

**University of Thessaly**



**DEPARTMENT OF ECONOMICS**

**Program of Studies**

**Academic year 2018-2019**

# The University of Thessaly

## History and Mission

The University of Thessaly was founded in 1984, received students in 1988 and has elected the first Rectorate Board in 1998. Its administrative and academic center is in the city of Volos. In order to serve the needs of the region of Thessaly, its first Departments were based on agricultural, educational and technological sciences. In its initial phase of organization and operation there have been eight Departments, seven of them in Volos and one, the School of Medicine, in Larissa. Since 1984 and onwards the University of Thessaly has been gradually growing with new Departments in the four biggest cities of the region of Thessaly, Volos, Larissa, Trikala and Karditsa, and the city of Lamia in Central Greece. Its present academic structure consists of eighteen (18) Departments, organised in six (6) Faculties.

The main mission of the University of Thessaly is the promotion of scientific knowledge through research and the contribution to the cultural and economic development of the local community and wider society. It is reputed for its excellent research performance and outstanding scientific achievements, in accordance with the international standards. The excellent equipped Laboratories of the different Research Units have a number of well-trained researchers to support them. The members of the academic and research staff participate in European research networks and numerous innovative research projects in the EU.

Emphasis is also given on the bond between the University of Thessaly and the local society. This bond is further supported by the operation of the University Hospital of Larissa which covers the medical needs of the whole region of Thessaly and beyond. The University brings also students in contact with the labor market through its *Career Office*, and it encourages a great deal of social activities and public lectures on various issues held by qualified academic staff.

Student life in the University of Thessaly is also rather intense. The students have established well-organized associations which are highly active in the fields of sports and culture.

Today the University of Thessaly has 16.164 undergraduate students, 2.931 postgraduate students and 1.434 PhD students. It also has 441 Faculty members, 308 members of administrative staff, 75 Laboratory Teaching Staff members, 25 Special Teaching Staff members and 56 members of Special Technical Laboratory Staff. It is a University with a strong identity and with a prominent position in the Greek educational system, known for its quality in teaching, research, human resources, spirit of cooperation at all levels and a dynamic presence in the society.

## Schools and Departments

The Academic structure of the University of Thessaly is as follows:

### **School of Engineering**

- Department of Mechanical Engineering
- Department of Planning and Regional Development
- Department of Civil Engineering
- Department of Architecture Engineering
- Department of Electrical and Computer Engineering

### **School of Humanities and Social Sciences**

- Department of Primary Education
- Department of Early Childhood Education
- Department of Special Education
- Department of History, Archaeology and Social Anthropology
- Department of Economics

**School of Agricultural Sciences**

- Department of Agriculture Crop Production and Rural Environment
- Department of Ichthyology and Aquatic Environment

**School of Health Sciences**

- School of Medicine
- Faculty of Veterinary Science
- Department of Biochemistry and Biotechnology

**School of Sciences**

- Department of Computer Science
- Department of Computer Science and Biomedical Informatics

**School of Physical Education and Sport Science**

- Department of Physical Education and Sport Science

# **The Department of Economics**

## **C.1 Name and Address of the Department**

DEPARTMENT OF ECONOMICS  
78, 28th October Street, 38333, Volos, Greece

## **C.2 Administration of the Department**

HEAD OF THE DEPARTMENT  
Professor Michael ZOUBOULAKIS  
Tel.: +30 24210 74882  
Email : [mzoub@econ.uth.gr](mailto:mzoub@econ.uth.gr)

SECRETARY OF THE DEPARTMENT  
Ms. Penelone VERGOU  
Tel.: +30 24210 74913, Fax. +30 24210 74772  
Email : [pvergou@uth.gr](mailto:pvergou@uth.gr)

## **C.3 Academic Coordinator of ERASMUS+**

Dr. Paschalis ARVANITIDIS, Associate Professor of Institutional  
Economics Tel.: +30 24210 74914  
Email : [parvanit@uth.gr](mailto:parvanit@uth.gr)

## **C.4 General Description of the Department**

The Department of Economics was established in September 1999, by Presidential Decree No 211/3-9-99 (Off. J. of the Hellenic Republic. 179 A'/06-09-1999). The Department is located in Volos, in the Region of Thessaly, Central Greece, and the first 121 students enrolled in September 1999. Currently, the Department has more than 1200 students.

The Department of Economics aims at:

- i) cultivating and developing the Science of Economics, especially in the fields of Institutions & Economic Development, Banking and Finance, and Business Economics, which determine economic development,
- ii) educating economists to become capable of further advancing economic knowledge and apply it both at the level of state economic policy and at the level of firms, as well to predict various economic phenomena.

The Department of Economics provides specialization in fields that correspond to the needs of the Greek Economy and to the latest developments in Economic Science. Therefore, in an era of globalization and further interdependence of economic systems, career opportunities are fully open to its graduates,

#### **C.4.1 Faculty Staff**

1. Dr. Anagnostou Ageliki, Assistant Professor of Macroeconomic Theory and Policy, Ph.D. Sheffield Univ.
2. Dr. Arvanitidis Paschalis, Associate Professor of Institutional Economics, Ph.D. Univ. of Aberdeen.
3. Dr. Bellou Victoria, Associate Professor of Management, Ph.D. Univ. of Piraeus.
4. Dr. Economou Athina, Assistant Professor of Labour Economics, Ph.D. Univ. of Macedonia.
5. Dr. Halkos Georgios, Professor of Environmental Economics, Ph.D. York Univ.
6. Dr. Iatridis Georges, Professor of Accounting and Financial Management, Ph.D. Univ. of Manchester.
7. Dr. Kaskarellis Ioannis, Professor of International Economics, Ph.D. Univ. of London.
8. Dr. Kevork Ilias, Associate Professor in Managerial Economics, Ph.D. London School of Economics
9. Dr. Kollias Christos, Professor of Applied Economics, Ph.D. Thames Polytechnic.
10. Dr. Kyriazis Nikolaos, Professor of Economic Development, Ph.D. Bonn Univ.
11. Dr. Metaxas Theodore, tenure Assistant Professor of Economic Development, Ph.D. Univ. of Thessaly
12. Dr. Papadamou Stefanos, Associate Professor in Economics of Money and Banking, Ph.D. Univ. of Macedonia
13. Dr. Psarianos Iakovos, Assistant Professor of Economic Growth, Ph.D. Univ. of Illinois
14. Dr. Staboulis George, Assistant Professor of Innovation Management and Entrepreneurship, Ph.D. Sussex U.
15. Dr. Stergiou Andreas, tenure Assistant Professor in Modern European History and Politics, Ph.D. University of Mannheim
16. Dr. Tsilika Kyriaki, Assistant Professor of Computational Economics, Ph.D. Aristotle University of Thessaloniki.
17. Dr. Tzeremes Nickolaos, Associate Professor of Economic Analysis, Ph.D. Univ. of Thessaly
18. Dr. Zachilas Loukas, Assistant Professor of Applied Mathematics, Ph.D. Univ. of Athens.
19. Dr. Zouboulakis Michael, Professor of Methodology & History of Economics, Ph.D. Univ. Paris I.

#### **C.4.2 Adjunct Faculty Staff**

1. Dr. Achilleas Barlas
2. Dr. Emmanouil Marios Economou
3. Dr. Spyros Niavis
4. Dr. Ilias Sofiotis
5. Dr. Panagiotis Tzeremes

#### **C.4.3 Laboratory Teaching Staff**

1. Ms. Maria Kontaxi
2. Dr. Dimitrios Zisiadis

#### **C.4.4 Special Technical Laboratory Staff**

1. Mr. Vassileios Tzimourtos

#### **C.4.5 The Library**

Students may use the facilities of the Central University Library, located on number 2 of the Metamorfoseos Street (which is very close to the premises of the Department of Economics). The Central University Library is one of the first fully on line libraries in Greece. All the services -i.e. ordering, booking, etc.- are conducted and operated through the computer system of the Central Library in Volos, which is connected to all the Departments of the University located in Larissa, Karditsa and Trikala.

The library is open for research to all students and academic staff, as well as to all researchers in the region.

#### **C.4.6 The Secretariat of the Department**

The secretariat of the Department is responsible for administrative, academic and student affairs, including:

Academic and Student Affairs

1. Enrolment of students, registrations and rating examinations for graduates from other universities.
2. Administration of students' files (grades, scholarships, diplomas, etc.)
3. Administration of students' lists according to their elective courses.
4. Administration and issue of certificates.

Administrative and research affairs

5. Administration of academic staff files.
6. Administration and clearing of elections of new faculty.

The Secretary of the Department

Mrs. Penelope VERGOU

Administrative Staff

Mr. Giannis Deligiannis – Secretary Office

Mrs Athanasia Gata

Mrs Chryssa Grantza

#### **C.5 Organization of Studies**

The duration of studies for the Degree of Economics is 8 semesters. In the first three years five courses (plus a foreign language) are taught per semester, covering Economic Theory, Quantitative Analysis, Business Economics and Law. The main objective of the first three years is to work on economic knowledge in all its aspects and to prepare students to select their major in the fourth year.

##### **C.5.1 Majors**

The Department offers three majors:

- **Institutions and Economic Development**
- **Banking and Finance**
- **Business Economics**

In the fourth year students must successfully complete ten courses, four of which are compulsory, plus at least two elective courses from his/her major. The remaining four courses are to be chosen from the other major, or from another Department of the University of Thessaly.

During their last semester, students can write a dissertation on a subject chosen from either of the two majors. The dissertation is equivalent to 5 ECTS. If a student chooses not to write a dissertation, he/she may choose an additional course which should belong to one of the majors from the final year's program.

The program offers the possibility a bimonthly practice in a public or private firm.

### **C.5.2 Foreign languages**

The Department requires good knowledge of the English Language. Students, who are not holding (at least) a FIRST CERTIFICATE in English, are required to take English as a foreign language. Students who provide an original copy of their English FIRST CERTIFICATE have the possibility to choose one out of the other three foreign languages taught at the University (French, Italian, German). The selection of the foreign language course is to be made with an application at the Secretariat of the department during the very first week of the first semester or during enrolment day.

Foreign languages are taught at four different levels, during the first four semesters. Attendance to these courses is compulsory and progress (on a pass/fail basis) at each level is monitored in the students' file.

Students have the option to change their foreign language selection during the first week of their third semester only. The eventual selection of a second foreign language is not taken into account in the final degree.

