

COURSE OUTLINE

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF39	Semester	7 th
TITLE:	Financial econometrics		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	6
	Field Work	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific area		
PREREQUISITE COURSES:	Basic understanding of introductory econometrics and inferential statistics.		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	Yes (in English)		
COURSE WEB PAGE (URL)			

2. Course Description and Learning Objectives

The aim of the course is to study and understand econometric techniques and methods applied in finance and especially financial time series.

At the end of the course, students will be able to specify, interpret and evaluate models, especially cointegration techniques to model long-term and short-term relationships among financial data, understand ARCH and GARCH models and be able to apply them to financial assets with volatility clustering and dynamic asymmetry.

An important part of the course involves students' work by applying the models to real data.

Skills

- Retrieve, analyse and synthesise data and information, with the use of necessary technologies
- Be critical and self-critical
- Advance free, creative and causative thinking
- Make decisions

3. Course Outline

- i. Financial time series.
- ii. Autocorrelation and consequences.
- iii. The Unit Root
- iv. Autoregressive processes.
- v. Vector autoregressive models.
- vi. Estimation and analysis of VAR models.
- vii. Stationary VAR models.
- viii. Granger representation theorem - Granger causality.
- ix. Cointegration theory.
- x. Error correction models.

- xi. Vector error correction models.
- xii. Autoregressive conditional heteroskedasticity models.
- xiii. Generalized autoregressive conditional heteroskedasticity models.

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face																				
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Power point presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)																				
COURSE ORGANIZATION	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Activities</i></th> <th style="text-align: center;"><i>Semester workload</i></th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: center;">90</td> </tr> <tr> <td>Field Work and case studies</td> <td style="text-align: center;">30</td> </tr> <tr> <td>Work in teams or autonomously (when is necessary)</td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td>Autonomous study</td> <td style="text-align: center;">30</td> </tr> <tr> <td><i>Total contact hours and training (25 hours of personal work for each credit)</i></td> <td style="text-align: center;">150</td> </tr> </tbody> </table>	<i>Activities</i>	<i>Semester workload</i>	Lectures	90	Field Work and case studies	30	Work in teams or autonomously (when is necessary)										Autonomous study	30	<i>Total contact hours and training (25 hours of personal work for each credit)</i>	150
<i>Activities</i>	<i>Semester workload</i>																				
Lectures	90																				
Field Work and case studies	30																				
Work in teams or autonomously (when is necessary)																					
Autonomous study	30																				
<i>Total contact hours and training (25 hours of personal work for each credit)</i>	150																				
STUDENT ASSESMENT	Written examination (100%) including: <ul style="list-style-type: none"> - Theoretical questions - Multiple choice questions - Numerical questions 																				

5. Textbooks and Supplementary Material

Main educational material

- Χάλκος, Γ. (2011) Οικονομετρία, Εκδόσεις Gutenberg, Αθήνα
- Χρήστου, Κ.Γ. (2002). Εισαγωγή στην Οικονομετρία. Εκδόσεις Gutenberg, Αθήνα
- Gujarati D. N. (2012). Οικονομετρία Αρχές και εφαρμογές, Τζιόλας.
- Maddala G.S. (1992). Introductory Econometrics, New Jersey, Prentice-Hall.

Supplementary educational material

- Journal of Applied Econometrics
- Journal of Econometrics
- International Review of Financial Analysis]
- International Review of Economics and Finance

SCHOOL	Management		
DEPARTMENT	Accounting and Finance		
LEVEL OF COURSE	Advanced		
COURSE CODE	UAF40	SEMESTER	5
COURSE TITLE	Corporate Analysis and valuations		
INDEPENDENT TEACHING ACTIVITIES		Weekly Teaching Hours	ECTS
		3	6
TOTAL		3	6
TYPE OF COURSE UNIT	Bachelor Degree		
PREREQUISITES	Core classes on accounting, statistics, and finance are a prerequisite. Working knowledge of EXCEL is also important.		
LANGUAGE OF LECTURES and EXAMINATION	Greek & English		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes		
URL			

2. Learning outcomes

Learning outcomes
<p>This course covers business valuation, equity valuation, and option valuation. The goal of the course is to provide students with practical tools and methods to value a broad range of assets. While the course is designed first and foremost to be very practical, the tools and methods covered in this course are presented in the framework of generally accepted financial theory.</p> <p>The course starts with a broad overview and discussion of valuation techniques. There are a number of different ways to try and determine the value of an asset, and it is almost always good practice to use more than one valuation method. Following the overview of valuation techniques, we start with methods for calculating the discount rate used in cash flow valuation methods. Our discount rate discussion involves determining the firm's cost of capital – both debt and equity capital – and the effect of leverage (debt) on the firm's cost of equity and the firm's overall cost of capital. Following our discount rate discussion we cover valuation effects of a firm's capital structure.</p> <p>After our discount rate and capital structure classes we start coverage of cash flow valuation techniques used to value businesses and equity. We start with the discounted cash flow method (DCF), which is the most widely used cash flow valuation method. DCF valuation models are well-suited for sensitivity analysis, and we will cover methods for modeling the effects of varying material inputs of the DCF model. Cash flow valuation methods include many uncertain inputs, and sensitivity analysis help reveal the effects of varying the major inputs of the valuation. I will go through a detailed DCF example in class, and students will perform a valuation and sensitivity analysis on a company of their choosing as one of the</p>

major assignments of the course.

General skills

We will build upon skills developed in previous finance and accounting courses, especially in the areas of financial statement analysis and discounted cash flow valuation. In addition, you should be familiar with introductory concepts in statistics and Information & Communication technologies.

3. COURSE CONTENT

Week 1. Introduction and Discussion of Valuation Techniques. Review of main accounting concepts. Definition of Free Cash Flow. Discounted Cash Flow Model. Annuities and Perpetuities.
Week 2. Calculating the Discount Rate: The CAPM. Calculating and unlevering/re-levering beta. Fama-French 3 factor model
Week 3. Valuing a Company using DCF. No friction Model without Taxes and Bankruptcy Costs.
Week 4. WACC with Taxes and Bankruptcy costs.
Week 5. Forecasting Earnings & Free Cash Flows to the firm (FCFF)
Week 6. Valuing a Company using the WACC model. In-class example Model set-up.
Week 7. Valuing a Company with the DCF method in-class example. Sensitivity analysis (scenario analysis, break-even, and simulation)
Week 8. Valuing a Company with the Adjusted Present Value method and the Capital Cash Flow Method; Equivalence with WACC
Week 9. Valuing a company with comparables and multiples; selecting comparable companies; application to the in-class example DCF valuation
Week 10. Valuation Case 1
Week 11. Valuation Case 2
Week 12. Additional Topics for Discussion. Other Valuation Models: Cost Approach, Flow to Equity, EVA. Equity Control Premiums & Liquidity Discounts.
Week 13. Valuing LBOs and M&A transactions, earnings accretion and dilution in M&A transactions. Valuing Financial Institutions

4. TEACHING and LEARNING METHODS - ASSESSMENT

TEACHING METHODS	Lectures, Classroom discussion, Collaboration, Classroom Action Research.
USE OF INFORMATION TECHNOLOGIES AND COMMUNICATION	Excel and Online Data Bases

LECTURE STRUCTURE	Activity	Semester Teaching Load
	Lecture	33h
	Class exercises and application	6h
	Individual or group case study	42h
	Independent Study	20h
	Course Total	101h
EVALUATION OF STUDENTS' PERFORMANCE		

5. RECOMMENDED READING

Titman, S., & Martin, J. D. (2016). *Valuation: the art and science of corporate investment decisions*. Pearson.

Koller, T., Goedhart, M., & Wessels, D. (2010). *Valuation: measuring and managing the value of companies*. John Wiley and sons.

Damodaran, A. (2016). *Damodaran on valuation: security analysis for investment and corporate finance* (Vol. 324). John Wiley & Sons.

AICPA (2019). *Accounting and Valuation Guide: Valuation of Portfolio Company Investments of Venture Capital and Private Equity Funds and Other Investment Companies* (AICPA Accounting and Valuation Guide) 1st Edition. Wiley.

COURSE OUTLINE

1. General Information

SCHOOL:	MANAGEMENT		
DEPARTMENT:	ACCOUNTING & FINANCE		
COURSE LEVEL:	<i>Undergraduate</i>		
COURSE CODE:	UAF28	Semester	Spring
TITLE:	Computational Accounting		
COURSE SCHEDULE		TEACHING HOURS (WEEKLY)	ECTS CREDITS
Lectures		1	
Labs		2	
TOTAL:		3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Skills Development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	N/A		

2. Course Description and Learning Objectives

Intended learning outcomes of the course

The changes in accounting and tax legislation that have taken place in recent years, the development of computing through computerized accounting applications have led to introduce an undergraduate Computational Accounting course in the Accounting and Finance Department curriculum.

The aim of the course is to give students the experience they will need to acquire to pursue their career in the majority of Greek businesses and organizations and to provide them with the knowledge they need to actively participate in the computerized accounting departments of businesses (greater automation, emphasis on new forms of communication, exploitation of the Internet for accounting activities, greater electronic data exchange with both accounting principles (Taxation, EFKA, etc.) and with other companies).

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

- List and describe the different kinds of accounting information systems.
- Know the specifications of accounting information systems.
- Apply methodologies to develop accounting information systems within a business.
- Keep and print computerized accounting books of a Greek business.
- Keep and print computerized duplicate business accounting books.

Skills
<ol style="list-style-type: none"> 1. Search, analyze and synthesize data and information, using the necessary technologies. 2. Adapt to new situations. 3. Autonomous work. 4. Design and project management. 5. Decision Making. 6.

3. Course Outline

The course is developed in 13 courses.

Section title	Section Contents
1. Management Information Systems	<ul style="list-style-type: none"> - Management Information Systems and Business Organizational Structure. - Databases. - Enterprise Resource Planning (ERP). - The implementation of ERPs in Greece
2. Accounting Office Automation Applications	<ul style="list-style-type: none"> - Spreadsheets. - Intranets. - E-commerce – e-invoicing. - Taxis.
3. Configuration of software applications	<ul style="list-style-type: none"> - General-Analytical Accounting. - Workflow at the computerized Accounting Office. - Daily prints. - Computer security and storage of applications &files.
4. The Greek Accounting Standards and the way of connection with Computerized Accounting	<ul style="list-style-type: none"> - Article 3. Accounting system and basic accounting records. - Article 5. Reliability of an accounting system. - Articles 6(7). Update time – preservation of accounting records. Articles 8-13. Issues relating to sales invoices and receipts for the retail sale of goods or services.
5. Use of computerized accounting software (1)	<ul style="list-style-type: none"> - Introduction to the program. - Traders. - General Accounting Parameters.
6. Use of computerized accounting software (2)	<ul style="list-style-type: none"> - Accounting Plan. - Articles of General Accounting.
7. Use of computerized accounting software (3)	<ul style="list-style-type: none"> - Standard Articles. - Balance Sheet Closure.
8. Use of computerized accounting software (4)	<ul style="list-style-type: none"> - Inventory. - Dividend Sheet.
9. Use of computerized accounting software (5)	<ul style="list-style-type: none"> - Copying of Balance Sheet Parameters. - Distribution of Results.
10. Use of computerized accounting software (6)	<ul style="list-style-type: none"> - Fixed Assets Register. - Prints.
11. Use of computerized accounting software (7)	<ul style="list-style-type: none"> - Income-Expense Book. - General and Analytical Accounting.

