Student Assessment Method:** Final Written Examination (100%)

## **Recommended Bibliography:**

1. Εισαγωγή στη Διοίκηση Επιχειρήσεων και Οργανισμών (Β' Τόμος). (2012). Βασικές Αρχές Οργάνωσης και Διοίκησης.
2. Μπουραντάς, Δ. (2005). Ηγεσία - Ο δρόμος της διαρκούς επιτυχίας. Εκδόσεις Κριτική, Αθήνα.
3. Μαλαγκονιάρη, Ε. (2005). Μοντέλα Ηγεσίας και Τεχνικές Παρακίνησης. Εκδόσεις Κριτική, Αθήνα.
4. Triantari, S. (2014). The Communicational Mask of the Globalized Rhetoric: The Modern Interpretation of Aristotle's "not Invidit and "Invidit Proofs". *Asian Journal of Humanities and Social Studies*, 2 (2), 253-258.
5. Φωτόπουλος, Ν. (2013). Αποτελεσματική ηγεσία στην εργασία. Εκπαιδευτικό υλικό για τα Κέντρα Δια Βίου Μάθησης. Αθήνα.
6. Goleman, D. (2002). Νέος ηγέτης-η δύναμη της Συναισθηματικής Νοημοσύνης στη Διοίκηση Οργανισμών. Εκδόσεις Ελληνικά Γράμματα, Αθήνα.
7. Μπουραντάς, Δ. (2005). Ηγεσία: Ο Δρόμος της Διαρκούς Επιτυχίας. Εκδόσεις Κριτική, Αθήνα.

8. Gordon, T. (2001). Τα Μυστικά της Αποτελεσματικής Ηγεσίας. Εκδόσεις Μάρτης & GordonHellas, Αθήνα.
9. Koontz, H. & O' Donnell, G. (1983). Οργάνωση και Διοίκηση: Μία Συστημική και Ενδεχόμενη Ανάλυση των Διοικητικών Λειτουργιών (Τόμος 3 - 2<sup>η</sup> Έκδοση). Εκδόσεις Παπαζήση, Αθήνα.
10. Τριαντάρη, Σ. Α. (2020). Ηγεσία. Θεωρίες Ηγεσίας. Από τον Αριστοτελικό Ρήτορα στο σύγχρονο Ηγέτη. Θεσσαλονίκη: Ι. Χαρμπαντίδης.

## **Sociology**

**Semester: 4<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of the course is to study human society, the relationship of the individual with the social community, the dynamics of social groups and the roles that the individual assumes as a social unit.

**Course Content:** The student should be able to:

- Know the basic concepts of sociology.
- Know the methodology of sociology.
- Know the basic sociological theories and views of the great thinkers of sociology.
- Understand social institutions and the factors affecting them.
- Understand the relationships and interactions between groups in the level of society.
- Understand the developments in the field of sociology.
- Know the procedures governing team dynamics.
- Distinguish the basic characteristics of a society, such as its class, gender, ethnicity, race, culture.
- Understand the role of social rules, social control and how society works.
- Familiarize with the concept of Society and the State Social stratification
- Gain knowledge around the topics of Social Mobility Social Attitudes - Social Groups - Dynamic

**Student Assessment Method:** Final Examination (100%)

### **Recommended Bibliography:**

1. Σερδάρης, Π. (2014). Κοινωνική Ψυχολογία, Παρελθόν, Παρόν, Μέλλον. UniversityStudioPress, Θεσσαλονίκη.
2. Giddens, A., (1989). Introduction to Sociology (2nd Edition). Odysseus Publications, Athens.
3. Aron, R., (1984). The evolution of sociological thinking (Volume AB). GnosisPublications, Athens.
4. Hughes, M. & Kroehler, C. J. (2007). Sociology, Basic Concepts - Introduction. Kritiki Publications, Athens.
5. Ritzer, G. (2000). Sociological theory (5<sup>η</sup> έκδοση). McGraw-Hill, ΗΠΑ.

## **English for Management and Technology Purposes II**

**Semester: 4<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of this course is to encourage students to use manuals and reference bibliography related to their special field of studies. Emphasis is upon the acquisition of reading comprehension skills. Terminology and grammar structure teaching.

### **Course Content:**

- What is Management
- The role of the Manager
- Leadership
- Marketing – Internet Marketing
- Human Resources
- Macro – Microeconomics
- Product – Sales – Risk Management
- Branding – Innovation
- Computers and the Business World

**Student Assessment Method:** Final written exam (100%)

### **Recommended Bibliography**

1. Peppas, I. (2017). English for Accounting and Business. Disigma Publications, Thessaloniki.
2. Perdiki, F. & Malivitsi, Z. (2012). Economic and Business English in a Nutshell, KETHEA SCHEMA AND CHROMA.
3. Belari-Petrianidi, L. & Kolethra, E. (2014). English for Economics and Business, New Tech Pub.
4. Tsionga, H. & Hatzistergiadou, A. (2016). First Steps at Work. Disigma Publications, Thessaloniki.

## **Quantitative Methods in Business Administration**

**Semester: 6<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** Upon successful completion of this course the learner will be able to:

- Have the basic knowledge about the nature and characteristics of operations management and the respective types of models to make rational decisions in key categories of business problems for organizations.
- Develop Linear programming models (Lp) based on specific business problems.
- Solve Linear programming problems by using the simplex method and its variations.
- Solve specific Linear programming problems such as transportation problems and assignment problems.
- Use different software packages for solving Lp models.
- Know the main criteria for decision making under conditions of risk and uncertainty and apply them to specific business problems.

### **Course Content:**

- Introduction to Operations Management: History. Standards of Operations Management, Types of models.
- Linear programming (Lp): Examples of Lp models, Graphical method for solving Lp and sensitivity analysis, Simplex method and sensitivity analysis.
- The dual linear programming problem: Relationship between primal and dual problem - basic theorems. Dual simplex method.
- Integral and binary linear programming: examples and applications
- Specific Linear programming problems: transportation and assignment problems - solving methods
- Decisions theory: criteria for decision making under conditions of risk and uncertainty. Decision trees. Elements of game theory.

**Student Assessment Method:** Final Examination (100%)

### **Recommended Bibliography:**

1. Καθάρáκη, Μ. (2007). Ποσοτική Ανάλυση στη Άσκηση Διοίκησης. Εκδόσεις



Σταμούλη, Αθήνα.

2. Φούντας, Χ. & Δρόσος, Χ. (2018). Ποσοτικές Μέθοδοι και Εφαρμογές.

## **Management Information Systems**

**Semester: 4<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of the course is the examination of information systems' influence on firm's core functions. For this reason, students are educated about the most important strategic and management models of information systems that are used in contemporary business environment.

### **Course Content:**

- Enterprise information systems in contemporary business environment.
- Information systems and competitive advantage.
- Ethical and social issues related to information systems.
- Information systems' infrastructure.
- Business excellence and customers' relationships - business applications.
- Better decision making and knowledge management.
- Information systems' development and management.

**Student Assessment Method:** Final exams (100%)

### **Recommended Bibliography:**

1. Laudon, K. C. & Laudon, P. J. (2014). Management information systems, Kleidarithmos Publishing, Athens, Greece (in Greek).
2. Wallace, P. (2014). Management information systems, Kritiki Publishing, Athens, Greece (in Greek).
3. Kroenke, M. D. & Boyle J. R. (2016). Management information systems in practice. Hill Publishers Ltd., Nicosia, Cyprus (in Greek).

## **Educational Technology for Multimedia and Pedagogical Computer Applications**

**Semester:** 4<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 5

**Learning Outcomes:** Learning activities that take advantage of: (a) modern technological tools (educational software, general and special software tools, multimedia / multimedia tools), (b) Internet and World Wide Web services, tools and applications, and (c) portable technologies and related applications; Strategies for integrating technology into education; Design technology of integration strategies in education, implement and design of an action research plan that will evaluate the impact of these integration strategies.

### **Course Content:**

- An overview of the available technologies and an examination of the roles that these can play as cognitive tools.
- Means that support communication and collaboration, tools of distribution and sharing of educational resources.
- Support systems for teaching
- Tools / environments whose current role in supporting teaching and learning is characteristic
- Methods of applying digital technologies in the educational process

**Student Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Roblyer, M. D. (2008). *Εκπαιδευτική Τεχνολογία και Διδασκαλία*. Εκδόσεις Ίων, Αθήνα.
2. Alimisis, D. (Ed.) (2009). *Teacher Education on Robotics-Enhanced Constructivist Pedagogical Methods*. ASPETE&TERECOPProject, Athens.
3. Αλιμήσης, Δ. (2003). *Ο ηλεκτρονικός υπολογιστής ως εργαλείο παραγωγικότητας, πληροφόρησης και επικοινωνίας στην Εκπαίδευση*. Εκδόσεις Ίων, Αθήνα.
4. Ασλανίδου Σ. (1992). *Εκπαιδευτική τεχνολογία και οπτικοακουστική αγωγή*. Εκδόσεις Αφοί Κυριακίδη, Θεσσαλονίκη.

## 5<sup>th</sup> SEMESTER

### Object-Oriented Programming

Semester: 5<sup>th</sup>

Course Unit Type: Compulsory Course

Weekly Teaching Hours: 3

ECTS: 5

**Learning Outcomes:** Upon successful completion of the course, the student should be familiar with the basic programming methods and techniques and able to:

- Design applications with complex features.
- Create complex and simple forms, thus ending up creating applications that run in a real environment.
- Learn by himself any programming language in the future.

#### **Course Content:**

- Object-oriented programming.
- Define Visual Basic.
- Visual Basic's programming capabilities and tools.
- Structure of a Visual Basic application.
- Introducing the Visual Basic interface and all the tools we use to create an application.
- Presentation and analysis of data types used in Visual Basic.
- Useful code constants.
- Predefined constants as defined in the Visual Basic library.
- Variables - Operators - Operations.
- Visual Basic mathematical functions.
- Decision Making Commands.
- Repeat commands.
- Tables
- The coordinate system.
- Presentation of basic Visual Basic methods.
- Graphic methods.
- Learn how to design.
- Graphics Tools.
- Visual Basic multimedia tools.
- Sound.
- Video.

**Student Assessment Method:** Final written examination (60%), assignments (40%)

#### **Recommended Bibliography:**

1. Charitoudi G. VISUAL BASIC and VISUAL BASIC FOR APPLICATION. Disigma Publications, Thessaloniki.
2. Deitel Paul J., Deitel Harvey M. Visual Basic 2010. ISBN-13: 978-0130461315.
3. Rod, S. (2003). VisualBasicNet. Ανάπτυξη Εφαρμογών Βάσεων Δεδομένων. Kleidarithmos, Athens.

## **Rhetoric, Communication in Organizations and Business**

**Semester:5<sup>th</sup>**

**Course Unit Type:Compulsory Course**

**Weekly Teaching Hours:3**

**ECTS:5**

**Learning Outcomes:** The purpose of the course is for students to understand the importance and relationship of Rhetoric with Communication, in order for the executives of Organizations and Businesses to develop and improve the workplace communication and also to develop communication skills to address any communication problems at work and set out communication goals and strategies that will make them more effective at work and in their work performance.

### **Course Content:**

- Definition and techniques of Rhetoric as the basic scientific and practical background for Communication.
- Rhetoric's Relation with Communication through the Historical Review of Rhetoric.
- Importance and usefulness of persuasion as a tool of the Rhetoric and Communication in public discourse in decision making in Organizations / Businesses.
- The Importance and the Content of the Organizational Communication.
- Forms and tools of Communication
- Communication schools and models
- Ways to Improve Organizational Communication

**Student Assessment Method:**Final Written Examination (100%)

### **Recommended Bibliography:**

1. Cole, Th. (1991). *The Origins of Rhetoric in Ancient Greece*. Johns Hopkins University Press, Baltimore, USA.
2. Denton, D. M. (1976). *The philosophy of total Communication*. B. D. A., London, UK.
3. Goleman, D. (2000). *Η Συναισθηματική Νοημοσύνη στο χώρο της εργασίας*. Εκδόσεις Ελληνικά Γράμματα, Αθήνα.
4. Goleman, D. (1998). *Η Συναισθηματική Νοημοσύνη*. Εκδόσεις Ελληνικά Γράμματα, Αθήνα.
5. Kennedy, G. (2000). *Ιστορία της Κλασικής Ρητορικής. Αρχαίας Ελληνικής και Ρωμαϊκής*. Μπφρ. Ν. Νικολούδης. Εκδόσεις Παπαδήμας, Αθηνά.
6. Μπασάκος, Π. (1999). *Επιχείρημα και κρίση*. Εκδόσεις Νήσος.
7. Τριαντάρη, Σ. (2016). *Η Ρητορική, η Τέχνη της Επικοινωνίας από την Αρχαιότητα στο Βυζάντιο. Η επικαιροποίηση της Ρητορικής και η εξέλιξή της*. Εκδόσεις Σταμούλης, Θεσσαλονίκη.
8. Τριαντάρη, Σ. (2010). *Πολιτική, Ρητορική και Επικοινωνία τον 14<sup>ο</sup> αιώνα*. Εκδόσεις Σταμούλης, Θεσσαλονίκη.
9. Triantari, S. A. (2012). *Rhetoric of Aristotle in «lifelong education»*. Lambert Academic Publishing (LAP).