### C.6 Courses offered (2018-2019)

Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>1<sup>st</sup> semester (winter)</b>			
OA0101 INTRODUCTION TO ECONOMIC THOUGHT	C	3	6
KE0201 ECONOMIC HISTORY	C	3	6
MII0101 MATHEMATICS FOR ECONOMISTS I	C	3	6
KE0101 INTRODUCTION TO LAW	C	3	5
MII0201 COMPUTER SCIENCE I	C	3	5
FOREIGN LANGUAGE (ENGLISH, FRENCH, GERMAN, ITALIAN)	C	3	2
<b>TOTAL</b>			<b>30</b>

Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>2<sup>nd</sup> semester (spring)</b>			
OA0201 MICROECONOMIC ANALYSIS I	C	3	6
OA0301 MACROECONOMIC ANALYSIS I	C	3	6
MII0102 MATHEMATICS FOR ECONOMISTS II	C	3	6
MII0301 STATISTICS I	C	3	6
MII0202 COMPUTER SCIENCE II <i>or</i> KE0102 COMMERCIAL LAW	E	3	4
FOREIGN LANGUAGE (ENGLISH, FRENCH, GERMAN, ITALIAN)	C	3	2
<b>TOTAL</b>			<b>30</b>



Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>3<sup>rd</sup> semester (winter)</b>			
OA0202 MICROECONOMIC ANALYSIS II	C	3	6
OA0302 MACROECONOMIC ANALYSIS II	C	3	6
OE0201 FINANCIAL ACCOUNTING	C	3	6
MII0302 STATISTICS II	C	3	6
OA0111 MANAGERIAL ECONOMICS <i>or</i> KE1502 INTRODUCTION TO POLITICAL SCIENCE	E	3	4
FOREIGN LANGUAGE (ENGLISH, FRENCH, GERMAN, ITALIAN)	C	3	2
<b>TOTAL</b>			<b>30</b>

Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>4<sup>th</sup> semester (spring)</b>			
OA0203 MICROECONOMIC ANALYSIS III	C	3	6
OA0303 MACROECONOMIC ANALYSIS III	C	3	6
MII0401 ECONOMETRICS I	C	3	6
OA0601 HISTORY OF ECONOMIC THOUGHT	C	3	6
OA1503 RESEARCH METHODS – SAMPLING <i>or</i> OA0108 INTERNATIONAL ECONOMIC ORGANIZATIONS	E	3	4
FOREIGN LANGUAGE (ENGLISH, FRENCH, GERMAN, ITALIAN)	C	3	2
<b>TOTAL</b>			<b>30</b>

Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>5<sup>th</sup> semester (winter)</b>			
OA0401 PUBLIC ECONOMICS I	C	3	6
MII0402 ECONOMETRICS II	C	3	7
OA0501 MONETARY THEORY AND POLICY	C	3	6
OE 060 MANAGEMENT	C	3	6
OA0801 ECONOMIC GROWTH THEORY <i>or</i> OA1401 EUROPEAN UNION ECONOMICS <i>or</i> OA0116 ECONOMIC ANALYSIS OF SOCIAL POLICIES <i>or</i> OA0501 TOPICS IN APPLIED MICROECONOMICS (in English)	E	3	5
<b>TOTAL</b>			<b>30</b>

Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>6<sup>th</sup> semester (spring)</b>			
OA1201 REGIONAL ECONOMICS	C	3	6
OE0501 CORPORATE FINANCE	C	3	7
OE0701 INTERNATIONAL TRADE	C	3	6
OA0701 ECONOMICS OF INSTITUTIONS (NEW INSTITUTIONAL ECONOMICS)	C	3	6
ΔE001 SOCIOLOGY <i>or</i> OA0402 PUBLIC ECONOMICS II <i>or</i> OE0301 MARKETING <i>or</i> OA0601 TOPICS IN APPLIED MACROECONOMICS (in English)	E	3	5
<b>TOTAL</b>			<b>30</b>

	Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>7<sup>th</sup> semester (winter)</b>				
<b>MAJOR: INSTITUTIONS AND ECONOMIC DEVELOPMENT</b>	OE0120 ECONOMIC DEVELOPMENT (THEORY AND POLICY)	C	3	5
	OA0114 INSTITUTIONS AND DEVELOPMENT	C	3	5
	OA0113 REGIONAL DEVELOPMENT AND POLICY	E	3	5
	OA0106 INTERNATIONAL POLITICAL ECONOMY (in English)	E	3	5
	OA0117 LABOUR ECONOMICS	E	3	5
	OA0122 THEORIES OF ECONOMIC EVOLUTION	E	3	5
	OA0121 AGRICULTURAL ECONOMICS	E	3	5
	OA0110 RESEARCH METHODS	E	3	5
<b>MAJOR: BANKING AND FINANCE</b>	OA0103 INTERNATIONAL BANKING AND FINANCE	C	3	5
	OE 0300 ISSUES IN FINANCIAL ACCOUNTING	C	3	5
	OA0102 INTERNATIONAL MONETARY RELATIONS	E	3	5
	OA0145 ECONOMIC DYNAMICS	E	3	5
	OA0020 URBAN ECONOMICS AND REAL ESTATE	E	3	5
	OA0115 INDUSTRIAL ORGANIZATION	E	3	5
	OA0110 RESEARCH METHODS	E	3	5
<b>MAJOR: BUSINESS ECONOMICS</b>	HY3001 MANAGEMENT SCIENCE	C	3	5
	OA0144 OPERATIONS MANAGEMENT	C	3	5
	OA0115 INDUSTRIAL ORGANIZATION	E	3	5
	OA0146 ORGANIZATIONAL BEHAVIOR	E	3	5
	OE 0300 ISSUES IN FINANCIAL ACCOUNTING	E	3	5
	OA0020 URBAN ECONOMICS AND REAL ESTATE	E	3	5
	OA0143 INTRODUCTION TO ENTREPRENEURSHIP	E	3	5
	OA0110 RESEARCH METHODS	E	3	5

	Semester/Major Course Code/Course Title	Compulsory or Elective	Teaching hours per week	ECTS units
<b>8<sup>th</sup> semester (spring)</b>				
<b>MAJOR: INSTITUTIONS AND ECONOMIC DEVELOPMENT</b>	OA1101 THEORY OF ECONOMIC POLICY	C	3	5
	OA0120 ENVIRONMENTAL ECONOMICS	C	3	5
	OA1301 GREEK ECONOMY	E	3	5
	OA150 TOURISM DEVELOPMENT AND PLANNING (in English)	E	3	5
	OA0146 ECONOMIC INTEGRATION - GLOBALIZATION - GEOSTRATEGIC ASPIRATIONS	E	3	5
	OA0147 DEFENSE ECONOMICS	E	3	5
	OA155 GAME THEORY	E	3	5
<b>MAJOR: BANKING AND FINANCE</b>	OA153 TIME SERIES ANALYSIS AND FORECASTING	C	3	5
	OA0105 PORTFOLIO MANAGEMENT	C	3	5
	OA154 MANAGEMENT ACCOUNTING	E	3	5
	OE0401 INVESTMENT APPRAISAL	E	3	5
	OA155 GAME THEORY	E	3	5
	OA151 MULTINATIONAL FIRMS	E	3	5
<b>MAJOR: BUSINESS ECONOMICS</b>	OA148 SMALL MEDIUM ENTERPRISES MANAGEMENT	C	3	5
	OA154 MANAGEMENT ACCOUNTING	C	3	5
	OA151 MULTINATIONAL FIRMS	E	3	5
	OA149 ECONOMICS OF TECHNOLOGY (INNOVATION ECONOMICS)	E	3	5
	HM001 COMPUTATIONAL ECONOMICS	E	3	5
	OA0123 TRANSPORTATION ECONOMICS	E	3	5
	OA152 DEVELOPMENT OF BUSINESS PLANS	E	3	5

## **C.7 Courses outline**

### **First Semester**

#### **INTRODUCTION TO ECONOMIC THOUGHT**

Teachers: M. Zouboulakis & Ch. Kollias

##### Course outline

This introductory course to economic theories aims to offer a representative overview of the subject matter of Economics. Its main objective is to present in a critical way the main economic problems, as well as the principal alternative theoretical tendencies together with the main methodological issues of the discipline. Themes studied include: The economic problem and its dimensions, The process of the economic system and its multidimensional approach, The roots of Political Economy, Pluralism in Economics, Economic surplus and distribution: command and change, Supply and demand: Competition and cooperation, Forms of Competition and concentration, Economic Development and Inequalities in the World Economy, The main dilemmas of Macroeconomic Policy, The State and the Economy.

1. The subject of economics and its specificities
2. The methods of economic thinking
3. Pluralism in Economics
4. Supply and demand: Competition and cooperation
5. Perfect Competition and Monopoly
6. Problems with the functioning of markets (market failures)
7. Economic Development and Inequalities in the World Economy
8. The State and the Economy
9. The main dilemmas of the Macroeconomic Policy
10. The tools of economic policy
11. Economic development and inequalities in the world economy
12. Indexes of development and the measure of development gaps.

#### **ECONOMIC HISTORY**

Teacher: M. Zouboulakis

##### Course outline

This course aims to describe the long-term evolution of the capitalist system from 1500 to 1945. Emphasis is put upon the development of the system in Europe in the early days of “commercial capitalism” as well as the conditions of the emergence of the so-called “industrial revolution”.

1. The European exodus and the social conditions in 16th century Europe
2. The organization of international commerce and the first colonial empires
3. The great inflation and the crisis of the 17th century
4. The transition from feudalism to capitalism
5. Changing the mode of production in 18th cent. England
6. The dissemination of the “industrial revolution” in Europe
7. Social changes in 19th cent. Europe
8. The “second industrial revolution” and the new modes of industrial organization
9. The world economy in 1914
10. Economic fluctuations and the crisis of 1929
11. Social and political changes in the interwar Europe.

#### **MATHEMATICS FOR ECONOMISTS I**

Teacher: L. Zachilas

##### Course outline

1. Introduction in Mathematics for Economists – Mathematical models
2. Sets and numbers. Sets, operations with sets, sets of numbers, real numbers, Cartesian product, relationships, functions.
3. Combinatorics: How to count, Permutations, Permutations with repetitions, Cyclic Permutations, Combinations, Combinations with repetitions.
4. Calculus-Functions of one variable: Introduction, various types of functions of one or two variables.

5. Static Analysis: the sense of equilibrium, market equilibrium, market equilibrium in non-linear models, general equilibrium, market equilibrium with two goods.
6. Matrices: Introduction, various types of matrices, matrix operations, properties of operations, Identity and Zero matrix, Transpose and Inverse matrix, Determinants, properties of determinants, Linear Systems of Equations (the method of inverse matrix and the method of determinants), Homogeneous systems of equations, Applications of Linear Systems in Economy.

## **INTRODUCTION TO LAW**

Teacher: I. Sofiotis

### Course outline

The course probes into the concept of positive law and distinguishes it from other aspects of law, which formulate human behavior such as moral and religious behavior, etc. It examines the sources of law and distinguishes it into public and private law. Elements of public and private law are provided as are fundamental principles of Constitutional and Administrative Law, as well as, Criminal (Penal) and Private(Civil) Law. The organization of the system of judicature is thoroughly examined, as are elements of European Law.

1. Law and Ethics – Natural and Positive Law
2. Sources of Law (law, custom)
3. The hierarchy of the Sources of Law (Constitution, International, Law, Statute, Presidential Decree)
4. The position taken by International Law within the realm of domestic law and order
5. The distinction of Positive Law into Public and Private Law
6. Branches of Public Law
7. Elements of Constitutional Law
8. Elements of General Administrative Law
9. Elements of Criminal (Penal) Law
10. The sectors of Private Law
11. Civil Law and its disciplines :
  - i. General Principles of Civil Law
  - ii. Law of Contract
  - iii. Law of Property
  - iv. Family Law
  - v. Law of Inheritance
12. Labor Law
13. Mercantile (Commercial) Law
14. The organization of judicature
15. Civil Courts (their nature, jurisdiction, responsibilities, degrees – fundamental principles of Civil Procedural Law)
16. Criminal (Penal) Courts (their nature, jurisdiction, responsibilities, degrees – fundamental principles of Criminal Procedural Law)
17. Administrative Courts (their nature, jurisdiction, responsibilities, degrees - fundamental principles of Administrative Procedural Law)

## **COMPUTER SCIENCE I**

Teachers: K. Tsilika – D. Zisiadis

### Course outline

This course develops and uses Excel spreadsheets as a modeling platform, for a wide range of economic computations. Students learn how to apply commands, functions and add-ins in Excel and practice good spreadsheet design. In case discussions, students explore the effectiveness of various spreadsheet models.

