COURSE OUTLINE

1. GENERAL

SCHOOL	APPLIED ECONOMIC AND SOCIAL SCIENCES		
ACADEMIC UNIT	AGRIBUSINESS AND SUPPLY CHAIN MANAGEMENT		
LEVEL OF STUDIES	*Undergraduate*		
COURSE CODE	**5707**	**SEMESTER**	7th
COURSE TITLE	AROMATIC - MEDICINAL PLANTS		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	5
Laboratory Exercises	2	

COURSE TYPE	In-Depth Analysis
PREREQUISITE COURSES	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek
IS THE COURSE OFFERED for ERASMUS STUDENTS?	YES (in English)
COURSE WEBSITE (URL)	https://oeclass.aua.gr/eclass/

2. LEARNING OUTCOMES

Learning Outcomes

The aim of the course is:

The course aims to acquaint students with special knowledge related to the technique of cultivation of aromatic and medicinal plants, the active substances of essential oils, market requirements, botanical description, soil-climatic requirements and their adaptability to varieties, in the methods of receipt and industrial uses of essential oils and aromatic substances, as well as in the technological processing and marketing of aromatic and medicinal plants.

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

- recognize the most important aromatic and medicinal plants of Greece, as well as their properties and uses
- understands how they work and the techniques available for their use
- applie techniques, during cultivation and after harvest, aimed at obtaining high yields of essential oil with chemotypes

distinguish characteristics that meet the requirements of industry and markets

General Competences

Adapting to new situations

Decision-making

Working independently

Teamwork

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas Teamwork

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional, and ethical responsibility and sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

3. SYLLABUS

For the main aromatic and medicinal plants are examined: General elements - origin and distribution, economic importance and uses, development, adaptability (climatic and soil requirements), cultivation technique (crop rotation, soil treatment, inorganic nutrition and fertilization, sowing, water requirements and irrigation, maturation and harvest, main enemies and diseases), products and quality characteristics. Methods of receipt of essential oils and determination of the active ingredients of the essential oils. The effects of the active substances and the poisonous substances they contain on humans are also examined. At the same time, detailed data on the various extraction methods and types of aromatic extracts are provided, as well as additional data on prices and trends in international markets. Finally, the possibility of organizing agricultural units for cultivation and processing of aromatic and medicinal plants is studied. The aromatic and medicinal plants that are studied are the following:

1. Oregano - Thyme - Marjoram
2. Mountain tea
3. Honeysuckle - Mint
4. Basil
5. Lavender
6. Sage
7. Sea fennel
8. Hypericum - Calendula
9. Chamomile
10. Anise-Rosemary-Fennel
11. Artemisia-Achilles-Valerian
12. Crocus
13. Coriander-Cumin

A combination of teaching and learning methods will be used, aiming at the active participation of the students and the practical application of the thematic units under examination; there will also be lectures using audiovisual media, discussions, and analyses of case studies on real business issues, experiential (group) activities, as well as projections of relevant videos. The students will also undertake an individual or group project. Furthermore, articles, audiovisual lecture materials, web links/addresses, useful information, case studies and exercises for further practice are posted in digital form on the AUA Open e-Class platform.

4. TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>DELIVERY</td><td>Face -to-face, Distance learning</td></tr>
<tr><td>USE OF INFORMATION and COMMUNICATIONS TECHNOLOGY</td><td>• Support of the learning process through the University's AUA Open eClass platform (integrated e-Course Management System)
• Support of lectures using presentation software
• Use of audiovisual material
• Use of web applications

Communication with students: face-to-face at office hours, email, eclass platform</td></tr>
<tr><td>TEACHING METHODS</td><td>
<table>
<tr><th>Activity</th><th>Workload</th></tr>
<tr><td>Lectures (direct)</td><td>39</td></tr>
<tr><td>Laboratory Practice</td><td>26</td></tr>
<tr><td>Essay Writing</td><td>20</td></tr>
<tr><td>Autonomous study</td><td>36</td></tr>
<tr><td>Advisory Support</td><td>0,5</td></tr>
<tr><td>Examination</td><td>2</td></tr>
<tr><td>Laboratory Examination</td><td>2</td></tr>
<tr><td>Total
(About 25 hours of study per ECTS)</td><td>125,5</td></tr>
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<tr><td>STUDENT PERFORMANCE EVALUATION</td><td>The evaluation process is in the language that the course is taught (Greek or English) and consists of:
i. Compulsory written final examination at the end of the semester (weighting factor 70% at least) which may includes:
• Multiple choice questionnaires
• Open-ended questions
• Problem solving
• Oral examination
Evaluation criteria: correctness, completeness, clarity</td></tr>
</table>

	ii. Optional written exam or essay during the semester (weighting factor 30%) which may includes: • Multiple choice questionnaires • Open-ended questions • Problem solving • Essay/report • Oral examination **Evaluation criteria:** correctness, completeness, clarity **Special learning difficulties:** Students with **special learning difficulties** in writing and reading (as they are certified and characterized by a competent body) are examined based on the procedure provided by the Department. **Specifically-Defined Criteria:** The evaluation criteria are made known during the first lesson and are clearly stated on the course website and the AUA Open e-class platform. The answers to the exam questions are posted on the AUA Open e-Class platform after the exam. The students are allowed to see their exam paper after its grading (during the announced office hours) and receive explanations about the grade they received.

5. ATTACHED BIBLIOGRAPHY

Suggested Bibliography in Greek Language:

- Δόρδας, Χ. (2012). *Αρωματικά και Φαρμακευτικά Φυτά*. Εκδόσεις ΣΥΓΧΡΟΝΗ ΠΑΙΔΕΙΑ, Θεσσαλονίκη.
- Κατσιώτης, Σ.Θ. & Χατζοπούλου, Π.Σ. (2015). *Αρωματικά φαρμακευτικά φυτά καιαιθέρια έλαια*. Εκδόσεις Κυριακίδη.

Suggested Bibliography in English Language:

- Mattias, A. & Laisne, N. (2017). *Medicinal plants: Production, Cultivation and Uses*. Nova Science Publishers.

Related academic journals:

- *Industrial Crops and Products*
- *Journal of Applied Research on Medicinal and Aromatic Plants*
- *Phytochemistry*
  Journal of Ethnopharmacology
  Instructor's Notes