

## 1. GENERAL

<b>SCHOOL</b>	AGRICULTURAL SCIENCES		
<b>ACADEMIC UNIT</b>	DEPARTMENT OF AGRICULTURE		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	AGRI_605	<b>SEMESTER OF STUDIES</b>	SIXTH
<b>COURSE TITLE</b>	SPECIALIZED TOPICS ON FIELD CROPS		
<b>FACULTY MEMBER</b>			
<b>INDEPENDENT TEACHING ACTIVITIES</b> <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>
	Lectures	2	
	Lab exercises	2	
	Total	4	5
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	Specialized general knowledge		
<b>PREREQUISITE COURSES:</b>	Typically, there are no prerequisite courses		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes (English)		
<b>COURSE WEBPAGE (URL)</b>			

## 2. LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <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 specialized topics in field crops course aims to train in depth students on cereal, industrial and legume crop cultivation. Students will be informed for the current status of most valuable field crops and learn to use frontline technology to achieve higher yields. Emphasis is given on proper cultivation methods, so that the farmer and/or the ag firm complies with the latest environmental regulatory frameworks.</p>																	
<p><b>General Competences</b></p> <p>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?</p> <table border="0"> <tr> <td>Search for, analysis and synthesis of data and information, with the use of the necessary technology</td> <td>Project planning and management</td> </tr> <tr> <td>Adapting to new situations</td> <td>Respect for difference and multiculturalism</td> </tr> <tr> <td>Decision-making</td> <td>Respect for the natural environment</td> </tr> <tr> <td>Working independently</td> <td>Showing social, professional and ethical responsibility and sensitivity to gender issues</td> </tr> <tr> <td>Team work</td> <td>Criticism and self-criticism</td> </tr> <tr> <td>Working in an international environment</td> <td>Production of free, creative and inductive thinking</td> </tr> <tr> <td>Working in an interdisciplinary environment</td> <td>.....</td> </tr> <tr> <td></td> <td>Others...</td> </tr> </table>		Search for, analysis and synthesis of data and information, with the use of the necessary technology	Project planning and management	Adapting to new situations	Respect for difference and multiculturalism	Decision-making	Respect for the natural environment	Working independently	Showing social, professional and ethical responsibility and sensitivity to gender issues	Team work	Criticism and self-criticism	Working in an international environment	Production of free, creative and inductive thinking	Working in an interdisciplinary environment	.....		Others...
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	Others...																

- Search, analysis, data synthesis and information management, using necessary technological systems
- Autonomous work
- Group work
- Practicing on interdisciplinary network of ideas
- Design and project management
- Interactions in global context.
- Decision making
- Project planning and management
- Production of new research ideas
- Promotion of free, creative and inductive thinking

### 3. SYLLABUS

#### Lectures

1. Corn, Sorghum, Millet: General characteristics, botany, ecological and agronomical requirements, cultivation practices.
2. Rice: General characteristics, botany, ecological and agronomical requirements, cultivation practices.
3. Bean: General characteristics, botany, ecological and agronomical requirements, cultivation practices.
4. Lentil: General characteristics, botany, ecological and agronomical requirements, cultivation practices.
5. Pea, Broad bean, Chickpea: General characteristics, botany, ecological and agronomical requirements, cultivation practices.
6. Grass pea – Lupin, Soya: General characteristics, botany, ecological and agronomical requirements, cultivation practices.
7. Alfalfa, Clover, Vicia: General characteristics, botany, ecological and agronomical requirements, cultivation practices.
8. Cotton: General characteristics, trends, varieties, adaptation, agronomical requirements, cultivation practices, harvest and quality.
9. Tobacco: General characteristics, trends, varieties, adaptation, agronomical requirements, cultivation practices, harvest and quality.
10. Sugarbeet: General characteristics, trends, varieties, adaptation, agronomical requirements, cultivation practices, harvest and quality.
11. Sunflower, Hop: General characteristics, trends, varieties, adaptation, agronomical requirements, cultivation practices, harvest and quality.
12. Cannabis, Sesame, Castor bean: General characteristics, trends, varieties, adaptation, agronomical requirements, cultivation practices, harvest and quality.
13. Industrial tomato: General characteristics, trends, varieties, adaptation, agronomical requirements, cultivation practices, harvest and quality.