12. Practical Training (1)	- Extensive practice of Computerized Double-entry BookKeeping.
13. Practical Training (2)	- Extensive practice of Computerized Double-entry BookKeeping.

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	60
	Fieldwork and case studies	40
	Self-solving exercises	20
	Autonomous study	30
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	Final written examination (70-100%): Questions on terminology, theories and case studies (based on the material discussed in class). Project (0-30%): PowerPoint presentation and script on a topic approved by the instructor, related to computational accounting.	

5. Textbooks and Supplementary Material

Textbooks:

1. Dapis D., Athanasiou D. (2017), Computational Accounting II, Observation of Diplomatic Books, 1st edition, Thessaloniki: Economic Publications.
2. Karagiorgos Th., Petridis A. (2015), Computational Accounting: Theory and Action. 2nd edition, Thessaloniki: Theofanis Karagiorgou Bros.
3. Dimitriadis A., Koilias Ch., Kostas A. (2010). Accounting Information Systems: From theory to practice. 1st Edition, Athens: New Technologies Publishing.
4. Gkinoglou D., Protogeros N. (2004), Accounting Information Systems: Computational Accounting. 1st Edition, Athens: Rosili.

Scientific Journals:

1. Journal of Information Systems.

2. Journal of Accounting Information Systems.
3. Management Information Systems.
4. Accounting and Finance.

Alternative Investments

COURSE OUTLINE

1. General Information

SCHOOL:	MANAGEMENT		
DEPARTMENT:	ACCOUNTING AND FINANCE		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF66	Semester	5 th or 7 th
TITLE:	ALTERNATIVE INVESTMENTS		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	6
	Exercises	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific Area		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	Yes (in English)		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/1107/		

2. Course Description and Learning Objectives

The aim of the present course is to introduce the students in the subject of alternative investments, such as hedge funds, private equity, real estate and commodities either directly or indirectly through funds of funds. The course provides both theoretical and applied knowledge in the field of the management of alternative investments. This course will offer to the students the ability to determine the basic characteristics and the categories of alternative investments, the method of calculating their return as well the degree of the embodied risk. The students will also become familiar with the methods of valuation of this class of assets as well as they will be able to construct portfolios which include both alternative and traditional investments. As part of the course the students will be asked to work with real data. Furthermore, the purpose of the course is to provide the students with a good understanding and applied knowledge of the techniques which should be part of the tools of those that invest, analyze and/or provide consulting with the use of alternative investments as part of a portfolio. Finally, in this course the current challenges such as inside and confidential information taxation and regulatory framework are examined. The study of these issues is supported by several activities such as, case studies as well as the presentation of an individual or group homework. During the lectures, alternative approaches are implemented in order to connect theory with application, mainly through case

studies, exercises, and presentation of the use real data.

Skills

- Investigation, analysis and data aggregation and information, with the application of the appropriate technology.
- Decision making
- Constructive and critical thinking
- Independent homework
- Work autonomously
- Work in teams

3. Course Outline

Week 1- Introduction

- Introduction
- Module aim and structure
- Classes of Assets
- The role of financial markets
- Changes in the financial system and financial crises
- The investment environment
- Alternative and traditional investments
- The role of Alternative Investments in the Global financial system

Week 2- Mutual Funds-Hedge Funds

- Types of Mutual Funds-Investment Strategies
- Hedge Fund
- Basic characteristics of Hedge Funds
- Participants in Hedge Funds
- The evolution of Hedge Funds
- Differences of Hedge Funds and Mutual Funds
- Databases (Bloomberg, Thomson Reuters).
- Risk and return

Week 3- Hedge Funds Strategies

- Equity long/short (Equity Hedge)
- Global macro
- Short selling
- Market neutral
- Arbitrage
- Convertible Bond Arbitrage
- Fixed Income Arbitrage
- Merger Arbitrage
- Relative Value Arbitrage
- Event driven
- Market timers

Week 4- Return and Risk Management of Hedge Funds I

- Return
- Pricing

- Measurement of risk
- Portfolio Analysis
- Risk diversification
- Asymmetry and kurtosis

Week 5- Return and Risk Management of Hedge Funds II

- Categorisation of Hedge Fund based on risk
- Empirical data-Applications with the usage of econometric packages

Week 6- Real Estate

- Characteristics and categories
- Return and risk
- Current trends
- Real Estate Investment Trusts (REITs)
- Empirical data-Applications with the usage of econometric packages

Week 7- Commodities

- Characteristics and categories
- Spot and forward markets
- Normal backwardation and Contango
- Pricing

Week 8- Derivatives in commodities

- Investment in derivatives
- Return and risk
- Strategies and arbitrage
- Managed Futures
- Empirical data

Week 9- Private Equity Funds I

- Private Equity
- Venture capital (role, categories, risk and return, life cycle)

Week 10- Private Equity Funds and Leverage

- Leveraged Buyouts (LBOs)
- Structure of LBOs
- Value of LBOs
- Remunerations in LBOs
- Risk and return of LBOs
- Current trends and corporate governance
- Mezzanine debt
- Distressed debt

Week 11- Other types of Alternative Investments

- Investment in art (return, risk, index, characteristics)
- Investment in wine (return, risk, index, characteristics)
- Other types

Week 12- Measurement and evaluation of portfolio managers' performance

- Evaluation of portfolio managers' performance
- Limitations

Week 13- Revision-Presentations**4. Teaching and Learning Methods - Assessment**

TEACHING METHODS	With physical presence in class	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Specialized exercises and case studies with real data. Support of learning process through the e-class platform	
COURSE ORGANIZATION	<i>Activities</i>	<i>Semester workload</i>
	Lectures	39
	Practical exercises that focus on the application of methodologies and analysis of case studies in small student groups	25
	Study and analysis of literature	15
	Individual or group case study.	30
	Independent study	41
	Course total	150
STUDENT ASSESMENT	<p>Final written exam (80%-100%) which includes:</p> <ul style="list-style-type: none"> - Multiple choice questions - Short answer questions - Problems - Theoretical and conceptual questions - Questions of critical thinking - Exercises <p>Students will be given the opportunity to participate (optional) to a coursework with required presentation with a grade weight of 20% of total grade. The coursework will focus on issues relevant to the topics discussed during the course.</p>	

5. Textbooks and Supplementary Material

1. Αρτίκης, Γ., 2013. Χρηματοοικονομική Διοίκηση Αποφάσεις Επενδύσεων. Εκδόσεις Νικητόπουλος. ISBN: 978-618-806356-3. (in Greek)
2. Δράκος, Α., Καραθανάσης, Γ., 2017. Χρηματοοικονομική Διοίκηση των Επιχειρήσεων. Εκδόσεις Μπένου. ISBN: 978-960-359132-0. (in Greek)
3. Κιόχος, Π., Κιόχος, Α., Παπανικολάου, Γ., 2003. Διαχείριση χαρτοφυλακίων και Χρηματοοικονομικών Κινδύνων. Εκδόσεις Σύγχρονη Εκδοτική. ISBN: 978-960-816550-2. (in Greek)
4. Παπαδάμου, Σ., 2009. Διαχείριση χαρτοφυλακίου. Εκδόσεις Γ. Δάρδανος-Κ. Δάρδανος. ISBN: 978-960-011274-0. (in Greek)

5. Σουμπενιώτης, Δ., Ταμπακούδης, Ι., 2017. Σύγχρονη Χρηματοοικονομική Ανάλυση και Επενδύσεις. Εκδόσεις Αφοί Θ. Καραγιώργου. ISBN: 978-618-833082-5. (in Greek)
6. Anson, J.P., 2006. Handbook of Alternative Assets. 2nd Edition, Wiley & Sons. ISBN: 978-047-198020-9.
7. Anson, J.P., Fabozzi, F.J., Jones, F.J., 2011. The Handbook of Traditional and Alternative Investment Vehicles: Investment Characteristics and Strategies. Wiley & Sons. ISBN: 978-047-060973-6.
8. Bodie, Z., Kane, A., Marcus, A. , 2014. Επενδύσεις. Εκδόσεις Utopia. ISBN: 978-618-806476-8. (in Greek)
9. Brealey, R., Myers, S., Allen, F., 2015. Αρχές Χρηματοοικονομικής των Επιχειρήσεων. Εκδόσεις Utopia. ISBN: 978-618-812981-8. (in Greek)
10. Brigham, E. F., Ehrhardt, M. C., 2013. Financial Management: Theory & practice. 15th Edition, Cengage Learning. ISBN: 978-130-563229-5.
11. Chambers, D. R., Anson, M., Black, K., Kazemi H., 2015. Alternative Investments: CAIA Level I. 3rd Edition, Wiley. ISBN: 978-111-900336-6.
12. Elton, E., Gruber, M., Brown, S., Goetzmann, W., 2018. Σύγχρονη Θεωρία Χαρτοφυλακίου και Ανάλυση Επενδύσεων. Εκδόσεις Utopia. ISBN: 978-618-812989-4. (in Greek)
13. Fabozzi, F., 2006. Handbook of Alternative Assets. 2nd Edition, Wiley & Sons. ISBN: 978-047-198020-9.
14. Hull, J., 2011. Options, Futures, and Other Derivatives. 10th Edition, Prentice Hall. ISBN: 978-935-286659-5.
15. Jobman, D., 2002. The Handbook of Alternative Investments. Wiley. ISBN: 978-047-141860-3.
16. Maginn, J., Tuttle, D., McLeavey, D., Pinto, J., 2007. Managing Investment Portfolios Workbook: A Dynamic Process. 3rd Edition, Wiley. ISBN: 978-047-017160-8.
17. Reilly K. F., Brown C. K., 2018. Ανάλυση Επενδύσεων και Διαχείριση Χαρτοφυλακίου. Broken Hill Publishers. ISBN: 978-992-556308-1. (in Greek)
18. Ross, S. A., Westerfield, R. W., Jaffe, J. F. (2015). Corporate Finance. 11th Edition, McGraw-Hill Education. ISBN: 978-007-786175-9.

COURSE OUTLINE

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF49	Semester	5 th or 7 th
TITLE:	Actuarial Models		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	3	6
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	General Knowledge		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/581/		

2. Course Description and Learning Objectives

The aim of this course is to introduce students to actuarial.
Upon successful completion of the course the student will be able to:

- Be able to know what actuarial is.
- Be able to know basic models.
- To be able to use the appropriate tools in R.