#### Learning Modules

1. Introduction to Computer Science.
2. Computer's infrastructure and the description of its parts.
3. The function of the PC.
4. Electronic mails, introduction to the Webmail of UTh.
5. Introduction to Spreadsheets
6. Performing calculations in spreadsheets of Excel 2016.
7. Function syntax in Excel.
  - a) Mathematical functions in Excel.
  - b) Statistical functions in Excel.
9. Logical functions in Excel.
10. How to plot in Excel 2016. Using free visual interfaces with Excel data import
11. Special topics and financial applications.

## **Second Semester**

### **MICROECONOMIC ANALYSIS I**

Teacher: A. Economou

#### **Course outline**

The main objective of this module is to provide a foundation of key microeconomic principles, covering some of the most important topics, concepts and methods used in modern microeconomic analysis.

1. Consumer theory and behavior analysis (preferences)
2. Maximum Utility and consumer choice
3. Elasticity of Supply and Demand
4. Producer Theory
5. Production Cost Theory
6. Production with one variable input
7. Production with two variables inputs
8. Elasticity of Market Supply
9. Minimization of Production Cost
10. Perfectly competitive Markets

### **MACROECONOMIC ANALYSIS I**

Teacher: A. Anagnostou

#### **Course outline**

The course offers a broad review of the major topics in macroeconomics. In addition to developing the economic intuitions, the course familiarizes students with the workings of major macroeconomic models. The course starts with long-term growth, and then covers the main workhorse models used in macroeconomics. The focus then shifts to the design of optimal monetary and fiscal policy.

The final part of the course covers and analysis of financial markets and the banking sector, as well as labor market issues. As conducting research in macroeconomics requires a familiarity with technical tools, the course aims to providing student with a grasp of the techniques in relatively simple settings. For each topic, we discuss the linkages to “real life” issues for policy makers.

### **MATHEMATICS FOR ECONOMISTS II**

Teacher: L. Zachilas

#### **Course outline**

1. Leontief modelling in Inputs-Outputs.
2. Quadrature forms: introduction and definition, the sign of QF
3. Eigenvalues and eigenvectors: Definitions, characteristic equation, the sign of QF with the use of eigenvalues, diagonalization
4. Comparative Static Analysis: Introduction to the rate of change, Derivative of functions in one variable, Rules of differentiation, Applications in economic problems, Partial Derivatives, Applications in Comparative Static Analysis, Jacobian determinants, Elasticity of demand, Derivatives of Implicit functions

### **STATISTICS I**

Teachers: I. Kevork

#### **Course outline**

1. Descriptive Statistics: Samples and population, Percentiles and Quartiles, Measures of central tendency and variability, Grouped data and frequency distributions, Histogram and the polygon line, Skewness and kurtosis, Chebyshev's theorem, Methods of displaying the data, Pie and bar charts, Box plots etc.
2. Probability: Random experiment, Elementary outcome, Sample space and events, Classical definition of probability, Probability as the limit of relative frequency, Subjective probability, Axioms and rules for probability, Conditional probability, Joint and marginal probabilities, Independent events, The law of total probability and Bayes' theorem

3. Random variables: Discrete random variables, Probability distribution and cumulative distribution function, Expected value and standard deviation of a random variable, Bernoulli and Binomial random variables, The Poisson distribution, The negative Binomial Distribution, The Geometric and Hypergeometric distribution, Continuous random variables, Probability density function, The Uniform and Exponential distributions
4. The Normal distribution: Properties of the Normal distribution, The Standard Normal distribution, Finding probabilities of the Standard Normal distribution, Transforming a Normal random variable to the Standard Normal, The inverse transformation, Normal approximation of Binomial and Poisson distributions
5. Sampling distributions: Sample statistics as estimators of population parameters, Sampling distribution of the sample mean, Central Limit Theorem, Student-t distribution, Sampling distribution of the variance, Chi-squared and F distributions
6. Confidence intervals: Confidence intervals for the population mean when the population variance is known and when the population variance is unknown, Confidence intervals for the population proportion, Confidence intervals for the population variance
7. Hypothesis testing: The Null and Alternative hypotheses, Significance level, Type I and II errors, Power of the test, Hypothesis testing for the population mean, the population variance and the population proportion

## **COMPUTER SCIENCE II**

Teachers: K. Tsilika – D. Zisiadis

### Course outline

The course is designed for understanding and using some of the MS Office built in layout and text editing functionality. Students will learn how to produce striking and effective documentation. They will also learn how to build, enhance and deliver presentations locally on a computer and on-line. Seeking and sourcing research data and open access scholarly research, are among the learning objectives of the course.

### Learning Modules

1. Introduction to networks, services, the UTh Network, WWW, search engines, issues on internet browsing safety.
2. The Creative Commons (CC) copyright licenses.
3. Editing and formatting documents with Word 2016.
4. Building presentations with PowerPoint 2016.
5. Building presentations with the on-line presentation software Prezi.

## **COMMERCIAL LAW**

Teacher: I. Sofiotis

### Course Outline

The course aims at familiarizing students with fundamental components of the institutional framework of the market. The merchant and commercial corporations, the rules of competition, industrial ownership and the law protecting consumers are the main domains under examination – broadly speaking – of the course.

1. The merchant and commercial transactions – consequences and significance of commercial properties and marketability transactions
2. Commercial enterprises
  - i. Personal (Unlimited Partnership, Limited Partnership). Composition, Function, Instruments, Liability, Economic Significance.
  - ii. Capital (Joint Stock Company, Limited Liability Company). Composition, Function, Instruments, Liability, Economic Significance.
3. Rules of competition. Unfair competition.
4. The protection of free competition
  - i. Control of centralization
  - ii. Defalcation of a prominent position
5. Commercial Papers. Kinds of Commercial Papers.
6. Legal elements of Commercial Papers. The cheque.
7. Industrial Ownership: The trademark. Its nature, function, acquisition, protection. The patent (invention).
8. Other forms of industrial property: Industrial plans and models, practical models of usefulness
9. Consumer protection: Elements of legal protection of a consumer:
  - i. The general terms of transactions
  - ii. The responsibility of producers
  - iii. Contract from a distance
  - iv. Contracts conducted away from a commercial enterprise
  - v. Advertising



## **Third Semester**

### **MICROECONOMIC ANALYSIS II**

Teacher: N. Tzeremes

#### Course outline

##### 1. THEORY OF COST

(a) Short-Run: Production with one variable input, Law of diminishing marginal physical returns, Three stages in production, Derivation of the average fixed cost, average total cost, average variable cost and marginal cost  
(b) Long-Run: Production with two variable inputs, Isoquant curves, Marginal rate of technical substitution, Isocost curves, Expansion curve, Optimal Combination of Resources – minimizing cost subject to a given output, input demand functions, Returns to scale and the function coefficient, Long-run total cost elasticity, Relation between the theory of the cost in the long-run and the short-run, Shape of the long-run average cost

2. PERFECT COMPETITION: Conditions for defining perfect competition, Short-run equilibrium of a firm in a perfectly competitive market, Short-run equilibrium and supply curve in a perfectly competitive industry, Demand-Supply analysis, Long-run equilibrium in a perfectly competitive market, Long-run industry supply curve, Constant and Increasing cost industries

3. MONOPOLY: Definition, Demand under monopoly, Short-run equilibrium, Market power and Lerner Index, Monopoly supply in the short-run, Long-run equilibrium in a single-plant monopoly, Comparison with perfect competition, Special topics in monopoly theory (Multiplant monopoly in the short-run, Price discrimination, Bilateral monopoly)

4. MONOPOLISTIC COMPETITION AND OLIGOPOLY: Product differentiation, Industries and product groups, Two demand curves, Classical solutions to the duopoly problem – Cournot case, Mathematical approach to a modified Cournot model, Edgeworth case, Stability in Oligopoly Markets – Chamberlin and Sweezy solutions, Cartels and profit maximization, Cartels and market sharing

### **MACROECONOMIC ANALYSIS II**

Teacher: I. Kaskarelis

#### Course outline

The course deals with the Keynesian Macroeconomic Model which in contrast to the Neoclassical Model, which was, examined in Macroeconomic Analysis I is a brief economic analysis. In a short - lived period of time prices – for various reasons – are rigid and this means that nominal variables of economy as, for example, the product which is being manufactured. Thus, demand for a product may be the factor, which will regulate the quantity of the product, not technological, demographic and social developments.

Since the aim of this model is the demand of the economy as a whole, the first point under examination is the purchase of goods, the Keynesian cross and the IS curve, the money market and the LM curve. Brief economic fluctuations are analyzed through the IS –LM model, the effects of which are examined via the enforcement of public financing and monetary policy in the exercise of economic demand as a whole.

Models of the total economic offer are examined next. These models present a positive inclination as concerning their total offer curve. This may be caused by imperfections or imbalances in the labor market and in the production of a product. From such a total offer curve a brief relationship between inflation and unemployment can be deducted. We will examine the factors, which influence it, its relationship with possible expectations and its form, in the long term.

After gathering the aggregate Keynesian microeconomic system in its totality (total offer and demand), we will probe into matters of political stability, for example, whether political stability plays an active or a passive role, whether it should be exercised according to specific regulations, or whether it depends (each time) on economic politics. We will analyze the role of time lags, Lucas's Critique and last but not least we will define the problem of time inconsistency.

## **FINANCIAL ACCOUNTING**

Teacher: G. Iatrides

Assistant teacher: M. Kontaxi

### Course outline

1. Introduction to Accounting
2. Accounting unit
3. Accounting equality
4. Accounting event
5. Accounting use
6. Accounting result
7. Accounts
8. Accounting Sheets
9. Day book and Day book entries
10. Balance of the general ledger
11. Entry adaptation of accounts
12. Day book entries specifying the accounting result
13. Drawing up accounting sheets with use rates
14. Day book entries of the closing and opening of ledgers
15. Analysis of accounting sheets
16. The use of accounting data in making entrepreneurial decisions

## **STATISTICS II**

Teachers: G. Halkos

### Course outline

1. Revision of the basic concepts of Inferential Statistics (sampling, sampling distributions; the Central Limit Theorem and its significance in Statistics; Parameters estimation: confidence intervals for the population mean and for the population variance; hypothesis testing.
2. Applications of Inferential Statistics (methods for quality control, warning and action limits, mean and range charts and their interpretation)
3. Comparing two samples (confidence intervals and hypothesis testing for two samples: independent and paired samples)
4. Comparing three and more samples (One-way analysis of variance; Computer applications)
5. Non-parametric methods (sign test, Wilcoxon signed rank, Mann-Whitney, Kruskal-Wallis). Chi-square tests of goodness of fit and independence. Computer applications
6. Introduction to regression analysis and correlation (linear correlation, multiple and partial correlation, linear regression, scatter diagrams, regression analysis)
7. Inferences concern the regression coefficients. Checking the statistical significance of the variables and the model.
8. Multiple regression. Testing the overall significance of the model. Problems of regression (non-linear cases and some possible transformations). Regression problems (non-linearity and some possible transformations)
9. Use of Statistical Programs to find the regression line. Discussion of computers' outputs.