10. Βαλασίδης, Ι. (1982). *Κοινωνικές και Ψυχολογικές βάσεις της Επικοινωνίας*. Εκδόσεις Κοντακτά, Αθήνα.
11. Γιαννουλέας, Μ. Π. (1998). *Συμπεριφορά και Διαπροσωπική Επικοινωνία στον Εργασιακό Χώρο* (2<sup>η</sup> Έκδοση). Εκδόσεις Ελληνικά Γράμματα, Αθήνα.
12. Κοτζαΐβαζόγλου, Ι. & Πασχαλούδης, Δ. (2016). *Οργανωσιακή Επικοινωνία. Η Επικοινωνία για Επιχειρήσεις και Οργανισμούς*. Εκδόσεις Πατάκη, Αθήνα.

## **Databases**

**Semester: 5<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of the course is to educate students about the importance of relational databases in contemporary business and organizational environment. Furthermore, students are about to be educated in demand analysis with the aim to develop themselves entity-relationship models and relational schemes.

### **Course Content:**

- Introductory issues in databases.
- Entity-relationship model.
- Relational model.
- Logical modeling tools.
- Normalization.
- Relational algebra.
- Structured Query Language (SQL).

**Student Assessment Method:** Final exams (100%)

### **Recommended Bibliography:**

1. Ramakrishnan R. & Gehrke, J. (2012). Database Management Systems, Tziola Publishing, Thessaloniki, Greece (in Greek).
2. Connolly, T. & Begg, E. C. (2008). Databases, Gkiourdas Publishing, Athens, Greece (in Greek).
3. Silberschatz, K. H. & Sudarshan, S. A. (2002). Database Systems (4<sup>th</sup> Edition), M. Gkiourdas Publishing, Athens, Greece (in Greek).
4. Ullman D. J. & Widom, J. (2008). Basic Principles in Database Systems, Kleidarithmos Publishing, Athens, Greece (in Greek).
5. Stavrakoudis A. (2015). Databases and SQL: A Practical Perspective. Kleidarithmos Publishing, Athens, Greece (in Greek).

## **Econometrics**

**Semester: 5<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The course is an introduction to basic econometric methods and the principles of econometric estimation. The course aims to train students in specifying and estimating econometric models using simple and multiple regression methods.

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

- Understand the basic concepts of econometric models
- Understand the meaning and applications of Regression Analysis
- Evaluate an econometric model.
- Specify a model and test its parameters
- Make predictions based on a regression model

### **Course Content:**

- Introduction to econometrics, aim and scope of econometrics, basic steps to solve an econometric problem, data types and sources of data
- Simple linear regression – deterministic and stochastic relations
- Ordinary Least Squares method – assumptions of the simple linear model – Gauss-Markov Theorem
- Confidence intervals of the estimators – hypothesis testing
- F tests, analysis of variance, coefficient of determination – correlation – elasticities
- Multiple regression model – assumptions of the model
- Confidence intervals of the estimators and hypothesis testing in multiple regression
- Dummy variables

**Student Assessment Method:** In order to encourage students to manage their time effectively and provide them with alternatives there are three assessment methods:

I. Progress Tests (60%) and Term Paper (40%). The participation of students in the progress tests is optional, the students are examined in each distinct section of the course. The elaboration of a term paper is optional, but it requires intensive student engagement with the subject. Instructions for preparing the term paper as well as the submission date are announced in e-class.



II. Term paper (40%) and Written Final Exam (60%). The elaboration of a term paper is optional, but it requires intensive student engagement with the subject.

III. Written final exam 100% for students who do not participate in the progress tests and do not prepare term paper.

### **Recommended Bibliography:**

7. Βάμβουκας, Γ. (2007), "Σύγχρονη Οικονομετρία: Ανάλυση και Εφαρμογές", Αθήνα, Οικονομικό Πανεπιστήμιο Αθηνών.
8. Βενέτης, Ι. (2009), "Εισαγωγικές διαλέξεις στην Οικονομετρία", Γκιούρδας Εκδοτική, Αθήνα
9. Κάτος Αναστάσιος, (2004), Οικονομετρία, Θεωρία και εφαρμογές, Μάρκου και ΣΙΑ ΕΕ, Θεσσαλονίκη, ISBN: 960-8065-44-5
10. Χρήστου, Κ.Γ. (2002), "Εισαγωγή στην Οικονομετρία", Αθήνα, Gutenberg.
11. Gujarati, D. N. (2003), "Basic Econometrics", New York, Mc Grow-Hill.
12. Maddala, G.S. (1992) "Introductory Econometrics", New Jersey, Prentice-Hall.

## **Organizational Behaviour**

**Semester: 5<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of the course is to present the multidimensional and dynamically evolving organizational management in the complexity of human relationships that create new demands and push for the exploration of behavioral knowledge in organizations.

### **Course Content:**

- Understand the meaning and importance of Organizational Behavior.
- Organizational design.
- Conflict resolution in organizations.
- Making rational decisions.
- Organizational culture.
- Organizational groups and structures.
- Find the best possible solutions in organization issues based on empirical and scientific knowledge.
- Develop the abilities to handle issues of human relations and behavior in an organization.
- Analyze and respect the needs and desires of an individual that come from his inner self and influence his thoughts and behavior within an organization.
- Create a positive attitude in the employees to face the internal environment of the organization.
- Scrutinize the reasons leading to an event or behavior inside the organization.
- Evaluate the validity of information and to confirm his findings.
- Recall that organizations are social systems and the relations between individual and groups create expectations concerning the behavior expected by individuals.

**Student Assessment Method:** Final Examination (100%)

### **Recommended Bibliography:**

1. Σερδάρης, Π. & Ιωάννου, Ι. (2011). Οργανωτική Συμπεριφορά και Διοίκηση. UniversityStudioPress, Θεσσαλονίκη.

2. Σερδάρης, Π. (2008). Ψυχολογία Βιομηχανικής-Επιχειρησιακής Διοίκησης, UniversityStudioPress, Θεσσαλονίκη.
3. Χολέβας, Γ. (1995). Οργάνωση και Διοίκηση (Management). Εκδόσεις Interbooks, Αθήνα.
4. Βαγιάτης, Γ. (2002). Εργασιακή συμπεριφορά και θεωρία, Εκδόσεις ΕΑΠ, Πάτρα.
5. Martin, J. (2002). Organizational Culture. Mapping the Terrain, Sage Publishing.

## **Educational Psychology**

**Semester:5<sup>th</sup>**

**Course Unit Type:Elective Course**

**Weekly Teaching Hours:3**

**ECTS:4**

**Learning Outcomes:** The course aims at the ways that children and adolescents can learn in order to have high learning outcomes and to be integrated into the school context and the wider school community successfully. It also focuses on the educational practices that could promote the learning process and potentially contribute to optimal learning outcomes. Interpersonal relationships within the classroom are evaluated on the basis of the cultural background, social class and gender, and the principles of the group dynamics.

### **Course Content:**

- The theoretical approaches of the modern research data for school learning and teaching
- Educational Psychology aims at applying the principles and theories of the Psychology for the creation of effective learning processes and environments.
- Issues that are related to the development, learning, motivation, individual differences and the problem of classroom management.
- The effective teaching methods and the enhancement of student's personality.

**Student Assessment Method:**Final Written Examination (100%)

### **Recommended Bibliography:**

1. Woolfolk, A. (2007). *Εκπαιδευτική Ψυχολογία*. Εκδόσεις Ελλήν, Αθήνα. (Ελληνική έκδοση του βιβλίου Educational Psychology. New York: Pearson. Επιμ. Ε. Μακρή-Μπότσαρη).
2. Καλούρη-Αντωνοπούλου Ο. & Δημητρόπουλος, Ε. (2003). *Παιδαγωγική Ψυχολογία. Από τη θεωρία μάθησης στην εκπαίδευση νέων και ενηλίκων: Με στοιχεία επικοινωνίας και διαπροσωπικών σχέσεων*. ISBN: 960-286-809-0 Β. Συμπληρωματικά Βοηθήματα.

3. Elliott, S., Kratochwill, T., Littlefield-Cook, J., Travers, J. (2008). *Εκπαιδευτική Ψυχολογία*. Εκδόσεις Gutenberg, Αθήνα.
4. Slavin, R. (2007). *Εκπαιδευτική Ψυχολογία Θεωρία και Πράξη*. Εκδόσεις Μεταίχμιο, Αθήνα. (Ελληνική έκδοση του βιβλίου Educational Psychology: Theory and practice Boston : Allyn & Bacon, Επιμ. Κ. Κόκκινος).

## **Ethics in Decision Making**

**Semester: 5<sup>o</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

### **Learning Outcomes:**

The Ethics in Decision Making course refers to the importance, and cruciality of decision making and recognition of the skills and key performance characteristics of the leader and employees in the workplace. Decision-making is oriented on learning how to interpret methods using one or more alternatives. Decision-making is based on the right choice of decisions which lead to the right actions, in order to convey the right solution to a problem faced by an Organization or a Company.

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

1. The moral philosophical background in decision making
2. The steps for the formal decision-making process
3. The basic skills of decision-making
4. The importance of communication in decision making and rational thinking

### **Course Content:**

1. Importance of the concepts on Ethics and Ethical Philosophy, Rationalism, Decision Making
2. The Aristotelian ethic model as a precondition for making the right decisions
3. The identification and meaning of wisdom, choice, mediocrity, bliss for decision-making
4. The categories of decisions, conditions from which decisions pass, the correlation of rationality with decision-making and risk-taking, the realistic and pragmatic philosophical background in the stages of the decision-making process.
5. Group decision making, advantages and disadvantages of group decision and the criteria that determine the effectiveness of group decisions
6. Determination of the three basic skills in decision making, self-confidence, optimism, reliability
7. Problems on decision-making, the process by which decisions are made in critical circumstances.
8. The phenomenon of group compliance in decision-making and ways to confront it.

**Student Assessment Method:**Final written examination (100%)

**Recommended Bibliography:**

1. Δημητρόπουλος, Γ. Ε. *Αποφάσεις-Λήψη Αποφάσεων. Εισαγωγή στην Ψυχολογία των Αποφάσεων*. Αθήνα: Γρηγόρης, 2007.
2. Μαρτζ Τζέιμς, *Πως λαμβάνονται οι αποφάσεις*. Μτφρ. Α. Γαλανοπούλου. Αθήνα: Καστανιώτης, 2007.
3. Miller K., *Οργάνωση και Επικοινωνία, Προσεγγίσεις και Διαδικασίες*. Αθήνα : Εκδόσεις Δίαυλος, 2007.
4. Τριαντάρη, Σ. Α. *Ιστορία της Φιλοσοφίας. Από την Αρχαιότητα στο Μεσαίωνα. Τόμος Α΄*. Θεσσαλονίκη: Αντ. Σταμούλης, 2005.
5. Τριαντάρη, Σ. Α. *Ρητορική η Τέχνη της Επικοινωνίας από την Αρχαιότητα στο Βυζάντιο. Η επικαιροποίηση της ρητορικής και η εξέλιξή της*. Θεσσαλονίκη: Αντ. Σταμούλης, 2016.
6. Χατζηκιάν, Ι. Διαχείριση Συγκρούσεων. Λήψη Αποφάσεων. Επικοινωνία-Υποκίνηση. <http://www.innovation-ideas.gr/club/basicMemberMaterial/texts/15.pdf>.

## **Datalogy (Data Science)**

**Semester:5<sup>th</sup>**

**Course Unit Type:Elective Course**

**Weekly Teaching Hours:3**

**ECTS:4**

**Learning Outcomes:** The aim of the course is to prepare scientists with knowledge and skills on representation, storage and big data processing and algorithmic and computer techniques. Primarily we intend to focus on the Artificial intelligence concept that defines DataScience:data mining, big data, powerful programming systems and efficient algorithms.

Data science is a "concept to unify statistics, data analysis, machine learning and their related methods" in order to "understand and analyze actual phenomena" with data.[4] It employs techniques and theories drawn from many fields within the context of mathematics, statistics, computer science, and information science.

In practice, Python advanced language concepts will be integrated into a Visual Studio environment. (**NumPy, Pandas, Matplotlib**)

### **Course Content:**

Data Science is often used as an integrated superset of business analytics,business intelligence, predictive modeling, and statistics. General course directions are:

Algorithms and machine learning

Artificial intelligence based on statistics

Bigdatamanagementevaluation, homogenizing

Data Visualization

Python representation of Data Science

**Student Assessment Method:**Weeklyuploadof classroom and laboratory presence and progression, monthly homework, automated remote distributed evaluation, student progression University local automated exams, final written and/or oral exams. Student professor Auditing through examination at a higher level through a professor committee. Data Science techniques will be developed to facilitate student teaching and exam evaluation.

### **Recommended Bibliography:**

1. [Data & Analytics Series] Michael Manoochehri - Data Just Right\_ Introduction to Large-Scale Data & Analytics (0, Addison-Wesley).