Skills

Retrieve, analyse and synthesize data and information, with the use of necessary technologies
Work autonomously and in teams
Be critical and self-critical
Advance free, creative and causative thinking
Make decisions

3. Course Outline

The content of the course includes:
Individual Risk Model
Collective Risk Model
Life Insurance Model
Annuity Model

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Power point presentations. Student contact electronically (Skype – Google Meet) or face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)

COURSE ORGANIZATION	<i>Activities</i>	<i>Semester workload</i>
	Lectures	45
	Homework	60
	Autonomous study	45
	Total contact hours and training	150
STUDENT ASSESMENT	I. Written examination II. Homework	

5. Textbooks and Supplementary Material

- Μαθηματικά ασφαλίσεων ζωής, Πέτρος Χατζόπουλος, ΕΚΔΟΣΕΙΣ ΣΥΜΜΕΤΡΙΑ, 2011
 - Actuarial Mathematics, Newton L. Bowers, Hans U. Gerber, James C. Hickman, Donald A. Jones, Cecil J. Nesbitt,
 - An Introduction to Actuarial Mathematics, A.K. Gupta, T. Varga, Springer.
 - Fundamentals of Actuarial Mathematics, S. D. Promislow, Wiley.
 - Actuarial Models, V. Rotar, Chapman & Hall
- Modern Actuarial Risk Theory Using R, R. Kaas, M. Goovaerts, I. Dhaene, M. Denuit, Springer.

Economic Sociology

Course Outline

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF53	Semester	Spring
TITLE:	Economic Sociology		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	
	Labs	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific area, Skills development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	Yes		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/780/		

2. Course Description and Learning Objectives

Intended learning outcomes of the course
<p>The course offers a general introduction to the theoretical foundations of economic sociology, providing an opportunity to understand how social scientists engage with the study of complex socioeconomic issues.</p> <p>Following Weber and Schumpeter, the Sociology of Economic Life is multidisciplinary. It co-operates and coexists with economic theory and economic history.</p> <p>Upon successful completion of the course the student will be able to make use of:</p> <ol style="list-style-type: none">The concept of "Ideal type" as an analytical tool for her/his studiesComparative-historical analysisSocial network analysis
Skills
<ul style="list-style-type: none">Retrieve, analyse and synthesize data and information, with the use of necessary technologiesWork autonomouslyWork in teamsBe critical and self-criticalAdvance free, creative and causative thinking

3. Course Outline

Topics covered in the course include:

- i. Introduction
- ii. Economic Sociology and Political Economy
- iii. The New Fiscal Sociology and the Sociology of Finance
- iv. The Founders of Economic Sociology
- v. Werner Sombart: Accounting and Capitalism
- vi. Karl Polanyi: The Great Transformation
- vii. Joseph Schumpeter: The Crisis of Fiscal State
- viii. The Great Depression and the Fall of Liberal Capitalism
- ix. Keynesian Welfare State
- x. The Crisis of Fordism
- xi. Modernization and Theories of Economic Development
- xii. A Brief History of Neoliberalism
- xiii. The Future of Capitalism?

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face or distance learning	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39
	Fieldwork and case studies	40
	Work in teams or autonomously (when is necessary)	31
	Autonomous study	40
	Total contact hours and training (25 hours of personal work for each credit)	150

STUDENT ASSESSMENT	<p>Final written examination (70-100%): Questions on terminology, theories and case studies (based on the material discussed in class)</p> <p>Project (0-30%): PowerPoint presentation on a topic related to economic sociology, approved by the instructor</p>
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5. Textbooks and Supplementary Material

Textbooks

Dodd, Nigel (1994), *The Sociology of Money. Economics, Reason and Contemporary Society*, Cambridge: Polity Press.

Heilbroner, Robert L. and William Mildberg (2010), *The Making of Economic Society*, translated by G. Christides, Athens: Kritiki (in Greek).

Koniordos, Socrates M. (ed.) (2006), *Readings in Economic Sociology*, Athens: Gutenberg (in Greek).

Smelser, Neil J. and Richard Swedberg (2005), *The Handbook of Economic Sociology*, 2nd edition, Princeton: Princeton University Press.

Syrmaloglou, Adamantios (2007), *Taxation or Default*, Athens: Metamesonykties Publications (in Greek).

Syrmaloglou, Adamantios (2021), *Taxation, democracy and state building*, Athens: Metamesonykties Publications (in Greek).

Trigilia, Carlo (2004), *Economic Sociology. State, Market, and Society in Modern Capitalism*, translated by Christos Tsamprounis, Athens: Papazisis (in Greek).

Scientific Journals

- Economy and Society
- Socio-Economic Review

Useful Links:

- <http://econsoc.mpifg.de/>
- <https://economicsociology.org/>

Research Methodology

Course Outline

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF23	Semester	Autumn
TITLE:	Research Methodology		
COURSE SCHEDULE		TEACHING HOURS (WEEKLY)	ECTS CREDITS
Lectures		2	
Labs		1	
TOTAL:		3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific area, Skills development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/769/		

2. Course Description and Learning Objectives

Intended learning outcomes of the course
<p>This course introduces the student to the methods that are needed in order to do scientific research. Upon successful completion of the course the student will be able to:</p> <ul style="list-style-type: none"> • Plan and properly prepare a scientific work • Understand and apply the epistemological and ethical principles in research and in dissertation writing • Conduct literature search • Finds and use reliable secondary data for his / her work • Construct questionnaires • Ensure the validity and reliability of the survey conducted • Select and properly handle the relevant statistical methods for the analysis of the research data • Apply properly qualitative, quantitative statistical analysis • Plan the corresponding dissertation • Analyse and critically synthesize the literature in the working document • Present the research hypotheses • Choose the correct methodology for his / her research • Process the data correctly using the SPSS program • Present the outcome of his / her work • Present orally his work with the help of PowerPoint critically
Skills
<ul style="list-style-type: none"> • Retrieve, analyse and synthesize data and information, with the use of necessary technologies

- Work autonomously
- Work in teams
- Advance free, creative and causative thinking

3. Course Outline

- i. Theory and practice of the scientific method
- ii. The preparation of scientific work
- iii. The literature search
- iv. Primary and Secondary data (data from official sources)
- v. Construction of the questionnaire
- vi. Measurement errors. Validity and reliability
- vii. Qualitative research methods and Statistical data analysis methods
- viii. Research planning. The literature review
- ix. Formulate hypotheses and research methodology
- x. Processing of survey data with SPSS
- xi. Presentation of the work results
- xii. Conclusions-epilogue-close work
- xiii. Bibliography: the Harvard system, APA style

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face or distance learning	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39
	Fieldwork and case studies	31
	Work in teams or autonomously (when is necessary)	40
	Autonomous study	40
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	Project (100%): PowerPoint presentation on a topic approved by the instructor	

5. Textbooks and Supplementary Material

Textbooks

Babbie, Earl (2018), *Introduction to Social Research*, translated by A. Milios, Athens: Kritiki (in Greek).

Flick, Uwe (2014), *An Introduction to Qualitative Research*, London: Sage.

Robson, Colin, and Kieran McCartan (2016), *Real World Research*, 4th edition, Hoboken, NJ: Wiley.

Saunders, Mark, Philip Lewis and Adrian Thornhill (2009), *Research Methods for Business Students*, 5th edition, Harlow, UK: Financial Times - Prentice Hall - Pearson.

Schindler, Pamela S. (2019), *Business Research Methods*, 13th edition, New York: McGraw-Hill.

Schnell, Rainer, Paul Hill, und Elke Esser (2005), *Methoden der empirischen Sozialforschung*, München: Oldenbourg.

Sharp, John A., Keith Howard, and John Peters (2002), *The Management of a Student Research Project*, 3rd edition, Aldershot, UK: Gower.

Scientific Journals

- International Journal of Social Research Methodology
- Journal of Mixed Methods Research
- Journal of Research Practice

Useful Links:

- <http://www.ekt.gr/el/library/web-of-science>
- <http://www.statistics.gr/>
- <http://ec.europa.eu/eurostat>
- <http://nemertes.lis.upatras.gr/jspui/>
- <http://www.pyxida.aueb.gr/>
- <https://spoudai.unipi.gr/index.php/spoudai/index>
- <http://www.imf.org/en/Data>
- <https://www.bankofgreece.gr/Pages/default.aspx>
- <https://archive.org/>

COURSE OUTLINE

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF52	Semester	Spring semester
TITLE:	Principles of Marketing		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	6
	Field Work	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific Area		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	NO		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/2514/		

2. Course Description and Learning Objectives

The aim of the course is to introduce the students to the basic concepts, philosophy and principles of the Marketing science. Students enrolled in the course gain a comprehensive knowledge regarding the role of marketing in modern business and society as well as the role of marketing executives in the development of the four basic components of company's marketing mix (product, price, promotion, place). Moreover, various market research and market segmentation methods are analyzed- along with their role in the creation and maintenance of a competitive advantage- including an exploration of different types of marketing.

After successfully attending that course, students will be able to:

- Evaluate the basic functions of marketing and the contribution of the marketing department to the organization and management of a business.
- Categorize consumers into target groups based on specific segmentation methods.
- Develop the appropriate strategies for placement and differentiation of products/services.
- Effectively plan the marketing mix of a product / service.

Skills

- Adjustment to new situations
- Decision-making process
- Autonomous work
- Respect to diversity and multiculturalism
- Design and management of projects
- Respect to sensitivity towards gender issues
- Promotion of free, creative and inductive thinking

3. Course Outline

1. Introduction to Marketing

2. The Marketing Concept and Environment
3. Consumer behavior
4. Market research methods.
5. Segmentation, targeting and positioning
6. The Marketing mix
7. Products and Services differentiation strategies
8. Competitive analysis and competitive advantage.
9. Creating and analyzing a strategic marketing plan.
10. Unique sale proposition: Definition and development
11. Presentation of the different types of marketing
12. Case studies analysis of product and service marketing
13. Presentation of Written Assignments

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class, face-to-face	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<ul style="list-style-type: none"> • Utilization of information and communication technology (ICT) in educational process • The educational process is also supported by the use of the electronic platform “e-class” (course web page) • Communication with students is taking place via email, via the eclass platform, as well as via the use of social media 	
COURSE ORGANIZATION	<i>Activities</i>	<i>Semester workload</i>
	Lectures	39 hours (1,60 ECTS)
	Field Work and case studies	40 hours (1,60 ECTS)
	Independent Practice Activities	35 hours (1,40 ECTS)
	Autonomous study	36 (1,40 ECTS)
	Total contact hours and training (25 hours of personal work for each credit)	150 (6,0 ECTS)
STUDENT ASSESMENT	<ol style="list-style-type: none"> 1. Written exams (70-100%) including: <ul style="list-style-type: none"> - Theoretical questions - Critical Thinking questions - Questions based on Decision Making. 2. Optional Written Assignment (0-30%), on course related topics 	

5. Textbooks and Supplementary Material

- Suggested Reading:

- Αυλωνίτης Γ., Τσιότσου Ρ. και Γούναρης Σ. (2015). «Μάρκετινγκ Υπηρεσιών». 1η Έκδοση, Εκδόσεις Broken Hill, Αθήνα.
- Κυριαζόπουλος Π., Σαμαντά Ε., (2014). «Εισαγωγή στο Μάρκετινγκ: Χθες-Σήμερα-Αύριο», Σύγχρονη Εκδοτική, Αθήνα.
- Kotler P.J., Armstrong G.M. (2009). «Εισαγωγή στο Μάρκετινγκ» (9η Έκδοση), Εκδόσεις Επίκεντρο Α.Ε., Θεσσαλονίκη.
- Μάλλιαρης Π. (2012). «Εισαγωγή στο Μάρκετινγκ» (4η έκδοση), Εκδόσεις Σταμούλη, Αθήνα.

