# General Crop Science COURSE OUTLINE

#### GENERAL

| SCHOOL   | AGRICULTURE SCIENCE   |                       |                   |         |  |
|--|---|-----------------------|-------------------|---------|--|
| DEPARTMENT   | FOOD SCIENCE AND NUTRITION  |                       |                   |         |  |
| STUDY LEVEL  | 5 years   |                       |                   |         |  |
| COURSE CODE  | CP212   | SEMESTER OF STUDY 5th |                   |         |  |
| COURSE TITLE   | General Crop Science  |                       |                   |         |  |
|  |   |                       |                   |         |  |
| INDEPENDENT TEACHING ACTIVITIES  |   |                       |                   |         |  |
| In case ECTS are awarded for distinct parts of the course e.g. Theory<br>Lectures, Laboratory Practicals etc. If ECTS are awarded uniformly for<br>the entire course, give the weekly teaching hours and total ECTS. |   |                       | WEEKLY<br>COURSES | CREDITS |  |
| Theory Lectures  |   |                       | 3                 |         |  |
| Exercises  |   |                       | 2                 |         |  |
| TOTAL  |   |                       |                   | 5       |  |
|  |   |                       |                   |         |  |
| COURSE TYPE<br>Background, Basic knowledge, Field of<br>Science, Skill development   | General background and knowledge regarding Agriculture<br>such as the cultivation of large-scale crops and the operation<br>of the soil-plant-environment system. |                       |                   |         |  |
| PREREQUISITES:   | No  |                       |                   |         |  |
| LANGUAGE:  | Greek   |                       |                   |         |  |
| IS THE COURSE OFFERED for<br>ERASMUS STUDENTS?   | Yes   |                       |                   |         |  |
| COURSE WEB PAGE (URL)  | https://food.uth.gr/agriculture   |                       |                   |         |  |

### LEARNING OUTCOMES

### **Learning Outcomes**

The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain)

*level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult. Appendix A* 

• Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework

• Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning

And Appendix B

• • Guidelines for writing Learning Outcomes

The course provides the basic concepts of Agriculture that are directly related to Agricultural Science with the aim of understanding the operation of the soil-plant-environment system, while emphasizing on the cultivation of large-scale crops, on both theoretical and practical level. In particular, the course of General Agriculture presents the development and evolution of Agriculture both on a global and domestic scale, highlighting its importance in human life. It includes principles of Plant Physiology, Soil Science and Plant Nutrition. It presents in detail soil and climatic factors that affect growth, development and adaptability of plant species and especially of large-scale crops. It stresses the importance of fertilizing and nourishing plants. At the same time, it provides the necessary knowledge about cultivation systems and how to perform them, including the required agrotechnical treatments from germination to harvesting, processing, preservation and assessment of the quality of the produced product.

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

- 1. Know the purpose and usefulness of the most important cultivated plants
- 2. Recognize the main plants of large cultivation based on their morphological characteristics
- 3. Understand the structure and function of plants
- 4. Know the planning of the agricultural production of large crop plants in the appropriate soil and climatic conditions in order to lead to successful cultivation.
- Understand the effects of the environment on plant growth and growth (climate, soil, biotic factors)
   Acquire the necessary knowledge about the importance of fertilizing and nourishing plants

| 7.          | Acquire the necessary knowledge for the expected crop yield, the technical equipment used for the cultivation (from sowing to harvesting) of crop plants as well as the ways, problems and conditions of storage of production.   |                  |  |  |  |
|-------------|---|------------------|--|--|--|
| 8.          | Know the cultivation systems and the new tren   | ds in Agr        | iculture   |  |  |
| General C   | Competences   |                  |  |  |  |
| Taking int  | to consideration the general competences that st  | udents/ <u>c</u> | graduates must acquire (as those are described in the  |  |  |
| Diploma S   | Supplement and are mentioned below), at which   | of the fo        | llowing does the course attendance aim?  |  |  |
| • • • • • • | Search, analysis and synthesis of data and<br>information, using the necessary<br>technologies<br>Adaptation to new situations<br>Decision making<br>Autonomous work<br>Teamwork<br>Work in an international environment<br>Work in an interdisciplinary environment<br>Generating new research ideas | • Pr<br>•<br>•   | oject planning and management<br>Respect for diversity and multiculturalism<br>Respect for the natural environment<br>Demonstrating social, professional and ethical<br>responsibility and sensitivity to gender issues<br>Exercise criticism and self-criticism<br>Promotion of free, creative and inductive thinking |  |  |