## **MANAGERIAL ECONOMICS**

Teacher: I. Kevork

### Course outline

1. THE NATURE AND SCOPE OF MANAGERIAL ECONOMICS: Definition of Managerial Economics, Basic process of decision making, Theory of the firm, Nature and function of profits
2. OPTIMIZATION TECHNIQUES AND NEW MANAGEMENT TOOLS: Methods of expressing average and marginal relationships, Optimization analysis, Constrained optimization, New management tools for optimization
3. DEMAND THEORY: Demand for a commodity, Price elasticity – Income elasticity – and cross-price elasticity of demand, Using elasticities in managerial decision making
4. LINEAR PROGRAMMING (LP): A simple LP maximization problem with two variables, Construction of the mathematical model, Objective function and constraints, Feasible solution space, Graphical solution of LP models, Sensitivity analysis, Examples of LP applications with more than two variables

5. INTRODUCTION TO INVENTORY THEORY: Reasons for stocking physical goods, Inventory policy, Process of operating inventory systems, Single-item Economic Order Quantity (EOQ) model with (a) zero lead-time and (b) positive lead-time, Single item EOQ models with (a) price breaks, and (b) backorders

6. PRICING IN PRACTICE: Pricing of products with interrelated demands, Plant capacity utilization and optimal product pricing, Optimal pricing of joint products produced in fixed and variable proportions, Transfer pricing (a) with no external market for the intermediate product, and (b) with a perfectly and imperfectly competitive market for the intermediate product, Cost-plus pricing, Incremental analysis in pricing

## **INTRODUCTION TO POLITICAL SCIENCE**

Teacher: A. Stergiou

### Course outline

The course tailored for students of economics aims at first to lay the foundations for coming to grips with the basic conceptual toolkit used in political science. Its second goal is to shed light upon the interdependence between political and economic developments of the modern world. Thus, students are expected to get familiar with those necessary concepts and theoretical approaches that are required in order to proceed to higher-level analysis of the various social, political and economic phenomena. It also examines the foundational components pertaining to the emergence of the political process (state, ideologies, power, parties, elections, etc.). The Assessment of the course is based on a final oral or written exam.

## **Fourth Semester**

### **MICROECONOMIC ANALYSIS III**

Teacher: A. Economou

#### Course outline

This course presents standard advanced microeconomic analysis. There are four thematic areas that are discussed in class during lectures. The first one is the mathematic presentation of Consumer Theory: Utility maximization, the duality problem, minimization problem, Kuhn-Tacker theorem, Roy's identity, Slutsky equation. Afterwards, the inputs markets are analyzed with focus on imperfect competition markets. The final topics that are discussed concern General Equilibrium Theory and Welfare Economics, (Pareto optimality, Comparative Statics in the General Equilibrium framework, market failures namely asymmetric information, externalities, public goods, agency problems).

### **MACROECONOMIC ANALYSIS III**

Teacher: A. Anagnostou

#### Course outline

A review of contemporary macroeconomic theories and their applications; analysis of static equilibrium and disequilibrium models; exploration of such models' implications for long run and cyclical behaviour and for policymaking. The course objectives are to have you understand the tools used in modern macroeconomics to address issues of growth and fluctuations and policymaking, and to develop your skill in analyzing real-world behaviour with them. This means in particular

- identifying the different models commonly used for long run vs. short run macroeconomics
- deriving the steady-state behaviour of the long run models
- deriving the sensitivity of steady-state results to changes in parameters (comparative statics)
- deriving the time paths of adjustment to new steady states (macrodynamics), and
- reviewing the New Keynesian rationale for sticky-price modelling

Throughout, our emphasis will be partly on understanding the models, and partly on recognizing and mastering the mathematical and graphical tools being used. We will deal with the long run models first, then with the short to medium run (Keynesian) model.

### **ECONOMETRICS I**

Teacher: G. Halkos

#### Course outline

- Matrix Algebra: Revision of the basic concepts of
- The Classical Linear Regression Model: The basic assumptions. The Ordinary Least Squares method, properties of Least Squares estimators, the Gauss-Markov theorem. The coefficient of determination ( $R^2$ ) as a measure of goodness of fit.
- Multiple linear regression models: estimation and testing (OLS estimates, maximum likelihood estimates, BLUE estimates)
- Normality: Testing the hypothesis of normality
- Heteroskedasticity (the nature of the problem, consequences, detection and remedial measures).
- Autocorrelation (the nature of the problem, consequences of using OLS in the presence of autocorrelation, detecting autocorrelation, remedial measures when the structure of autocorrelations is known and when  $\rho$  is not known).
- Multicollinearity (the nature of the problem, consequences, detection and remedial measures)
- Specification error (the nature of the problem, consequences, detection and remedial measures)
- Extension of the Linear model: Non-linear models and regression on dummy variables
- Using Matrix Algebra in regression

## **HISTORY OF ECONOMIC THOUGHT**

Teacher: M. Zouboulakis

### Course outline

Economics is a discipline that evolves not because some new theories are “discovered” or some old theories are refuted, but also because its subject matter is evolving together with the social context of economic activities. This course aims to describe the evolution of economic thought from the Mercantilists to Keynes, with an emphasis upon the development of the British Political Economy.

1. Aims and objectives of the History of Economic Thought
2. The pre-scientific era of Economic Thought till the 16<sup>th</sup> cent.
3. The proto-scientific era of Political Economy: the Mercantilists.
4. Birth of Political Economy: Quesnay, Turgot.
5. British Classical Economists I: Smith
6. British Classical Economists II: Ricardo
7. British Classical Economists III: J.S. Mill, Senior, Cairnes
8. The critique of Political Economy: Marx
9. Precursors of the Marginalist School: Cournot-Dupuit-Gossen-Menger
10. The Marginalist School: Jevons – Walras – Edgeworth- Pareto
11. The birth of Neoclassical Economics: Marshall
12. American Institutionalism
13. The Keynesian Revolution

## **RESEARCH METHODS - SAMPLING**

Teacher: P. Tzeremes

### Course outline

1. BASIC IDEAS OF SAMPLING: Statistical unit, Population, Variable, Statistical parameters, Census versus sampling, Advantages and disadvantages of sample surveys, Sampling unit, Sampling frame, Random versus non-random sampling, Sampling and non-sampling errors, Causes of non-sampling errors
2. SIMPLE RANDOM SAMPLING: Definitions and notation, Selection of a simple random sample, Method of random numbers, Estimating the population mean – the population total – the population proportion, Sample size determination, Estimating a Mean – Total – or Proportion of a subpopulation, Estimating a Ratio
3. SYSTEMATIC SAMPLING AND UNEQUAL PROBABILITY SAMPLING: Selection of a systematic sample, Conditions of applying systematic sampling, sample selection with probability proportional to size, Sampling with replacement – The Hansen-Hurwitz estimator
4. STRATIFIED RANDOM SAMPLING: Description and notation, Reasons of using stratification, Allocation in stratified random sampling – proportional allocation – Neyman allocation – optimum allocation, Estimating the stratified population mean – the stratified population total – the stratified population proportion, Sample size determination, Estimating a stratified Ratio
5. CLUSTER SAMPLING: Examples and reasons for cluster sampling, Estimating in cluster sampling the population mean – the population total – the population proportion, Sample size determination, Cluster sampling with stratification
6. TWO-STAGE SAMPLING: Description-examples-notation, Finding mean and variances in two-stage sampling, Variances of the estimated mean and the estimated population total, estimation of proportions, sample size determination, Stratified two-stage sampling
7. NON-RESPONSE: Types of non-response, Replacement of non-respondents, Methods of non-response adjustments, population-level and sample-level weighting adjustment, imputation adjustment

## **INTERNATIONAL ECONOMIC ORGANISATIONS**

Teacher: A. Stergiou

### Course outline

The scope of this course is to outline the basic aspects of the international political economy as to shape the theoretical background that would enable the students to understand and interpret the developments of the international economic relations, especially the interactions between markets and politics, i.e. the influence of markets on politics and the influence of policy on markets. Therefore it aims to acquaint the students with the actors, the regimes, the international processes as well as the rules and functions of the international economic and

political relations. Subjects of the course are an introduction into international law, the classical distinct academic schools of the discipline, the study of the trans-border economic problems, and the structural balance of power between and among states and institutions. There is a particular focus on the Bretton Woods System and the rules it has established for commercial and financial relations among states.

## **Fifth Semester**

### **PUBLIC ECONOMICS I**

Teacher: I. Psarianos

#### Course outline

1. The public sector: size and ways of its measurement, evolution through time and qualitative changes
2. Pluralist theory, the classical economic school, and the economically neutral state
3. Neoclassical theory of the public sector, the 'economic problem' and main goals of modern societies
4. Free market, the price mechanism and social welfare
  - a. Public goods
  - b. Externalities
  - c. Missing markets.
  - d. Problems of information
  - e. Imperfect competition
  - f. Inability to achieve economic stabilization
  - g. Inability to achieve a 'satisfactory' income distribution
  - h. Inability to achieve a satisfactory rate of development/growth
5. Collective representation of individual preferences: Arrow's 'impossibility' theorem
6. The State as economic agent: similarities and differences of market and political processes
7. The theory of Public Choice: conditions for a socially beneficial government intervention

### **ECONOMETRICS II**

Teacher: G. Halkos

#### Course outline

- Testing normality and linear form: LR, LM and W tests (criteria of likelihood ratio, Wald and Lagrange multiplier)
- Tests for selecting between linear and logarithmic forms (Box-Cox, Bera-McAleer, McKinnon-White- Davidson)
- Autoregressive Conditional Heteroskedasticity model (testing for ARCH, GARCH model)
- Testing the stability of coefficients (criterion Hansen, CUSUM, CUSUMSQ)
- Regression on dummy dependent variables (the LPM, Logit and Probit models)
- Autoregressive and distributed-lag models: Models with infinite number of lags (Koyck, Solow). Models with finite number of lags: The Almon approach to distributed lag models (the Almon or polynomial distributed lag). Empirical distributed lag models (adaptive expectations model, the stock adjustment, or partial adjustment model, combination of adaptive expectations and partial adjustment models)
- Simultaneous-Equation models: The nature of the models, the identification problem (just or exact identified or over-identified equations). Simultaneous equation methods (recursive models and OLS, Indirect least squares, two-stage least squares)
- Causality in Economics: the Granger test
- Times series econometrics: Main components of time series. Unit roots, spurious regression, testing for stationarity (Dickey-Fuller, Augmented Dickey-Fuller, Phillips-Peron tests), testing for cointegration (Engle-Granger, cointegrating Regression Durbin Watson). Error correction model and cointegration.

