**Plant Protection** (YEAR III, SEMESTER I)

# Credit value (ECTS) 4

**Course category**

Domain (Imposed)

# Course holder:

**PhD. Lecturer Monica Elena HEREA**

# Discipline objectives (course and practical works)

* Students' knowledge of insect morphology and anatomy, insect biology and ecology.
* Notions of forecasting and warning of chemical treatments;
* Knowledge of the main methods of prevention and control of pests;
* Knowledge of the main pests in fruit plantations, vineyards, vegetable crops, technical plants, cereals.
* Knowledge of the types of pesticide agro-availability, acquisition of the main groups of pesticides used in pest control during the vegetation period as well as the main pest control schemes.

# Contents (syllabus)

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| **Course (chapters/subchapters)** |
| 1. INTRODUCTION: The object and economic importance of entomology. Brief history of  development worldwide and in our country; The connection with other sciences. |
| 2. GENERAL CHARACTERISTICS OF INSECTS: Morphology and anatomy of insects. |
| 3. INSECT BIOLOGY: Reproduction in insects; Insect development; Generations and evolutionary cycle; Diapause. |
| 4. INSECT ECOLOGY: Factors influencing the development of insects; |
| 5. PEST DETECTION AND FORECAST: pest detection methods; forecasting methods. |
| 6. METHODS USED IN PEST CONTROL: preventive methods; curative measures. |
| 7. INSECTS PESTING CEREAL CROPS AND TECHNICAL PLANTS: spread, description,  biology, ecology, attacked plants and mode of damage, prevention and control measures. |
| 8. HARMFUL INSECTS IN NUTRITION PLANTS and ANNUAL LEGUMES: spread,  description, biology, ecology, attacked plants, pest, prevention and control measures |
| 9. PESTS IN ANNUAL LEGUME PLANTS: spread, description, biology, ecology, attacked plants, pest control, prevention and control measures |
| 10. PESTS IN TEHNIQUES PLANTS: spread, description, biology, ecology, attacked plants,  pest control, prevention and control measures |
| 11. HARMFUL INSECTS IN STORAGE SPACES: spread, description, biology, ecology,  attacked plants, pest control, prevention and control measures |
| 12. HARMFUL INSECTS FROM VINEYARD PLANTS AND FRUIT TREES: spread,  description, biology, ecology, attacked plants, pest method, prevention and control measures |

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| **Practical works** |
| 1. The morphology of the insect's body: the structure of the head, thorax, abdomen and their appendages. |
| 2. Development of insects. Types of larvae and pupae |
| 3. The dichotomous key to determining the main orders of insects. |
| 4. Types of damage. Chemical pest control. |
| 5. Recognition of the main pests of cereals, meadows, pastures and natural grasslands. |
| 6. Recognition of the main pests of leguminous plants, technical plants and vegetable plants. |
| 7. Recognition of the main pests from tree plantations, fruit bushes and vine plantations. |

# Bibliography

1. Georgescu T., 1990 – *Entomology course.* The general and special part. Use internally, Iaşi
2. Georgescu T., Tălmaciu M., Alexa C., 2003 – *Pests of horticultural plants. Prevention and control.*Editura PIM, Iaşi.
3. Herea Monica, Tălmaciu Mihai, 2020- *Practical Entomology Supervisor*, Ion Ionescu Publishing House from Brad.
4. Perju T., 1995 - *Agricultural entomology, component of the integrated protection of agrosystems*. Ceres Publishing House, Bucharest.
5. Perju Teodosie, 2002- *Pests of fruiting bodies and integrated control axes,* Ed. Academicpress, Cluj-Napoca*.*
6. Talmaciu M.,2002 - *Plant protection - Entomology, course, internal use*. U.S.A.M.V. Iasi.
7. Tălmaciu M., 2005 *- Agricultural entomology,* Ion Ionescu Publishing House from Brad, Iaşi.

# Evaluation

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| **Evaluation form** | **Evaluation Methods** | **Percentage of the final grade** |
| Written examination | Knowledge and understanding of the concepts contained in progress | 70% |
| Seminar / laboratory | Practicing the use of sources of information, preparation and presentation  of reports | 30% |

**Contact person**

# PhD. Lecturer Monica Elena HEREA

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