

## Plant protection (1) - Entomology (IInd Year of study, IIIrd SEMESTER)

Credit value (ECTS) 4

### Course category

Domain (Imposed)

### Course holder:

Assist. Prof. Dr. Nela TĂLMACIU

### Discipline objectives (course and practical works)

The course aims at formation base necessary fundamental knowledge and understanding of working with concepts specific to the field of entomology at the same time discipline aims to identify students with the main morphological and anatomy characters of insects, biology, ecology and controlling principal pests of agricultural plants.

Practical works seek to familiarize students with the technical identification of the main pests in orchards, of vines, vegetable crops, industrial crops and cereals and knowledge of general notions regarding the main methods of prevention and pest control; knowledge of the types of pesticide, knowing core group of pesticides used in the pest during the growing season and the main pest control schemes.

### Contents (syllabus)

Course (chapters/subchapters)
<b>The object of study, the history and the importance of microbiology.</b>
<b>General characteristics of insects:</b> morphology and anatomy of insects.
<b>Insect Biology:</b> Reproduction in insects; Insect development; Generations and evolutionary cycle; Diapause.
<b>Insect Ecology:</b> Factors influencing the development of insects;
<b>Detection and prognosis of pests:</b> pest detection methods; methods of prognosis.
<b>Methods used in pest control:</b> preventive methods; curative measures.
<b>Insect pests of cereal crops:</b> dispersion, description, biology, ecology, plants attacked and method of pest prevention measures and control.
<b>Insect forage plants:</b> dispersion, description, biology, ecology, plants attacked and method of pest prevention measures and control.
<b>Insect pests in annual leguminous plants:</b> dispersion, description, biology, ecology, plants attacked and method of pest prevention measures and control.
<b>Insect pests on technical plants:</b> dispersion, description, biology, ecology, plants attacked and method of pest prevention measures and control.
<b>Insect pests on vegetable plants in greenhouses:</b> dispersion, description, biology, ecology, plants attacked and method of pest prevention measures and control.
<b>Insect pests of vine plantations:</b> dispersion, description, biology, ecology, plants attacked and method of pest prevention measures and control.

Practical works
<b>The morphology of the insect body:</b> structure of the head, chest, abdomen and their appendices.

<b>Insect development.</b> Larvae and pupae types
<b>Key dichotomy</b> to determine the main orders of insects.
<b>Types of pest.</b> Chemical control of pests.
<b>Recognition of main pests</b> in grain, meadows, pastures and natural meadows.
<b>Recognition of main pests</b> of legumes, technical plants and vegetable crops.
<b>Recognition of main pests</b> in fruit tree plantations, fruit trees and of vines plantations.

### **Bibliography**

1. Filipescu C., Georgescu T., Tălmăciu M., 1989 - Lucrări practice de Entomologie. Partea generală. Uz intern, Iași.
2. Ghizdavu I., Pașol P., Pălăgeșiu I., Bobîrnac B., Filipescu C., Matei Iulia, Georgescu T., Baicu T., Bărbulescu Al., 1997 -Entomologie agricolă. Editura Didactică și Pedgogică R.A., București.
3. Bărbulescu Al., 1997 - Entomologie agricolă. Editura Didactică și Pedgogică R.A., București.
4. Perju T., 1995 - Entomologie agricolă, componentă a protecției integrate a agrosistemelor. Editura Ceres, București.
5. Tălmăciu M., Georgescu T., Badeanu Marinela, 1998 - Entomologie. Partea specială. Uz intern, Iași
6. Tălmăciu M., 2003 – Protecția plantelor – Entomologie. Editura "Ion Ionescu de la Brad" Iasi.
7. Tălmăciu M., 2005 – Entomologie agricolă. "Ion Ionescu de la Brad" Iasi.
8. Roșca I., Oltean I., Mîtreă I., Talmăciu M., Petanec D., Bunescu H., Istrate Rada, Talmăciu Nela, Stan C., Micu Lavinia, 2011 –Tratat de entomologie generală și specială Editura Alpha MDN, Buzău.

### **Evaluation**

<b>Evaluation form</b>	<b>Evaluation Methods</b>	<b>Percentage of the final grade</b>
Exam	Written examination	70%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	30%

### **Contact**

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