

## Entomology (IIIrd Year of study, VIrd Semester)

Credit value (ECTS) 6

### Course category

Domain (Imposed)

### Course holder:

Assist. Prof. Dr. Florin-Daniel LIPȘA

### Discipline objectives (course and practical works)

The course aims to students knowledge of general notions of morphology, anatomy, physiology, biology and ecology of organisms characteristic of Class Insecta.

Practical work aims to familiarize students with the technical work of entomology laboratory, knowledge and practical application of the concepts of morphology, anatomy and physiology of insect species commonly found in agricultural environments.

### Contents (syllabus)

Course (chapters/subchapters)
<b>The subject, history and importance of entomology</b> , relationship with other disciplines.
<b>External morphology of the insect body.</b> Body regions. Head and its appendices. Insect oral appliances. Thorax and its appendices. Different leg and wing concepts. Abdomen and its appendices.
<b>Anatomy and physiology of insects.</b> Muscles, skin formations of the digestive and excretory tegument. Circulatory system; Respiratory system. Nervous system and sense organs. Tropism and instincts. Secretory system. Genitals.
<b>Reproduction of insects.</b> Sexual tip. Dimorphism. Number of generations and biological cycles.
<b>Insect development.</b> Metamorphosis and forms. Eggs. Larval morphology and types of larvae. Pupa and nymph. The adult.
<b>Insect ecology.</b> Abiotic factors: temperature, humidity, light, soil and air currents. Biotic factors.
<b>Insect Systematics.</b> Characterization of the main orders of insects: Blattoptera, Coleoptera, Diptera, Heteroptera, Hymenoptera, Homoptera, Lepidoptera, Orthoptera and Thysanoptera.

Practical works
<b>Presentation Laboratory of Entomology</b> ; labor protection rules; Laboratory equipment and utensils; correct working practices

<b>The main species of insects of the order Coleoptera:</b> Melolontha melolontha;Leptinotarsa decemlineata; Coccinella 7 points; Tanymecus dilaticolis.
<b>Order Coleoptera:</b> Zabrus tenebrioides; Agriotes lineatus; Chaetocnema tibialis;Byctiscus Betulae.
<b>Order Heteroptera;</b> Eurygaster integriceps; Aelia rostrata; Tyngis pyri; Euridema decorated.
<b>Order Hymenoptera:</b> Cephus pygmaeus; <b>Ord. Homoptera:</b> Phylloxera vastatrix;Quadraspidiotus perniciosus; Eriosoma lanigerum.
<b>Order Homoptera :</b> Aphys trees; Cicada plebeja; Brevicorrhine brassicae.
<b>Order Lepidoptera:</b> Hyphantria cunea; Pieris brassicae; Crataegi aporia; Scotia segetum.
<b>Order Lepidoptera:</b> Loxostege sticticalis; Cydia pomonella; Eupoecillia ambiguella; Cameraria ohridella.
<b>Order Orthoptera:</b> Gryllotalpa Gryllotalpa; Locusta migratoria; Gryllus campestris;Polysarcus denticaudus.
<b>Final colloquium of knowledge evaluation</b>

### Bibliography

1. **Bădeanu Marinela, 2007**, Entomologie, Editura Pim, Iași
2. **Boguleanu Gh. 1994**, „Fauna dăunătoare culturilor agricole și forestiere din România, Editura Ceres, București.
3. **Georgescu T., Tălmăciu M., Bădeanu Marinela, 1996**, Protecția plantelor viticole.Caiet de lucrări practice de Entomologie.Uz intern.Iași.
4. **Tălmăciu M., Georgescu T., Bădeanu Marinela, 1998**, Entomologie-curs, partea specială, Uz intern Iași.

### Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Oral examination	60%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	40%

### Contact

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