2. David Loshin (Auth.) - Big Data Analytics. From Strategic Planning to Enterprise Integration with Tools, Techniques, No\_ SQL, and Graph (2013, Morgan Kaufmann).
3. Richard Cotton - Learning R\_ A Step-by-Step Function Guide to Data Analysis (2013, O'Reilly Media).
4. Bengfort, B.\_ Kim, J. - Data Analytics with Hadoop\_ An Introduction for Data Scientists (2016, O'Reilly Media).
5. Kerry Koitzsch (auth.) - Pro Hadoop Data Analytics \_ Designing and Building Big Data Systems using the Hadoop Ecosystem (2017, Apress).
6. Peter Ghavami PhD - Big Data Governance Modern Data Management Principles for Hadoop, NoSQL & Big Data Analytics (2015, CreateSpace Independent Publishing Platform).
7. Tanmay Deshpande, Sandeep Karanth, Gerald Turkington - Hadoop\_ Data Processing and Modelling (2017, Packt Publishing).
8. VigneshPrajapati - Big Data Analytics with R and Hadoop (2013, Packt Publishing).[A Collection of Programming Interview Questions 6] Antonio Gulli - A collection of Data Science Interview Questions Solved in Python and Spark\_ Hands-on Big Data and Machine Learning (2015, CreateSpaceIndependent.epub
9. Antonio Gulli, Sujit Pal - Deep learning with Keras (2017, Packt Publishing).epub
10. Antonio Gulli, Sujit Pal - Deep learning with Keras (2017, Packt Publishing) (1).epub
- 11.[For Dummies\_ Computers] John Paul Mueller, Luca Massaron - Python for Data Science For Dummies (2015, Wiley).
- 12.[Texts in Computer Science] Stevven S Skiena - Data Science Design manual (2017, Springer).
- 13.[Undergraduate Topics in Computer Science] Laura Igual, Santi Segu - Introduction to Data Science. A Python Approach to Concepts, Techniques and Applications (2017, Springer).
14. Alberto Boschetti, Luca Massaron - Python Data Science Essentials - Learn the fundamentals of Data Science with Python (2015, Packt Publishing).
15. Cady, Field - The data science handbook (2017, John Wiley & Sons).
16. Foster Provost, Tom Fawcett - Data Science for Business\_ What you need to know about data mining and data-analytic thinking (2013, O'Reilly Media).
17. Hadley Wickham, Garrett Golemund - R for Data Science\_ Import, Tidy, Transform, Visualize, and Model Data (2017, O'Reilly Media).
18. Jake VanderPlas - Python Data Science Handbook. Essential Tools for Working with Data (2016, O'Reilly Media).
19. Joel Grus - Data Science from Scratch First Principles with Python (2015, CreateSpace).
20. Lillian Pierson - Data Science For Dummies (2015, For Dummies).
21. Peter Bruce, Andrew Bruce - Practical Statistics for Data Scientists\_ 50 Essential Concepts (2017, O'Reilly Media).

22. Stanton J. - Introduction to Data Science .
23. Charles Wheelan - Naked Statistics\_ Stripping the Dread from the Data (2013, W. W. Norton & Company).epub
24. [Communications in Computer and Information Science 799] Brajendra Panda, Sudeep Sharma, NiharRanjan Roy - Data Science and Analytics (2018, Springer Singapore).
25. [Lecture Notes on Data Engineering and Communications Technologies 16] Durgesh Kumar Mishra, Xin-She Yang, AynurUnal - Data Science and Big Data Analytics (2019, Springer Singapore).
26. [Springer Proceedings in Business and Economics] MadjidTavana, SrikantaPatnaik - Recent Developments in Data Science and Business Analytics (2018, Springer International Publishing).
27. [Studies in Big Data 38] UshaMujooMunshi, Neeta Verma - Data Science Landscape (2018, Springer Singapore).
28. [The MIT Press Essential Knowledge] John D. Kelleher, Brendan Tierney - Data Science (2018, The MIT Press).
29. Cady, Field - The data science handbook (2017, John Wiley & Sons).
30. Cady, Field - The data science handbook (2017, John Wiley & Sons)(1).
31. Foster Provost, Tom Fawcett - Data Science for Business\_ What you need to know about data mining and data-analytic thinking (2013, O'Reilly Media).
32. John W. Foreman - Data Smart\_ Using Data Science to Transform Information into Insight (2013, Wiley).
33. John Wang - Encyclopedia of Data Warehousing and Mining (2008, Information Science Reference).
34. Patrick R. Nicolas, Pascal Bugnion, ArunManivannan - Scala Guide for Data Science Professionals. Course in 3 Modules (2017, Packt).
35. [A Collection of Programming Interview Questions 6] Antonio Gulli - A collection of Data Science Interview Questions Solved in Python and Spark\_ Hands-on Big Data and Machine Learning (2015, CreateSpace Independent Publis.epub  
a. Databricks. Using Apache Spark .
36. Conrad Carlberg - Predictive Analytics\_ Microsoft Excel (2012, Que Publishing).
37. Eric Siegel, Thomas H. Davenport (Foreword) - Predictive Analytics\_ The Power to Predict Who Will Click, Buy, Lie, or Die (2013, Wiley).
38. Frank Kane - Hands-on data science and Python machine learning \_ perform data mining and machine learning efficiently using Python and Spark (2017, Packt Publishing - ebooks Account).
39. Holden Karau, Andy Konwinski, Patrick Wendell, MateiZaharia - Learning Spark\_ Lightning-Fast Big Data Analysis (2015, O'Reilly Media).
40. Mike Frampton - Mastering Apache Spark\_ Gain expertise in processing and storing data by using advanced techniques with Apache Spark (2015, Packt Publishing).
41. NatarajDasgupta - Practical Big Data Analytics (2018, Packt).

## **Development of Internet Applications**

**Semester: 5<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS:4**

**Learning Outcomes:** The purpose of the course is to enable the student to know the basics of designing a website and internet application. When designing a page, make use of all the tools available

### **Course Content:**

- How the Web Works
- Build an HTML Document
- HTML markups
- Understanding Sequential Style Sheets
- Understand JavaScript
- Validation and Troubleshooting of your Code
- Work with Fonts, Text Blocks, Lists, and Tables
- Use of External and Internal Connections
- Work with Colors, Images and Multimedia
- Advanced Website Design with CSS
- Understand the CSS Framework Model and the Placement
- Introduction to Dynamic Sites
- Introduction to JavaScript Programming
- Using JavaScript Variables, Strings, and Tables
- Using JavaScript Functions and Objects
- Conditions and Loops Flow Control
- Response to Events
- Use of Windows
- Basic JavaScript examples
- Variables and data types
- Javascript objects
- PHP
- Basic Commands
- Types and Variables
- Operators
- Code reuse
- Functions and tables
- Advanced PHP issues
- DB interface

**Student Assessment Method:** Final written examination (60%), assignments (40%)

**Recommended Bibliography:**

- 1.Sams Teach Yourself HTML, CSS & JavaScript
- 2.Julie C. MeloniSams Teach Yourself: HTML, CSS and JavaScript All in One
- 3.Hughes Zmievski PHP Developer's Cookbook

## **Financial Statement Analysis**

**Semester: 5<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** After successful examination, students are expected to understand the importance of financial statements analysis, the function of assessing investments, using the case study method. During the lectures, examples are discussed and exercises are resolved to understand the financial analysis for decision making so that the student knows the practical analysis and evaluation of companies, shares and investments.

### **Course Content:**

- Financial leverage analysis
- Exercises
- Bank Financial leverage
- Ratio Analysis
- Bank Financial statements
- Exercises
- Analysis of the balance sheet
- Exercises
- The Profit and Loss account Statement
- Exercises
- Financial ratios of banking institutions
- Review exercises

**Student Assessment Method:** Final written examination (100%)

### **Recommended Bibliography:**

1. Kartalis, N. (2019), Financial statements Analysis with GAS (2nd edition), AMKE editions, Serres.
2. Garrison & Noreen (2005). Management Accounting (11th edition). Kleidithmos Publications, Athens.

## **6<sup>th</sup> SEMESTER**

### **Public Relations**

**Semester: 6<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The goal is for students to be able to know, understand and internalize concepts related to PR in business.

#### **Course Content:**

- Introductory remarks on Public Relations: Public relations aim at approaching - contacting the business with the (purchasing) public. In other words, public relations is the management of reputation as a result of the actions, messages, and perceptions of others.
- Purposes of Organizational Communication and Public Relations: Good communication is the central system, the driving force for developing positive relationships, coordination and achievement of goals. A business with good communication can achieve its goals more easily and at a lower cost than a company with poor communication.
- Fundamental principles of communication. Individuals should be able to be competent in the communication process in order to be able to work within a team and help it achieve its goals.
- Special Topics: The fundamental principles of communication in public relations are: the purpose of communication, the orchestration of the message, the language understood by the recipient, the clarity of the message.
- Reasons for team building: In crowded human societies, the existence of groups is a necessary and capable condition for public relations.
- Strategy and improvement of continuous change: A significant effort has been made to analyze the strategy and the changes occurring within business. It is very important for an organizational unit to timely anticipate the changes occurring whether they are in the environment or within the business for their proper functioning.

- Organizational communication.
  
- Interactive Theory-Speech Channels: Face-to-Face Communication: Two-way communication encourages innovation "An idea, practice or object that is perceived as something new by an individual or unit". The process of innovation involves: awareness, interest, evaluation, testing, adoption.
  
- Critical Issue Management Plan, Critical Issue Recognition: Analysis, Strategic Options, Action Plan, Evaluation of Results.
  
- Competition on the world market

**Student Assessment Method:** Final Written Examination (100%)

**Recommended Bibliography:**

1. Kelly K. (1998). *New rules for the new economy*. Penguin Books
- Kemeny, J. G. (1953). A logical measure function. *J. Symb. Logic.* 18, 289.
2. Kemeny, J. G. (1953). A logical measure function. *J. Symb. Logic.* 18, 289.
3. Kie W. / Ireland, D. (2004). *Strategic Management: Text and Cases on Competition and Globalization*, west Publishing, Boston.
4. Kimble, C. / Li, F. / Barlow, A. (2000). *Effective virtual teams trough communities of Practice*. Unpublished manuscript, Strathclyde Business School, University of Strathclyde, Glasglow, Scotland, p. 22.
5. Schwaninger, M. (2006). The Evolution of Organizational Cybernetics in: *Scientiae Mathematicae Japonicae* Vol. 64, no. 2 (2006), p. 405-420.
6. Seagren, A. / Creswell, J. / Wheeler, D. (1993). *The department chair, new roles, responsibilities and challenges*. Ashe-Eric Higher education reports.
7. Seglin, J. L. (2003). *The Right Thing: Conscience, Profit and Personal Responsibility in Today's Business*, Spiro Press.
8. Velentzas, G. / Mamalis, S. / Broni, G. (2010). *Communication, Public Relations & Advertising*, IuS - Legal Bank.
9. Theodorakopoulos, P. (1999). *Political Marketing, Lobbying and Diplomacy: Exercising Multidimensional Diplomacy*, I. Sideris, Athens.

## Corporate Finance

**Semester:** 6<sup>th</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** The aim of this course to help students comprehend the main characteristics and principles of the financial environment, and the ways that firms and organizations can find funds to use for investments and their day to day operations. The main aspects of financial management are also presented and analyzed.

On successful completion of this module students will be able to:

- Apprehend the main characteristics of the global financial environment and the means it provides to firms and organizations.
- Use the main financial tools and methods to analyze the financial and credit policy of a firm/organization.
- Plan and implement financial and credit policies for firms/organizations.
- Know and comprehend the main methods and tools to raise capital and fund a firm/organization.
- Use alternative forms of financing / fintech.

### Course Contents:

The following subjects will be examined in the lectures of this course:

- TheGlobalFinancialSystem.
- Raising Capital and the financial Life Cycle of the firm.
- Financial Planning (Short Term and Long Term)
- Financial Management. Working Capital, Credit and receivables, Cash management, Dividend policy.
- Cost of capital and investment appraisal.
- Traditional forms of financing : Banks, IPOs, bonds, factoring/forfaiting, franchising.
- Alternative ways of financing: crowdfunding, μικρο-χρηματοδοτήσεις, venture capital και business angels, Initial Coin Offerings (ICOs)

### Assesement:

- Written Exams (60%)
- Presentation of individual or team projects (40%)

### Reading List:

*In English*

1. Brealey, R. A., Myers, S. C., Allen, F., & Mohanty, P. (2012). *Principles of corporate finance*. Tata McGraw-Hill Education.



2. Pike, R., & Neale, B. (2009). Corporate finance and investment: decisions & strategies. Pearson Education.
3. Ross, S. A., Westerfield, R., Jordan, B. D., & Biktimirov, E. N. (2007). Essentials of corporate finance. McGraw-Hill/Irwin.
4. Various articles and papers will be provided during the lectures, related to marketing issues

*In Greek*

5. Βασιλείου Δ., Ηρειώτης, Ν., (2018) Χρηματοοικονομική Δίοικηση: Θεωρία και πρακτική., Εκδόσεις Rosili, Αθήνα
6. Βασιλείου Δ., Ηρειώτης, Ν., (2018) Ανάλυση επενδύσεων και Διαχείριση Χαρτοφυλακίου., Εκδόσεις Rosili, Αθήνα
7. Νούλας Α., (2019), Χρηματοοικονομική Διοίκηση: Επενδυτικές και Χρηματοδοτικές αποφάσεις. ΕΚΔΟΣΕΙΣ Α. ΤΖΙΟΛΑ & ΥΙΟΙ Α.Ε., Αθήνα.
8. Σουμπενιώτης Ν.Δ., Ταμπακούδης Ι.Α., (2017), Σύγχρονη Χρηματοοικονομική ανάλυση και Επενδύσεις, Εκδόσεις ΑΦΟΙ Θ. ΚΑΡΑΓΙΩΡΓΟΥ Ο.Ε., Αθήνα.
9. Θάνος Γ., (2017), Χρηματοδότηση Επιχειρήσεων, Εκδόσεις Τσότρας Αθανάσιος, Αθήνα.
10. Άρθρα και δημοσιεύματα σχετικά με την σύγχρονη επιχειρηματική πραγματικότητα και τη χρηματοδότηση επιχειρήσεων και οργανισμών, θα είναι διαθέσιμα στους φοιτητές μέσω του eclass.

