NCG67/8: Modificación del plan de estudios de Máster universitario en economía/economics

- Aprobado en la sesión ordinaria del Consejo de Gobierno de 18 de diciembre de 2012
Modificación del Master en Economía/ Economics - Facultad de Ciencias Económicas y Empresariales (Universidad de Granada)

**Modificación 1:** Se solicita la inclusión de las palabras 'Business Management' en el nombre del Master quedando como Master in Economics and Business Management (MEBM), utilizando únicamente la denominación en inglés, dado que en el Master participan los departamentos de Teoría e Historia Económica, Organización de Empresas y Métodos Cuantitativos para la Economía y la Empresa existiendo en el seno del Master itinerarios recomendados para la especialización en Economics y en Business Management.

**Modificación 2:** El Master in Economics pasa a ser impartido íntegramente en inglés incluida la denominación de las asignaturas y el TFM.

**Modificación 3:** Propuesta de las siguientes asignaturas nuevas (todas optativas como el resto de asignaturas del Master, véanse guías docentes en Anexo I):

- Strategic Management of Information Systems
- Leadership with Emotional Intelligence
- Technology and Innovation Management

**Modificación 4:** Cambio en los nombres de las siguientes asignaturas (Véanse guías docentes en Anexo II):

**TOPICS IN MACROECONOMICS I (4 ECTS):** (antes Topics in Macroeconomics)
Professor: Julián Díaz Saavedra (antes Nikolaos Georgantzis, Agnani Betty y Julián Díaz)

This course analyzes the different models in the growth theory. Introduction to numerical methods for the study of Dynamic economies. Social Security: Accounting and Dynamic General Equilibrium methods.

**TOPICS IN MACROECONOMICS II (4 ECTS):** (antes Public Economics)
Professor: Betty Agnani (antes Agnani Betty y Julián Díaz)

This course is based on theoretical and empirical studies performed with rigorous quantitative techniques in order to help students to understand the particularities of market forces with Natural Resources. The course deals with the optimal utilization of renewable resources (e.g. forests and fisheries) and non-renewable resources (e.g. mineral deposits).

**TOPICS IN MACROECONOMICS III (4 ECTS):** (antes Economics of Technological Change)
Professor: Henry Aray

This is a course on Real Option Theory which is a powerful tool to analyze decision making under uncertainty. Applications cover any field of Economics. However, preference will be given to the fields of International Economics, Natural Resource Economics, Industrial Economics and Macroeconomics.
### ANEXO I: GUÍAS DOCENTES DE LAS NUEVAS ASIGNATURAS PROPUESTAS

#### GUÍA DOCENTE DE LA ASIGNATURA

**Strategic Management of Information Systems**

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<th>CURSO</th>
<th>SEMESTRE</th>
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#### PROFESOR(ES)

- María Nieves Pérez Aróstegui

**DIRECCIÓN COMPLETA DE CONTACTO PARA TUTORÍAS**

(Dirección postal, teléfono, correo electrónico, etc.)

Department of Management Science  
School of Economics and Business  
University of Granada  
Campus Universitario de la Cartuja s/n  
18071, Granada, Spain  
Correo electrónico: mnperez@ugr.es

#### HORARIO DE TUTORÍAS

Check http://www.ugr.es/local/mnperez

#### POSGRADO EN EL QUE SE IMPARTE

Master in Economics

#### OTROS POSGRADOS A LOS QUE SE PODRÍA OFERTAR

- Master in Economics

#### PRERREQUISITOS Y/O RECOMENDACIONES (si procede)

Prerequisites and advises:
Students with English and Spanish languages certificates will increase their possibilities for acceptance. The equivalent to a university 4 yrs degree (‘Licenciatura’ or ‘Grado’) is required in order to apply. Applicants with a Master’s degree need also to prove the university 4 yrs. degree. This rule does not apply for EU applicants with 3 yrs. university degree under the Bolonia agreement. A Board of admissions will evaluate every document for certification of the university degree prior to admission.

#### BREVE DESCRIPCIÓN DE CONTENIDOS (SEGÚN MEMORIA DE VERIFICACIÓN DEL POSGRADO)

Strategic Management of Information Systems
Course contents/descriptors/key words:

1. Information Technology and Information Systems: main concepts and types.
2. Information Technology under a resource-based view perspective.
3. IT-enabled organizational resources.
4. Key e-commerce issues.
5. Structural Equation Modeling.