#### Laboratory exercises

1. Biological cycle markers for field crops.
2. Plant growth markers.
3. Irrigation and fertilization regimes for field crops.
4. Seed identification of field crops.
5. Development cereal demonstration farm.
6. Development industrial field crop demonstration farm.

### 4. TEACHING AND LEARNING METHODS - EVALUATION

<b>DELIVERY</b>	Lectures, self-tests of students and problem-solving seminars., face to face.
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</b>	Use of Information and Communication Technologies (ICTs) (e.g. Microsoft PowerPoint) in teaching. The contents of the course of

<p><b>Use of ICT in teaching, laboratory education, communication with students</b></p>	<p>each chapter are uploaded on the internet, that the students can freely download using a password which is provided to them at the beginning of the course.</p>	
<p><b>TEACHING METHODS</b> The manner and methods of teaching are described in detail.</p> <p>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.</p> <p>The student's study hours for each learning activity are given as well as the hours of nondirected study according to the principles of the ECTS</p>	<p><b>Activity</b></p>	<p><b>Semester workload</b></p>
	<p>Lectures (2 conduct hours per week x 13 weeks)</p>	<p>26</p>
	<p>Lab Practice (2 conduct hour per week x 6 weeks)</p>	<p>12</p>
	<p>Lab reports</p>	<p>5</p>
	<p>Hours for private study of the student, preparation and attendance mid-term or/and final examinations.</p>	<p>82</p>
<p><b>Total number of hours for the Course (25 hours of work-load per ECTS credit)</b></p>	<p><b>125 hours (total student work-load)</b></p>	
<p><b>STUDENT PERFORMANCE EVALUATION</b> Description of the evaluation procedure</p> <p>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</p> <p>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</p>	<p>Student performance evaluation will be explained to the students at the beginning of the course/beginning of the semester.</p> <ol style="list-style-type: none"> <li>1. Mandatory final written examination for lectures / theoretical part of the course, comprises 60% of the final mark of the student.</li> <li>2. Mandatory final written examination for the transferred laboratory skills of the course, comprises 40% of the final mark of the student.</li> </ol> <p>Minimum pass mark: 5 (full scale: 0-10)</p> <ol style="list-style-type: none"> <li>1. The above mentioned process will be taking place in Greek and for foreign students (eg ERASMUS students) in English. Examination will be based on full length questions and / or multiple choice questions.</li> <li>2. Oral examination could take place if permitted by the legal/regulatory framework under which the student is affiliated (or enrolled) to the department. If permitted, oral examination will take place simultaneously with written exams.</li> </ol>	

## 5. ATTACHED BIBLIOGRAPHY

*Proposed literature* (indicative and not restrictive):

1. Μπιλάλης, Δ., Π.Θ. Παπαστυλιανού και Η.Σ. Τραυλός (2019). Γεωργία-Φυτά μεγάλης καλλιέργειας. Εκδόσεις Πεδίο.
2. Παπαστυλιανού Π.Θ., Μπιλάλης, Δ., Η.Σ. Τραυλός και Α. Παπαθεοχάρη. Ειδική Γεωργία II- Εαρινά σιτηρά-βιομηχανικά ελαιούχα φυτά και εαρινά ζιζάνια. Εκδόσεις ΚΑΛΛΙΠΟΣ
3. Μπιλάλης, Δ., Π.Θ. Παπαστυλιανού και Η.Σ. Τραυλός (2019). Γεωργία-Φυτά μεγάλης καλλιέργειας. Εκδόσεις Πεδίο.
4. Δ.Παπακώστα -Τασοπούλου 2013. Βιομηχανικά φυτά. Εκδόσεις Σύγχρονη Παιδεία Θεσ/νίκη
5. Τραυλός Σ. Ηλίας, Κανάτας Ι. Παναγιώτης Ζιζανιολογία Και Γεωργία , Εκδόσεις Πεδίο

*Proposed research journals for further reading* (indicative and not restrictive):

1. Advances in Agronomy
2. Journal of Cereal Science
3. Agronomy Journal