## **Electronic Commerce**

**Semester: 6<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 5**

**Learning Outcomes:** The aim of the course is to educate students in e-Commerce and e-Business strategy and applications from entrepreneurial, technological and market perspective.

### **Course Content:**

- Introductory issues and conceptual perspectives of e-Commerce and e-Business.
- E-commerce strategy and application.
- E-business plans.
- E-business models.
- Virtual organizations and enterprises.
- Mobile commerce and mobile business.
- Social networks and e-commerce/business.
- E-shop strategy and design.
- E-payments.
- E- and m-commerce/ business applications in various industries.
- Customer relationship management systems and e-commerce/ business.
- Supply chain and e-commerce.
- E-commerce security.

**Student Assessment Method:** Final exams (100%)

### **Recommended Bibliography:**

1. King, D., Turban, D. C., Turban, E., Lee, J., Liang, T.-P. (2015). Electronic Commerce. Gkiourdas C. Publishing, Athens, Greece (in Greek).
2. Laudon, K. & Traver, C. G. (2018). E-commerce (14<sup>th</sup> Edition). Papatotiriou Publishing, Athens, Greece (in Greek).
3. Chaffey, D. (2016). Digital enterprises and e-commerce: Strategy, implementation and application, Kleidarithmos Publishing, Athens, Greece (in Greek).

## **Negotiations, Mediation and Crisis Management in Organizations and Businesses**

**Semester:6<sup>th</sup>**

**Course Unit Type:Compulsory Course**

**Weekly Teaching Hours:3**

**ECTS: 5**

**Learning Outcomes:** The course aims for students to understand the meaning and the content of Mediation, its relationship with Rhetoric and Communication and to know the personality, the characteristics and the role of the mediator and his relationship with the rhetoric and the leader. Also, the course aims the students to be aware of mediation as a European institution and as a process for mitigating the disputes and avoiding the conflicts and as a way of improving employees' communication in Organizations and in Business.

### **Course Content:**

- The Philosophy of Mediation, Historical and Ideological Review, Definition
- Types and Forms of Mediation
- Law on Mediation
- The personality of the Orator, of the Leader and of the Mediator
- Characteristics and role of the Mediator
- Role Simulations and Games
- Conflict concept and definition, conflict diversity, conflict phases and models
- Types of personalities corresponding to different conflict behaviours
- Mediation as a way of managing crises and communication channels in Organizations / Businesses

**Students Assessment Method:** Final Written Examination (100%)

## Recommended Bibliography:

1. Appelberg, K., Romanov, K., Honlasalo, M., & Koskenvuo, M., (1991). 'Interpersonal conflicts at work and psychosocial characteristics of employees'. *Social Science Medicine*, 32 (9), 1051-1056.
2. Besemer, Cr. (2014). *Διαμεσολάβηση. Μεσολάβηση σε συγκρούσεις*. Μτφρ. Θεοχάρης Αγγελίδης. Αντιγόνη: Κέντρο Πληροφόρησης και Τεκμηρίωσης, Θεσσαλονίκη.
3. Besemser, Cr. (1996). *Mediation in der Praxis. Erfahrungen aus den USA. Werkstatt fur Gewaltfreie Aktion*. Baden, Karlsruhe.
4. Patfoort, P. (2008). *Sich verteidigen ohne anzugreifen. Die Macht der Gewaltfreiheit. Baden: Werkstatt fur Gewaltfreie Aktion & Karlsruhe: Internationaler Versohnungsbund-Deutscher Zweig*.
5. Ρουμπάνη, Ν., (2007). *Διαμεσολάβηση Συνομιλήκων για την επίλυση των Συγκρούσεων στα Σχολεία. Εγχειρίδιο για Εκπαιδευτικούς και Εκπαιδευτές Νέων κι Ενηλίκων*. Διαθέσιμο στο: [www.Humanrights-edu-cy.org](http://www.Humanrights-edu-cy.org).
6. Riskin, L. L. (1994). 'Mediator orientations, strategies, and techniques'. *Alternatives to the high cost of litigation*, 12(9), 111-184.
7. Schaffer, H. (2004). *Mediation-Die grundlagen*. Wurzburg: Stephans-Buchandlung Matthias Mittelstadt KG.
8. Smart, L. (1987). 'Mediation strategies for dealing with dirty tricks'. *Mediation quarterly*, 16, 52-64.
9. Χαμηλοθώρης, Ι. (2000). *Εναλλακτικοί τρόποι επίλυσης διαφορών-Ερμηνευτική προσέγγιση*. Εκδόσεις Σάκκουλα, Θεσσαλονίκη.
10. Τριαντάρη, Σ. (2018). *Από τη Σύγκρουση στη Διαμεσολάβηση. Η Διαμεσολάβηση ως Στρατηγική και Πολιτική της Επικοινωνίας*. Εκδόσεις Σταμούλη, Θεσσαλονίκη.
11. Χαμηλοθώρης, Ι. (2007). *Η διαμεσολάβηση στην Ελλάδα*. Δ.Α.Ε & Ε.Π.Ε.

## **Counselling Psychology and Guidance**

**Semester:6<sup>th</sup>**

**Course Unit Type:Elective Course**

**Weekly Teaching Hours:3**

**ECTS:4**

### **Learning Outcomes:**

- The application of individual intervention and group counselling methods and techniques.
- The link of the Career Counselling with the socio-economic data and the Business Industry and the implementation of actions that link education with the Business Industry.
- Basic theoretical concepts of Counselling Psychology and their use in interpretation of one's behaviour.

### **Course Content:**

- The dominant elements of Counselling psychology.
- Counselling psychology as a field of research, theory and application.
- Counselling Psychology as a branch of psychology that deals with the promotion or restoration of human health (or a group of people) that is disrupted by a variety of environmental impacts or internal conflicts.
- Guidance / Career Counselling as an integral part of the educational process, as it addresses important issues of personal and professional development.
- The new role of the teacher as defined by the constant and rapid social, economic, and occupational developments.

**Students Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Δημητρόπουλος, Ε. (1999). *Συμβουλευτική–Προσανατολισμός*. Εκδόσεις Γρηγόρης, Αθήνα.

2. Κασσωτάκης, Μ. (2004). *Συμβουλευτική και Επαγγελματικός Προσανατολισμός*. Εκδόσεις Τυπωθήτω, Αθήνα.
3. Κουνενού, Κ. (2010). *Συμβουλευτική και θεραπεία οικογένειας. Μοντέλα, Νέοι τύποι οικογένειας, Οικογένεια & Εργασία*. Εκδόσεις Παπαζήση, Αθήνα.
4. Μαλικιώση-Λοίζου, Μ. (1994). *Συμβουλευτική Ψυχολογία*. Εκδόσεις Ελληνικά Γράμματα, Αθήνα.
5. Μαλικιώση-Λοίζου, Μ. (2011). *Η Συμβουλευτική Ψυχολογία στην Εκπαίδευση*. Εκδόσεις Πεδίο, Αθήνα.

## **Computer Setup**

**Semester: 6<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** Students will learn to:

- Set up a personal computer from zero to eternity.
- Select Hardware and Software.
- Regenerate hardware and software.

### **Course Content:**

Setup theory and application steps

Boxes, Power supplies, Central processors, External cards, RAM, Graphics cards, sound cards, Internal SSD hard drives, External trays, Controllers, Water cooling, Multibay cases, Internal connection cables, Raspberry, Arduino Prices and composition of accessories and peripherals, Displays, Printers, Multipurpose machines, Scanners • Digitizers, Keyboards, Mice • Trackballs • Presenters, Mousepads, Speakers • Microphones, Headphones, Web cameras, UPS • Stabilizers, Multipurpose • Switches, Gaming chairs, Game controls, Cables, Converters • Cable adapters, External hard drives, USB Sticks, memory cards, Card readers, USB Hubs

Basic system and application software

Symantec Endpoint Protection , FolderSize Enterprise Edition - Fu, Path Too Long Pro Utility, Registry Workshop, Sandboxie , Acronis Disk Director True Image, EASEUS Partition Master, Hard Disk Sentinel Pro, myVeritasSRD x64 (BOOT CD)], XeroWeight FLASHBACK, LockHunter, Reg Organizer, WinRAR , TechTools, WinZip Pro, Virtual Clone Drive, SmartSync, Office Pro Plus, FastStone Capture, Acrobat Pro Plugins, Adobe Acrobat XI Pro 11.0.0 x86], COMIC NEW, ABBYY, MathType, Octave (MatLab alternative), Visual Thesaurus, Ashampoo Burning Studio], myUTILS, WinRAR , Automate, RoboTask, Ditto, endnote, keepass, Digital editions Matlab, KMS, Visula studio, SQL SERVER, SQLite, Pycharm, MAcium Reflect, Google and Azure Services setup.

### **Student Assessment Method:**

Weekly upload of classroom and laboratory presence and progression, monthly homework, automated remote distributed evaluation, student progression University local automated exams, final written and/or oral exams. Student professor Auditing through examination at a higher level through a professor committee.

## Recommended Bibliography:

1. [Exams 220-901 & 220-902] Mike Meyers - CompTIA A+ Certification All-in-One Exam Guide, Ninth Edition (2016, McGraw-Hill Education).
2. [For Dummies\_ Computers] Glen E. Clarke, Edward Tetz, Timothy Warner - CompTIA A+ Certification All-in-One For Dummies (2016, Wiley).
3. [Exams 220-801 & 220-802] Michael Meyers - CompTIA A+ Certification All-in-One Exam Guide, 8th Edition (2012, McGraw-Hill Osborne Media).
4. Mike Meyers - CompTIA A+ Certification All-in-One Exam Guide (Exams 220-901 & 220-902) (2016, McGraw-Hill Education).
5. Karbo, Michael - Computer Repair - A Complete Illustrated Guide To Pc Hardware .
6. [Exam N10-007] Mike Meyers - CompTIA Network+ Certification All-in-One Exam Guide (2018, McGraw-Hill Education).epub
7. Emmett Dulaney - CompTIA Network+ N10-007 Exam Cram (2018, Pearson).epub
8. Erwin Haas - Comptia A+ Certification (Exams 220-901 & 220-902)\_ Easy Guide for Beginners (2017).epub
9. Andy Rathbone - Upgrading and Fixing Computers Do-it-Yourself For Dummies (2010, For Dummies).
10. Alan Clements - Principles of Computer Hardware 4th Edition (2006, Oxford University Press).
11. Jon Stokes - Inside the machine\_ an illustrated introduction to microprocessors and computer architecture (2006, No Starch Press).
12. Simulations, and Education Committee on Science Learning\_ Computer Games, National Research Council - Learning Science Through Computer Games and Simulations (2010, National Academies Press).
13. Nell Dale - Computer science illuminated (2002, Jones and Bartlett Publishers).
14. Donald E. Knuth - The Art Of Computer Programming (2005, Addison-Wesley Professional).
15. [Made Simple Books] Calvin A. Hofeditz - Computers and Data Processing Made Simple (1979, Doubleday).
16. mk1.bat
17. Bhattacharyya, Dhruba Kumar\_ Kalita, Jugal Kumar - DDoS attacks\_ evolution, detection, prevention, reaction, and tolerance (2016, CRC Press).
18. Radware - DDoS Handbook \_ The Ultimate Guide to Everything You Need to Know About DDoS Attacks (2013, Radware).
19. Bertocci Vittorio. - Modern Authentication with Azure Active Directory for Web Applications .epub
20. [For Dummies] John Paul Mueller, Luca Massaron - Artificial Intelligence for Dummies (2018, Wiley).
21. [For Dummies] John Paul Mueller, Luca Massaron - Artificial Intelligence For Dummies (2018, Wiley).epub
22. Wallace Wang - Absolute Beginners Guide to Computing (2016, Apress).