COMPETENCIAS GENERALES Y ESPECÍFICAS

Competences
Students will be able to:

- Combine business and IT strategies in order to lead IT and IS strategies in process design, integration, and implementation.
- Elaborate research papers in IT/IS field.
- Develop management skills related to IT/IS.
- Understand and manage different types of IS.
- Develop consulting reports related to IT/IS implementation.
- Acquire critical skills to assume a level position, such as Chief Information Officer, IS manager, IT strategist, and technology risk manager.
- Understand and manage SEM methodology.

OBJETIVOS (EXPRESADOS COMO RESULTADOS ESPERABLES DE LA ENSEÑANZA)

- Learning outcomes and skills:

Students will be able to:

- Acquire bibliographic information about the current state of the art.
- Understand the relevant theories and debates related to the IT field.
- Propose and develop news research questions related to IT research.
- Understand IT business value concept.
- Recognize the importance of IT complementarity to improve firm competitive position.
- Recognize the major research journals and top conferences in this topic.
- Understand the major survey data methods and structural equation modeling (SEM) techniques.

TEMARIO DETALLADO DE LA ASIGNATURA

1. Information Technology and Information Systems: main concepts and types.
   a. Information Technology concepts.
   b. Information Technology resources.
   c. Types of Information Systems.
2. Information Technology under a resource-based view perspective.
   a. The resource-based view.
   b. IT complementarity.
3. IT-enabled organizational resources.
   a. IT-enabled quality management.
   b. IT-enabled lean production
   c. IT-enabled innovation and learning.
   d. IT-enabled flexibility.
   e. IT strategy and governance.
4. Key e-commerce issues.
5. Structural Equation Modeling.
   a. Data survey methods.
   b. Structural Equation Modeling (EQS) Software.

BIBLIOGRAFÍA

Recommended reading:


ENLACES RECOMENDADOS

METODOLOGÍA DOCENTE

Teaching methods:

The teaching methodology is similar for each thematic session (as a module closed), articulated on the basis of selection, reading and general discussion of a selected number of book chapters and research papers considered by teachers. These materials are relevant on each of the topics covered by the program. First, all students must pass a final written exam on the core materials discussed in the required sessions and seminars. Second, students will expose the main conclusions derived from the researchers analyzed. In fact, the last sessions of the course is devoted to oral presentation in class of a series of thematic work previously selected by students for discussions with the rest of participants (who also act as commentators).

PROGRAMA DE ACTIVIDADES

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Assessment methods:

It will be conducted an ongoing evaluation of student training in order to assess (shown in parenthesis the weight of each item in the final assessment): - The acquisition of skills, aptitudes and knowledge derived from the course through a final exam (50%). - Active participation in discussion sessions and the degree of interest of the interventions. It will consider the level of student involvement in the subject matter and the degree of ongoing monitoring of the development of the course (10%). - The resolution of exercises and case studies raised (10%). - The precision and clarity in exhibitions, seminars and work. It will be necessary to made at least one exhibition per student (20%) - The positive attitude of students and their involvement in the practical sessions in these areas of work (10%).

Language of instruction:
English.

Links to more information:
http://masteres.ugr.es/ugrme/
### Business Management

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#### LECTURE(S)

- Francisco J. Martínez López. Despacho D-09; e-mail: [fjmlopez@ugr.es](mailto:fjmlopez@ugr.es) (Coordinador)

#### ADDRESS FOR TUTORING

Dpto. Organización de Empresas, 1ª planta, Facultad de Ciencias Económicas y Empresariales.

#### OFFICE HOURS

The office hours will be announced the first day of class, and will be also published at the department’s board.

#### PREREQUISITES AND ADVICES

The equivalent to a university 4 years degree ('Licenciatura' or 'Grado') is required in order to apply. Applicants with a Master’s degree need also to prove the university 4 yrs. degree. This rule does not apply for EU applicants with 3 yrs. University degree under the Bolonia agreement. A Board of admissions will evaluate every document for certification of the university degree prior to admission.