### **MONETARY THEORY AND POLICY**

Teacher: S. Papadamou

#### Course outline

This course describes the role of money and financial institutions in recent economies. It provides the main theories of Monetary Economics and analyses monetary and fiscal policy issues in the IS-LM framework. Central Banking behavior is the core of the financial system and the lender of last resort for the banking system. The following subjects will be discussed:

- Introduction to Monetary theory – The macroeconomic framework
- The financial system – Money vs. credit

- Main theories of interest rates
- Commercial and Central Banking
- Money Supply.
- Monetary Policy: Tools and Goals
- Money Demand and its determinants
- Money and Economic Activity – The IS-LM framework
- Fiscal and Monetary policies conducting in the IS-LM framework. Aggregate Demand Aggregate supply and the transmission mechanisms of monetary policy to real economy

## **MANAGEMENT**

Teacher: V. Bellou

### Course Outline

Management offers the basis for understanding the way that organizations operate. The objective of the course is first to familiarize students with the principles of administration, which are enforced in an organization, and second to help them realize their importance for organizational survival and success. In addition, it aims to introduce:

- The basic principles of management
- The evolution of management theories
- The current trends in management
- The analysis of internal and external environment of organizations
- Organizational planning and decision making
- Organization of operations
- Leading of employees
- Controlling and feedback
- The role of managers within organizations

## **ECONOMIC GROWTH THEORY**

Teacher: I. Psarianos

### Course outline

1. Similarities and differences with the process of economic development. Differences in levels and rates of increase of domestic product in a broad sample of countries
2. The neoclassical model and definition of the steady state
3. Exogenous technological progress and “growth accounting”
4. The neoclassical model with natural resources and environmental pollution
5. The neoclassical model with intertemporal optimization
6. The marginal product of accumulable factors of production and endogenous economic growth
7. Growth with positive externalities from the accumulation of physical capital
8. Growth with human capital accumulation
9. Growth with endogenous technological progress
10. Comparison of the models, issues of economic policy and reference to growth promoting factors

## **EUROPEAN UNION ECONOMICS**

Teacher: Th. Metaxas

### Course outline

This module aims to present and discuss the European Union’s and its institutions environment but also policies, strategies and particular actions that the operation of the members’ states economies and societies based on. Especially the module focused on the last 30 years since the European Union’s environment faced so many geopolitical, economical and social changes. These phenomena in combination with the current financial crisis in Greece and in the wider area of European South are the main subjects of the lectures and also scientific areas of analysis through assignments that the students should develop.

1. Decision making analysis process in European Union
2. European Union historical background
3. Financial analysis of European Union



4. Tax competition
5. Business competition policy
6. Regional Policy
7. Industrial Policy
8. Common Agricultural/ Rural Policy
9. Social Policy
10. Common Internal Market
11. Common Policy of Defense and Security
12. R/D
13. Environmental Protection Policy
14. European Integration
15. Greek Economy – South European Economic Crisis
16. Cases Studies

## **ECONOMIC ANALYSIS OF SOCIAL POLICIES**

Teacher: A. Economou

### Course outline

This course provides an examination of social welfare policy issues (such as poverty, social insurance, homelessness and health care) and the significance of social, economic, and political factors that influence policymaking and implementation. The topics that will be covered in lectures will be subdivided in four major topics: health, labor market, education and welfare (income security and income inequality policies). The social policies of the US and the European Union countries will also be discussed in lectures, with a special emphasis on the Greek social policy and welfare and the current crisis that is experienced regarding the efficiency and the survivability of the Greek welfare system.

1. Introduction
2. Historical overview. The European Social Policy
3. Welfare state (definition, goals, historical evolution). The contemporary and modern shortcomings of the welfare state
4. Social Policy (definition, implementation, shortcomings, different schools of thought regarding the implementation of social policy)
5. Economic theory and social protection
6. Reason for public intervention and provision of welfare
7. Structure and financing of the social protection schemes
8. Poverty and Homelessness, policies to address income inequality and poverty
9. Retirement and social welfare schemes
10. Health care policy
11. Employment policy
12. The future of social policy; current issues, concerns and modern challenges

## **Topics in Applied Microeconomics (in English)**

Lectures: Faculty Staff (joint course in English language)

Course Convener: Asst. Prof. Athina Economou

### Course Outline

This module provides an opportunity to study a variety of topics from the broad field of Microeconomic Analysis. The course builds upon the basic principles of Microeconomics that were covered in Microeconomic Analysis I and II and highlights the use of microeconomic techniques (for example, micro-econometrics and mathematical modelling) to analyse real world problems and contemporary policy issues. The module will cover several topics among which labour market modern issues of interest and firms' operation and current research challenges.

### Course Schedule

"Overview of the Labour Market", Asst. Prof. Athina Economou,

"Evolution of the Theory of the Firm", Prof. M. Zouboulakis

"Production Frontiers", Assoc. Prof. N. Tzeremes,

"Capital Structure and Cost of Capital", Prof. G. Iatridis,

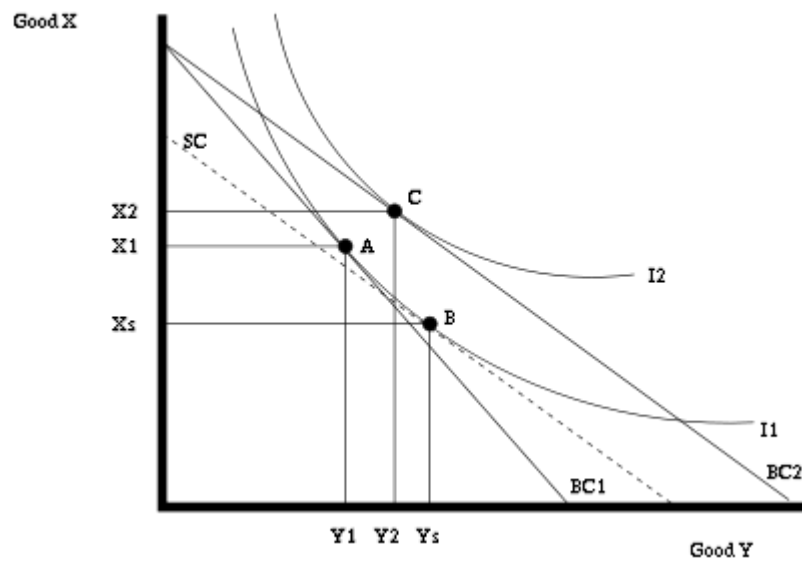
"The Innovative Firm: Beyond Maximizing Shareholder Value" Asst. Professor Y. Stamboulis,

"Microeconomics models in a two-level supply chain", Assoc. Prof. H. Kevork,

"Why firms cluster in space", Assoc. Prof. P. Arvanitidis.

#### Assessment

6 homeworks in six out of the seven topics that will be analysed in lectures. The final grade of each student is calculated as the weighted average of the grade in each homework. Additional information and guidelines will be provided during lectures.



## **Sixth semester**

### **REGIONAL ECONOMICS**

Teacher: P. Arvanitidis

#### **Course outline**

The course aims to provide students with a deep understanding of the interaction between space and economy. In particular the course will analyze issues related to the location and distribution of economic activities, the economics of agglomeration, the spatial structure of economy, regional specialization, multiplier analysis and labor market analysis.

The course is organized as follows:

- Introduction: Economy and space. The regional science
- Location theory: The location-production models of Hoover, Weber and Moses. Market area analysis and the models of Losch, Palander and Hotelling. Behavioral Theories of Firm Location
- The Spatial Distribution of Activities: Central place theories of Christaller and Losch. Urban systems. Agglomeration economies. Spatial concentration and regional diversification
- The Spatial Structure of the Urban Economy: The classical bid-rent theory of Richardo and Von Thunen. Modern urban bid-rent theory, land prices and land uses of economic activities
- Regional Specialization and Multiplier Analysis: The economic base model. Keynesian regional multiplier. Regional Input-Output analysis
- Regional and Inter-Regional Labor Market Analysis: Regional labor markets. Wages and inter-regional labor migration. Other models of inter-regional migration
- Quantitative methods of regional analysis: Simple statistical measures. Measures of dispersion. Measures of spatial concentration and diversification

### **CORPORATE FINANCE**

Teacher: G. Iatrides

#### **Course outline**

1. Introduction
2. Firm characteristics and business goals
3. Management and directors
4. User groups of financial information
5. Financial statements
6. Ratio analysis
7. Break-even analysis
8. Stock market efficiency
9. Cost of capital
10. Time value of money, present and future values
11. Investment appraisal
12. Working capital
13. Stock valuation
14. Dividend policy
15. Mergers and acquisitions

### **INTERNATIONAL TRADE**

Teacher: I. Kaskarelis

#### **Course outline**

This course analyses the theory and policy of international trade. In the first part the course focuses on traditional models of international trade, such as the Ricardian model and the Heckscher-Ohlin model. It then discusses contemporary models based on economies of scale and imperfect competition. In the second part the course investigates the most important tools of trade policy, such as tariffs, quotas, non-tariff measures etc.

## **ECONOMICS OF INSTITUTIONS (NEW INSTITUTIONAL ECONOMICS)**

Teacher: P. Arvanitidis

### Course outline

The aim of the course is to equip students with the basic principles, concepts, and analytical tools of the New Institutional Economics. In particular the course will enable: (a) The smooth transition from the neoclassical thought to the dimensions and rhetoric of the Institutional Economics, (b) the familiarization and understanding of the key concepts and tools availed by the New Institutional Economics and (c) the understanding of the contribution of the New Institutional approach to the analysis of the economy.

The course is organized as follows:

- Introduction and overview of the course
- The economic man, behavioral hypotheses and methodological dilemmas
- The concept and theory of institutions
- Transaction costs
- Property rights
- Contractual obligations and contract theory
- Organizational structures: market, state, firm
- Institutional change

## **SOCIOLOGY**

Teachers: A. Stergiou (Co-lectured with Penelope Vergou)

### Course Outline

This optional course tailored to students of economics provides a general introduction in the discipline of the Sociology. It aims to acquaint the students with fundamental terms and notions of the sociology as well as their interdependence with the economic terms and notions. One expected learning outcome on the course is also to shape the necessary theoretical background for interpreting the economic developments and phenomena in the modern world. Besides that, it is also offered an introduction into some basic cultural and ethnic and institutional aspects of the human and social activity. The Assessment of the course is based on a final oral or written exam.

## **PUBLIC ECONOMICS II**

Teacher: Ch. Kollias

### Course outline

The module starts with an examination of the economic role of the government and its impact on economic agents and the economy. It then turns to examine the budgetary process, public revenues and expenditures and the effects they have on economic activity and economic agents. It addresses themes of fiscal policy in relation to contemporary fiscal issues of the Greek economy.