Supplementary reading

SCHOOL	Management		
DEPARTMENT	Accounting and Finance		
LEVEL OF COURSE	Advanced		
COURSE CODE	UAF41	SEMESTER	5
COURSE TITLE	Collective Investment funds		
INDEPENDENT TEACHING ACTIVITIES		Weekly Teaching Hours	ECTS
		3	6
TOTAL		3	6
TYPE OF COURSE UNIT	Bachelor Degree		
PREREQUISITES	Core classes finance are a prerequisite.		
LANGUAGE OF LECTURES and EXAMINATION	Greek & English		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes		
URL			

2. Learning outcomes

Learning outcomes
Demonstrate knowledge of the nature and operations of the investment funds market and the instruments traded in funds.
Differentiate between different types of funds, the nature and structure of different fund categories, and their investors and investments strategies.
Demonstrate an understanding of the role of the various parties to a Fund — the Promoter, the Investor, the Fund manager, the Trustee, the Administrator, the Transfer Agent and the Custodian.
Apply the procedures and mechanisms at work within fund accounting and valuation to calculate realized and unrealized P&L using different methodologies and Net Asset Value.
Appreciate the role of regulation in the funds industry and evolution of same in a European and global context and assess the international mutual funds arena and the factors that govern where a domicile is located.
Utilizing various metrics to assess risk adjusted performance of mutual funds.
General skills
We will build upon skills developed in previous finance courses

3. COURSE CONTENT

Week 1. Introduction to the Funds Industry
Week 2. Fund Types and Structures
Week 3. Fund Operations
Week 4. Lifecycle of a Trade
Week 5. Roles and Duties of Fund Counterparties
Week 6. Fund Accounting and Valuation
Week 7. Exchange traded fund (ETF)
Week 8. Funds Industry in Greece
Week 9. Markets in Financial Instruments Directive (MiFID)
Week 10. Technology in the Funds Industry
Week 11. Evaluation of Mutual Funds Performance – Part I
Week 12. Evaluation of Mutual Funds Performance – Part II
Week 13. Evaluation of Mutual Funds Performance – Part III

4. TEACHING and LEARNING METHODS – ASSESSMENT

TEACHING METHODS	Lectures, Classroom discussion, Collaboration, Classroom Action Research.	
USE OF INFORMATION TECHNOLOGIES AND COMMUNICATION	Excel and Online Data Bases	
LECTURE STRUCTURE	Activity	Semester Teaching Load
	Lecture	33h
	Class exercises and application	6h
	Individual or group case study	42h
	Independent Study	20h
	Course Total	101h
EVALUATION OF STUDENTS' PERFORMANCE		

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5. RECOMMENDED READING

St Giles, M., Alexeeva, E., & Buxton, S. (2005). *Managing collective investment funds*. John Wiley & Sons.

Chambers, D. R., Anson, M. J., Black, K. H., Kazemi, H. B., & CAIA Association. (2015). *Alternative Investments: CAIA Level I*. John Wiley & Sons.

Capocci, D. (2013). *The complete guide to hedge funds and hedge fund strategies*. Springer.

Gregory Becke. (2019) *Mutual Funds: Comprehensive Beginner's Guide to create Wealth using Mutual Funds*. John Wiley & Sons.

Bogle, J. C. (2015). *Bogle on mutual funds: New perspectives for the intelligent investor*. John Wiley & Sons.

COURSE OUTLINE – Databases

1. ΓΕΝΙΚΑ

SCHOOL:	MANAGEMENT AND ECONOMICS		
DEPARTMENT:	ACCOUNTING AND FINANCE		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF58	SEMESTER:	
TITLE:	Databases		
COURSE SCHEDULE	TEACHING HOURS (WEEKLY)		ECTS CREDITS
Lectures	2		
Applied exercises (in Laboratory)	1		
TOTAL:	3		6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific Area, Skills Development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/1577/		

2. COURSE DESCRIPTION AND LEARNING OBJECTIVES

This course discusses the fundamentals of databases and database management systems. The presented material introduces processes and tools for organization and management of data in databases, and helps students identify, define, process and utilize data in accordance with agreed rules and procedures.

Upon successful completion of the course the students are expected to:

- Understand various database-related concepts and technologies.
- Be able to use and implement a relational database.
- Be able to use a database management system.
- Have gained experience in designing and implementing relational database schemas from sample case problems.
- Understand the significance of data technologies as underlying infrastructure to businesses, organizations, the Internet etc.
- Have been familiarized with related concepts such as data warehouses, big data, data mining etc.

Thus they will be able to:

- Analyze a problem and identify the structure of the data used.
- Design the conceptual model of a database as entity-relationship diagrams.
- Design relational database schemas.
- Perform the basic steps to implement their design in a database management system.
- Submit SQL queries for data handling and management.

Skills

Understand technology and gain related skills.
 Search, combine, and analyze data and information.
 Decision making.
 Problem Solving (working autonomously).
 Problem Solving (teamwork).

3. COURSE OUTLINE

The content of the theoretical part of the course includes:

- Introduction to databases.
- Database system architecture.
- Levels of abstraction (conceptual, logical and physical level).
- Entities and Relationships, conceptual data representation. ER Models and Diagrams. Underlying concepts. Weaknesses of the Entity-Relationship Model.
- Logical design of relational databases. Comparison of schemas.
- Database models.
- Relational database model (relations, tuples, relational schemas).
- Keys and related concepts (superkey, candidate key, primary key, foreign key).
- Functional dependencies. Obvious, partial, transitional dependencies.
- Normal forms (1NF, 2NF, 3NF). Examples. Objectives of normalization, normalization algorithms.
- Relational Algebra.
- Introduction to SQL. syntax of basic SQL commands.
- Special issues. Query processing, optimization, application and report generators. Introduction to transactions. NoSQL DBs. Other subjects relating to the use and development of database management systems.

The applied exercises (in laboratory) of the course provide hands-on experience on the aforementioned subjects, focusing on the practical issues of analysis, modeling, design and implementation of relational databases on a RDBMS.

1. TEACHING AND LEARNING METHODS - ASSESSMENT

TEACHING METHODS	In class / in laboratory	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	e-learning platform (e-class). Access to computer laboratory with related software tools.	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	60
	Applied exercises (in laboratory)	60
	Individual Studying	30
	Course total	150
STUDENT ASSESSMENT	I. Written final exam (70-100%) which may include: <ul style="list-style-type: none"> • Multiple choice questions. • Short Answer Questions. • Theory elements. • Case study. • Problem solving. II. Laboratory exercises (0-30%).	

2. TEXTBOOKS AND READING

Suggested Bibliography:

- Stavrakoudis Ath. (2015) Databases and SQL A Practical Approach, Key Number Publications.
- Kechris Evangelos (2015), Relational Databases, Kritiki Publications.
- Tabakas V. (2017) Introduction to Databases, Gotsis Publications.
- Skourlas Ch. "Relational Databases", New Technologies Publications, 2000
- Dervos D., "Database Courses", Volume A,, A. Tziola Publications.
- Date C.J. "Introduction to Databases, Volume A", Key Number Publications, 6th edition
- Elmasri Ramez, Navathe Shamkant B. "Fundamental Principles of Database Systems", 6th edition, Diavlos Publications, 2012.
- Connolly Th. M., Begg C. E., «Database Systems: A Practical Approach to Design, Implementation and Management», Addison Wesley, 2009.
- Date C. J. «A Guide to SQL Standard». Addison-Wesley, 1997, 4th edition
- Silberschatz A, Korth H.F., Sudarshan S. Database Systems: The Complete Database Theory, 2011.

Related scientific journals:

- ACM TRANSACTIONS ON DATABASE SYSTEMS, Quarterly ISSN: 0362-5915, ASSOC COMPUTING MACHINERY (ACM)
- JOURNAL OF DATABASE MANAGEMENT, Quarterly ISSN: 1063-8016, IGI PUBL
- DATA BASE FOR ADVANCES IN INFORMATION SYSTEMS, Quarterly ISSN: 0095-0033, ASSOC COMPUTING MACHINERY (ACM)
- INTERNATIONAL JOURNAL OF DATA WAREHOUSING AND MINING, Quarterly ISSN: 1548-3924, IGI PUBL

COURSE OUTLINE

1. General Information

SCHOOL:	MANAGEMENT		
DEPARTMENT:	ACCOUNTING & FINANCE		
COURSE LEVEL:	<i>Undergraduate</i>		
COURSE CODE:	UAF30	Semester	Autumn
TITLE:	Tax Accounting II		
COURSE SCHEDULE		TEACHING HOURS (WEEKLY)	ECTS CREDITS
Lectures		2	
Field Work		1	
TOTAL:		3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific area		
PREREQUISITE COURSES:	Tax Accounting II.		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	N/A		

2. Course Description and Learning Objectives

Intended learning outcomes of the course
<p>The course Tax Accounting II provides specialized and applied knowledge on more complex tax issues, mainly for legal entities. The difficulty of this course lies in the fact that taxation often changes in Greece. Another difficulty is that tax legislation is labyrinthous, bulky, complex and sometimes vague.</p> <p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> ● Use the alternative ways of calculating taxable income. ● Recognize deferred taxes through the revaluation of the income statement and the taxable liability method in the balance sheet. ● Recognize intra-group transactions and uses comparative methods to calculate equidistance values. ● Calculate the tax on ship-owning profits. ● Calculate real estate taxes, taxes on securities and car and motorcycle taxes ● Detect and recognize the taxes contained in a PPC account.
Skills
<ol style="list-style-type: none"> 1. Adapt to new situations. 2. Decision Making. 3. Autonomous work. 4. Design and project management. 5. Promote free, creative and inductive thinking.