23. Daniel Waisberg - Google Analytics Integrations (2015, Sybex).
24. Perry Marshall, Mike Rhodes, Bryan Todd - Ultimate Guide to Google AdWord (2017, Entrepreneur Press).
25. Taplin, Jonathan T. - Move fast and break things \_ how Facebook, Google, and Amazon cornered culture and undermined democracy (2017, Little).epub
26. Todd Kelsey (auth.) - Introduction to Google Analytics\_ A Guide for Absolute Beginners (2017, Apress).
27. Jason McDonald - AdWords Workbook\_ 2017 Edition\_ Advertising on Google AdWords, YouTube, and the Display Network (2017).epub
28. Nikkei Big Data - Learning from Google Deep Learning (2017).epub
29. John Doerr - Measure What Matters\_ How Google, Bono, and the Gates Foundation Rock the World with OKRs (2018, Portfolio).epub
30. David Sumpter - Outnumbered\_ From Facebook and Google to Fake News and Filter-bubbles (2018, Bloomsbury Sigma).epub
31. ValliappaLakshmanan - Data Science on the Google Cloud Platform (2018, O'Reilly Media).epub
32. Ron White, Tim Downs - How Computers Work\_ The Evolution of Technology (2015, Que Publishing).
33. [The Morgan Kaufmann Series in Computer Architecture and Design] David A. Patterson, John L. Hennessy - Computer Organization and Design\_ The Hardware Software Interface\_ ARM Edition (2016, Morgan Kaufmann).
34. James Kurose, Keith Ross - Computer Networking\_ A Top-Down Approach (7th Edition) (2016, Pearson).
35. Mark Edward Soper - The PC and Gadget Help Desk\_ A Do-It-Yourself Guide To Troubleshooting and Repairing (2014, Que Publishing).
36. Dmitry Zinoviev - Complex Network Analysis in Python\_ Recognize - Construct - Visualize - Analyze - Interpret (2018, Pragmatic Bookshelf).
37. Irv Englander - The Architecture of Computer Hardware, Systems Software, and Networking\_ An Information Technology Approach (2014, Wiley).
38. Ahmet Bindal - Fundamentals of Computer Architecture and Design (2017, Springer).
39. Douglas Comer - Essentials of Computer Architecture (2017, Chapman and HallCRC).
40. [Embedded technology series] Arnold S. Berger - Hardware and computer organization\_ the software perspective (2005, Elsevier).
41. Andy Rathbone - Windows 10 For Dummies (2016).
42. Shannon Belew and Joel Elad - Starting an Online Business All-in-One For Dummies (2017, For Dummies).
43. Woody Leonhard - Windows 10 All-In-One For Dummies (2018, John Wiley & Sons).
44. 12634-48377-1-PB.
45. Ron Gilster - PC Repair Bench Book (2003, Wiley).
46. [Networking Series] Christopher A. Crayton, Joel Z. Rosenthal, Kevin J. Irwin - The A+ Certification & PC Repair Handbook (2004, Charles River Media).chm

- 47.[Networking Series] Joel Z. Rosenthal, Kevin Jay Irwin - PC Repair and Maintenance\_ A Practical Guide (2003, Charles River Media).chm
- 48.Marcia Press, Barry Press - PC Upgrade and Repair Bible (2004, Wiley Pub).
- 49.[Start and Run A] Lynn Spry, Philip Spry - Start & Run a Computer Repair Service (2011, Self-Counsel Press, Inc.).
- 50.Rick Harison - How to Start a Home-based Computer Repair Business (2015, Morris Book Publishing).
- 51.[For Dummies\_ Computers] Dan Gookin - Troubleshooting and Maintaining Your PC All-in-One For Dummies (2017, Wiley).
- 52.[Hardware and Software] Jean Andrews - A+ Guide to IT Technical Support (2016, Course Technology).
- 53.Cheryl A. Schmidt - Complete CompTIA A+ Guide to IT Hardware and Software (2016, Pearson IT Certification).
- 54.Andrews Jean. - A+ Guide to IT Technical Support (Hardware and Software) .
- 55.curriculum-6.
- 56.BGPSabanknote.

## **Urban and Natural Environmental Management**

**Semester: 6<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of the course is to study and raise awareness of the problems in the management of urban and natural environments that are facing us in the future.

### **Course Content:**

- Introduction to the field of environmental science.
- Contemporary view of environmental psychology.
- Typology of environmental Spaces.
- Exploiting and protecting the urban and natural environment.
- Aesthetic perceptions of the architectural space.
- Development, planning and management of large urban centers.
- Modern information technologies in the design of the architectural space.
- Administration and organization of urban residential areas.
- Causes and consequences of environmental factors.
- Behavioral conditions and functioning of the individual in the urban and natural environment.

**Student Assessment Method:** Final Examination (100%)

### **Recommended Bibliography:**

1. Valichkov., A. & Σερδάρης, Π. (2017). Ψυχολογία του Περιβάλλοντος. Εκδόσεις UniversityStudioPress, Θεσσαλονίκη.
2. David, C. (1998). Environmental Psychology - Text Selection, Introduction. PublicationsUniversityStudioPress, Θεσσαλονίκη.
3. Κοσμόπουλος, Π. (2000). Περιβαλλοντική Κοινωνική Ψυχολογία – Η αντίληψη του χώρου. Εκδόσεις UniversityStudioPress, Θεσσαλονίκη.
4. Σερδάρης, Π. (2003). Μαζική συμπεριφορά σε καταστάσεις συμφοράς. Εκδόσεις Δυτικομακεδονικά Γράμματα, Σύνδεσμος Γραμμάτων και Τεχνών, Κοζάνη.
5. Darken, R. P. & Peterson, B., (2001). Spatial orientation, way finding, and a representation. In: K. Stanney (ed.). Handbook of environment technology. California: Maval Postgraduate School, USA.
6. Zyckerman, M., (1994). Behavioral expression and biosocial bases of sensation seeking. Cambridge University Press, New York, USA.

## **English for Academic Purposes I**

**Semester: 6<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The aim of this course is to encourage students to use manuals and reference bibliography related to their special field of studies. Emphasis is upon the acquisition of reading comprehension skills and writing various types of documents, teaching of short texts, reports and paraphrasing.

### **Course Content:**

- Application Forms and Letters
- CV Writing
- Cover Letters
- Follow Up Letters
- Letters of Complaints
- Company Profiles
- How to Give an Interview

**Student Assessment Method:** Final written exam (100%)

### **Recommended Bibliography**

1. Peppas, I. (2017). English for Accounting and Business. Disigma Publications, Thessaloniki.
2. Perdiki, F. & Malivitsi, Z. (2012). Economic and Business English in a Nutshell, KETHEA SCHEMA AND CHROMA.
3. Belari-Petrianidi, L. & Kolethra, E. (2014). English for Economics and Business, New Tech Pub.
4. Tsionga, H. & Hatzistergiadou, A. (2016). First Steps at Work. Disigma Publications, Thessaloniki.
5. Machili, I. (2015) Public Speaking for University Students. Anikoula Publications, Thessaloniki.
6. Kantaridou, Z., Papadopoulou, I., & Stefanou, P. (2008). Business English for Academic Purposes. Anikoula Publications, Thessaloniki.

## **Computer Programming II**

**Semester:** 6<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** The purpose of the course is to enable the student to:

- Know the basic programming methods and techniques.
- Design complex applications.
- Exploit ready-made libraries and data structures.
- Use design templates.
- Process complex structures and data sources.
- Evaluate alternative technologies and alternative ways of implementation.

### **Course Content:**

- Programming languages
- Programming tools
- Interpreted programming language
- Install Python
- IDLE Application Development Environment (Integrated DeveLopment Environment)
- PVM (Python Virtual Machine, Python Virtual Machine)
- Data values and types
- Variables
- Expressions and operators
- Run flow control
- Function commands
- Modules
- Methods for strings
- Data structures
- Exception handling
- Graphical user interface (GUI)
- Application of Python to data analysis
- NumPy (SciPy), Matplotlib (Seaborn), Pandas Libraries
- Application of language to data analysis and business analysis problems

**Student Assessment Method:** Final written examination (60%), assignments (40%)

### **Recommended Bibliography:**

1.Wentworth, P., Elkner, J., Downey, A., and Meyers, C. (2012). How to Think Like a Computer Scientist, Learning with Python 3.

2. Python Software Foundation (2015) from <https://www.python.org>
3. Brian Heinold (2012). Introduction to Programming Using Python. Publisher: Mount St. Mary's University, E-book, freely available.
4. Ellis Horowitz (1993). Basic Programming Language Principles.

## **Entrepreneurship and Innovation**

**Semester: 6<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**LearningOutcomes:** The aim of the course is the organization and strategic planning which will lead to the implementation of a successful business plan. Students will be able to manage the fundamentals of developing and maintain a healthy innovation-based business.

### **Course Content:**

- **Introductory remarks:** The concept implies behaviors and skills that are relevant to a new economic activity.
- **Entrepreneurship as a design:** The strategy is characterized by three elements: the business relationship with the competitive environment, the allocation of resources between conflicting investment opportunities, the long-term perspective, capital and risk tolerance.
- **Entrepreneur and entrepreneurial skills:** The entrepreneur can be the founder and owner of a business, so he collects, invests and coordinates the resources available.
- **Innovation:** Technological change and innovation related to the development and introduction of new products, materials, production methods, sourcing, services, technical processes and organizational forms. Innovation provides competitive advantages to successful innovators and significantly improves social well-being.
- **Barriers - Benefits of Innovation for Businesses and Entrepreneurs.**
- **Birth and reinforcement of an innovative idea and case studies on the Greek and international business map.**

**Student Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Luthans F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*
2. Lynch, R. (1997). *Corporate Strategy*, London: Pitman Publishing.
3. Miner, J. B. (2005). *Organizational Behavior: Behavior: Essential Theories of Motivation*.
4. Peregrin, J. (2003). *Meaning: The Dynamic Turn. Current Research in the Semantics / Pragmatics Interface*. London: Elsevier.

5. Perry-Smith, J. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of Management Journal*.
6. Weinberg, G. M. (2001), *An Introduction to General Systems Thinking*, Dorset House.
7. Tzortzakis, K. / Tzortzakis, A. (2001). *Marketing Principles - The Greek Approach*, Athens: Rosili.



## **7<sup>th</sup> SEMESTER**

### **Ethics in Organizations and Businesses**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS:4**

**LearningOutcomes:** The goal is for students to be able to understand and internalize concepts related to Business Ethics and the ethics to be followed in a regulatory action model.

#### **Course Content:**

- Introductory remarks on Business Ethics: Its theoretical content is a prerequisite for its analysis and evaluation. The dimension is analyzed for the perception of ethics in ancient Greek philosophy, with the basic parameter the Ethical philosophy of Aristotle and Stoics, so that students understand the concept of Ethics and the basic philosophical approaches of Business Ethics (Aristotelianism, Ethics Relativism, Catholicism, Conservatism, Utilitarianism, Materialism, Machiavellianism).
- The concept of Corporate Social Responsibility: That is, the definition of Corporate Social Responsibility, its relationship to related concepts and the theoretical models that offer the appropriate interpretative framework for understanding it and its contribution to society.
- Aims of the Principles of Business Ethics and CSR: CSR is a shining and radiant term because it means something, but it is not always the same for everyone. Milton Friedman believes that the social responsibility of a business is to increase its profits.
- Special Topics: Corporate Citizenship: This approach belongs to political theories, where emphasis is placed on the interaction between business and society, as well as the responsibility of businesses.
- Stakeholder Theory: It is one of the "ethical" approaches to business plans. This theory takes into account individuals or groups who have an interest or claim in the business. Stakeholders are those who benefit or are harmed by the actions of the enterprise.
- Relationship to Business Ethics: Business ethics is one of the ethical obligations of an organization, which pushes the category of legally binding corporate obligations to expand.

**Student Assessment Method:** Final Written Examination (100%)

#### **Recommended Bibliography:**

1. Kotler, P. (2009). Corporate social responsibility. How to best offer the company and the purpose of your choice, Economia Publishing.

2. Kraman, S. S. / Hamm, G. (1999). Risk Management: Extreme Honesty May Be the Best Policy. *Annals of Internal Medicine* 131 (12), 963-967.
3. Kreitner, R. / Kinicki, A. (1998). *Organizational Behavior*. Boston: McGraw-Hill / Irwin.
4. Nussbaum, M. C. (2001). *The Fragility of Goodness: Luck and Ethics in Greek Tragedy and Philosophy*. Cambridge: Cambridge University Press.
5. 'Dwyer, B. (2003). Concepts of corporate social responsibility: the nature of managerial capture, *Accounting, Auditing & Accountability Journal*, Vol. 16, No. 4, 523–557.
6. Oketch, M.O. (2004). The corporate stake in social cohesion, *Corporate Governance: International Journal of Business in Society*, Vol. 4, No. 3, 5–19.

## **Corporate Strategy and Governance**

**Semester:** 7<sup>th</sup>

**Course Unit Type:** Compulsory

**Weekly teaching hours:** 3

**Credits (ECTS):** 4

**Learning Outcomes:** This course examines the meaning and importance of Corporate Strategy and its relationship with corporate Governance. More specifically, the main operations and the organization of a firm are analyzed in an integrated way, considering its interaction with the modern economic, financial and business environment. This approach helps students to combine and consolidate the knowledge they have derived from their studies until now.

At the same time students learn the ways they can recognize and manage the strategic challenges associated with the relationship of a firm with both their shareholders and their stakeholders. The core methods of corporate strategy formulation and implementation are presented and analyzed, with the use of case studies, that simulate real-life business and strategic problems.

On successful completion of this module students will be able to:

- Use the appropriate tools and methods of strategic analysis
- Comprehend the strategy formulation and selection problem.
- Evaluate and choose the best available strategy for a business or organization.
- Apprehend the importance of strategy implementation and the role of organization, processes, business systems and organizational culture in achieving that successfully
- Apply the main strategic decision-making techniques.
- Understand the meaning of Corporate Governance and the relationship of the firm/organizations with their shareholders and stakeholders, along with the ways that this relationship affects the strategy of the firm/organization.

### **Course Contents:**

The following subjects will be examined in the lectures of this course:

- Introduction in Corporate Strategy.
- Strategic Analysis of internal/external environment, PESTEL, SWOT analysis, resources and capabilities, Vision and mission.
- The 4 core Strategies of competitive advantage.
- Growth, Stability, restructuring, turnaround, retrenchment strategies, outsourcing.
- Mergers and Acquisitions, Strategic Alliances,
- Internationalization strategies for SMEs.

- Choosing, formulating and implementing strategy.
- Corporate Governance. Introduction and importance for firms/organizations and their strategy.
- Relationship with shareholders and stakeholders. A strategic approach.