#### COURSE CONTENTS/DESCRIPTORS/KEYWORDS

- Emotional intelligence in working contexts/organizations.
- Leadership
- Emotional competences

#### COMPETENCIAS GENERALES Y ESPECÍFICAS

**GENERAL COMPETENCES**

- Apply the acquired knowledge and ability to solve problems in new or unfamiliar contexts within broader (or multidisciplinary) contexts related to business management.
- The ability to communicate, orally and in writing, their conclusions, and the knowledge and rationale underpinning these, to public-skilled and unskilled in a clear and unambiguous.
- Have the learning skills that enable them to continue studying in a way that will be largely self-employment.
• Acquire the ability to work in international environments.
• Find and collect information on a topic of interest from various sources, especially from new technologies.
• Know how to analyze, synthesize and manage information and documents available effectively, including the ability to interpret, evaluate and issue a reasoned opinion on it.
• Ability to work as a team, encouraging the exchange of ideas, sharing knowledge and generating new goals and models of collaborative work.

SPECIFIC COMPETENCES

• Ability to assimilate and critically interpret the specific literature on emotional intelligence in working environments, their methods and results.
• Knowledge of English, to handle the vast majority of scientific literature. Also, the student will acquire the ability to write and present simple scientific reports in English.
• Ability to synthesize and analyze scientific sources (e.g. journals’ and conferences’ papers) in order to develop effective research and/or clearly present, orally and in writing, relevant conclusions from such sources.
• Know how to implement emotional intelligence-based policies for a company.
• To acquire highly specialized knowledge to manage the organization with emotional intelligence.
• Knowledge and ability to apply emotional competencies in the context of business management.
• Ability to innovate to make changes that satisfies the new demands on companies.

OBJECTIVES OF THE COURSE (EXPRESSED IN TERMS OF LEARNING OUTCOMES)

• Introducing and understanding the concept of emotional intelligence and its interestingness to be applied in working contexts.
• Introducing and understanding the classic models proposed to articulate emotional intelligence.
• Understanding the neurological side of emotional intelligence.
• Knowing to approach the human’s intelligence from a holistic perspective, altogether considering the cognitive and emotional intelligences.
• Differentiating between IQ and EQ and weighting their influence in people’s success at work.
• Introducing the leadership styles in relation with emotional intelligence.
• Introducing and understanding of the self-awareness-related emotional competences for star performers at work.
• Introducing and understanding of the self-management-related emotional competences for star performers at work.
• Introducing and understanding of the social awareness-related emotional competences for star performers at work.
• Introducing and understanding of the relationship management-related emotional competences for star performers at work.
• Practicing critical analyses of scientific papers.
• Developing and presenting a (simple) research project on emotional intelligence applied to any issue of the management of the organization.

SYLLABUS

THEORETICAL SYLLABUS

1. Emotional Intelligence: An introductory overview
   1. Introduction to Emotional Intelligence
2. The view of Daniel Goleman
3. The view of Reuven Bar-On
4. The Mayer-Salovey-Caruso conceptualization

2. The value of Emotional Intelligence in the workplace
   1. IQ vs. EI
   2. Why leadership should be developed with emotional intelligence?
   3. Emotional intelligence and leadership styles

3. Self-awareness-related emotional competencies for “star” leaders and workers
   1. Emotional self-awareness
   2. Self-assessment
   3. Self-confidence

4. Self-management-related emotional competencies for “star” leaders and workers
   1. Emotional self-control
   2. Trustworthiness
   3. Conscientiousness
   4. Adaptability
   5. Achievement drive
   6. Initiative

5. Social awareness-related emotional competencies for “star” leaders and workers
   1. Empathy
   2. Service orientation
   3. Organizational awareness

6. Relationship Management-related emotional competencies for “star” leaders and workers
   1. Developing others
   2. Influence
   3. Communication
   4. Conflict management
   5. Visionary leadership
   6. Catalyzing change
   7. Building bonds
   8. Teamwork and collaboration

PRACTICAL SYLLABUS:
- Discussion of papers.
- Presentation of papers and simple research projects on EI applied to organizations.
- Practical applications for chapters 3 to 6.

REFERENCES

BASIC REFERENCES:

emocionales para directivos, Esic Editorial.


COMPLEMENTARY REFERENCES (FURTHER READING):


TEACHING METHODS

1. Theoretical lectures in which the different contents will be presented using different materials.
2. Practical applications/classes to illustrate the theoretical issues forming this subject, as well as their use in a real business situation. Here, the participation of students will be encouraged. We hope that students, with this activity, improve their competences.

