COURSE OUTCOME

KM451 – BIOLOGICAL THREATS TO FOREST SPECIES - WOOD

1. GENERAL

SCHOOL	School of Technology		
DEPARTMENT	Department of Forestry, Wood sciences and design (Karditsa)		
LEVEL	*Undergraduate*		
CODE	**KM451**	**STUDENT SEMESTER**	4th
COURSE TITLE	Biological Threats to Forest Trees and Wood		

ACTIVITIES	**WEEKLY HRS**	**ECTS**
Lectures	3	5

TYPE OF COURSE	Mandatory curriculum course
PREREQUISITES:	none
LANGUAGE TEACHING AND EXAMINATION:	Greek
THE COURSE OFFERED TO STUDENTS ERASMUS	No
WEBPAGES COURSE (URL)	https://eclass.uth.gr/courses/FWSD_U_150/

2. LEARNING OUTCOMES

Learning Outcomes

To equip the department graduates with the necessary knowledge for identifying: biological threats, predicting their emergence, methods and techniques for their treatment.

General Skills

- Ability to search, analyse and compile data and information, while using any essential technology
- Adaptation to new situations
- Teamwork
- Decision making
- Demonstrate social skills, professionalism and ethical responsibility
- Work in an interdisciplinary environment
- Respect the natural environment
- Promote open minded, creative and deductive thinking.
- Development of new innovative research ideas

3. COURSE CONTENT

Definition and meaning of the disease or infestation. Wood- boring, Bark-boring, foliage-eating insects. Transmittable diseases, durability and sensitivity to diseases of plants and their wood. Fungi, bacteria, mycoplasma, Rickettsia, viruses, spermatophyte (seed plant) parasites. Non-transmittable diseases.

Methods of disease treatment. Mycorrhiza cohabitation. The main diseases that affect forest species and wood. Basic terms used in entomology. Insect morphology. Lifecycle of insects. Methods in combating insects. Forestry measures: mixing and density of tree clumps, adjustments to the area, improvement of planting materials, treetraps. Pheromones. Descriptions of most harmful insects in forest practices, for the wood and wooden constructions.

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY METHOD	Applying a combination of educational methods and techniques with the purpose of reinforcing a more active participation from students in the class and aiming to maximise productivity in teaching trough personal one to one communication (face to face): Contributions(in amphitheatre), supplemented through real examples, questions – answers and discussions
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	• Use of computers, PowerPoint presentations ppt, projector, short videos. • Use of the electronic platform e-class to support the educational process
MANAGEMENT OF TEACHING	
STUDENT EVALUATION	Formative and comprehensive procedures of evaluation are applied Course evaluation is conducted in to fazes: A) Mid-semester (around the 6th with 7th week) written examination (student participation is not mandatory), it will consist of questions that require the students to elaborate in their answer. B) At the end of the semester(after the completion of the 13th class of the curriculum) an examination is carried out based on the Departments examination schedule, this is the final examination for the course and it will also consist of questions that require the students to elaborate in their answers, they will also be tested on their identification capabilities for forest and wood infestation and diseases

Activity	***Semester Workload***
Lectures	39
Homework assignments	25
Individual and work study for term assignment	61
Course Total	***125***

5. RECOMMENDED-BIBLIOGRAPHY

Συγγράμματα στον ΕΥΔΟΞΟ

- *Καϊλίδης, Δ. 2016. Εντομολογία των δέντρων, δασών και πάρκων. Εκδόσεις: ΑΦΟΙ ΚΥΡΙΑΚΙΔΗ ΕΚΔΟΣΕΙΣ Α.Ε. (Κωδ. ΕΥΔΟΞΟΣ: 59371369)*
- *Μαρκάλας, Σ. 2010. Δασική εντομολογία. Εκδόσεις: Σ. Γιαχούδης & ΣΙΑ Ο.Ε. (Κωδ. ΕΥΔΟΞΟΣ: 41960312)*

Συγγράμματα εκτός ΕΥΔΟΞΟΥ

- *Berryman, A. 2012. Forest Insects: Principles and Practice of Population Management. Publisher: Springer-Verlag. 294 pages. ISBN - 13:9781468450828*

- *Dajoz, R. 2000. Insects and Forests : The Role and Diversity of Insects in the Forest Environment. Publisher Intercept Ltd. 680 pages. ISBN13 9781898298687*
- *Ciesla, W. 2011. Forest Entomology: A Global Perspective. Publisher: Willey - Blackwell*
- *Chew S.C. 2001. World Ecological Degradation: Accumulation, Urbanization, and Deforestation, 3000BC-AD2000. AltaMira Press, 232 p.*
- *Gardner T. 2010. Monitoring Forest Biodiversity: Improving Conservation through Ecologically-Responsible Management. Earthscan Pubs, 192 p.*
- *Geeson N.A., C.J. Brandt and J.B., Thornes (eds). 2002. Mediterranean Desertification: A Mosaic of Processes and Responses. John Wiley & Sons, 440 p.*
- *Kohm K.A., J.F. Franklin and J.W. Thomas (eds). 1997. Creating a Forestry for the 21st Century: The Science of Ecosystem Management. Island Press, 491 p.*
- *Zdruli P., M. Pagliai, S. Kapur and A. Faz Cano (eds). 2010. Land Degradation and Desertification: Assessment, Mitigation and Remediation. Springer, 490 p.*