### **Assesement:**

- Written Exams (60%)
- Presentation of individual or team projects (40%)

### **Reading List:**

#### *In English*

1. David, F.R. (2013). Strategic Management (14<sup>th</sup> Edition), Pearson, UK.
2. Monks R.G, Minow N., Corporate Governance, Wiley-Blackwell, 2011.
3. Davies, A. (1999). *A strategic approach to corporate governance*. Gower Publishing, Ltd..
4. Grant, R. M. (2010). Contemporary Strategy Analysis (7<sup>th</sup> Edition). Blackwell Publishing, USA.
5. Hitt, M., Ireland, D. R., & Hoskisson, R. E. (2013). Strategic Management: Competitiveness and Globalization (10<sup>th</sup> Edition). South-Western Cengage Learning.
6. Hill, C. & Jones, G. (2012). Strategic Management Theory: An Integrated Approach (10<sup>th</sup> Edition). South-Western Cengage Learning.
7. Johnson, G., Whittington, R., & Scholes, K. (2011). Exploring Strategy: Text and Cases (9<sup>th</sup> Edition). Prentice Hall, UK.
8. Johnson, G., Whittington, R., & Scholes, K. (2010). Exploring Strategy (9<sup>th</sup> Edition). Prentice Hall-Financial Times, UK.
9. Lynch R. (2012). Strategic Management (6<sup>th</sup> Edition), Pearson, UK.
10. Markides, C., (2008). Game-Changing Strategies, Jossey-Bass, USA.
11. Markides, C., (2000). All the Right Moves: A Guide to Crafting Breakthrough Strategy, Boston, Harvard Business School Press, USA.
12. Pearce, J. II & Robinson, R. (2012). Strategic Management: Planning for Domestic and Global Competition (13<sup>th</sup> Edition), Pearson, UK.
13. Thompson, A. A., Peteraf, M. A., Gamble, J. E. & Strickland III, A. J. (2012). Crafting and Executing Strategy: Concepts and Readings (18<sup>th</sup> Edition), McGraw-Hill Irwin, USA.
14. Wheelen, T.L. & Hunger, D. J. (2012). Strategic Management and Business Policy: Toward Global Sustainability (13<sup>th</sup> Edition). Pearson, UK.

#### *In Greek:*

15. Παπαδάκης, Β. (2016). Στρατηγική Επιχειρήσεων. Εκδόσεις Μπενου, Αθήνα.
16. Goergen M., (2015). Εταιρική Διακυβέρνηση: Μια διεθνής θεώρηση., Εκδόσεις Διπλογραφία (Αθήνα).

17. Γεωργόπουλος, Ν. (2013). Στρατηγικό Μάνατζμεντ. Εκδόσεις Μπένου, Αθήνα.

## **Supply Chain**

**Semester:** 7<sup>th</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** The aim of the course is the presentation of issues related to the design, programming and operation of supply chain in businesses and organizations.

### **Course Content:**

- Introductory issues and terminology of supply chain and its management.
- The importance of the customer and its service in supply chain.
- Strategic design of supply chain.
- Management of storage centers.
- Supplies and stock management– The transfer problem–Stock programming and control.
- Transport systems' design. Calculate the best solution based on north-west corner, Vogel and minimum cost methods.
- Information and communication technologies in supply chain.
- Evaluation and improvement techniques in supply chain.
- Sustainability of supply chains.
- Urban freight transports.

**Student Assessment Method:** Final exams (100%)

### **Recommended Bibliography:**

1. Vidalis, M. (2017). Logistics: A quantitative approach (2<sup>nd</sup> Edition). Kleidarithnos Publishing, Athens, Greece (in Greek).
2. Giannakopoulos, D. & Moschouris, S. (2013). Logistics: Management & Strategy. Rosili Publishing, Athens, Greece (in Greek).
3. Taylor, A. D. (2004). Supply chain management. Kleidarithnos Publishing, Athens, Greece (in Greek).
4. Malindretos, G. (2015). Supply chain, logistics & customer service. Association of Greek Academic Libraries, Athens, Greece. ISBN: 978-960-603-486-2 (in Greek).
5. Folinas, D. (2014). Introduction to logistics (in Greek).
6. Ballou, R.H. (2004) Business Logistics /Supply Chain Management (5th Edition). Pearson Education, Upper Saddle River, NJ.
7. Chopra, S., and Meindl, P. (2012). Supply Chain Management: Strategy, Planning, and Operation. 5th Edition, Prentice Hall, Upper Saddle River, NJ.

## **Digital Marketing**

**Semester:** 7<sup>th</sup>

**Course Unit Type:** Compulsory

**Weekly teaching hours:** 3

**Credits (ECTS):** 4

**Learning Outcomes:** The aim of this course is to help students comprehend the main aspects and methodological approaches and tools of digital marketing, along with its importance for the modern digital business environment.

On successful completion of this module students will be able to:

- Apprehend the digital environment and the tools/opportunities that it offers in firms and organizations.
- Recognize, analyze and use the main business models of e-business and digital marketing.
- Utilize the modern tools of digital marketing that are available to firms and organizations.
- Create content for digital marketing campaigns, in sites, social media, and social networking sites
- Understand the usage of social media marketing tools.

### **Course Contents:**

The following subjects will be examined in the lectures of this course:

- Introduction to digital marketing and its importance in the digital world.
- Consumer Behavior in the digital environment
- Marketing data collection/mining and management systems.
- Marketing Information Systems and Customer Relationship Management.
- Marketing mix in the digital environment.
- Digital Marketing plan and strategic considerations.
- Social Media marketing.
- Content Marketing in websites and Social Media.
- Digital Marketing analytics.
- Case Studies.

### **Assesement:**

- Written Exams (60%)
- Presentation of individual or team projects (40%)

## Reading List:

### *In English*

1. Chaffey D., & Chadwick F.E., (2019)., Digital Marketing: Strategy implementation and Practice., Pearson
2. Kingsnorth S., (2019)., Digital Marketing Strategy : An Integrated Approach to Online Marketing., Kogan Page Ltd.
3. Various articles and papers will be provided during the lectures, related to marketing issues

### *In Greek*

4. Βλαχοπούλου, Μ. (2020). Ψηφιακό Μάρκετινγκ. Εκδόσεις Rosili, Αθήνα.
5. Chaffey D., (2016), Ψηφιακές Επιχειρήσεις και ηλεκτρονικό εμπόριο: Στρατηγική, υλοποίηση και εφαρμογή., Εκδόσεις Κλειδάριθμος, Αθήνα.
6. Σιώμκος Γ. & Τσιάμης Ι., (2019), Ηλεκτρονικό Μάρκετινγκ., Broken Hill Publishers Ltd., Αθήνα.
7. ΜαναριώτηΑ. (2019), Οδηγός Social Media Marketing., Εκδόσεις Rosili, Αθήνα.
8. Άρθρα και δημοσιεύματα σχετικά με την σύγχρονη επιχειρηματική πραγματικότητα και τη χρήση του marketing από τις επιχειρήσεις και τους οργανισμούς θα είναι διαθέσιμα στους φοιτητές μέσω του eclass.



## **Teaching of Specialty Courses**

**Semester:** 7<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** The course introduces students to the scientific field of specialization through the perspective of applying the scientific knowledge into the school content. Career Counseling is linked to the social and economic data and the Business Industry and actions are being implemented to link education with the Business Industry. The students must understand concepts such as curriculum, teaching design and interdisciplinarity.

### **Course Content:**

- The contemporary problematic for the particularity of the Sciences, which will be taught.
- The scientific, epistemological and teaching characteristics of each science which will be taught.
- Linking scientific knowledge with school knowledge
- The effective student learning and the future cognitive and professional development.
- The acquisition of competences and skills in designing and developing teaching interventions and teaching materials based on defined goals.

**Student Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Huttner, A. (2008). *Διδακτική Τεχνολογικών Μαθημάτων*. Εκδόσεις Ίων, Αθήνα.
2. Πάσχος, Β. (2007). *Στοιχεία Διδακτικής και Παιδαγωγικής*. Εκδόσεις Πατάκη, Αθήνα.
3. Πλαγιανάκος, Σ. (1999). *Διδακτική Επαγγελματικών Μαθημάτων* (Τόμος Α). Εκδόσεις Έλλην, Αθήνα.
4. Πλαγιανάκος, Σ. (1999) *Διδακτική Επαγγελματικών Μαθημάτων*. Τόμος Β. Εκδ. Έλλην, Αθήνα.
5. Κουτσούκος, Μ. (2012). *Σημειώσεις του Μαθήματος Διδακτική Μαθημάτων Ειδικότητας*. ΑΣΠΑΙΤΕ Θεσσαλονίκης.

## **English for Academic Purposes II**

**Semester:** 7<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 5

**Learning Outcomes:** The aim of this course is to encourage students to use manuals and reference bibliography related to their special field of studies. Emphasis is upon the acquisition of reading comprehension skills and writing various types of documents, teaching of short texts, reports and paraphrasing.

### **Course Content:**

- Presentations
- Academic – Research Papers
- Bibliography
- Reports
- Summaries
- Note-taking, memos, minutes

**Student Assessment method:** Final written exam (100%)

### **Recommended Bibliography:**

1. Peppas, I. (2017). English for Accounting and Business. Disigma Publications, Thessaloniki.
2. Perdiki, F. & Malivitsi, Z. (2012). Economic and Business English in a Nutshell, KETHEA SCHEMA AND CHROMA.
3. Belari-Petrianidi, L. & Kolethra, E. (2014). English for Economics and Business, New Tech Pub.
4. Tsionga, H. & Hatzistergiadou, A. (2016). First Steps at Work. Disigma Publications, Thessaloniki.
5. Machili, I. (2015) Public Speaking for University Students. Anikoula Publications, Thessaloniki.
6. Kantaridou, Z., Papadopoulou, I., & Stefanou, P. (2008). Business English for Academic Purposes. Anikoula Publications, Thessaloniki.

## **Political and Economic Philosophy**

**Semester:7<sup>th</sup>**

**Course Unit Type:Elective Course**

**Weekly Teaching Hours:3**

**ECTS:5**

**Learning Outcomes:** Political philosophy is an autonomous field, which stems not from the truth of morality, but from the basic characteristics of the human condition. The economy as a human construction is interconnected with human political coexistence. The identity and the differentiation between theories and practical applications of ancient, modern and contemporary political and economical philosophy will be studied. In its classical form the political philosophy and the economy - as a useful tool of the first - are meant to govern people for their own improvement (of the people), whereas today, political and economical considerations and implementations are understood as management of things.

### **Course Content:**

- An analysis of the central concepts of political and economical philosophy.
- The beginnings of the conception of the political phenomenon (Ancient Greek Philosophy: Plato, Aristotle, Sophists, etc.), its modern restructuring and formulation (Modern Philosophy: Machiavelli, Hobbes, Locke, Rousseau, Spinoza) in 19 - 20th century under the domination of capitalism and socialism (Contemporary Political Philosophy: Nietzsche, Marx, Strauss, Kastoriadis).
- The definition of political and economic action.
- The relationship between ethics, politics and economy.
- The political and economic philosophy as a tool for the social-political shaping of the individual.

**Student Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Βαβούρας, Η., *Πλάτων, Γοργίας*. (2008). Εισαγωγή-μελέτη: *Το Δίκαιο του Ισχυροτέρου στην Αρχαία Ελληνική Σκέψη «Οι φιλοσοφικές καταβολές της ιδέας»*, μετάφραση, φιλοσοφική ανάλυση, ερμηνευτικά σχόλια. Πρ. Τ. Π. Βαλαλά. Εκδόσεις Ζήτηρος, Θεσσαλονίκη.
2. Βαβούρας, Η., *Πλάτων, Πολιτικός*. (2010). Εισαγωγή-φιλοσοφική ερμηνεία/μελέτη: *Οι Αρχές της Πλατωνικής Πολιτικής Επιστήμης «Μια φιλοσοφική ερμηνεία του Πολιτικού»*, ερμηνευτικά σχόλια. Μτφρ. Θ. Μαυρόπουλος, Πρ. Κ. Ζουράρις. Εκδόσεις Ζήτηρος, Θεσσαλονίκη.
3. Βαβούρας, Η. (2013). *Ο «Πολιτικός Άνηρ» στην Αρχαία Ελλάδα: Οι φιλοσοφικές καταβολές της πολιτικής πράξης (Από τον Όμηρο στον Αριστοτέλη)*, Πρ. Π. Δόικος. Εκδόσεις Ζήτηρος, Θεσσαλονίκη.
4. Βαβούρας, Η., Χομπς, Τ. (2015). *Περί του Πολίτη (DeCive)*, [Εισαγωγή-φιλοσοφική ανάλυση: Ηλίας Βαβούρας, *Ο άνθρωπος-πολίτης στο φιλοσοφικό σχεδιασμό του ThomasHobbes*, μετάφραση-ερμηνευτικά σχόλια: Ηλίας Βαβούρας-Ευτυχία Φιριπή]. Εκδόσεις Ζήτηρος, Θεσσαλονίκη.
5. Βαβούρας, Η., (2019). *Επίμετρο: Η πολιτική φιλοσοφία του Ισοκράτη: Ο Ισοκράτης πρόδρομος του Μακιαβέλι αλλά και της σύγχρονης πολιτικής φιλοσοφίας*, στο *Ισοκράτης, Οι κυπριακοί λόγοι*. Εκδόσεις Ζήτηρος, Θεσσαλονίκη.
6. Βαβούρας, Η., (2019). 'The political and economical philosophy in Xenophon's *Oeconomicus*', άρθρο στο διεθνές επιστημονικό περιοδικό, *Dia-noesis: A Journal of philosophy* (τ.6), Ιούνιος, σελ. 85-95.
7. Στυλιανού, Α. (2006). *Θεωρίες του κοινωνικού συμβολαίου. Από τον Γκρότιους στον Ρουσσώ*. Εκδόσεις Πόλις, Αθήνα.
8. Strauss, L. (1988). *Ιστορία και φυσικό δίκαιο*. Εκδόσεις Γνώση.
9. Coleman, J. (2006). *Ιστορία της πολιτικής σκέψης (Τόμος Β')*. Εκδόσεις Κριτική, Αθήνα.
10. Swift, A. (2015). *Πολιτική Φιλοσοφία. Εισαγωγικός οδηγός για φοιτητές και πολιτικούς*. Εκδόσεις Οκτώ, Αθήνα.
11. Schmitt, C. (1927). *Η έννοια του πολιτικού*. Εκδόσεις Κριτική, Αθήνα.
12. Skinner, Q. (2005), *Τα θεμέλια της νεότερης πολιτικής σκέψης*. Εκδόσεις Αλεξάνδρεια, Αθήνα.