1. Taxation and public spending: an overview of their relation
2. Basic concepts of taxation theory
3. Tax burden and allocation theory
4. Spill over of the tax burden
5. The impacts of taxation on labor supply
6. The impacts of taxation on economic prosperity of household and on the societal economic prosperity
7. The impacts of taxation on employment policy
8. The impacts of taxation on welfare and poverty
9. Redistribution effects of taxation
10. The impacts of taxation on national income
11. Automatic stabilizer of the economy
12. The Greek taxation system

## **MARKETING**

Teacher: A. Barlas

### Course outline

The course aims to familiarize students with the basic principles and theories, the instruments and philosophy of marketing within the framework of the current business setting. Emphasis is given on the relationship between Marketing and other organizational departments. The subjects examined within this course include:

- The concept of Marketing
- The Marketing mix
- The macro and micro environment
- The value of Marketing for society
- Customer behavior
- Marketing research
- Market segmentation
- The product mix and the development of new products
- Pricing strategies
- Placement strategies
- Marketing channels
- Promotion strategies

## **Topics in Applied Macroeconomics (in English)**

Lectures: Faculty Staff (joint course in English language)

Course Convener: Ch. Kollias

The course addresses and examines contemporary applied macroeconomic themes. It aims to act as a bridge between macroeconomic theory and real-world policy issues in the current European and international economic environment. Building on students' knowledge of macroeconomic theory, it aims to enhance their understanding of the dominant policy issues and the policy decisions by national governments and European Union institutions. Topical and perennial macroeconomic policy issues will be discussed and examined from a theoretical and applied perspective. Themes examined include the difference between short-run and long-run analysis in macroeconomics using the neoclassical/keynesian models controversy, fiscal and monetary policy in the context of European integration, inflation and unemployment and the effects of monetary and fiscal policies on these aggregates, the recent fiscal and debt crisis, challenges posed by the changes in the global economic environment. Topics examined in the lectures will may vary depending on the changes in the European and international macroeconomic environment.

## **Seventh Semester**

### **Major: Institutions and Economic Development**

#### **ECONOMIC DEVELOPMENT (THEORY AND POLICY)**

Teacher: Th. Metaxas

##### Course outline

The main aim of this module is the analysis and examination of development theories and also the discussion of development policies especially in the area of developing countries. The module used theoretical and empirical background, several case studies in order to provide a clear view about the character and also the implementation of development issues and practices in international scale.

- Classical theories of economic growth and development (Smith, Ricardo, Marx, Mill)
- Theories of social dualism (Boeke, Mc Clelland, Hagen),
- Theories of economic dualism (Lewis, Fay-Ranis),
- Under-development theories
- Industrialization theories
- Planning development in less development areas
- Practical issues
- Case studies

#### **INSTITUTIONS AND DEVELOPMENT**

Teacher: P. Arvanitidis

##### Course outline

The aim of the course is to provide students with a deep understanding of the different strands of Institutional Economics and their approaches to economic development. In particular the course will clarify the conceptual and methodological differences between New and Original Institutional Economics and provide an overview of their approaches (theories and methods) to development problems and processes.

The course is organized as follows:

- Introduction and overview of the course
- Institutional analysis of the economy: trends and schools in Institutional Economics
- New Institutional Economics: philosophy, principles, concepts and methods of analysis
- Original Institutional Economics: philosophy, principles, concepts and methods of analysis
- Evaluation of the New and Original Institutional Economics (seminar)
- New Institutional Economics approach to economic development
- Original Institutional Economics approach to economic development
- Case studies of institutional analysis (New and Original Institutional Economics approaches)

#### **REGIONAL DEVELOPMENT AND POLICY**

Teacher: S. Niavis

##### Course outline

The aim of the course is to provide students with the knowledge and skills required to analyze regional development, spatial planning and policy and territorial cohesion. In particular the course will enable: (a) the understanding of the factors causing spatial disparities and affecting the formation of regional policy and (b) the analysis and critical assessment of the available policy instruments.

The course is organized as follows:

- Theories of spatial development
- Methodological issues and methods assessing regional disparities
- Regional development and disparities in Greece
- Regional development and disparities in the European Union
- The necessity of regional policy
- The dilemmas and targets of regional policy
- The overall environment and framework for regional policy
- The instruments of regional policy

- Regional policy in Greece
- Regional policy and the European Union

## **INTERNATIONAL POLITICAL ECONOMY (in English)**

Teacher: Ch. Kollias

### Course outline

The module starts with an overview of the thematic coverage of topics and theories of IPE. It examines the structure of the international system, the role and importance of the key economic and political agents and players – states, economy, international economic organizations and governance of the world economy, international economic policy making, the interplay between global and domestic economics and politics. Issues such as globalization, developmental issues and income inequalities, migration are examined in the lectures.

## **LABOUR ECONOMICS**

Teacher: A. Economou

### Course outline

This course provides an introduction to the theory and practice of contemporary Labor Economics. The course will introduce students to major topics in the field, namely labor supply and labor demand, migration, investments in human capital, wage determination, the economic impact of trade unions, earnings inequality, and unemployment. A good knowledge in microeconomics and macroeconomics and a basic knowledge of econometrics is required by students. The course outline is as follows:

1. Introduction to Labor Economics
2. Labor demand
3. Labor supply
4. Labor market equilibrium
5. Human capital theory
6. Labor mobility
7. Unions and the labor market
8. Wage differentials
9. Unemployment
10. Income distribution and income inequalities

## **THEORIES OF ECONOMIC EVOLUTION**

Teacher: Em. Economou

### Course Outline

The course will cover the ideas of the major economists from the 17<sup>th</sup> Century to now. The course will concentrate on the central economic theories contained in the writings of the major economists, particularly Smith, Malthus, Ricardo and Mill, Marx etc. The course will cover the major theories of economic growth, population, value and price, wages, profits, and rents, international trade, monetary theory, and the role of government. Attention will be given to the surrounding intellectual, political, and economic context within which these ideas were developed.

## **AGRICULTURAL ECONOMICS**

Teacher: S. Niavis

### Course outline

The rationale of the course "Agricultural Economics" aims at familiarizing students who will choose it with the special conditions of the agricultural economy. Therefore, through the series of lectures and having taught the basic courses of economic analysis, students will be able to test in practice how fundamental laws and models of economic theory find their application in the primary production sector. In addition, the students will be able to

perceive the importance of the agricultural sector in fulfilling the objectives of social prosperity and balanced development. At the end of the lectures, the students will have developed a comprehensive picture of the rural economy, acquainted with useful methodological tools, and finally will be able to understand the usefulness of economic analysis for various problems of the agricultural sector that will probably help them tailor their future academic and professional development towards the confrontation of these issues.

### **Structure of Lectures**

#### **Section 1 – Productive Structure of Agricultural Sector**

- Productive Structure of Agricultural Businesses
- Income and Cost of Agricultural Businesses
- Profitability and Sustainability of Agricultural Businesses

#### **Section 2 – Agricultural Products Market**

- Agricultural Products Price Determinants
- Agricultural Products International Market
- Market Equilibrium and Unexpected Changes
- Farmers' Protection Measures

#### **Section 3 – Policy Framework of the Primary Sector**

- The Contribution of the Primary Sector to Regional and National Economy
- Introduction to the Common Agricultural Policy (CAP)
- Structure of National Agricultural Policy Framework
- Introduction to the Structure of Improvement Plans

## **RESEARCH METHODS**

Teacher: Th. Metaxas

### Course outline

This module aims to present and analyze the meaning and the significance of scientific research both in theoretical and empirical level. The starting point is the identification and the schedule of research process in order to implement the research by using particular methods and practices. Important subjects are the creation of questionnaires, the data analysis, the presentation of the research outcomes and the overall evaluation. The module uses several cases studies.

1. Meaning, course and philosophy of the research
2. Main points and practices in empirical research
3. Methodology of scientific research
4. Planning and implementing research
5. Kinds of research
6. Methods of research
7. Ways, means and tools of research
8. Data analysis
9. Presentation I: Writing a research
10. Presentation II: Writing a scientific article
11. Evaluation of research outcomes/ results
12. Cases studies



## **Seventh Semester**

### **Major: Banking and Finance**

#### **INTERNATIONAL BANKING AND FINANCE**

Teacher: S. Papadamou

##### Course outline

This course presents the financial environment in which modern banks are operating. Money and Capital market instruments are analyzed. More attention is paid on international development of banking activities. The following subjects are presented:

##### Part A: The International Financial Environment

Introduction to Banking and the International Financial Markets (Financial Intermediation, the size and the physiognomy of banks, main risks that banks face)

Foreign Exchange markets

Interest rate Parities and Purchasing Power Parity

Central bank Intervention in Foreign Exchange Markets

Exchange rate systems (Floating vs. Fixed)

##### Part B: International Money and Capital Markets

Money Market Instruments

Bond Market Instruments

The term structure of Interest Rates

##### Part C: International Banking

Bank structures

Bank Regulation

International Lending

World Debt Financial

Crises

Derivatives and Risk management

#### **ISSUES IN FINANCIAL ACCOUNTING**

Teacher: G. Iatrides

##### Course outline

1. Introduction
2. Theoretical background
3. Conceptual framework
4. Theories of financial accounting
  - a. Positive theories
  - b. Normative theories
  - c. Deductive approach
  - d. Inductive approach
5. International Accounting Standards
  - a. Introduction
  - b. Conceptual framework
  - c. Analysis of selected International Accounting Standards
6. Special topics in financial accounting
  - a. Firm profitability
  - b. IFRS 1 "Reporting Financial Performance"
  - c. Tangible fixed assets
  - d. Research and development
  - e. Stock valuation
  - f. Goodwill
  - g. Intangible fixed assets
7. Advanced financial ratio analysis
8. Auditing

## **INTERNATIONAL MONETARY RELATIONS**

Teacher: I. Kaskarelis

### Course outline

This course aims at examining the structure of the international monetary relations. It first focuses on the determination of short term and longer-term prices and output in the open economy. It then analyses the performance of fixed and flexible exchange rates as well as the role of Central banks in the foreign exchange market. Finally it describes the international monetary system and puts some light on both the debt problems of developing countries as well as the monetary challenges of post-communist economies.

## **ECONOMIC DYNAMICS**

Teacher: L. Zachilas

### Course outline

1. The basics of Economic Dynamics
2. Continuous Dynamic Systems: Definitions, Linear Differential Equations of 1<sup>st</sup> order, Phase space
3. Homogeneous linear differential equations of 2<sup>nd</sup> order
4. Discrete Dynamic Systems: Definitions, Initial Value problems, the cobweb model, equilibrium and stability, Solving 1<sup>st</sup> order difference equations
5. Solving 2<sup>nd</sup> order difference equations, the logistic equation
6. Systems of 1<sup>st</sup> order differential equations: Definitions, the phase plane, fixed points and stability, Matrix specification of autonomous systems, solving the homogeneous differential equation system, nodes-spirals and saddles.

## **URBAN ECONOMICS AND REAL ESTATE**

Teacher: P. Arvanitidis

### Outline

The aim of the course is to provide students with the conceptual and analytical tools to understand the mechanisms of the real estate market in the formation of the urban built space.

The course is organized as follows:

- Introduction and overview of the course
- Definition and characteristics of the real estate and the real estate market
- Mechanisms and functions of the market: microeconomic conventional and conceptual models
- Location of activities and real estate demand
- The urban land market: land rents and land uses
- Real estate supply: heterodox approaches (Marxist, Structure and Agency, Institutional analysis)
- Real estate development and finance
- Macroeconomics and the real estate market: market cycles, bubbles, maturity and efficiency of the market
- Corporate real estate and real estate management

## **INDUSTRIAL ORGANIZATION**

Teacher: N. Tzeremes

### Course outline

The course of Industrial Organization provides basic knowledge about the structure of markets and their competitive conditions. It provides basic knowledge of: measures of concentration, the structures of markets, entry barriers and oligopoly models. In addition an emphasis is placed on firm strategy. For this purpose, the course also focuses on teaching game theory, which is the main tool of economic science that enables the analysis of the strategic behavior of firms.

