Applied Entomology
Agricultural Science and Technology D.M.270/04) (L)
9
any
Italian

	SSD
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ECTS credits details		ETCs
Basic teaching activities		6

Class schedule	
Period	First semester
Year	Second
Type of class	Lectures, 4 ECTS (32 hours) study case in working groups. Laboratory and field classroom and workshops, 2 ECTS (28 hours) E-learning tools for additive didactic support by available learning facilities.

Time management	
Hours	150
In-class study hours	60 (32 lecture + 28 practical)
Out-of-class study hours	90

Academic calendar	
Class begins	28 September 2020
Class ends	22 January 2021

Syllabus		
Prerequisites/requirements	Basic Zoology knowledge	
Expected learning outcomes	Knowledge and understanding	
(according to Dublin Descriptors)	<ul> <li>The Insect machine parts and functions</li> </ul>	
(it is recommended that they are	<ul> <li>Gross insect morphology and biology</li> </ul>	
congruent with the learning	Applying knowledge and understanding	
outcomes contained in A4a, A4b,	<ul> <li>Key factors for insect evolutionary and biological success</li> </ul>	
A4c tables of the SUA-CdS)	<ul> <li>Counteracting insect invasivity</li> </ul>	
	Making informed judgements and choices	
	<ul> <li>Skill in insect damages management approach under sustainable control</li> </ul>	
	actions timing and placement	
	Communicating knowledge and understanding	
	<ul> <li>Communication skills in English</li> </ul>	
	Capacities to approach "continue learning".	
Course program	The course is tailored and focused on the insect gross morphology, functions, diversity and roles in natural or applied context. Recognition of insects, and identification to order level with a knowledge of their ecological role are the main topics of teaching. The course target to qualify the student as a basic technical consultant in view of a possible employment as insect management operator. General entomology topics are discussed as needed for a basic knowledge in Mediterranean entomology. Main insect orders are presented and discussed for artificial environments damage and management needs.	
Course program		
Bibliography	<ul> <li>Course handouts, available before the lesson starting.</li> <li>Beutel R.G., Friedrich F., Ge SQ., Yang XK. (2014). Insect Morphology and Phylogeny - A textbook for students of entomology. Walter de Gruyter GmbH, Berlin/Boston, ISBN 978-3-11-026263-6 e-ISBN 978-3-11-026404-3</li> <li>Gibbs T.J. (2014). Contemporary Insect Diagnostics: The Art and Science of</li> </ul>	

	<ul> <li>Practical Entomology. Academic Press, ISBN: 978-0-12-404623-8</li> <li>McGavin G.C. 2001 - Essential Entomology An Order-by-Order</li> </ul>	
	Introduction. Oxford University Press, ISBN 0-19850002-5	
Notes	Examples of websites: www.alien-invasive-quarantine-pest.org	
Teaching methods	Lectures and practical in study groups, Teams on-line frontal teaching & evaluation also	
Assessment methods (indicate at least the type written, oral, other)	Partial written: will be given in the form open written test questions. Candidate will apply replying about sixty questions. The assessment of the Partial will last for one year and will concur to the vote of the Integrated Course. The student will sustain the Partial on a volunteer basis. Final exam oral: will be given in the form of topic discussion on the same arguments proposed in Partial and found in handouts and textbook. Candidate will discuss three topics picked from about the sixty highlighted in handouts and textbook. The Exam evaluation will concur to the vote of the Integrated Course. The student will sustain the Exam as detailed in the proper calendar. The evaluation of candidate Partial and Exam are in Annex "A" of the Master Course didactic rules that follow the common European reference framework. Being the handouts and the textbook in English, international students will follow the lessons in Italian and prepare the Partial and the Exam, as Italians will do.	
Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to do, and how many levels of achievement there are.	<ul> <li>Knowledge and understanding         <ul> <li>Recognize insects among arthropods</li> </ul> </li> <li>Applying knowledge and understanding             <ul> <li>Ability to target insect damage in relation with the suspected culprit.</li> </ul> </li> <li>Making informed judgements and choices                 <ul> <li>Skill to imagine insect control means.</li> </ul> </li> <li>Communicating knowledge and understanding                     <ul> <li>Ability to share the ratio and expected results of urban pest control chooses and opportunities with social and private environments.</li> <li>Communication skills                     <ul> <li>Ability get insect-related information English sources.</li> <li>Capacities to continue learning                     <ul> <li>Skill to access information from the main insect-related databases.</li> </ul> </li> </ul> </li> </ul></li></ul>	
Further information	Visiting hours By E-mail or WA appointment in Section.	