3. Readings related to the topics related with this subject; the students will be requested to do critical essays about them.

4. Work in group to tackle particular issues treated in the subject's program.

5. Reading and interpreting the literature, including news articles, proposed in the program.

### PROGRAM ACTIVITIES

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### ASSESSMENT METHODS

The student’s assessment will be based on several methods, also with different weights in the final qualification. These are the following:

- Final (written) examination (50%).
- Research project on any issue on Emotional Intelligent applied to management/leadership selected by the student (presentation and contents) (40%)
- Resolution, attendance and participation in practical exercises proposed during the course (10%)
### Technology and Innovation Management

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#### PROFESOR(ES)

- Daniel Arias Aranda

#### Dirección completa de contacto para tutorías

(Dirección postal, teléfono, correo electrónico, etc.)

Department of Management Science  
School of Economics and Business  
University of Granada  
Campus Universitario de la Cartuja s/n  
18071, Granada, Spain  
Correo electrónico: mnperez@ugr.es

#### Horario de tutorías

Check http://www.ugr.es/local/darias

#### Posgrado en el que se imparte

Master in Economics

#### Otros posgrados a los que se podría ofertar

#### Prerrequisitos y/o recomendaciones (si procede)

Prerequisites and advises:
The equivalent to a university 4 yrs degree (‘Licenciatura’ or ‘Grado’) is required in order to apply. Applicants with a Master’s degree need also to prove the university 4 yrs. degree. This rule does not apply for EU applicants with 3 yrs. university degree under the Bolonia agreement. A Board of admissions will evaluate every document for certification of the university degree prior to admission.

#### Breve descripción de contenidos (según memoria de verificación del grado)

Course contents/descriptors/key words:

1. Technological innovation for competitiveness.
Dynamics of Technological Innovation.
Innovation Patterns.
Startegic Management of Innovation.
Diffusion and protection of innovation.

COMPETENCIAS GENERALES Y ESPECÍFICAS

Competences
Students will be able to:

- Understand the patterns and dynamics of the technological innovation process
- Elaborate research papers in the Technology and Innovation Management field.
- Develop management skills related to Technology and Innovation.
- Understand and manage different types of Innovation patterns and diffusion types.
- Develop consulting reports related to Innovation Management.
- Acquire critical skills to assume a level position for responsibilities for a R&D Department.

OBJETIVOS (EXPRESADOS COMO RESULTADOS ESPERABLES DE LA ENSEÑANZA)

- Learning outcomes and skills:

Students will be able to:

- Acquire bibliographic information about the current state of the art.
- Understand the relevant theories and debates related to the Innovation and Technology Management (ITM) field.
- Propose and develop news research questions related to ITM research.
- Understand ITM principles.
- Recognize the importance of ITM to improve firm competitive position.
- Recognize the major research journals and top conferences in this topic.
- Understand the major survey data methods and structural equation modeling (SEM) techniques for ITM research.

TEMARIO DETALLADO DE LA ASIGNATURA

1. Dynamics in Innovation and Technology Management: main concepts.
   a. Sources of Innovation.
   c. Patterns of Innovation.
   d. New Product and Service Design.
2. Innovation and Technology Management Strategy.
   a. Innovation projects.
   b. Protection of Innovation.
3. Structures for promoting innovation.
   b. Innovation for production
   c. Innovation and Human resources.
   d. Strategies of deployment.
   a. Platforms
   b. Open innovation

BIBLIOGRAFÍA

Recommended reading:


ENLACES RECOMENDADOS

METODOLOGÍA DOCENTE

Teaching methods:

The teaching methodology is similar for each thematic session (as a module closed), articulated on the basis of selection, reading and general discussion of a selected number of book chapters and research papers considered by teachers. These materials are relevant on each of the topics covered by the program. First, all students must pass a final written exam on the core materials discussed in the required sessions and seminars. Second, students will expose the main conclusions derived from the researchers analyzed. In fact, the last sessions of the course is devoted to oral presentation in class of a series of thematic work previously selected by students for discussions with the rest of participants (who also act as commentators).