## **RESEARCH METHODS**

Teacher: Th. Metaxas

### Course outline

This module aims to present and analyze the meaning and the significance of scientific research both in theoretical and empirical level. The starting point is the identification and the schedule of research process in order to implement the research by using particular methods and practices. Important subjects are the creation of questionnaires, the data analysis, the presentation of the research outcomes and the overall evaluation. The module uses several cases studies.

1. Meaning, course and philosophy of the research
2. Main points and practices in empirical research
3. Methodology of scientific research
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5. Kinds of research
6. Methods of research
7. Ways, means and tools of research
8. Data analysis
9. Presentation I: Writing a research
10. Presentation II: Writing a scientific article
11. Evaluation of research outcomes/ results
12. Cases studies

## **Seventh Semester**

### **Major: Business Economics**

#### **MANAGEMENT SCIENCE**

Teacher: I. Kevork

##### Course outline

1. PRIOR AND POSTERIOR ANALYSIS IN DECISION MAKING: Construction of Payoff tables, Maximin and Maximax payoff criteria, Minimax regret criterion, Payoff tables with and without additional information, Decision trees with additional information
2. LINEAR AND INTEGER PROGRAMMING: Problem formulation, Interpreting the solution – sensitivity analysis, Linear and Integer programming applications to business problems, Solving problems using computer software
3. QUEUING MODELS: Elements of a queuing model and its dynamic evolution, Evaluation criteria of a queuing model in steady-state conditions, Cost models, Capacity determination of a queuing system
4. INVENTORY MODELS: Inventory systems with stochastic demand, Single period inventory models – The newsvendor problem, Continuous review inventory systems (Q,R), Periodic review inventory systems
5. MARKOVIAN DECISION ANALYSIS: Markov Chains, Transition Table and the calculation of steady-state probabilities, Applications of decision making with Markovian processes, Solving problems with computer software

#### **OPERATIONS MANAGEMENT**

Teacher: A. Barlas

##### Course outline

The course aim is enable students to familiarize with and comprehend modern approaches to operations management across the spectrum of enterprises and organizations. Students should be able to develop critical comprehension of the processes and structures that construct a production system, as well as of the underlying principles and assumptions, so that they may be able to analyze its operations, design and control its behavior. Particular attention is given to the need for economics students to explore the “black box” of operational reality and to be able to comprehend the economic implications of operational and strategic choices made at the firm/organizational level.

#### **INDUSTRIAL ORGANIZATION**

Teacher: N. Tzeremes

##### Course outline

The course of Industrial Organization provides basic knowledge about the structure of markets and their competitive conditions. It provides basic knowledge of: measures of concentration, the structures of markets, entry barriers and oligopoly models. In addition an emphasis is placed on firm strategy. For this purpose, the course also focuses on teaching game theory, which is the main tool of economic science that enables the analysis of the strategic behavior of firms.

#### **ORGANIZATIONAL BEHAVIOR**

Teacher: V. Bellou

##### Course outline

Organizational behavior is the scientific study that emphasizes the understanding of employee behavior at an individual, group and organizational level, borrowing concepts and methods from different sciences, such as psychology, sociology, political science, and anthropology. The course aims at familiarizing students with organizational issues, including

- Individual characteristics, values attitudes, perceptions and personality
- Group dynamics
- Conflict management
- Communication
- Motivation
- Leadership
- Power
- Organizational change and development.

## **ISSUES IN FINANCIAL ACCOUNTING**

Teacher: G. Iatrides

### Course outline

1. Introduction
2. Theoretical background
3. Conceptual framework
4. Theories of financial accounting
  - a. Positive theories
  - b. Normative theories
  - c. Deductive approach
  - d. Inductive approach
5. International Accounting Standards
  - a. Introduction
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  - c. Analysis of selected International Accounting Standards
6. Special topics in financial accounting
  - a. Firm profitability
  - b. IFRS 1 “Reporting Financial Performance”
  - c. Tangible fixed assets
  - d. Research and development
  - e. Stock valuation
  - f. Goodwill
  - g. Intangible fixed assets
7. Advanced financial ratio analysis
8. Auditing

## **URBAN ECONOMICS AND REAL ESTATE**

Teacher: P. Arvanitidis

### Outline

The aim of the course is to provide students with the conceptual and analytical tools to understand the mechanisms of the real estate market in the formation of the urban built space.

The course is organized as follows:

- Introduction and overview of the course
- Definition and characteristics of the real estate and the real estate market
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- Location of activities and real estate demand
- The urban land market: land rents and land uses
- Real estate supply: heterodox approaches (Marxist, Structure and Agency, Institutional analysis)
- Real estate development and finance
- Macroeconomics and the real estate market: market cycles, bubbles, maturity and efficiency of the market
- Corporate real estate and real estate management

## **INTRODUCTION TO ENTREPRENEURSHIP**

Teacher: G. Stamboulis

### Course outline

The objective of the course (during the winter semester) is to familiarize students with basic entrepreneurial knowledge and culture. The course focuses on strategic entrepreneurship rather than operational or financial aspects, giving emphasis on the resource-based view perspective. Emphasis is given to market positioning the establishment of competitive rather than comparative advantage and competitive analysis. The aim of the course is for students to develop and present an entrepreneurial idea from conception to business model. In order to do that, they must comprehend social needs and dynamics and explore user needs, as well as technological trends. Then they must come up with an entry strategy and explore a viable business model.

The course is the first part of the Innovation and Entrepreneurship Program of the University of Thessaly. The objective of the program is to develop the entrepreneurial and innovation skills of the students and to encourage them to view the creation of businesses as a livelihood option, while developing their perception of the various obstacles. A mixture of different educational tools is used: team working, speeches by invited - mainly young - entrepreneurs and work with experienced mentors, site visits to innovative businesses, support of student teams through specialized guides and tools and team coaching and hosting of events and competitions. During the program students are expected to organize themselves in teams (simulating a real start-up endeavor) and present their ideas and plans in writing as well as to defend them orally.

## **RESEARCH METHODS**

Teacher: Th. Metaxas

### Course outline

This module aims to present and analyze the meaning and the significance of scientific research both in theoretical and empirical level. The starting point is the identification and the schedule of research process in order to implement the research by using particular methods and practices. Important subjects are the creation of questionnaires, the data analysis, the presentation of the research outcomes and the overall evaluation. The module uses several cases studies.

1. Meaning, course and philosophy of the research
2. Main points and practices in empirical research
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6. Methods of research
7. Ways, means and tools of research
8. Data analysis
9. Presentation I: Writing a research
10. Presentation II: Writing a scientific article
11. Evaluation of research outcomes/ results
12. Cases studies

## **Eighth Semester**

### **Major: Institutions and Economic Development**

#### **THEORY OF ECONOMIC POLICY**

Teacher: S. Niavis

##### Course outline

1. Reasons for exercising economic policy. Objectives and means in traditional discretionary economic policy.
2. Social preferences and the social welfare function.
3. Static models of fixed and variable objectives under conditions of certainty.
4. Dynamic models of economic policy: time lags and expectations.
5. Optimal control rules and the efficiency of discretionary economic policy under rational expectations.
6. Modern theoretical approach to economic policy: the problem of time inconsistency.
7. Facing time inconsistency: policy of credible commitments.

#### **ENVIRONMENTAL ECONOMICS**

Teacher: G. Halkos

##### Course outline

1. Economics and the environment: The economy-environment linkage. Necessary terminology (energy, ecology, environmental pollution, characteristics of the various pollutants)
2. Environment and Development: Concepts of Sustainability. Environmental Kuznets Curve hypothesis.
3. Welfare Economics and the Environment (public and private goods, common property goods. The tragedy of the commons. The basic economic problems. Welfare criteria. Analysis of Partial and General Equilibrium).
4. Market failure and the government: Public goods, externalities, monopolies and imperfect information. Solutions to market failures. Determination of the optimal pollution level.
5. Achieving optimal environmental protection: Pigouvian taxes; property rights and Coase theorem.
6. The Economics of Environmental Regulation: Economy wide effects of regulation, environmental regulation under uncertainty, markets for pollution control, tradable permits, non-point source pollution, monitoring and enforcement. Choice and comparison of policy instruments. Uncertainty and the choice of policy instruments: Price or quantity controls?
7. Environmental Management Systems: EMAS / ISO 14001 and their applications in Greece and in Europe.
8. Valuing the environment: CBA, cost-effectiveness, hedonic pricing, travel cost, contingent valuation. Methods of damage evaluation.
9. International environmental problems: The dimensions and solutions of the problems (acid rain, global warming, ozone depletion, biodiversity, desertification, etc.).
10. Discounting the future: Time in economic analysis

#### **GREEK ECONOMY**

Teachers: M. Zouboulakis & Ch. Kollias

##### Course outline

The course presents the historical evolution, the structure, the main problems as well as the perspectives of the Greek Economy. The aim of this course is to prepare future economists to deal with the macroeconomic reality they will face after their graduation.

The module examines the development of the Greek economy and the phases it has gone through over the years starting with the examination of the economic and production structure in the early years of national independence though to the first post-war decades focusing on key economic indicators and the development of institutions. It then concentrates on the performance of the economy in the last decades through a periodization focusing on the characteristics of each period on the basis of key macroeconomic indices and aspects of the economic policy. It examines the development of the main economic sectors, brings to the forth structural problems and weaknesses and takes up topics and themes of the current economic situation.

## **TOURISM DEVELOPMENT AND PLANNING (in English)**

Teacher: Th. Metaxas

### Course outline

This module aims to present the tourism development in European and international scale in the frame of strategic planning process as tool of a successful and sufficient way of development. The module based on theoretical and empirical studies in order to analyze all the factors that combine the meaning and the practice of tourism development by using modern methodologies and procedures.

- Identification of tourism as economic parameter
- Identification of tourism development in international scale
- European and International experience
- Tourism demand and supply – Global trends
- Tourism industries
- Combine tourism and culture
- Models of tourism development
- From mass tourism to alternative forms of tourism
- Planning tourism development
- Planning the tourism good (product or service)
- Place Marketing και Branding
- Tourism products' marketing
- Tourism Strategic development plans
- Tourism and industrial heritage
- Greek tourism industry
- Tourism industry and economic crisis
- Cases studies

## **ECONOMIC INTEGRATION – GLOBALIZATION – GEOSTRATEGIC ASPIRATIONS**

Teachers: I. Kaskarelis

### Course Outline

This course will examine the relevance or the contradiction between economic integration, globalization and geostrategic ambitions of major states of the world. The perspective from which to examine this relationship is the triptych society-economy-politics as an interrelated whole. We will look at what is globalization and its relationship to economic integration. Beyond the historical background and comparisons, we should focus on governments (which options are limited by international agreements and commitments undertaken by their counties' memberships to international organizations), societies (eventually subjects and possibly somehow principals on the way to globalization) and the consequences of their decisions on the economy. So you should look at the role and evolution of the state, in relation to social fluidity, social values and priorities, education and culture, the relationship between man and the natural environment, and the capitalist economic system. In the last section after a brief historical reference in Geopolitics, we will refer specifically to geostrategic objectives from specific countries which wish to play an important role in global political-military-diplomatic and economic scene. We will see the importance and the potential financial implications of these moves.