3. Course Outline

1. Alternative Methods for determining Taxable Income	<ul style="list-style-type: none"> - Indirect ways of determining the income from business activity. - Indirect way of determining the taxable income of natural persons. - Components of imputed income.
2. Deferred taxes (1)	<ul style="list-style-type: none"> - Temporary differences and deferred taxes - Permanent differences and deferred taxes - Fiscal solidarity of the uses.
3. Deferred taxes (2)	<ul style="list-style-type: none"> - International Accounting Standard 12. - Tax base. - Recognition of tax claims and obligations. - Recognition – Offsetting of tax.
4. Pricing of Transfer Pricing	<ul style="list-style-type: none"> - Intra-group Transactions. - Pricing methods. - Choice of Pricing Method. - Documentation file.
5. Taxation of ships	<ul style="list-style-type: none"> - Profits from the operation of ships flying the Greek flag. - Calculation of tax and contribution of Shipping Companies. - Exemptions and reductions of tax and contribution. - Taxation of Foreign Shipping Companies. - Taxation of Ships flying the European Union Flag. - Accounting Handling of Tax and Contribution.
6. Accounting Books	<ul style="list-style-type: none"> - Subject to the regulations of Law 4308/2014. - Entity Size Determinations. - Accounting System and Basic Accounting Records. - Ensuring reliability of an accounting system. - Time to update accounting records. - Preservation of accounting records.
7. Sales Documents	<ul style="list-style-type: none"> - Content of Sales Invoice. - Simplified – Consolidated Invoice. - Time of invoice issuance. - Retail Sales of Goods or Services Tax Information / Time of issue. - Electronic Invoice. - Invoice Authenticity.
8. Completion of form E3 and form F2 (VAT)	<ul style="list-style-type: none"> - Form E3. How to fill in. Simplistic – double-entry system. - Form F2. How to fill in. Simplistic – double-entry system.
9. Taxation of SA	<ul style="list-style-type: none"> - How to allocate the profits of S.A. - BoD remuneration and tax treatment of BoD fees from the profits of the S.A. - Regular reserve – first dividend - Tax Reform of S.A's profits
10. Code of Tax Procedure (1)	<ul style="list-style-type: none"> - Basic Definitions. - Tax representative. - Tax Registry – Up-to-date information. - Preservation of information.

	- Tax Return.
11. Code of Tax Procedure (2)	- Documentation / Intra-group Pricing. - Tax Determination. - Tax evasion infringements. - Fines for late / inaccurate declaration - non-payment of withholding taxes. - Crimes of Tax Evasion.
12. Taxation of Legal Entities governed by Public Law - Local Authorities	- Categories of entities affiliated to the public sector. - Tax treatment of entities affiliated to the state. - Exemption from the VAT regime. - Tax rates
13. Repeat Course	- Repeat course.

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39
	Fieldwork and case studies	40
	Self-solving exercises	35
	Autonomous study	36
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	Final written examination (70-100%): Questions on terminology, theories and case studies (based on the material discussed in class). Project (0-30%): PowerPoint presentation and script on a topic approved by the instructor, related to tax accounting.	

5. Textbooks and Supplementary Material

Textbooks:
1. Chevas D. (2017), Taxation Issues, 6th edition, Athens: E. Benou Publications.
2. Gkinoglou D. (2017), Tax Accounting Volume B, 2nd edition, Cyprus: Broken Hill Publishers LTD.
3. Kavalakis G. (2013), Coding of income tax for natural and legal persons: Codification of transformation laws of enterprises. Athens: Arnaouti Publications.

4. Stamatopoulos D. Karavokiris A. (2012) Taxation of income of persons and legal entities: Practical aid. 2nd Edition, Athens: Publications Stamatopoulos Dimitrios P. - Karavokiris Antonios G.

Scientific Journals:

1. Advances in Taxation.
2. Journal of Taxation.
3. National Tax Journal.
4. International Journal of Tax and Public Finance.
5. International Tax Journal.

International Economic and Monetary Relations

Course Outline

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF54	Semester	Spring
TITLE:	International Economic and Monetary Relations		
COURSE SCHEDULE		TEACHING HOURS (WEEKLY)	ECTS CREDITS
Lectures		2	
Labs		1	
TOTAL:		3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific area, Skills development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/781/		

2. Course Description and Learning Objectives

Intended learning outcomes of the course
<p>This course seeks to provide students with an understanding of international economic relations from a historical and practical perspective through topics which are of global and domestic importance.</p> <p>Upon completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Discuss the evolution of International Economic and Monetary Relations from the pre-war era to the system of globalization • Demonstrate an awareness of the development of the International Monetary System and the specific roles played by the Bretton Woods Institutions • Understand the use of trade policy tools such as tariffs/non-tariff barriers • Understand the role of multinational corporations in the international economic system
Skills
<ul style="list-style-type: none"> • Retrieve, analyse and synthesize data and information, with the use of necessary technologies • Work autonomously • Work in teams • Advance free, creative and causative thinking

3. Course Outline

Topics to be covered:

- i. Introduction
- ii. International Trade: An overview
- iii. Enterprises and Globalization
- iv. Theoretical Perspectives
- v. Free Trade
- vi. Protectionism
- vii. Balance of Trade
- viii. Exchange Rates
- ix. Currency Markets
- x. International Monetary Systems
- xi. Economic and Monetary Unions (EMU)
- xii. The New Economic Order
- xiii. Foreign Debt and Financial Crises

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face or distance learning	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39
	Fieldwork and case studies	40
	Work in teams or autonomously (when is necessary)	31
	Autonomous study	40
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	Final written examination (70-100%): Questions on terminology, theories and case studies (based on the	

	material discussed in class) Project (0-30%): PowerPoint presentation on a topic approved by the instructor
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5. Textbooks and Supplementary Material

Textbooks:

Cohn, Theodore H. (2016), *Global Political Economy. Theory and Practice*, 7th edition, Abington, UK: Routledge.

Krugman, Paul, Maurice Obstfeld, and Melitz Marc (2015), *International Economics*, 10th edition, Harlow, UK: Pearson.

Psalidopoulos, Michalis (2006), *International Conflict and Economic Thought*, Athens: Metamesonykties Publications (in Greek).

Journals:

- International Economic Journal
<https://www.tandfonline.com/toc/riej20/current>
- International Economics
<https://www.journals.elsevier.com/international-economics>
- Review of International Economics
<https://onlinelibrary.wiley.com/journal/14679396>
- International Economics and Economic policy
<https://link.springer.com/journal/10368>

Useful Links:

- https://europa.eu/european-union/index_en
- <http://www.imf.org/en/Data>
- <http://www.worldbank.org/>
- <https://www.wto.org/>

COURSE OUTLINE

1. General Information

SCHOOL:	MANAGEMENT		
DEPARTMENT:	ACCOUNTING & FINANCE		
COURSE LEVEL:	<i>Undergraduate</i>		
COURSE CODE:	UAF67	Semester	Spring
TITLE:	International Financial Reporting Standards		
COURSE SCHEDULE		TEACHING HOURS (WEEKLY)	ECTS CREDITS
Lectures		2	
Labs		1	
TOTAL:		3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	General Knowledge		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	N/A		

2. Course Description and Learning Objectives

Intended learning outcomes of the course
<p>International Financial Reporting Standards were introduced on the basis of a European Directive to enhance the transparency, comparability and fairness of corporate accounting. It is a very important course, which involves complex theoretical knowledge and applications. It is a necessary course for the graduate, who wants to work in the accounting department of a large company.</p> <p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> ● Describe the production process of IAS (International Accounting Standards) and IFRS (International Financial Reporting Standards). ● Analyze the basic principles of all IAS and IFRS. ● Practically apply the basic principles of all IAS and IFRS. ● Combine and compile the principles of IAS and IFRS so that he can draw up the company's balance sheet on the basis of IAS and IFRS. ● Evaluate the assets of the enterprise based on the principles of IAS / IFRS. ● Choose which methods to use.
Skills
<ol style="list-style-type: none"> 1. Adapt to new situations. 2. Decision Making.

3. Autonomous Work.
4. Work in an international environment.
5. Promote free, creative and inductive thinking.

3. Course Outline

1. Introduction to International Accounting Standards - Basic Concepts
2. Description of IFRS production process - legislation.
3. Convergence and application of IAS/IFRS in Greece.
4. Scope of IAS/IFRS in Greece.
5. Is the adoption of the IFRS panacea?
6. Does the application of IAS/IFRS create any problems?
7. The major IAS compared to Greek Accounting Standards.
8. Grouping of the most important IFRS to be analyzed.
9. IAS/IFRS analysis.
10. IAS 1 - Presentation of Financial Statements.
11. IAS 2 - Inventories
12. IAS 8 - Accounting Policies, Changes in Accounting Estimates, and Fundamental Errors.
13. IAS 10 - Events after the balance sheet date.
14. IAS 16 -
15. Property, Fixed Assets and Equipment.
16. IAS 36 - Impairment of assets.
17. IAS 17 - Leasing.
18. IAS 38 - Intangible Assets.
19. IAS 19 - Benefits to employees.
20. IAS 37 - Provisions, liabilities and receivables.
21. IAS 12 - Income taxes.
22. IAS 18 - Income.
23. IAS 32 - Financial Instruments: Presentation.
24. IAS 39 - Financial instruments: recognition and measurement, except for certain provisions relating to hedge accounting.
25. IFRS 1 - First implementation of International Financial Reporting Standards.
26. Presentation of financial statements based on IAS/IFRS.
27. Models of Financial Statements.
28. IAS 7 - Cash Flow Statement.
29. IAS 27 - Consolidated financial statements.
30. IAS 34 - Interim Financial Statements.
31. Public-sector IFRSs.

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard.

	<p>Student contact electronically and face-to-face in weekly office hours</p> <p>The educational process is also supported by the use of the electronic platform e-class (course web page)</p>	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39
	Fieldwork and case studies	40
	Self-solving exercises	35
	Autonomous study	36
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	<p>Final written examination (70-100%): Questions on terminology, theories and case studies (based on the material discussed in class).</p> <p>Project (0-30%): PowerPoint presentation and script on a topic approved by the instructor, related to IAS/IFRS.</p>	

5. Textbooks and Supplementary Material

Textbooks:

1. Kieso E. Donald, Weygandt J. Jerry, Warfield D. Terry (2018),
2. Accounting-Extensive Analysis with IFRS, Cyprus: Broken Hill Publishers LTD.
3. Grant Thornton Collective (2016), International Financial Reporting Standards, Volume A, 4th edition, Athens: Anastasios D. Economopoulos Publications.
4. Negakis Christos (2014), International Financial Reporting Standards, Theory and Applications, 1st Edition, Thessaloniki: AEFOROS ACCOUNTING IKE Publications.
5. Karagiannis I., Karagianni E., Karagiannis D. (2012), International Accounting Standards: Examples, Applications, IAS, IFRS in practice. 3rd edition, Thessaloniki: Karagiannis Ioannis.
6. Filos Giannis, Apostolou Apostolos (2011), International Accounting Standards: Theoretical Approach and Conversion Applications. First edition Athens: Kleidarithmos.

Scientific Journals:

1. Journal of International Accounting, Auditing and Taxation.
2. Advances in International Accounting.
3. Journal of International Accounting Research.
4. International Journal of Accounting, Auditing and Performance Evaluation.
5. Contemporary Accounting Research.

