**Informatics and agricultural extension MTMNO7013A**

Name and code of the subject: Informatics and agricultural extension (MTMNO7013A)

Name and title of the person responsible for the subject: Dr. Péter Lengyel, Dr. Péter Horváth

Additional instructors involved in teaching the subject: -

Name and level of the program: Növényorvosi MSc

Subject type: lecture an practice

Teaching timetable of the subject, type of examination: 1 lecture + 2 practice, written mid-term exams

Credit value of the subject: 3

Purpose of teaching the subject: Understanding the structure of the spreadsheet program, using worksheet functions, and solving basic and complex worksheets. Learning how to make reports from data, which analyze tools can be used and interpretation of results.

Content of the subject (14 weeks):

1. Data input, data types, basic operations. The use of worksheets: basic formatting and data format

2. Structure of data tables, spreadsheet function semantics. References, sorting, and filtering

3. Date and time functions, text functions. The use of operators and arguments in date, time and text functions

4. Logical functions and lookup and reference functions. Learning the use of conditions in functions

5. Data features, tables as databases, database functions

6. Data analysis and reports. The use of PIVOT tables

7. Mid-term exam (Excel), Power BI basics

8. Transform databases, Create reports, visuals

9. Creating complex report

10. Mid-term exam (Power BI)

11. Agricultural extension

12. Agricultural advisory system

13. Swot analysis

14. Student presentations