PROGRAMA DE ACTIVIDADES
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**EVALUACIÓN (INSTRUMENTOS DE EVALUACIÓN, CRITERIOS DE EVALUACIÓN Y PORCENTAJE SOBRE LA CALIFICACIÓN FINAL, ETC.)**

**Assessment methods:**

It will be conducted an ongoing evaluation of student training in order to assess (shown in parenthesis the weight of each item in the final assessment):  
- The acquisition of skills, aptitudes and knowledge derived from the course through a final exam (50%).  
- Active participation in discussion sessions and the degree of interest of the interventions. It will consider the level of student involvement in the subject matter and the degree of ongoing monitoring of the development of the course (10%).  
- The resolution of exercises and case studies raised (10%).  
- The precision and clarity in exhibitions, seminars and work. It will be necessary to made at least one exhibition per student (20%)  
- The positive attitude of students and their involvement in the practical sessions in these areas of work (10%).

**INFORMACIÓN ADICIONAL**

**Language of instruction:** English.

**Links to more information:** [http://masteres.ugr.es/ugrme/](http://masteres.ugr.es/ugrme/)
### ANEXO II: GUÍAS DE LA ASIGNATURAS QUE SE MODIFICA SU DENOMINACIÓN

<table>
<thead>
<tr>
<th>MODULE</th>
<th>COURSE TITLE</th>
<th>YEAR</th>
<th>TERM</th>
<th>CREDITS</th>
<th>TIPO</th>
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<tbody>
<tr>
<td>Economic Analisis</td>
<td>Topics in Macroeconomics I</td>
<td>1º</td>
<td>2º</td>
<td>4 ECTS</td>
<td>Optative</td>
</tr>
</tbody>
</table>

**LECTURE(S)**
- Julián Díaz

**ADDRESS FOR TUTORING**
Dpto. Teoría e Historia Económica, Facultad de Económicas y Empresariales. Despacho B018
Correo electrónico: julianalbertodiaz@ugr.es

**SCHEDULE**
To determine to start the classes

**PREREQUISITES and/or ADVISES**
It is compulsory to have attended “Macroeconomics”. It is also recommended to have attended “Economic Analysis Techniques”

**COURSE CONTENTS/DESCRIPTORS/KEY WORDS**
- Economic Growth, Dynamic General Equilibrium, Social Security

**GENERAL AND SPECIFIC COMPETENCES**
- **GENERAL COMPETENCES:**
  - Capacity for analysis and synthesis
  - Ability to solve economic maximization problems
  - Critical thinking skills and self-critical thinking
  - Learning ability and independent work
  - Ability to apply knowledge in practice
  - Skill in finding information and research
  - Ability to design and project management
- **SPECIFIC COMPETENCES:**
  - Know the fundamentals theories of Economic Growth.
  - Know the different sources of economic growth
  - Knowing the meaning of competitive equilibrium and social planner solution
  - Know the main computational methods
  - Knowing the main advantages and disadvantages of the main computational methods
  - Know the main programming languages that can be used in computational methods.
- Know the different types of Public Pension Systems
- Know the current debate about the sustainability of Public Pension Systems.
- Evaluate the main consequences of parametric reforms of Public Pension Systems.

**OBJECTIVES OF THE COURSE (EXPRESSED IN TERMS OF LEARNING OUTCOMES)**

**GENERAL OBJECTIVE:** This course is based on theoretical and empirical studies performed with rigorous quantitative techniques in order to help students to understand Quantitative Macroeconomics.

**MAIN OBJECTIVES:** Is to give an introduction to dynamic models in macroeconomics. The course deals with the main economic models used in Economic Growth, and the main dynamic models used to perform quantitative analysis of public policies. In addition, the course presents the main computational techniques to solve dynamic general equilibrium models. Finally, it presents an application of these techniques, intended to evaluate the sustainability of social security programs.

**Syllabus**

**Theoretical syllabus**

1. **Economic Growth**
   - Exogenous Growth
   - Endogenous Growth

2. **Dynamic General Equilibrium**
   - Dynamic Models
   - Computational Methods

3. **Social Security**
   - Types of Public Pension Programs
   - The issue of the sustainability
   - Parametric reforms and their consequences

**Practical syllabus**

- Practice each of the examples proposed in the theory program.
- Discussion of case studies and articles.
- Apply simulation techniques regarding DGE models.
REFERENCES

Recommended reading:

- Barro R., and X. Sala I Martin, Economic Growth, The MIT Press

TEACHING METHODS

The teaching methodology is similar for each thematic session (as a module closed), articulated on the basis of lectures given by subject professor’s with the necessary theoretical and methodological supplements and of participation of the students who exercised commentators of the different summaries. Together with the reading, summary and general discussion in class of a selection of examples, articles and research papers considered by professor as key or relevant on each of the topics covered by the program.

