

## COURSE OUTLINE

### 1. GENERAL

|   |  |                              |                       |
|---|--|------------------------------|-----------------------|
| <b>SCHOOL</b>   | School of Applied Economics and Social Sciences  |                              |                       |
| <b>ACADEMIC UNIT</b>  | Department of Agricultural Economics and Rural Development-MBA<br>Food & Agribusiness      |                              |                       |
| <b>LEVEL OF STUDIES</b>   | Postgraduate Studies   |                              |                       |
| <b>COURSE CODE</b>  |  | <b>SEMESTER</b>              | <b>2<sup>st</sup></b> |
| <b>COURSE TITLE</b>   | <b>DERIVATIVES WITH APPLICATIONS IN THE SUPPLY CHAIN OF AGRICULTURAL AND FOOD PRODUCTS</b> |                              |                       |
| <b>INDEPENDENT TEACHING ACTIVITIES</b><br><i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i> |  | <b>WEEKLY TEACHING HOURS</b> | <b>CREDITS</b>        |
|   |  | 3                            | 4                     |
| Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).   |  |                              |                       |
| <b>COURSE TYPE</b><br><i>general background,<br/>special background, specialised general knowledge,<br/>skills development</i>  | Scientific area  |                              |                       |
| <b>PREREQUISITE COURSES:</b>  |  |                              |                       |
| <b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>  | Greek  |                              |                       |
| <b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>  | No   |                              |                       |
| <b>COURSE WEBSITE (URL)</b>   |  |                              |                       |

### 2. LEARNING OUTCOMES

|   |  |
|---|--|
| <b>Learning outcomes</b><br><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i><br><i>Consult Appendix A</i> <ul style="list-style-type: none"> <li>• Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</li> <li>• Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</li> <li>• Guidelines for writing Learning Outcomes</li> </ul>   |  |
| <p>The course is the main introductory course in the concepts of derivatives with applications in the supply chain of agricultural and food products. In addition, it highlights the strategic role and modern trends in the derivatives market with applications in the supply chain of agricultural and food products. Upon successful completion of the course the student will be able to:</p> <ul style="list-style-type: none"> <li>• define the key concepts of forward and futures contracts</li> <li>• understand the market mechanism and risk hedging with futures contracts</li> <li>• understand the valuation of futures contracts</li> <li>• understand Options and their properties</li> <li>• analyze Options and their valuation methods</li> </ul> <p>understand and evaluates SWAPS</p> |  |
| <b>General Competences</b><br><i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?</i>   |  |
| <i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i><br><i>Adapting to new situations</i><br><i>Decision-making</i><br><i>Working independently</i><br><i>Team work</i><br><i>Working in an international environment</i><br><i>Working in an interdisciplinary environment</i><br><i>Production of new research ideas</i>   | <i>Project planning and management</i><br><i>Respect for difference and multiculturalism</i><br><i>Respect for the natural environment</i><br><i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i><br><i>Criticism and self-criticism</i><br><i>Production of free, creative and inductive thinking</i> |
| <ul style="list-style-type: none"> <li>• Decision-making</li> <li>• Individual/Independent work</li> <li>• Group/Team work</li> </ul>   |  |

### 3. SYLLABUS

- Introduction to Financial Derivatives
- Forward Contracts and Futures Contracts
- Futures Contracts Market Mechanism
- Risk Hedging with Futures Contracts
- Forwards and Futures contracts Valuation
- Interest Rates and Currency Exchange Rates Futures and Forwards Contracts
- Options
- Option Properties
- Option Strategies
- Option Valuation Methods
- GREEKS
- Interest Rates Options
- SWAPS

### 4. TEACHING and LEARNING METHODS - EVALUATION

|   |   |                          |
|---|---|--------------------------|
| <b>DELIVERY</b><br><i>Face-to-face, Distance learning, etc.</i>   | In class  |                          |
| <b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b><br><i>Use of ICT in teaching, laboratory education, communication with students</i>   | <ul style="list-style-type: none"> <li>• e-class platform</li> <li>• Power-Point slides</li> <li>• Communication with students using e-class and email</li> </ul> |                          |
| <b>TEACHING METHODS</b><br><i>The manner and methods of teaching are described in detail.</i><br><i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i><br><br><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>                             | <b>Activity</b>   | <b>Semester workload</b> |
|   | Teaching  | 24                       |
|   | Laboratory  | 12                       |
|   | Total   | <b>36</b>                |
| <b>STUDENT PERFORMANCE EVALUATION</b><br><i>Description of the evaluation procedure</i><br><br><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i><br><br><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i> | Written final exams (100%) including: <ul style="list-style-type: none"> <li>▪ Multiple choice questions</li> <li>▪ Solving problems</li> </ul>                   |                          |

### 5. ATTACHED BIBLIOGRAPHY

Suggested:

- Hull, J. C. (2017) Fundamentals of Futures and Options Markets. 9<sup>th</sup> edition, Publisher: Kluwer.
- Mylonas, N (2005) Derivative markets and products. Publisher: Dardanos

Scientific journals:

- Journal of Commodity Markets
- Journal of Futures Markets
- European Review of Agricultural Economics
- Journal of Agricultural Economics
- American Journal of Agricultural Economics
- Agricultural Economics

