

COURSE OUTLINE

1. GENERAL

SCHOOL	AGRICULTURAL AND FORESTRY SCIENCES		
DEPARTMENT	AGRICULTURAL DEVELOPMENT		
LEVEL OF STUDIES	7		
COURSE CODE	PAGR02	SEMESTER	1st
COURSE TITLE	INTEGRATED CONTROL OF PLANT PESTS		
TEACHING ACTIVITIES		TEACHING HOURS PER WEEK	ECTS CREDITS
	Lectures	3	7,5
COURSE TYPE	SKILL DEVELOPMENT		
PREREQUISITES:	No		
TEACHING & EXAMINATION LANGUAGE:	Greek English (Erasmus students)		
COURSE OFFERED TO ERASMUS STUDENTS:	Yes		
COURSE URL:	https://eclass.duth.gr/courses/OPE01156/		

2. LEARNING OUTCOMES

Learning Outcomes
Upon successful completion of the course the students will be able to: <ul style="list-style-type: none"> (a) understand the basic principles of biological control in different cropping systems (b) identify the most important groups of biological control agents (c) use protocols for the evaluation of the acute toxicity and persistence of certain plant protection products against biological control agents (d) use ecological engineering as a tool to enhance efficiency of biological control agents in agricultural systems (e) organize protocols for pest control in IPM and organic production systems
General Skills
Autonomous work Literature search, data analysis and synthesis Critical thinking

3. COURSE CONTENT

<ol style="list-style-type: none"> 1. New trends in crop protection 2. Biological control in greenhouse crops 3. Ecological engineering in crop protection 4. Semiochemicals: chemical communication in insects and applications in crop protection 5. Behavioural control of insect pests: the use of trap crops in crop protection 6. Behavioural control of insect pests: the method of mating disruption in crop protection 7. Entomopathogenic microbes 8. Entomopathogenic nematodes 9. Non-indigenous biological control agents: risks for indigenous biodiversity 10. Day degree phenological models in crop protection 11. Quality control of mass reared biological control agents 12. Botanical insecticides: opportunities and prospects for their use in plant protection 13. The use of pesticides in integrated production systems
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4. LEARNING & TEACHING METHODS - EVALUATION

TEACHING METHOD	Face to face	
USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT)	Use of ICT in Teaching and in Communication with students	
TEACHING ORGANIZATION	<i>Activity</i>	<i>Workload/semester</i>
	Lectures	39
	Literature research & analysis	23.5
	Independent learning	125
		187.5
STUDENT EVALUATION	Concluding Written Assignment (30%) Debate (20%) Short Answer Questions (50%)	

5. SUGGESTED BIBLIOGRAPHY

1. Bigler F., Babendreier D. & Kuhlmann U. 2006. Environmental Impact of Invertebrates for Biological Control of Arthropods: methods and risk assessment. CABI Publishing, UK.
2. Dent D. 2000. Insect Pest Management. CABI Publishing, UK.
3. Gurr G.M. & Wratten S.D. 2004. Ecological Engineering for Pest Management: advances in habitat manipulation for arthropods. CABI Publishing, Australia.

Additional literature sources are available to students via e-class.

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	George Broufas
Contact details:	gbroufas@agro.duth.gr
Supervisors:	YES
Evaluation methods:	Online exam
Implementation Instructions:	<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 5 questions and the duration of the exam is 60 minutes. From the beginning of the exam by the students, there will be a time limit of 40 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>