PROGRAM ACTIVITIES

<table>
<thead>
<tr>
<th>Activity</th>
<th>h. lectures</th>
<th>h. study</th>
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<td>Lectures</td>
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<td>24</td>
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<tr>
<td>Debate of different cases</td>
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<td>8</td>
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<tr>
<td>Presentation of paper and/or research line</td>
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<td>Exam or discussion of work-end of the course</td>
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</tr>
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<td>Total</td>
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ASSESSMENTS METHODS

In order to assess the acquisition of content and skills to develop in this area, therefore, a diversified assessment system, selecting the most appropriate assessment techniques for the subject at all times, allowing to highlight the different knowledge and skills acquired by students to this course.

Class attendance is mandatory in at least 70% of the sessions, requiring an active participation in them. Furthermore, it is also necessary to overcome the requirements: written exam and/or Work-end of the course, to pass the course. Covered those two conditions, the final mark during the weighting is obtained from the following factors:

- Written examination or Work-end of the course (presentation and contents): 70%.
- Resolution and / or comments of exercises, discussions proposed along the course and quality interventions and discussions in class at the invitation of Professor: 20%
- Attendance and active participation in class: 10%
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**LECTURE(S)**

- Betty Agnani

**ADDRESS FOR TUTORING**

Dpto. Teoría e Historia Económica, Facultad de Económicas y Empresariales. Despacho Ala B016
Correo electrónico: bagnani@ugr.es

**SCHEDULE**

To determine to start the classes

**PREREQUISITES and/or ADVISES**

It is compulsory to have attended subject “Macroeconomics” and “Topics in Macroeconomics I”

**COURSE CONTENTS/DESCRIPTIONS/KEY WORDS**

- NATURAL RESOURCES ECONOMICS (nonrenewable and renewable).

**GENERAL AND SPECIFIC COMPETENCES**

- GENERAL COMPETENCES:
  - Capacity for analysis and synthesis
  - Ability to solve economic maximization problems
  - Ability to work in an international context
  - Critical thinking skills and self-critical thinking
  - Learning ability and independent work
  - Ability to apply knowledge in practice
  - Skill in finding information and research
  - Ability to design and project management

- SPECIFIC COMPETENCES:
  - Know Fundamentals concepts of natural resources economics.
  - Know Values, value systems, and economics
  - Knowing the meaning of perfect competitive markets and market failures
  - Know the major macroeconomic models
  - Knowing how imperfectly competitive markets work
  - Know the resource growth models.
  - Contribute to the governance of resource allocation in both the private and public.
  - Identify and anticipate significant economic problems in relation to the allocation of resources in general, both in private and public
  - Bringing rationality to the analysis and description of any aspect of economic reality.
  - Evaluate consequences of alternative courses of action and select the best view of the objectives.
• Issue advisory reports on specific situations of optimal use of resources in any economy.
• Derive data impossible to recognize relevant information by non-professionals.
• Use commonly information technology and communications throughout his professional.
• Concern for quality.

OBJECTIVES OF THE COURSE (EXPRESSED IN TERMS OF LEARNING OUTCOMES)

NATURAL RESOURCES ECONOMICS: This course is based on theoretical and empirical studies performed with rigorous quantitative techniques in order to help students to understand the particularities of market forces with natural resources.

