

# JOHN WESLEY THEOLOGICAL COLLEGE COURSE TEMATICS



| Course:             | Course type:              | Credits:             | Course ID:          |
|---------------------|---------------------------|----------------------|---------------------|
| Biometry            | seminar                   | kreditszám           | tantárgy kódja      |
| Course responsible: | Programme type: full time | Hours/Semester<br>12 | Assessment:<br>exam |

### **Course objectives:**

Students will be presented the full experience of designing experiments, analyzing data (provided by the instructor or the student), and presenting the statistical results in standard scientific format (tabular, graphical). Students will work with datasets from their own research specialties.

# **Competencies to be improved:**

Knowledge: T8 Ability: K5, K8

Attitude:

Autonomy and responsibility: F3

**Compalsory literature:** 

Educational material from course

**Recommended literature:** 

#### **Course content:**

- Stages of statistical work, basic concepts, basic knowledge of biometrics.
- Estimation methods (average, sum of values, basic population ratio, quotient), statistical samples.
- Hypothesis testing (type 1 and type 2 errors).
- Sampling (random and non-random procedures)
- Calculation of variance, standard deviation.
- Calculation of the mean value and statistical tests, error limits.
- Calculation and interpretation of the confidence limits of the mean value.
- Comparison of two mean values, analysis of outliers.
- Statistical tests of variance.
- Comparison of standard deviations. Analysis of variance.
- Evaluation of single factor experiments.
- Statistical evaluation of two-factor experiments.
- Evaluation of three- and multifactorial experiments.
- Correlation calculation, regression calculation

# **Course requirements:**

attandence at classses,

# **Grading scale:**

>91 excellent, 81-90 good, 70-80 satisfactory, 60-69%:pass



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| Course Programme:  | Semester:   | Lecturers:    |
|--------------------|-------------|---------------|
| WJLF ENVIRONMENTAL | 2022 2023 1 | Lilla Strobel |
| SCIENCE            |             |               |