## **Mobile Application Development and Design**

**Semester:**7<sup>th</sup>

**Course Unit Type:**Elective Course

**Weekly Teaching Hours:**3

**ECTS:** 5

**Learning Outcomes:**The purpose of this course is to develop students' skills in design and development of new services and business activities in the field of mobile. Students will be trained in all aspects of mobile business and will have the opportunity to design and implement a prototype of their idea using a visual programming platform as well as to analyze its business development. Students will be able to identify the key components of success in mobile business, understand the key techniques of producing innovative digital ideas, product / service design and business model development in mobile business, analyze the process of developing a new online service / mobile application, and understand the concept of building a working group, the necessary business processes and other common challenges encountered in developing a new business activity / service in the mobile business.

### **Course Content:**

- Mobile and wireless networks.
- Wireless access technologies and networks.
- Interactive applications.
- Data applications and Internet navigation through wireless networks packet switch access.
- Impact of wireless environment and mobility on network protocols transport and applications.
- Mobility management protocols in wireless packet networks.
- Adapt TCP to wireless networks.
- Positioning technologies and mobile terminal based applications.
- Mobile platforms.

**Student Assessment Method:** Final Written Exam (60%), Assignments (40%)

### **Recommended Bibliography:**

1. Mark, D. (2014). Beginning iPhone Development: Exploring the iOS SDK, A press.
2. Deitel, P., & Deitel, H. (2014). iOS 8 for Programmers: An App-Driven Approach with Swift (3rd Edition). Prentice Hall, UK.
3. Kochan, S. (2013). Programming in Objective C (6th Edition) Addison-Wesley Professional, USA.

4. Deitel, P., & Deitel, H. (2014). *Android for Programmers: An App-Driven Approach* (2nd Edition). Prentice Hall, UK.
5. Murphy, M. (2009). *The Busy Coder's Guide to Android Development*, CommonsWare LLC.

## **Cloud Computing**

**Semester:** 7<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 5

**Learning Outcomes:** The aim of the course is to educate students in cloud computing terminology, technologies and applications, as well as data centers' architecture.

### **Course Content:**

- Introduction to cloud computing.
- Cloud computing features.
- Cloud computing models.
- Roles and provided services in cloud computing.
- Virtual servers and virtual networks.
- Data centers: Models, topologies and architectures.
- Cloud computing management: virtual transport, virtual machines' transport, error management.
- Data storage.
- Cloud services' pricing.
- Cloud service level agreement.

**Student Assessment Method:** Final exams (100%)

### **Recommended Bibliography:**

1. Puttini, R., Erl. T., & Mahmood, Z. (2015). Cloud Computing: Principles, Technology and Architecture (1<sup>st</sup> Edition). C. Gkiourdas Publishing, Athens, Greece (in Greek).
2. Velte, T. A., Velte, J. T., & Elsenpeter P. R. (2010). Cloud Computing: A Practical Perspective. C. Gkiourdas Publishing, Athens, Greece (in Greek).

## **8<sup>th</sup> SEMESTER**

### **Economic Development and International Economic Relations**

**Semester: 8<sup>th</sup>**

**Course Unit Type: Compulsory Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**Learning Outcomes:** The course "Economic Development and International Economic Relations" seeks to understand the temporal status of the key sectors of the Greek economy (and not only), its evolution and prospects. The course is a basic introductory course on the situation, developments and prospects of the Greek economy.

The course content aims at introducing students to the background of the key stages of the Greek economy, to the data and state of the Greek primary sector (features, problems and prospects for development), to the characteristics and issues of Greek industry, to the problems of Greek SMEs, in the characteristics of entrepreneurship in the country, in strategic directions for the future.

The course proceeds to an analysis of the role of the three sectors of production and especially of the Tertiary sector of the Greek economy. The relations of the three production sectors and their relationship with third countries are discussed. It also educates students on the economic importance of Greek shipping and tourism, with detailed reference to the characteristics, issues it addresses and the importance of economics, on GDP per capita, government budget and its preparation, on public deficit and debt, debt management and the Greek Balance of Payments.

Upon successful completion of the course, the student will acquire knowledge and skills that will enable them to:

- Be aware of international microeconomic and macroeconomic and explain determinism operation of open economies and the global economy altogether.
- Have knowledge and analyze the peculiarities of formation and functioning of global trading and financial system, the complex conditions of globalization of financial transactions.
- Understand the international economic exchange and explain the classical and neoclassical theory of international trade.
- Understand and distinguish the classical and neo-classical theory of International Trade, and alternative theories of international trade.
- Have knowledge and explain international transfer factor of production: the theories of international capital and labor power, the international transfer of technology.



- Have knowledge and discern the international trade policy: tariff and non- tariff methods of regulation of international trade.
- Understand and measure the international credit and finance, and to understand the theory of international investment.
- Understand and explain the international economic integration.
- Understand and appreciate the theory of customs unions and common market.

### **Course Content:**

- Introduction and Information on the three production sectors, in all their dimensions.
- Familiarity with the theory, methodology and policy issues of International Economic Relations.
- Resolving issues related to the area of international economy and business.
- Familiarity with locating and using real financial (and in general economic) data.
- Making decisions based on facts.
- Critical analysis of issues in the area of economy and business.
- Developing self-improvement skills and enhancing creativity.
- Understanding Inter-Balkan economic relations.
- Understanding economic development issues.
- Analysis of the reasons for the delay in the privatization program.
- Overview - phases of the Greek economy
- Data and situation of the Greek primary sector (characteristics, problems and prospects for development)
- Secondary sector, characteristics and issues of Greek industry, problems of Greek SMEs, characteristics of entrepreneurship in the country, strategic directions for the future.
- The economic importance of Greek shipping and tourism, with a detailed reference to its characteristics, issues and importance to the economy.
- GDP per capita, government budget and training, government deficit and debt, government debt management and Greek balance of payments.
- Employment, unemployment and its characteristics and long-term labor market trends.
- Income inequality in Greece, the economy and corruption. Reference is made to the country's Research and Development and Innovation.
- Summary of the relations of the Greek economy, business and investment with the countries of Southeast Europe.
- Characteristics of the current economic crisis, the issues raised by the European Union Support Facility and the International Monetary Fund have also been highlighted.

- The structure and functioning of the international economic system. The creation of global economy.
- The classical and neo-classical theory of International Trade.
- The theory of international movement inputs.
- The overall balance in international trade. Alternative theories of international trade.
- The international movement of factor of production: theories of international capital and labor power, the international transfer of technology.
- International trade policy: tariff and non- tariff methods to regulate international trade.
- The international credit and finance. The theory of international investment.
- The international economic integration. The theory of customs unions and common market.
- International accounts and balance of payments. The macroeconomic role of the balance of payments.
- The International Monetary System. The Exchange rate (ER) and the foreign exchange market.
- Theory of exchange rates. The exchange rate policy.
- Macroeconomic equilibrium in the open economy.
- Macroeconomic policy in an open economy with fixed and floating ER.
- International economic policy of the EU and external economic relations of Greece.

**Student Assessment Method:** Final Examination (100%)

**Recommended Bibliography:**

1. Νίκας, Χ. & Χριστοδούλου, Δ. (2011). Η Διεθνής Οικονομική στην Εποχή της Παγκοσμιοποίησης. Εκδόσεις Επίκεντρο, Θεσσαλονίκη.
2. Μπιτζένης, Α. (2014). Διεθνής Επιχειρηματικότητα και Επενδύσεις: Σύγχρονο Ελληνικό Επιχειρηματικό Περιβάλλον. Εκδόσεις Σταμούλη, Αθήνα.
3. Αγιομυργιανάκης, Γ. Μ., Βλάσσης, Μ., & Thomson Η., (2006). Διεθνείς Οικονομικές Σχέσεις. Εκδόσεις Rosli, Αθήνα.
4. Πελαγίδης, Θ. & Μητσόπουλος, Μ. (2007). Ανάλυση της Ελληνικής Οικονομίας. Η Προσοδοθηρία και οι Μεταρρυθμίσεις. Εκδόσεις Παπαζήση, Αθήνα.
5. Χιόνης, Δ. & Κορρές, Γ. (2003). Ελληνική Οικονομία-Οικονομική Πολιτική & Ανάλυση Βασικών Μακροοικονομικών Μεγεθών. Εκδόσεις Σταμούλη, Αθήνα.
6. Βεργόπουλος, Κ. (1979), Εθνισμός και Οικονομική Ανάπτυξη. Εκδόσεις Εξάντας, Αθήνα.
7. Βετσόπουλος, Α. (2007). Η Ελλάδα και το Σχέδιο Μάρσαλ. Εκδόσεις Gutenberg, Αθήνα.
8. Δερτιλής, Γ. (1999). Ατελέσφοροι ή Τελεσφόροι: Φόροι και

- Εξουσία στο Νεοελληνικό Κράτος. Εκδόσεις Αλεξάνδρεια, Αθήνα.
9. Κωστελένος, Γ., Βασιλείου, Δ., Κουνάρης, Ε., Πετμεζάς, Σ., & Σφακιανάκης, Μ. (2007). Ακαθάριστο Εγχώριο Προϊόν 1830-1939. ΚΕΠΕ, Αθήνα.
  10. Κωστής, Κ. (1989). Η Ελληνική Οικονομία στα Χρόνια της Κρίσης. Εκδόσεις Γνώση, Αθήνα.
  11. Mazower, M. (2002). Greece and the economic crisis of the interwar period. EIB Educational Foundation, Athens.
  12. Τσουλφίδης, Λ. (2009). Οικονομική Ιστορία της Ελλάδας. Εκδόσεις Πανεπιστημίου Μακεδονίας, Θεσσαλονίκη.

## **Evaluation of Investment(s) and Organizations**

**8<sup>th</sup> Semester**

**Course Unit Type: Compulsory Course**

**Weekly teaching hours: 3**

**Credit Units (ECTS): 4**

**Learning Outcomes:** The aim of the course is to understand the basic concepts regarding the goal of financial management, understanding the financial environment in which the company operates and to acquire theoretical and practical knowledge of the correct methodology to be followed for investment evaluation in fixed assets in very certain conditions, estimation of capital costs and risk management in conditions of uncertainties.

Upon successful completion of the course, the student will acquire knowledge and skills that will enable them to:

- Know the objective of the business in terms of financial management.
- Understand the time value of money.
- He is aware of the various methods of evaluating investments in fixed assets in very certain conditions.
- It is able to calculate the cost of capital of the company.
- Analyzes risk management in conditions of uncertainty.
- Calculates the cash flows of investment programs.
- Analyzes and calculates the cost of funding sources, applying the appropriate models.

### **Course content:**

- Time value of money.
- Randa concept.
- Calculation of capital costs.
- Evaluation of investment plans.
- Calculation of cash flow of investment plans.
- Capital costs and related models.
- Method of net worth. Examples and applications.
- Internal performance percentage method.
- Method of discounted cash flows. Examples and applications.
- Danger management.

- Dead point of the turnover.

**Assessment method:** Final Examination (100%).

**Recommended Bibliography:**

1. Παναγιώτης Φώτης (2014), Χρηματοοικονομική Ανάλυση Επενδύσεων , Α Έκδοση, ISBN: 978-618-5036-08-9, Εκδόσεις ΠΡΟΠΟΜΠΟΣ" ΚΙΜΕΡΗΣ Κ. ΘΩΜΑΣ.
2. Reilly K. Frank, Brown C. Keith (2018), Ανάλυση Επενδύσεων και Διαχείριση Χαρτοφυλακίου, ISBN: 9789925563081, Εκδότης BROKEN HILL PUBLISHERS LTD.
3. Edwin J. Elton, Martin J. Gruber, Stephen J. Brown, William N. Goetzmann (2016), Σύγχρονη Θεωρία Χαρτοφυλακίου και Ανάλυση Επενδύσεων, ISBN: 978-618-81298-9-4, Εκδότης ΥΤΟΡΙΑ ΕΚΔΟΣΕΙΣ Μ. ΕΠΕ.

## **Information Systems Analysis and Design**

**Semester:** 8<sup>th</sup>

**Course Unit Type:** Compulsory Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** The aim of the course is the development of analytical and multi-dimensional skills through the understanding and application of contemporary methods in information systems' analysis and design. The aforementioned scope takes place by the use of the Unified Modeling Language (UML).

### **Course Content:**

- Introduction to information systems' analysis and design.
- Preparation: start of the project and project management.
- Requirements' collection and scenarios.
- Business modeling.
- Functional modeling.
- User's Interfaces.
- Structural modeling
- Behavioral modeling.
- Evaluation.