MAIN OBJECTIVE: Is to give a thorough introduction to and an overview of the economics on natural resources. The course deals with the optimal utilization of renewable resources (e.g. forests and fisheries) and non-renewable resources (e.g. mineral deposits). There are several features of natural resources that make them different from other economic goods. The analyses of natural resources necessitate the use dynamic methods in order to:

• Made efficient policies of these goods
• Decide their harvest, use and management

Syllabus

Theoretical syllabus

4. Basic Introduction
   Fundamentals of economics
   Values, value systems, and economics
   Perfect competition, equilibrium and efficiency

5. The Economics of Natural Resource Systems
   Evolution of thought and market failures
   Environmental functions, growth and sustainability

6. Natural Resource Management
   Types of Natural Resources (basic concepts)
   Discounting
   Simulation Techniques

7. Non-renewable resources
   Hotteling Rule’s
   The inverse Demand curve
   Types of extraction and price paths

8. Renewable resources
   Net Growth Function
   Production Function
   Types of bioeconomic equilibriums

Practical syllabus

• Practice each of the examples proposed in the theory program.
• Discussion of case studies and articles.
• Apply simulation and optimization techniques regard to harvest strategy.

REFERENCES

Recommended reading:

• Perman, Roger et al. 2003: Natural resource and environmental economics, Addison Wesley

TEACHING METHODS

The teaching methodology is similar for each thematic session (as a module closed), articulated on the basis of lectures given by subject professor’s with the necessary theoretical and methodological supplements and of participation of the students who exercised commentators of the different summaries. Together with the reading, summary and general discussion in class of a selection of examples, articles and research papers considered by professor as key or relevant on each of the topics covered by the program.

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Class attendance is mandatory in at least 70% of the sessions, requiring an active participation in them. Furthermore, it is also necessary to overcome the requirements: written exam and/or Work-end of the course, to pass the course. Covered those two conditions, the final mark during the weighting is obtained from the following factors:

- Written examination or Work-end of the course (presentation and contents): 70%.
- Resolution and / or comments of exercises, discussions proposed along the course and quality interventions and discussions in class at the invitation of Professor: 20%
- Attendance and active participation in class: 10%
Economic Analysis: Topics in Macroeconomics III 1º 3º 4 ECTS Optional

LECTURE(S)

- Henry Aray

ADDRESS FOR TUTORING

Dpto. Teoría e Historia Económica, Facultad de Económicas y Empresariales. Office B016
Email: haray@ugr.es

Schedule

To be determined at the beginning of the lessons.

PREREQUISITES and/or ADVISES

It is compulsory to have attended subject “Macroeconomics” and it is recommended to have attended “Topics in Macroeconomics I” and “Topics in Macroeconomics II” and being attending “International Economics”.

COURSE CONTENTS/DESCRIPTORS/KEY WORDS

Investment, Real Option Theory, Uncertainty.

GENERAL AND SPECIFIC COMPETENCES

- GENERAL COMPETENCES:
  - Capacity for analysis and synthesis
  - Ability to solve economic maximization problems
  - Ability to work in an international context
  - Critical thinking skills and self-critical thinking
  - Learning ability and independent work
  - Ability to apply knowledge in practice
  - Skill in finding information and research
  - Ability to design and project management

- SPECIFIC COMPETENCES:
  - Know Fundamentals concepts of investment under uncertainty
  - Introduction to stochastic process
  - Acquire skills on dynamic optimization under uncertainty
  - Acquire skills on decision making under uncertainty
  - Use the real option theory as a tool to analyze a wide range of economic problems

OBJECTIVES OF THE COURSE (EXPRESSED IN TERMS OF LEARNING OUTCOMES)

This is a course on Real Option Theory which is a powerful tool to analyze decision making under uncertainty. Applications cover any field of Economics. However, preference will be given to the fields of

MAIN OBJECTIVE: The main objective of the course is to provide a tool that allows students analyze many problems in different fields of economics under uncertainty.

Syllabus

9. Section I: Introduction
10. Section II: Brownian Motion and Ito’s Lemma
11. Section III: Dynamic Optimization under Uncertainty
12. Section IV: Investment Opportunities and Investment Timing
13. Section V: The Value of a Project and the Decision to Invest
14. Section VI: Market Entry and Exit under Uncertainty

Practical syllabus (both parts):
- Discussion of case studies and articles
- Presentations of some articles and / or research lines
- Practice each of the items proposed in the theory program

REFERENCES

Recommended reading:

TEACHING METHODS
The teaching methodology is similar for each session, articulated on the basis of selection, reading, summary and general discussion in class. A number of articles and research papers considered by teachers as key or relevant on each of the topics covered by the program, together with the necessary theoretical and methodological supplements that provide, essentially, the subject teachers and students who exercised commentators the different summaries are made.

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