**REQUIREMENTS**

**2022/23. academic year 1. semester**

**Name and code of the subject:** Forecasting and integrated plant protection, **MTMNO7015A**

**Name and title of the person responsible for the subject:** Dr. László Radócz, associate professor

**Additional instructors involved in teaching the subject:-**

**Name and level of the program:** Plant Protection MSc

**Subject type:** Obligatory

**Teaching timetable of the subject, type of examination:** 3+2 hours / C

**Credit value of the subject: 3**

**Purpose of teaching the subject:**

Students should become familiar with the concept of plant protection forecasting, Its spatial and temporal levels. Methods and possibilities used in the prediction of pathogens, pests and weeds. Get to know the use of key forecasting tools and tools, computer forecasting models and databases as part of a hands-on demonstration. Students should also get to know the concept and levels of integrated pest management. Methods and possibilities used in the control of pathogens, pests and weeds. Learn how to use key computer decision support and technology design models and databases.

**Content of the subject (14 weeks):**

*1. The concept, spatial and temporal levels of plant protection forecasting.*

*2. General methods used to predict pests,*

*3. General methods used to predict pathogens,*

*4. General methods used to determine the spread of weeds,*

*5. Operation of pheromone traps and their main types,*

*6. Major forecasting targeting tools and software,*

*7. The concept of integrated pest management, its integration into farming practice,*

*8. Mechanical-physical methods in integrated pest management,*

*9. Agrotechnical methods in integrated pest management,*

*10. Chemical methods in integrated pest management,*

*11. Biological methods in integrated pest management,*

*12. Genetic-biotechnological methods in integrated pest management,*

*13. Determination and calculation of injury thresholds,*

*14. Databases, computer models, software for use in the planning / implementation of integrated pest management.*

**Type of mid-term examination:** Participation in the exercises is mandatory. Attendance at 70% of lectures is also mandatory.

**Method of assessment (semester examination mark - report, practical grade, colloquium, examination):** Colloquium

**Teaching aids:** the slide series of the presentations

**Recommended literature:**

1.http://www.tankonyvtar.hu/en/tartalom/tamop425/0010\_1A\_Book\_08\_Novenyvedelem/adatok.1

2. <https://food.ec.europa.eu/plants/pesticides/sustainable-use-pesticides/integrated-pest-management-ipm_en>

3. Radócz L.: Modern plant protection I. (Plant protectional forecasting and IPM principles). Egyetemi Kiadó, Debrecen (2010). (ISBN: 978-606-10-0181-1).

4. Glits-Horváth-Kuroli-Petróczi: Növényvédelem. Mezőgazdasági Kiadó. 1997. (ISBN 963 286 042)

5. Fischl G.: A biológiai növényvédelem alapjai. Mezőgazda Kiadó, Budapest (2000). (ISBN 963 9239 57 7)