Auditing and Internal Auditing

COURSE OUTLINE

1.General Information

SCHOOL:	MANAGEMENT		
DEPARTMENT:	ACCOUNTING & FINANCE		
COURSE LEVEL:	<i>Undergraduate</i>		
COURSE CODE:	UAF31	SEMESTER	8 th
TITLE:	Auditing and Internal Auditing		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	
	Labs	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Skills Development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	Yes		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/464/		

2.Course Description and Learning Objectives

Intended learning outcomes of the course
<p>Auditing is considered as a complex interactive process of collecting corporate evidence and applying professional judgment. The presentation of the topics is based on the principles and rules issued by the International Federation of Accountants (IFAC) and mainly on the International Standards on Auditing and the Code of Ethics. The content of the course adopts the assumption that auditing examines all aspects of the business and is based on a careful analysis of the business risks of the audited organization. Internal Auditing concerns the presentation of internal audit procedures within companies. For the first time in Greece, it</p>

was officially introduced in the life of companies with the law of Corporate Governance (Law 3016/2002). Upon successful completion of the course the student will be able to:

Define auditing and determine the content of the profession of the auditor.

Describe the services offered by Certified Public Accountants.

Analyze the institution of corporate governance.

Make decisions in accordance with the code of conduct of auditors.

Analyze and manage business risk in relation to business control.

Properly collect the audit evidence needed to form an opinion.

Analyze and design internal safety valves.

Check for essential errors.

Properly apply the sampling method to the control process.

Control the sales cycle.

Control the supply chain cycle.

Prepare the audit report based on the control sheets.

Define the concept of internal auditing.

Develop and apply the methodology of internal auditing.

Check the inventory and various accounts of the company in accordance with the principles of internal auditing.

Construct flowcharts based on descriptive business reports.

Construct the authority matrix of the company.

Combine the findings of the research on the internal auditing of a company and construct the composition table of the evaluation of the internal auditing of that company.

General Skills.

1. Decision Making.
2. Autonomous work.
3. Adapt to new situations.
4. Project design and management.
5. Demonstration of social, professional and moral responsibility and sensitivity in gender issues.

3.Course outline.

The course is developed in 13 sections.

1.Introduction and definition of the Auditing and of the profession of the auditor. Services offered by Certified Public Accountants. History and organization of the Greek auditing profession.

2. Corporate governance, range of expectations and the responsibility of the auditor. Decision-making and code of conduct.
 3. Concept and way of managing business risk in relation to the control of the company. Business risk analysis methodology.
 4. Purpose of auditing and audit evidence. Undertaking and planning the audit procedure. Detailed procedures and business metrics.
 5. The system of internal safety valves. Evaluation and testing of internal safety valves. Check for significant errors.
 6. Selection of units and control sampling. Sampling in the control of internal safety valves. Sampling and other selection methods in error checking. Statistical sampling in error checking.
 7. Sales cycle control. Supply chain cycle control.
 8. Audit completion procedures. Audit reports.
 9. Defining the concept of internal auditing. Control of management-of the natural environment.
 10. Legal framework of internal auditing in Greece. Internal auditing methodology.
 11. Internal auditing of sales-accounts receivable. Internal auditing of purchases, operating expenses and accounts payable. Internal inventory control and physical inventory.
 12. Internal auditing of cash (cash-banks). Internal auditing of securities-participations. Internal auditing of real estate-fixed assets. Internal auditing of loans and other liabilities.
 13. Case studies of internal auditing with flow charts and synthesis table of the evaluation of the internal auditing of the company.
- The numbering refers to the corresponding week of the course.

4. Teaching and Learning Methods – Assessment.

TEACHING METHODS	In class face-to-face.	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically (e-class, email) and face-to-face in weekly office hours. The educational process is also supported by the use of the electronic platform e-class (course web page).	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39

	Fieldwork and case studies	40
	Work in teams or autonomously (when is necessary)	36
	Autonomous study	35
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	<p>I.Final written examination (70-100%): Questions on terminology, theories and case studies (based on the material discussed in class).</p> <p>II.Project (0-30%): PowerPoint presentation and script on a topic approved by the instructor, related to financial accounting.</p>	

5. Textbooks and Supplementary Material.

Textbooks:

- 1.Karamanis Konstantinos (2008) *Modern Auditing: Theory and practice according to the International Auditing Standards*. 1st Edition, Athens: AUEB, OPA Publishing S.A.
- 2.Siotis Theocharis D., Zoitsas Angelos (2009) *Modern Auditing*. 1st Edition, Salonica: Sophia Publications S.A.
- 3.Kantzos Konstantinos, Chondraki Athina (2006) *Auditing: Theory and Practice*. 2nd Edition, Athens: Stamoulis Publications.
- 4.Tsaklaganos Angelos A. (2005) *Auditing* 2nd Edition, Salonica: Kyriakidi Bros Publications.
- 5.Pappas Antonis A. (2003) *Introduction to Auditing*. Athens: G.Benos Publications.
- 6.Papadatou Theodora (2005) *Internal and external auditing of S.As.: Applications of International Accounting Standards: Management Control: Ecological Management and Control System*. 2nd Edition, Salonica: Sakkoulas Publications.
- 7.Alexander Hamilton Institute (2005) *Internal auditing: The key for the improvement of the function and financial situation of modern enterprises*. 1st Edition, Athens: Kritirio Publications.
- 8.Papadatou Theodora (2001) *Internal and external auditing of S.As.: Implementation, practical issues*. 1st Edition, Salonica: Sakkoulas Publications.
- 9.Spencer Pickett K.H. (2010) *The internal auditing handbook*. Wiley.

10. Moeller Robert (2009) *Brink's Modern Internal Auditing: A Common Body of Knowledge* 7th Edition, Wiley.

11. Zoitsas Angelos (2017) *Modern auditing and auditing risk*. Sophia Publications.

Scientific journals:

1. Journal of Accounting and Auditing: Research & Practice.

2. International Journal of Auditing.

3. European Journal of Accounting, Auditing and Finance Research.

4. Auditing: A Journal of Practice & Theory.

5. International Journal of Accounting, Auditing and Performance Evaluation.

6. Internal Auditor.

7. Internal Auditing.

8. The Internal Auditor Magazine.

COURSE OUTLINE – Applications in Programming Environment

1. GENIKA

SCHOOL:	MANAGEMENT		
DEPARTMENT:	ACCOUNTING AND FINANCE		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF42	SEMESTER:	
TITLE:	Applications in Programming Environment		
COURSE SCHEDULE	TEACHING HOURS (WEEKLY)		ECTS CREDITS
Lectures	1		
Laboratory classes	2		
TOTAL:	3		6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	General Knowledge, Skill Development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)			

2. COURSE DESCRIPTION AND LEARNING OBJECTIVES

The course introduces students (assumed to have little prior experience in computer programming) to programming tools, languages and techniques needed for handling computational problems. Such skills will be useful in subjects they will encounter at future courses such as statistics, data analysis, business, econometrics etc. Focusing on programming topics and tools useful to the students' field of study, this introduction to programming course introduces them on specific languages (particularly the R programming language), while a lesser part of the lectures is devoted to general programming subjects (object-oriented programming, data structures, etc.) to enhance their ability in understanding and using a broader set of programming tools provided by Information and Communication Technologies.

Upon successful completion of the course the students are expected to:

- Learn basic skills for problem solving using the R language.
- Recognize the potential of various approaches and tools for developing software (in R and other languages).
- Be able to apply their knowledge and skills in computing problems.
- Be able to solve simple economic and business problems by analyzing them in parts, models, algorithmic steps.
- Implement the analysis in a program.
- Utilize the possibilities offered by programming and algorithmic approaches to problem solving.
- Have gained basic knowledge in programming issues such as data structures, functional and object-oriented programming paradigms.
- Have the background need to address computing problems in subsequent courses, their thesis, and in their future work environment.

Skills

Understand technology and gain related skills.
 Search, combine, and analyze data and information.
 Problem Solving (working autonomously).
 Problem Solving (teamwork).

3. COURSE OUTLINE

The course focuses on specific programming languages useful to the student's field of study (mainly

the R programming language) and to a lesser degree on general programming languages. Topics presented include:

- Using Integrated development environments.
- Syntax.
- Libraries (packages)
- Calculations.
- Predefined data structures
- Data sources.
- Graphs and data visualization.
- Functions.
- Models.
- Combining the above to solve typical problems.

Topics associated with general programming and algorithmic problem solving are also presented, such as the functional programming and object-oriented paradigms, data structures, user interface, data exchange standards etc.

1. TEACHING AND LEARNING METHODS - ASSESSMENT

TEACHING METHODS	In class / in laboratory	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	e-learning platform (e-class). e-book language reference manual. Access to computer Laboratory with programming tools.	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	50
	Laboratory	70
	Individual Studying	30
	Course total	150
STUDENT ASSESSMENT	I. Written final exam (50%) which may include: <ul style="list-style-type: none"> • Multiple choice questions. • Short Answer Questions. • Theory elements. • Brief case study. • Problem solving. II. Laboratory exams (50%).	

2. TEXTBOOKS AND READING

Suggested Bibliography:

1. Michael J. Crawley (2013), Introduction to Statistical Analysis with R, Broken Hill Publications.
2. Athanasios Stavrakoudis (2012), Introduction to Computational Methods for Economic and Business Studies, Klidarithmos Publications.
3. Diomidis Spinellis (2010), Programming in Java Programming in Java II (Implementation of information systems), Free Electronic Aid.

COURSE OUTLINE

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF43	Semester	6 th or 8 th
TITLE:	Risk Management		
COURSE SCHEDULE		TEACHING HOURS (WEEKLY)	ECTS CREDITS
Lectures		3	6
TOTAL:		3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	General Knowledge		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/1899/		

2. Course Description and Learning Objectives

Students upon completion of the course will be able to:

- Know the basic approaches to identifying risks in business.
- Develop methodological tools for measuring and evaluating risk.
- They apply qualitative and quantitative methods in risk management of a financial enterprise

Skills

Retrieve, analyse and synthesize data and information, with the use of necessary technologies
 Work autonomously and in teams
 Be critical and self-critical
 Advance free, creative and causative thinking
 Make decisions

3. Course Outline

The content of the course includes:

- What is Risk Management
- Business Risk.
- Risks to businesses and especially to financial companies
- Principles and methodologies of risk assessment and hierarchy (Risk Assessment)
- Qualitative risk assessment method
- Quantitative valuation methods? hazards
- Methodology and process of monitoring and risk management

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Power point presentations. Student contact electronically (Skype – Google Meet) or face-to-face in weekly office hours

	The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	<i>Activities</i>	<i>Semester workload</i>
	Lectures	45
	Homework	60
	Autonomous study	45
	<i>Total contact hours and training</i>	150
STUDENT ASSESMENT	I. Written examination II. Homework	

5. Textbooks and Supplementary Material

ΔΙΑΧΕΙΡΙΣΗ ΚΙΝΔΥΝΩΝ ΚΑΙ ΔΙΑΧΕΙΡΙΣΗ ΧΑΡΤΟΦΥΛΑΚΙΟΥ

ΠΕΤΡΟΣ ΚΙΟΧΟΣ, ΑΝΑΣΤΑΣΙΟΣ ΠΑΝΑΓΟΠΟΥΛΟΣ, ΠΑΝΤΕΛΗΣ ΚΥΡΜΙΖΟΓΛΟΥ

Κωδικός Βιβλίου στον Εύδοξο: 77119047 - ISBN: 978 - 618 - 81412 - 4 - 7

Σχηνωτάκης, Ν. & Συλλιγάρδος, Γ. (2010). «Διαχείριση Τραπεζικών και Χρηματοοικονομικών Κινδύνων», Εκδόσεις ΔΙΣΙΓΜΑ.