## **COURSE CONTENT**

Week 1: Introduction to Agriculture

Week 2: Crop Plants

Week 3: Crop growth, growth and yield

Week 4: Influence of Climate on Plant Growth (Part A)

Week 5: Influence of Climate on Plant Growth (Part B)

Week 6: Influence of soil environment and biotic factors on plant growth

Week 7: Cultivation techniques by family

Week 8: Soil treatment

Week 9: Seed and sowing

Week 10: Cultivation systems (Part A)

Week 11: Cultivation systems (Part B)

Week 12: Main crop plants in Greece

Week 13: Aromatic, medicinal plants

## **TEACHING METHODS--ASSESSMENT**

| <b>METHOD OF DELIVERY</b>   | Face to face   |
|---|--|
| Face to face, Distance learning, etc.<br>USE OF INFORMATION AND<br>COMMUNICATION TECHNOLOGY<br>Use of ICT in teaching, Laboratory Education,<br>Communication with students | Lectures: In a classroom.<br>a. Digital media will be used for the teaching of the course<br>(presentations using projector, "PowerPoint", Excel', videos<br>" and photos), while communication with students will also<br>be possible via in (questions, exercises).<br>b. There will be a demonstration-learning of finding modern<br>scientific literature from internet (renowned international<br>scientific journals).<br>c. The learning of the electronic recording of the<br>present dusting (renowned international<br>scientific journals). |

|   | be done with specially designed by the instructor,<br>spreadsheets Excel, using a computer.<br>d. There will be a daily educational trip to field/farm unit |                       |  |  |  |
|---|---|-----------------------|--|--|--|
| TEACHING ORGANIZATION   | Activity  | Semester Workload     |  |  |  |
| The method and methods of teaching are  | Lectures in Auditorium  | 39                    |  |  |  |
| described in detail.<br>Lectures, Seminars, Laboratory Exercise, Field<br>Exercise, Bibliography Study & Analysis,<br>Tutorial, Internship (Placement), Clinical<br>Practicing, Art Workshop, Interactive Teaching, | Εργαστηριακές Ασκήσεις  | 39                    |  |  |  |
|   | Independent study   | 23                    |  |  |  |
|   | Study visits in field/farm 24   |                       |  |  |  |
|   | units   |                       |  |  |  |
| Educational Visits, Project Writing, Writing a<br>project / assignments Artistic creation, etc.   |   |                       |  |  |  |
|   |   |                       |  |  |  |
| The student's study hours for each learning   | Tatal Causes  |                       |  |  |  |
| activity are listed as well as the hours of unquided study so that the total workload at  | 10tal Course  | 105                   |  |  |  |
| semester level corresponds to ECTS standards  | (25 hours of workload per   | 125                   |  |  |  |
|   |   |                       |  |  |  |
| SIUDENI EVALUATION Description of the evaluation process  | Final examination of the cours  | se includes:          |  |  |  |
|   | • Final exam (written)  |                       |  |  |  |
|   | Laboratory exercise examin  | nation                |  |  |  |
|   |   | in Cruzela            |  |  |  |
|   | The language of assessment  | is Greek.             |  |  |  |
| Assessment Language, Assessment Methods,  |   |                       |  |  |  |
| Short Answer Questions, Essay Development   | The grade in theory and the   | laboratory / tutorial |  |  |  |
| Questions, Problem Solving, Written   | results 80% from the written  | examination and 20%   |  |  |  |
| Assignment, Essay/Report, Oral Examination,   | from the examination of the   | laboratory exercise   |  |  |  |
| Public Presentation, Laboratory Work, Clinical<br>Examination of a Patient Artistic Interpretation  |   |                       |  |  |  |
| Other/Others  |   |                       |  |  |  |
|   |   |                       |  |  |  |
| Explicitly defined evaluation criteria and whether and where they are accessible to   |   |                       |  |  |  |
| students are mentioned.   |   |                       |  |  |  |
| RECOMMENDED-BIBLIOGRAPHY  |   |                       |  |  |  |
| Suggested Bibliography:   |   |                       |  |  |  |
| Karamanos A 2011 General Agriculture  | Panazisis Publication   |                       |  |  |  |
| Dordas C., 2018, GENERAL AGRICULTUR   | - Modern Education Publication  |                       |  |  |  |
| Bilalis D. Panastylianou P - Th. Traylos I. 2019 AGRICHITIRE Pedia Publication  |   |                       |  |  |  |
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