**Student Assessment Method:** Group project (40%) and Final exams (60%)

### **Recommended Bibliography:**

1. Dennis, A., Wixom, B. H., & Tegarden, D. (2010). Systems' analysis and design with UML 2.0: A object-oriented approach (3<sup>rd</sup> Edition). Kleidarithmos Publishing, Athens, Greece (in Greek).
2. Fowler, M. (2006). Introduction to UML. Kleidarithmos Publishing, Athens, Greece (in Greek).

## Teaching Practicum

**Semester:** 8<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 4

**Learning Outcomes:** Teaching practicum is a planned and well-designed educational activity that brings the student-prospective teacher into a direct contact with the school reality. Teaching practicum functions as the link between theory and practice in teacher's education, while emphasizing all that the prospective teacher attends or does in or out of the school, as opposed to the theoretical lessons.

### **Course Content:**

- The Practicum is an independent educational component / activity of the curriculum in the context of basic academic education.
- Linking the educational practice with the pedagogical theory
- The student's familiarity with their future professional field.
- The systematic introduction of the prospective teacher into the main areas of daily pedagogical and teaching activity.
- Analyzing, planning and conducting the teaching and pedagogical processes.

**Student Assessment Method:** Final Written Examination (100%)

### **Recommended Bibliography:**

1. Αντωνίου, Χ. (2011). *Εκπαίδευση Εκπαιδευτικών*. Εκδόσεις Πατάκη, Αθήνα.
2. Ανδρούσου, Α. & Τσάφος, Β. (2013). «Εκπαιδεύοντας εκπαιδευτικούς ως μέντορες μελλοντικών εκπαιδευτικών σε ένα διερευνητικό αναστοχαστικό πλαίσιο». Στο Α. Ανδρούσου & Σ. Αυγητίδου (Επιμ.). *Η Πρακτική Άσκηση στην αρχική εκπαίδευση των εκπαιδευτικών: Ερευνητικές προσεγγίσεις*. Αθήνα: Δίκτυο Πρακτικών Ασκήσεων και ΤΕΑΠΗ -Εθνικό Καποδιστριακό Πανεπιστήμιο (ηλεκτρονική έκδοση-παρόν τόμος).
3. Αυγητίδου, Σ., (2005). «Η έρευνα δράσης ως μέθοδος επιμόρφωσης των εκπαιδευτικών στην έρευνα: Ένα παράδειγμα». *Παιδαγωγική Επιθεώρηση*, 39, 39-56.

## **CMS Content Management Systems**

**Semester:** 8<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 5

**Learning Outcomes:** The purpose of the course is to enable the student to manage the content and information of the web pages. They will learn to submit content as a content creator without requiring technical HTML knowledge or uploading files.

### **Course Content:**

- Key features of a CMS
- Automated templates
- Standards improvements
- File management
- The basic functions of a CMS
- CMS Selection Factors
- Different types of CMS
- Features of a CMS and their Analysis
- System requirements
- CMS Systems Analysis
- CMS compatible with the needs of the business world
- CMS focused on personalization, e-commerce and CRM tools (personalization, eCommerce, CRM tools).
- CMS for bloggers
- The best PHP CMS
- Open Source CMS

**Student Assessment Method:** Final written examination (60%), assignments (40%)

### **Recommended Bibliography:**

1. Lorraine Young, Philip Beadle, Scott Willhite and Chris Paterra, Wiley publishing, Inc. 2006DotNetNuke for Dummies
2. Ronald Maier, Springer publishing - Third Edition, Knowledge Management Systems – Information and Communication Technologies for Knowledge Management
3. Shaun Walker et al., Wrox Press 2006, Professional DotNetNuke 4.0: Open Source Web Application Framework for ASP.NET 2.0



## **Advertising and Modern Technology**

**Semester: 8<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS: 4**

**LearningOutcomes:** The purpose of the course is to facilitate the student's understanding of the subject matter and to give the impetus for fruitful reflection on the development of a scientific approach to the subject.

### **Course Content:**

- Introductory remarks: Definitions of advertising - forms: Benchmarking: Benchmarking is any ad that directly or indirectly identifies or implies the identity of a particular competitor or the products or services it offers. This advertising, for comparison purposes, is permitted provided that: a. It is not misleading b. It compares products or services that have the same objectives c. objectively compares one or more features that are essential, relevant, verifiable and representative of those products and services, which may include price.
- Specifically, project advertising: "Working Advertising" is the advertising method of attracting customers using additional benefits. It is a method of promoting the advertised business itself and the additional benefits offered.
- Sponsorship, product placement and narrow casting: Sponsorship is generally considered to be any communication through which a sponsor undertakes financial or other support or promotion of an event (in particular sports, cultural, socio-political, ecological, broadcasting) organized by the other party or its participants, in order to establish a positive link between the sponsor's "image" and the sponsored event.
- TV advertising in particular.
- Propaganda dissemination techniques: The aims and means of propaganda, the consequences of propaganda, ways to deal with propaganda, ways to manipulate public opinion

- Featured: Propaganda and psychology of the masses.
  
- The Modern Digital Age and the Internet: Technical Specifications. Technical clarifications of the Internet. The World Wide Web. Specifically: Links, links, e-mail, File sharing. Discussion groups and chat channels, file transfer protocol, videoconferencing.
  
- Acts related to Communication and Internet Advertising: Intellectual Property Issues.

**Student Assessment Method:** Final Written Examination (100%)

**Recommended Bibliography:**

1. Eagle, L. (2015). Marketing Ethics & Society.
2. Espejo, R. (2006). What is systemic thinking ?, in: System Dynamics Review, 10 / 2-3: 199-212.
3. Espejo, R. / WATT, J. (1988). Information Management, Organization and Managerial Effectiveness, in: The Journal of the Operational Research Society, Vol. 39, No. 1, 7–14.
4. Dyer Gillian, (2004). Advertising as communication, Patakis, Athens.
5. Greenly, G. E. (1989). Strategic Management, London: Prentice Hall International.

## **CMS Content Management Systems**

**Semester:** 8<sup>th</sup>

**Course Unit Type:** Elective Course

**Weekly Teaching Hours:** 3

**ECTS:** 5

**Learning Outcomes:** The purpose of the course is to enable the student to manage the content and information of the web pages. They will learn to submit content as a content creator without requiring technical HTML knowledge or uploading files.

### **Course Content:**

- Key features of a CMS
- Automated templates
- Standards improvements
- File management
- The basic functions of a CMS
- CMS Selection Factors
- Different types of CMS
- Features of a CMS and their Analysis
- System requirements
- CMS Systems Analysis
- CMS compatible with the needs of the business world
- CMS focused on personalization, e-commerce and CRM tools (personalization, eCommerce, CRM tools).
- CMS for bloggers
- The best PHP CMS
- Open Source CMS

**Student Assessment Method:** Final written examination (60%), assignments (40%)

### **Recommended Bibliography:**

1. Lorraine Young, Philip Beadle, Scott Willhite and Chris Pattera, Wiley publishing, Inc. 2006DotNetNuke for Dummies
2. Ronald Maier, Springer publishing - Third Edition, Knowledge Management Systems – Information and Communication Technologies for Knowledge Management
3. Shaun Walker et al., Wrox Press 2006, Professional DotNetNuke 4.0: Open Source Web Application Framework for ASP.NET 2.0



## **Economy and Environment**

### **8<sup>th</sup> Semester**

**Course Unit Type: Elective Course**

**Weekly teaching hours: 3**

**Credit Units (ECTS): 5**

**Learning Outcomes:** The control of the management of natural resources has the main purpose to determine whether each natural resource is suitable so that its use can ensure the reduction of environmental pollution and the good operation of the proposed investment and the maximum energy efficiency. Rational management can be expressed by a series of controls in the process of exploiting the mineral wealth of tourism development while at the same time it can suggest the use of new renewable forms of energy. During the study of the proposed books, students will get to know the main types of natural resources as well as management methods. so that they can immediately recognize the benefits to society.

Upon successful completion of the course, the student will acquire knowledge and skills that will enable them to:

- Know the objective of energy investment.
- Understand the value of mineral wealth.
- Be aware of the various methods of exploiting mineral wealth and tourism development.
- Know the role of renewable energy sources and the benefits to society and the environment.
- Know the role and importance of land reclamation after mining activity.

### **Course content:**

- Natural resources and technological development - historical retrospection.
- The concept of ecosystem.
- Economic and social benefits of protected areas
- Energy efficiency of energy production methods.
- Ecological tourism.
- Energy policy and environment.
- Welfare Economics and the Environment.
- The importance of waste for health and the environment.

- Sustainable development.
- Liquid and solid waste - Marine pollution.
- Development course in the post-Hellenistic period of Western Macedonia and other energy regions of the country.
- Linking research activity of educational institutions with the management of natural resources.
- Energy investments and environment.

**Assessment method:** Final Examination (100%).

**Recommended Bibliography:**

4. Τσανακτσίδης Κωνσταντίνος (2011), Εφαρμογές αερίων και υγρών καυσίμων - εκπαιδευτική προσέγγιση στην λειτουργία και οργάνωση εργαστήριου φυσικοχημικών αναλύσεων προϊόντων απόσταξης πετρελαίου, ISBN: 978-618-82022-0-7.
5. Χάλκος Εμμ. Γεώργιος (2013), Οικονομία και περιβάλλον- Μέθοδοι αποτίμησης και διαχείρισης, ISBN 9786188008465, Εκδότης: LIBERAL BOOKS.
6. Τσανακτσίδης Κωνσταντίνος (2014), Εκπαιδευτική προσέγγιση εφαρμογών οργανικής χημείας στις τεχνολογίες Αντιρρύπανσης, ISBN: 978-960-93-6203-0.

## **Informatics Law**

**Semester: 4<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS: 5**

**Learning Outcomes:** Law and Technology is a basic introductory course on the relations of law and technology. The course content aims at the acquisition of specific knowledge and skills and introduction of students to the basic concepts and principles of electronic law, computer law and general law; The acquisition of basic knowledge about legal computing and its individual manifestations. The modules are accompanied by examples, case studies and practical applications from Greek and international contexts that help students understand the them.

### **Course Content:**

- Conceptual approach to electronic law and computer law.
- Information Society.
- Legal Informatics.
- Software and other project protection.
- Databases.
- Computer hardware protection. IT contracts.
- Multimedia.
- Protection of digital works especially on the internet.
- Websites.
- Topographies of semiconductor products.
- Legal issues of e-commerce.
- Protection of personal data.
- Cybercrime.
- Copyright.
- OnLine transactions.
- Signal.
- Patent.
- Knowledge transfer.

**Student Assessment Method:** Final written examination (60%) - Written assignments (40%)

**Recommended Bibliography:**

1. Βελέντζας, Γ. (2019). Δίκαιο και Τεχνολογία (ιδίως στο οικονομικό περιβάλλον), IuS, Θεσσαλονίκη
2. Ρόκας, Ν. (2016). Βιομηχανική ιδιοκτησία. Νομική Βιβλιοθήκη.
3. Ιγγλεζάκης, Ι. (2008). Δίκαιο της Πληροφορικής. Εκδόσεις Σάκκουλα, Θεσσαλονίκη
4. Ιγγλεζάκης, Ι. (2012). Νομική πληροφορική. Εκδόσεις Σάκκουλα, Θεσσαλονίκη.



**Semester: 8<sup>th</sup>**

**Course Unit Type: Elective Course**

**Weekly Teaching Hours: 3**

**ECTS: 5**

**Learning Outcomes:** The main learning objectives of the course are:

- Understanding the basic methods of analyzing business decisions and public organizations by creating models and then solving them.
- Understanding basic methods of supporting business and public decision making.
- The acquisition of data capability of the 'traditional' on-line transaction processing systems of companies and public organizations, as well as other external sources, through their appropriate processing to support decision-making of various forms and hierarchical levels.

**CourseContent:**

- Introduction: Categories of decisions in modern business.
- Decision Support System Architecture: Analyzing Decision Problems with Discrete Options. Influence Charts - Decision Trees.
- Calculating the value of perfect and incomplete information . Multi-criteria decision analysis. Structure and capabilities of discrete decision analysis software tools. Analysis of Decision Problems with Continuous Range of Options - Linear Programming. Modeling, resolution, sensitivity analysis. Structure and capabilities of a continuous range of decision problem analysis software tools.
- Basic concepts, structure and design of data shapes, constellations and snowflakes.
- Data mining techniques to extract knowledge from data to support decision-making. Structure and capabilities of data warehouse software creation and data mining techniques.

**Student Assessment Method:** Final Written Examination (100%)

**Recommended Bibliography:**

1. Bertsimas, D., Freund, R. M. (2004). «Data, Models and Decisions», Dynamic Ideas Publishing.

2. Laudon, K. C., Laudon, J. P (2012). «Management Information Systems: Managing the Digital Firm», Prentice Hall
3. Turban, Ef. Aronson, J., Liang, T. P. (2007). «Decision Support Systems and Intelligent Systems», Prentice-Hall International.
4. Doukidis, G. (2010). "Innovation, Strategy, Development and Information Systems", Editions Andreas Sideris - Ioannis Sideris & SIA OE
5. Nanopoulos, A., Manolopoulos, I. (2010). "Introduction to Mining and Data Warehouses", New Technologies Publications.
6. Ypsilantis, P. (2008). "Business Research - Applications in Today's Business", Probobos Publications.