Αρτίκης, Π. (2010). «Διαχείριση Αξίας και Κινδύνου», Εκδόσεις Interbooks.

COURSE OUTLINE

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF47	Semester	6 th
TITLE:	STOCHASTIC PROCESSES IN FINANCE		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	6
	Field Work	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific area		
PREREQUISITE COURSES:	Basic understanding of inferential statistics		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	Yes (in English)		
COURSE WEB PAGE (URL)			

2. Course Description and Learning Objectives

The aim of the course is to understand and apply modern methods of empirical analysis of time series data and the forecasting process. The course provides a wide range of examples combined with the use of appropriate software for practical application to real-world data. At the end of the course, students will be able to specify, control and evaluate a set of models and make predictions.

Skills

- Retrieve, analyse and synthesise data and information, with the use of necessary technologies
- Be critical and self-critical
- Advance free, creative and causative thinking
- Make decisions

3. Course Outline

- i. Introduction to stochastic processes
- ii. Autocorrelation and partial correlation coefficients
- iii. Spectral analysis
- iv. Autocorrelation function and spectral analysis
- v. Moving average models MA(q)
- vi. Autocorrelation function in a moving average model MA(q)
- vii. Autoregressive models AR(p)
- viii. Autocorrelation function of autoregressive models AR(p)
- ix. ARMA (p,q) models
- x. ARIMA (1,1,1) model
- xi. The generalized ARIMA(p,d,q) model
- xii. The general seasonal SARIMA model
- xiii. The ARIMAX model

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<p>Power point presentations and self-assessment test in the Blackboard.</p> <p>Student contact electronically and face-to-face in weekly office hours</p> <p>The educational process is also supported by the use of the electronic platform e-class (course web page)</p>	
COURSE ORGANIZATION	<i>Activities</i>	<i>Semester workload</i>
	Lectures	90
	Field Work and case studies	30
	Work in teams or autonomously (when is necessary)	
	Autonomous study	30
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	<p>Written examination (100%) including:</p> <ul style="list-style-type: none"> - Theoretical questions - Multiple choice questions - Numerical questions 	

5. Textbooks and Supplementary Material

<p>Main educational material</p> <ul style="list-style-type: none"> • ΔΗΜΕΛΗ ΣΟΦΙΑ ΣΥΓΧΡΟΝΕΣ ΜΕΘΟΔΟΙ ΑΝΑΛΥΣΗΣ ΧΡΟΝΟΛΟΓΙΚΩΝ ΣΕΙΡΩΝ (2013) Ο.Π.Α. (ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ) • ΘΑΛΑΣΣΙΝΟΣ ΕΛΕΥΘΕΡΙΟΣ (1991). Ανάλυση Χρονολογικών Σειρών Μεθοδολογία Box – Jenkins ΕΚΔΟΣΕΙΣ ΣΤΑΜΟΥΛΗ ΑΕ <p>Supplementary educational material</p> <ul style="list-style-type: none"> • Journal of Time Series Analysis - Wiley Online Library • International Journal of Forecasting - Elsevier

COURSE OUTLINE

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF51	Semester	Spring semester
TITLE:	Human resource management		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	6
	Field Work	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific Area		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	NO		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/2597/		

2. Course Description and Learning Objectives

After successfully attending that course, students will obtain:

- Combines
- Critical understanding and thorough knowledge of the fundamental principles of Human Resource Management
- Human Resource Management knowledge and expertise, Human Resource Planning, Sound Human Resource Policy
- knowledge and skills regarding Training & Employee Development

In more detail, students will be able to:

- Describe and recognize the key elements of Human Resource Management.
- Recognize the Role of Leadership in Human Resource Management.
- To organize, synthesize and evaluate the main Principles of Organizational Culture
- To support and implement principles and rules related to business ethics, in the field of Human Resources management.

Skills

- Adjustment to new situations
- Decision-making process
- Autonomous work
- Promotion of free, creative and inductive thinking

3. Course Outline

1. Introduction to Human Resource Management.
2. Human Resource Planning
3. Job analysis and Job description
4. Employee Attraction

5. Employee Selection
6. Human resource training and development
7. Human resource evaluation and Performance
8. Remuneration policy in Human Resource Management
9. Motivation theory and motives
10. Contemporary Challenges of Human Resource Management
11. Leadership / Culture
12. Internal Communication and Employee Relations
13. Presentation of Written Assignments

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<ul style="list-style-type: none"> • Utilization of information and communication technology (ICT) in educational process • The educational process is also supported by the use of the electronic platform “e-class” (course web page) • Communication with students is taking place via email, via the eclass platform, as well as via the use of social media 	
COURSE ORGANIZATION	<i>Activities</i>	<i>Semester workload</i>
	Lectures	39 hours (3X13) (1,56 ECTS)
	Field Work and case studies	35 hours (1,4 ECTS)
	Independent Practice Activities	35 hours (1,40 ECTS)
	Autonomous study	41 hours (1,64 ECTS)
	Total contact hours and training (25 hours of personal work for each credit)	150 (6,0 ECTS)
STUDENT ASSESMENT	<ol style="list-style-type: none"> 1. Written exams (70-100%) including: <ul style="list-style-type: none"> - Theoretical questions - Critical Thinking questions - Questions based on Decision Making. 2. Optional Written Assignment (0-30%), on course related topics 	

5. Textbooks and Supplementary Material

- Suggested Reading:

1. Torrington D., Hall L., Taylor S. and Atkinson C. (2016). «Διοίκηση Ανθρώπινων Πόρων». 1η Έκδοση, Εκδόσεις Broken Hill, Αθήνα.
2. DeCenzo A., Robbins S.P. and Verhulst S. L. (2015). «Διοίκηση Ανθρώπινων Πόρων». 1η Έκδοση, Εκδόσεις UTOPIA, Αθήνα.
3. Ντάνος Αν., Σαμαντά Ε.(2015).«Εισαγωγή στη Διοίκηση και Ανάπτυξη Ανθρώπινων

Πόρων». Εκδόσεις Σύγχρονη Εκδοτική, Αθήνα.

4. Μπουραντάς Δ., Παπαλεξανδρή, Ν. (2002). «Διοίκηση Ανθρωπίνων Πόρων». Εκδόσεις Μπένου, Αθήνα.

5.

Supplementary reading

Business and Accounting Ethics

COURSE OUTLINE

1. GENERAL INFORMATION

SCHOOL:	MANAGEMENT		
DEPARTMENT:	ACCOUNTING & FINANCE		
COURSE LEVEL:	<i>Undergraduate</i>		
COURSE CODE:	UAF56	Semester	Spring Semester
TITLE:	Business and Accounting Ethics.		
COURSE SCHEDULE		TEACHING HOURS (WEEKLY)	ECTS CREDITS
Lectures		2	
Labs		1	
TOTAL:		3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	General Knowledge		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	YES		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/767/		

2. Course description and learning objectives

Intended learning outcomes of the course
<p>Business and accounting ethics is a field of professional ethics, specifically related to accounting and business administration. The big scandals that have plagued big companies and countries over the past decade have had an impact on both the accounting profession (as most of them were blatant breaches of accounting principles) and business executives, because they were usually the ones who knew about fraud and deception that had taken place and either kept silent or were complicit in the financial crimes being committed. So today, there are some standards that accountants who work in the public or private sector must comply with. Ethical standards are designed to ensure that accountants and business executives behave in a manner that is ethical and consistent with the work they undertake. For most professional accountants' organizations, in order to become a member, accountants</p>

must agree to and maintain ethical standards and must be removed from the organization if they fail to do so. Upon successful completion of the course the student will be able to:

1. Define business and accounting ethics.
2. Analyze the basic principles of ethical philosophy that are hidden behind the modern ethics of the accounting profession.
3. Describe the principles and standards of ethics of the accountant profession.
4. List the current threats and risks facing modern business in terms of accounting and business ethics.
5. Give examples of modern answers to difficult problems around accounting and business ethics.
6. Describe and define creative accounting and financial crime accounting (judicial).
7. Analyze the methodology of dealing with fraud and the control of financial crime (judicial).
8. Present the principles of business ethics.
9. List the current problems of business ethics.
10. Define and present the basic principles of corporate governance and corporate social responsibility.

General skills

1. Decision Making.
2. Autonomous work.
3. Respect for diversity and multiculturalism.
4. Adapt to new situations.
5. Exercise criticism and self-criticism.
6. Demonstration of social, professional and moral responsibility and sensitivity to gender issues.

3. Course outline.

The content of the course includes the following topics:

1. Ethics and entrepreneurship.
2. Modern issues of business ethics.
3. Corporate governance and corporate social responsibility.
4. Fair and unfair competition.
5. Transactional ethics and civil protection.
6. Accounting ethics, the contribution of philosophy.

- 7.Accounting profession and accounting ethics.
- 8.Code of conduct for the accountant and the auditor.
- 9.Accounting Ethics in the preparation of financial statements.
- 10.Auditing ethics and deontology.
- 11.Accounting fraud-accounting tricks.
- 12.Dealing with accounting fraud-creative accounting-accounting of financial crime.
- 13.Practices of falsification of accounting statements.

4.Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face.	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours. The educational process is also supported by the use of the electronic platform e-class (course web page).	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures.	39
	Fieldwork, exercises and case studies.	41
	Work individually and autonomously on assessments.	35
	Autonomous study.	35
	Total contact hours and training	150
STUDENT ASSESSMENT	I.Final written examination (70-100%): Questions on theory, critical thinking questions and exercises (based on the material discussed in class). II.Project (0-30%): PowerPoint presentation and script on a topic approved by the instructor, related to Corporate Accounting.	

5.Textbooks and Supplementary Material

Textbooks:

1. Velentzas Ioannis, Broni Georgia (2017). *Business Ethics – Corporate Governance – Corporate Social Responsibility. Accounting and auditing ethics and deontology*. Publisher: Scientific – Research Centre of Educational / Research Services and Studies.
2. Thanopoulos Ioannis N. (2009). *Business Ethics and Deontology*. Athens: Interbooks.
3. Antoniou Alexandros Stamatios (2008). *Business Ethics I*. - Athens: Ant. N. Sakkoulas Publications.
4. Antoniou Alexandros Stamatios (2008). *Business Ethics II*. - Athens: Ant. N. Sakkoulas Publications.

