

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	AGRICULTURAL AND FORESTRY SCIENCES		
<b>DEPARTMENT</b>	AGRICULTURAL DEVELOPMENT		
<b>LEVEL OF STUDIES</b>	7		
<b>COURSE CODE</b>	<b>AGRON1011</b>	<b>SEMESTER</b>	2 <sup>th</sup> & 4 <sup>th</sup>
<b>COURSE TITLE</b>	PRINCIPLES AND METHODS OF INTEGRATED PEST MANAGEMENT		
<b>TEACHING ACTIVITIES</b>	<b>TEACHING HOURS PER WEEK</b>	<b>ECTS CREDITS</b>	
Lectures and Labs	5 (3+2)	5	
<b>COURSE TYPE</b>	Scientific Area		
<b>PREREQUISITES:</b>	No		
<b>TEACHING &amp; EXAMINATION LANGUAGE:</b>	Greek English (Erasmus students)		
<b>COURSE OFFERED TO ERASMUS STUDENTS:</b>	Yes		
<b>COURSE URL:</b>	<a href="https://eclass.duth.gr/courses/OPE01122/">https://eclass.duth.gr/courses/OPE01122/</a>		

### 2. LEARNING OUTCOMES

<b>Learning Outcomes</b>
After the completion of the course the students will be able to: <ul style="list-style-type: none"> <li>(a) Understand insect populations and sampling methods</li> <li>(b) Understand the characteristics, potential and constrains of the available tools and methods for insect pest control</li> <li>(c) Understand how they can combine different methods of insect pest control within the main frame of modern Integrated Insect Pest Management</li> </ul>
<b>General Skills</b>
Autonomous work Literature search, data analysis and synthesis Critical thinking

### 3. COURSE CONTENT

<ol style="list-style-type: none"> <li>1. Introduction to the principles and methods of pest control, historical background</li> <li>2. Insect-host interactions, types of damage, damage</li> <li>3. Insect populations, natural control, sampling of insect populations</li> <li>4. Economic injury level</li> <li>5. Chemical control, insecticides efficacy, toxicity, selectivity</li> <li>6. Pest resistance to insecticides, types of resistance, prevention and control, advantages and disadvantages of chemical control</li> <li>7. Insecticides of plant origin, insect-growth regulators, non-pesticides in pest control</li> <li>8. Biological control-agents, methods, advantages and disadvantages</li> <li>9. Biological control with microorganisms</li> <li>10. Sterile insect technique</li> <li>11. Pheromones in plant protection, mating disruption</li> <li>12. Plant resistance to insect pests, cultivation and mechanical control measures, biotechnology in pest control</li> <li>13. Integrated pest management</li> </ol>
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#### 4. LEARNING & TEACHING METHODS - EVALUATION

<b>TEACHING METHOD</b>	Face to face	
<b>USE OF INFORMATION &amp; COMMUNICATIONS TECHNOLOGY (ICT)</b>	Use of ICT in Teaching and in Communication with students	
<b>TEACHING ORGANIZATION</b>	<i>Activity</i>	<i>Workload/semester</i>
	Lectures	39
	Laboratory exercises	26
	Literature research & analysis	15
	Independent learning	45
		<b>125</b>
<b>STUDENT EVALUATION</b>	Concluding Written Assignment (20%) Multiple Choice Test & Short Answer Questions (80%)	

#### 5. SUGGESTED BIBLIOGRAPHY

1. THACKER R.M. (2003). AN INTRODUCTION TO ARTHROPOD PEST CONTROL. CAMBRIDGE UNIVERSITY PRESS.
2. LODOVICA GULLINO M., ALBAJES R., NICOT PH.C. (2020). INTEGRATED PEST AND DISEASE MANAGEMENT IN GREENHOUSE CROPS. SPRINGER NATURE SWITZERLAND.

## ANNEX OF THE COURSE OUTLINE

### Alternative ways of examining a course in emergency situations

<b>Teacher (full name):</b>	Maria Pappas
<b>Contact details:</b>	<a href="mailto:mpappa@agro.duth.gr">mpappa@agro.duth.gr</a>
<b>Supervisors:</b>	NO
<b>Evaluation methods:</b>	Written examination
<b>Implementation Instructions:</b>	<p>Before the exam, a link to MS Teams which the students should follow on the day and time of the exam will be sent via e-class exclusively to the institutional accounts of the students who have registered for the course and declared to have accepted and understood the terms of distance learning and remote evaluation. MS Teams will be used for identification processes of the students via the demonstration of their academic identity. Students should also log in to the e-class page of the course using their institutional account. The exam will be available only to the registered users of the course who are eligible to participate in the exams. After logging in to e-class, students must select 'Exercises' from the options menu (left) and then the exercise entitled 'Exams'. The exam includes multiple choice questions, one of which is correct, while there is a negative score for wrong answers (not for the blank ones) equal to 1/2 of the correct answer. The total number of questions is 20 and the duration of the exam is 60 minutes. Each correct answer is scored with 0.5. From the beginning of the exam by the students, there will be a time limit of 20 minutes (at the top right of the screen, the students will be able to see the time left to complete the exam) per repetition. There is no limit in the number of repetitions allowed. However, the FIRST submitted exam will be the one to be considered. Participants must remain logged in to MS Teams during the exam. The procedure is governed by the rules described in the Code of Ethics and Good Practice of DUTH as well as the Policy for the Protection of Personal Data when using remote evaluation methods of DUTH.</p>