### Learning Outcomes

The goal of this course is practicing rational thinking beyond economics.

This teaches us that economic science looks like a picture of a playground when it's sunny and not windy, and the kids come to play and socialize together. Things are not so when those who have the power (military, diplomatic, economic, political, cultural) are not satisfied. This also implies that scientific thought might be endogenous, that is it can be occasionally used to change the frame, or highlight trivial issues. Organizing society, the state, influence the masses, international relations and geopolitics are also examined.

### Evaluation Test

Written examination at the end of the semester.

The students must prove that he has read and understood the course material. A key element is the option that will show to properly use scientific terminology when formulating his thought.



## DEFENSE ECONOMICS

Teacher: Em. Economou

### Course outline

The defense economics course applies the methodological tools of economic theory to the study of defense and security. Following a presentation of comparative data on world military expenditures, it then moves on to examine the demand function for defense and its determinants with particular emphasis on the Greek defense sector. Topics that are examined include the economic theory of alliances, arms races, defense as a public good, defense and the economy, the defense industry and the economic effects of indigenous arms production. Finally, it addresses issues of resource allocation and efficiency in the defense sector.

## GAME THEORY

Teacher: I. Psarianos

### Course outline

1. Static, non-cooperative and non-constant sum games of complete and perfect information.
2. The concept of *strategy*, weak and strong dominance.
3. *Nash equilibrium* in *pure* strategies.
4. Multiple Nash Equilibria and indeterminacy.
5. Non-existence of Nash Equilibria in pure strategies, repeated static games and *mixed* strategies.
6. Finite *dynamic* games of complete and perfect information.
7. Credibility, signaling, backwards induction and sub-game perfect Nash equilibrium.
8. Uncertainty and *asymmetric* information. *Adverse selection* and *moral hazard*.

## **Eighth Semester**

### **Major: Banking and Finance**

#### **TIME SERIES ANALYSIS AND FORECASTING**

Teacher: A. Anagnostou

##### Course outline

The course intends to familiarize students with the principal techniques in Financial Econometrics. Moreover, the course aims to facilitate awareness in students of how these techniques can be used and applied on real data, and provide the necessary background to understand and critically assess empirical findings reported in the financial literature, as well as to carry out their own empirical research in the future. Upon completion of the course students should:

- become familiar with econometric tools employed in Finance
- have acquired the ability to apply and interpret econometric techniques used in Finance
- be able to demonstrate an ability to apply the various techniques through the use of standard econometric software (EViews)
- feel confident to evaluate existing empirical work in Finance and to carry out their own empirical work

#### **PORTFOLIO MANAGEMENT**

Teacher: S. Papadamou

##### Course outline

The portfolio theory developed by H. Markowitz is presented. Additionally issues concerning market efficiency and asset pricing valuation are discussed. More specifically the following subjects are presented:

1. Investment Risk and Return
2. Risk averse behavior
3. Modern Portfolio Theory
4. Capital Asset Pricing Model - CAPM.
5. Arbitrage Price Theory - APT
6. Technical and Fundamental Analysis
7. Market Efficiency
8. Greek Stock Market
9. Active or Passive Management - Style Analysis
10. Mutual Funds and Performance Evaluation

#### **MANAGEMENT ACCOUNTING**

Teacher: G. Iatrides

Assistant teacher: M. Kontaxi

##### Course Outline

1. Introduction
2. Inventory valuation
3. Job order costing system
4. Process costing system
5. Full costing
6. Marginal costing
7. Standard costing
8. Inverse costing
9. Just in Time
10. Joint products and byproducts
11. Activity-based costing
12. Budgeting

## INVESTMENT APPRAISAL

Teacher: P. Tzeremes

### Course outline

1. Time value of money
2. Fisher model for investment and consumption decisions
3. Investment criteria under certainty: a) Traditional criteria Payback period, Average Rate of Return; b) Discounted cash flow methods: net present value, internal rate of return benefit cost ratio
4. Special investment decisions: Annual Equivalent Cost, Annual equivalent net cash flows, leasing vs. traditional loans
5. Cash flows, treating depreciation, taxes and inflation
6. Socioeconomic methods of investment appraisal
7. Maximization of social surplus
8. Capital market imperfections, Shadow versus market prices
9. Measuring social costs and social benefits of a project
10. Investment criteria under uncertainty: traditional methods, maximization of expected utility and the capital asset pricing model on investment decisions. Sensitivity analysis

## GAME THEORY

Teacher: I. Psarianos

### Course outline

1. Static, non-cooperative and non-constant sum games of complete and perfect information.
2. The concept of *strategy*, weak and strong dominance.
3. *Nash equilibrium* in *pure* strategies.
4. Multiple Nash Equilibria and indeterminacy.
5. Non-existence of Nash Equilibria in pure strategies, repeated static games and *mixed* strategies.
6. Finite *dynamic* games of complete and perfect information.
7. Credibility, signaling, backwards induction and sub-game perfect Nash equilibrium.
8. Uncertainty and *asymmetric* information. *Adverse selection* and *moral hazard*.

## MULTINATIONAL FIRMS

Teacher: N. Tzeremes

### Course outline

The course focuses on the definition and implementation of corporate strategy in global operations. It explores the political and socio-economic environments in which firms are embedded, and it develops skills to deal with these unique challenges. As such, it covers four major areas, closely interrelated:

- a) The nature and role of trans-national corporations in the new era.
- b) The definition of alternative strategic configurations, to defend global competitive advantage.
- c) The design of structural solutions for maintaining control in the midst of extreme diversity.
- d) The evaluation of different market entry modes, that best suit business and market conditions.

## **Eighth Semester**

### **Major: Business Economics**

#### **SMALL MEDIUM ENTERPRISES MANAGEMENT**

Teacher: V. Bellou

##### Course outline

Nowadays, examining Small-Medium Enterprises (SME) is considered to be critical for students, as the vast majority of organizations fall in this category. The intention of the course is to present to students the particularities of SME along with the context they operate within. The main subjects under examination are:

- The profile of SME
- The profile of the SM Entrepreneur
- Business plans in SME
- HRM in SME
- MKT in SME
- Project management in SME
- Creativity and innovation in SME

#### **MANAGEMENT ACCOUNTING**

Teacher: G. Iatrides

Assistant teacher: M. Kontaxi

##### Course Outline

1. Introduction
2. Inventory valuation
3. Job order costing system
4. Process costing system
5. Full costing
6. Marginal costing
7. Standard costing
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9. Just in Time
10. Joint products and byproducts
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#### **MULTINATIONAL FIRMS**

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- a) The nature and role of trans-national corporations in the new era.
- b) The definition of alternative strategic configurations, to defend global competitive advantage.
- c) The design of structural solutions for maintaining control in the midst of extreme diversity.
- d) The evaluation of different market entry modes, that best suit business and market conditions.

## **ECONOMICS OF TECHNOLOGY (Innovation Economics)**

Teacher: G. Stamboulis

### Course outline

The aim of the course is to develop the comprehension of the significance and role in the economy of technology and technological change and the mechanisms of interaction between technology and economy. The course is organized as follows:

1. Introduction: What is technology and innovation? The importance of technical change and innovation. The development of the Research and Development system.
2. Innovation and technical change theory, techno-economic paradigm and the information society, path dependence, non-tacit and tacit knowledge
3. Microeconomics of innovation and technology. Innovation Models. Economics of Research and Development, increasing returns and network externalities. Innovation, technology and SMEs.
4. Macro-economic view: Innovation systems, technology and development, technology and competitiveness
5. Technology diffusion
6. Knowledge and human capital
7. Technology ad strategy
8. Technology policy: Science, research and innovation policy, information society and employment, technology and environment

## **COMPUTATIONAL ECONOMICS**

Teacher: K. Tsilika

This course is set up for a thirteen-week semester

### Course outline

This course focuses on the use of computer algebra systems (Mathematica, Xcas), the language for statistical computing R, and teaches the students the capabilities of these languages with examples from Economics. Students will be acquainted with the development and the implementation of programming techniques in computational software, learn how to analyze and ultimately solve many economic models, perform symbolic computations, visualize economic functions, data, trading relations. The skills they learn in this course will greatly enhance their analytical problem solving capabilities. The course is applications oriented. Indicative modules of the course are:

1. Software Packages' Overview: Notational Conventions and Typesetting / Palettes / Character Formatting / Syntax and Basic Commands. Importing and managing data.
2. Linear Algebra. Input-output models.
3. Graphical representation, plot manipulation, data visualization. Supply and demand curves, cost curves, market equilibrium, consumer and producer surplus, isoquant and isocost lines, visualization of traditional input-output models.
4. Computational optimization. Cost minimization, profit maximization in market models (pure competition to pure monopoly), intertemporal consumer theory, consumer's choice, cost-benefit analysis.
5. Case studies in Microeconomics. Modeling in a problem-solving framework.

This course is a computer laboratory class. E-material and e-books are provided. Assignments range from brief quizzes to a semester-long problem-solving assignment.

## **TRANSPORTATION ECONOMICS**

Teacher: I. Kevork

### Course outline

1. Supply and demand for transport: Definition of transport, determinants of supply and demand for transport services, elasticity of demand in transportation, the generalized demand function for transport services
2. Transportation cost: Economic planning of transportation firms, construction and operation costs for transportation systems, transportation cost in the movement of goods-combined transport, the generalized transportation cost, external cost

3. Demand models for transport services: Forecasting demand for transport services, explanatory models for the forecast of demand in urban transit systems, intercity travel, air transport, rail transport and sea transport.
4. Transportation-Transshipment models: Linear and Integer Programming models in transportation-Transshipment, the shortest route problem, Dijkstra's algorithm, Floyd's algorithm, the maximal flow model
5. Business and Pricing policy: Objectives of business policy for transportation firms, methods and practices of business policy, interrelation of pricing policies with demand elasticity and transportation cost

## **DEVELOPMENT OF BUSINESS PLANS**

Teacher: G. Stamboulis

### Course Outline

The focus of the course is on operational concerns: enterprise, foundation and organization of an enterprise, obligations of the enterprise, financing and economic management, co-operatives and their problems, marketing planning, operations and logistics strategy, product and service development, human resources management. Students' aim is to develop a complete business plans. In this process they get familiar with financing of start-ups (venture capital, business angels etc.), the use of terms and tools, and the development of the relevant reports, development of business collaborations, IPR management, and brand management.

The course is the second part of the Innovation and Entrepreneurship Program of the University of Thessaly. The objective of the program is to develop the entrepreneurial and innovation skills of the students and to encourage them to view the creation of businesses as a livelihood option, while developing their perception of the various obstacles. A mixture of different educational tools is used: team working, speeches by invited - mainly young - entrepreneurs and work with experienced mentors, site visits to innovative businesses, support of student teams through specialized guides and tools and team coaching and hosting of events and competitions. During the program students are expected to organize themselves in teams (simulating a real start-up endeavor) and present their ideas and plans in writing as well as to defend them orally.