Scientific journals:

1. Journal of Accounting and Auditing: Research & Practice.
2. International Journal of Auditing.
3. European Journal of Accounting, Auditing and Finance Research.
4. Auditing: A Journal of Practice & Theory.
5. International Journal of Accounting, Auditing and Performance Evaluation.
6. Journal of Business Ethics.
7. Business Ethics Journal Review.
8. Journal of Academic and Business Ethics.

Teaching Economics

Course Outline

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF55	Semester	Spring
TITLE:	Teaching Economics		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	
	Labs	1	
	TOTAL:	3	6
COURSE TYPE: <small>(Background knowledge, General Knowledge, Scientific Area, Skills Development)</small>	Scientific area, Skills development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/779/		

2. Course Description and Learning Objectives

Intended learning outcomes of the course
<p>The course in economics teaching methods is designed to assist prospective teachers to:</p> <ul style="list-style-type: none"> • Analyze the aims, objectives and values of teaching economics. • Acquire skills in lesson planning, scheme of work and syllabus construction in economics. • Acquire basic knowledge of identifying appropriate teaching methods
Skills
<ul style="list-style-type: none"> • Retrieve, analyse and synthesize data and information, with the use of necessary technologies • Work autonomously • Work in teams • Be critical and self-critical • Advance free, creative and causative thinking

3. Course Outline

This course considers the aims, objectives and values of teaching economics. It analyses the correlation of economics with other subjects. It also looks at the history of teaching of economics, curriculum of economics and the presentation of subject matter of economics at different stages of education, evaluation in economics and lesson planning in economics. It analyses the different techniques and methods of teaching economics, the teaching aids in

economics, the classroom for economics and the teacher of economics.

Topics to be covered:

- i. Introduction
- ii. Pedagogy
- iii. Learning theories
- iv. Principles of learning and teaching
- v. Teaching economics
- vi. Learning objectives
- vii. Curricula
- viii. Methods and techniques of teaching
- ix. The significance of feedback
- x. Brainstorming
- xi. Project method
- xii. Lesson planning
- xiii. Microteaching

4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face or distance learning	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39
	Fieldwork and case studies	40
	Autonomous study	40
	Work in teams or autonomously (when is necessary)	31
	Total contact hours and training (25 hours of personal work for each credit)	150
STUDENT ASSESSMENT	Project (100%): PowerPoint presentation on a topic approved by the instructor	

5. Textbooks and Supplementary Material

Textbooks:

Brinia, Vassiliki (2006), *General and Specific Teaching of Economics*, Athens: Stamoulis (in Greek).

Magoula, Chara M. (2009), *Introduction to Teaching Economics*, Athens: Gutenberg (in Greek).

Magoula, Chara M. (2019), *Teaching Economics. Microteaching*, Athens: Gutenberg (in Greek).

Makridou-Boussiou, Despoina (2005), *Themes of Learning and Teaching*, Thessaloniki: University of Macedonia (in Greek).

Matsagouras, Ilias and Ioannis Chatzigeorgiou (2009), *Introduction to the Education Sciences*, Athens: Gutenberg (in Greek).

Whitehead, David J. and Despoina Makridou-Boussiou (2006), *Handbook for Economics Teachers*, Athens: Gutenberg (in Greek).

Journals:

- The Journal of Economic Education
- International Review of Economics Education
- Journal of Accounting Education
- Accounting Education

History of Economic Thought

Course Outline

1. General Information

SCHOOL:	Management		
DEPARTMENT:	Accounting and Finance		
COURSE LEVEL:	Undergraduate		
COURSE CODE:	UAF62	Semester	Spring
TITLE:	History of Economic Thought		
	COURSE SCHEDULE	TEACHING HOURS (WEEKLY)	ECTS CREDITS
	Lectures	2	
	Labs	1	
	TOTAL:	3	6
COURSE TYPE: (Background knowledge, General Knowledge, Scientific Area, Skills Development)	Scientific area, Skills development		
PREREQUISITE COURSES:	None		
TEACHING LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEB PAGE (URL)	https://eclass.uop.gr/courses/771/		

2. Course Description and Learning Objectives

Intended learning outcomes of the course
<p>This course traces the history of Western economic thought from ancient to modern times, with an emphasis on developments since Adam Smith published the <i>Wealth of Nations</i> in 1776. We attempt to understand the interactions of scholars in building a discipline called political economy, the influence of technological change and the social, business, and political environments on economics, as well as the influence of economists on society.</p> <p>On completing this course, students will have gained:</p> <ul style="list-style-type: none">• An understanding of the context of the original formulation of some fundamental analytical methods and theoretical concepts in use by economists today.• An understanding of the changing context of the application of these methods and concepts in subsequent periods up to the present.• An understanding of the applicability or otherwise of these methods and ideas in relation to the specific characteristics of the world economy today.• An acquaintance with some classic texts of economic thought and an ability to cite them in their application of economic analysis;• An ability to think critically about the limits of economic analysis in a broader socio-economic context;• An awareness of the relation of economics to other social science disciplines;• An ability to bring their awareness of the history of economic ideas to bear on their assessment of wider economic discussions and debates on economic affairs of topical interest today

Skills
<ul style="list-style-type: none"> • Retrieve, analyse and synthesize data and information, with the use of necessary technologies • Work autonomously • Work in teams • Advance free, creative and causative thinking

3. Course Outline

<p>Topics include the following:</p> <ol style="list-style-type: none"> i. Introduction ii. Ancient Greek Economic Ideas iii. Early Economic Thought iv. The Classical School of Political Economy v. Adam Smith vi. David Ricardo vii. Karl Marx viii. Utilitarianism, Marginalism and the Rise of Neoclassical Economics ix. The German Historical School x. John Maynard Keynes and the Principle of Effective Demand xi. Monetarism xii. New Classical Macroeconomics xiii. Epilogue: Developments in Selected Fields
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4. Teaching and Learning Methods - Assessment

TEACHING METHODS	In class face-to-face or distance education when is needed	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	PowerPoint presentations and self-assessment test in the Blackboard. Student contact electronically and face-to-face in weekly office hours The educational process is also supported by the use of the electronic platform e-class (course web page)	
COURSE ORGANIZATION	Activities	Semester workload
	Lectures	39
	Fieldwork and case studies	40
	Work in teams or autonomously (when is necessary)	31
	Autonomous study	40
	Total contact hours and training (25 hours of personal work for each credit)	150

STUDENT ASSESSMENT	<p>Final written examination (70-100%): Questions on terminology, theories and case studies (based on the material discussed in class)</p> <p>Project (0-30%): PowerPoint presentation on a topic approved by the instructor</p>
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5. Textbooks and Supplementary Material

Textbooks

Backhouse, Roger E. (2002), *The History of Economics*, London: Penguin.

Heilbroner, Robert L. (2000), *The Worldly Philosophers*, London: Penguin.

Keynes, John Maynard [1936] (2007), *The General Theory of Employment, Interest and Money*, Basingstoke, Hampshire: Palgrave.

Psalidopoulos, Michalis (2006), *International Conflict and Economic Thought*, Metamesonykties Publications (in Greek).

Screpanti, Ernesto and Stefano Zamagni (2005), *An Outline of the History of Economic Thought*, Oxford: Oxford University Press.

Smith, Adam [1776] (1981), *An Inquiry into the Nature and Causes of the Wealth of Nations*, 2 volumes, edited by R. H. Campbell και A. S. Skinner, Indianapolis: Liberty Fund.

Journals:

- The European Journal of the History of Economic Thought
- History of Political Economy
- Journal of the History of Economic Thought
- History of Economic Ideas

Useful Links:

- <http://www.hetwebsite.net/het/home.htm>
- <http://www.eshet.net/>
- <http://eh.net/>

SCHOOL	Management		
DEPARTMENT	Accounting and Finance		
LEVEL OF COURSE	Advanced		
COURSE CODE	UAF64	SEMESTER	5
COURSE TITLE	Big Data and Analytics		
INDEPENDENT TEACHING ACTIVITIES		Weekly Teaching Hours	ECTS
		3	6
TOTAL		3	6
TYPE OF COURSE UNIT	Bachelor Degree		
PREREQUISITES	Core classes finance are a prerequisite.		
LANGUAGE OF LECTURES and EXAMINATION	Greek & English		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes		
URL			

2. Learning outcomes

Learning outcomes
<p>This course is an introductory course on data mining. It introduces the basic concepts, principles, methods, implementation techniques, and applications of data mining, with a focus on two major data mining functions: (1) pattern discovery and (2) cluster analysis.</p> <p>In the first part of the course, which focuses on pattern discovery, you will learn why pattern discovery is important, what the major tricks are for efficient pattern mining, and how to apply pattern discovery in some interesting applications. The course provides you the opportunity to learn concepts, principles, and skills to practice and engage in scalable pattern discovery methods on massive data; discuss pattern evaluation measures; study methods for mining diverse kinds of frequent patterns, sequential patterns, and sub-graph patterns; and study constraint-based pattern mining, pattern-based classification, and explore their applications.</p> <p>In the second part of the course, which focuses on cluster analysis, you will learn concepts and methodologies for cluster analysis, which is also known as clustering, data segmentation, or unsupervised learning. We will introduce the basic concepts of cluster analysis and then study a set of typical clustering methodologies, algorithms, and applications. This includes partitioning methods and hierarchical methods. We will also discuss methods for clustering validation.</p>
General skills
Basic Knowledge of programming

3. COURSE CONTENT

Week 1. Introduction to the Big Data and Data Mining
Week 2. Introduction to R – Part I
Week 3. Introduction to R – Part II
Week 4. Introduction to useful Data mining libraries of R
Week 5. Data preparation and cleaning
Week 6. Summary Statistics and Visualization
Week 7. Categorization
Week 8. Clustering
Week 9. Forecasting
Week 10. Mining Association Rules and Frequent Itemsets
Week 11. Case Study I : Categorization and Clustering
Week 12. Case Study II : Forecasting
Week 13. Case Study III : Mining Association Rules

3. TEACHING and LEARNING METHODS – ASSESSMENT

TEACHING METHODS	Lectures, Classroom discussion, Collaboration, Classroom Action Research.	
USE OF INFORMATION TECHNOLOGIES AND COMMUNICATION	Excel and Online Data Bases	
LECTURE STRUCTURE	Activity	Semester Teaching Load
	Lecture	33h
	Class exercises and application	6h
	Individual or group case study	42h
	Independent Study	20h
	Course Total	101h
EVALUATION OF STUDENTS'		

4. RECOMMENDED READING

Brunton, S. L., & Kutz, J. N. (2019). *Data-driven science and engineering: Machine learning, dynamical systems, and control*. Cambridge University Press.

Sharda, R., Delen, D., & Turban, E. (2020). *Analytics, Data Science, & Artificial Intelligence*. Pearson.

Wickham, H., & Grolemund, G. (2016). *R for data science: import, tidy, transform, visualize, and model data*. " O'Reilly Media, Inc."

Provost, F., & Fawcett, T. (2013). *Data Science for Business: What you need to know about data mining and data-analytic thinking*. " O'Reilly Media, Inc."