



Syllabus

Term: 2026/27/1 **Subject name:** Statistics - practice **Subject code:** ENBIOB0601

Unit (Unit code) (BIOLOGIA)

Lecturer responsible for the course: Dr. CSABAI Zoltán Szabolcs

Requirement: Term mark

Classes per week : 0/0/3

Classes per term: 0/0/39

Purpose of education:

Fundamental statistics necessary for designing and evaluating biological experiments. Step-by-step demonstration of calculus and underlying principles. Descriptive statistics and elementary predictive statistics.

Grading and course schedule according to the information given during the first practical of the semester (6-Sept-2023). The same information is available in eLearning.

Contents:

1. Course Information, Basic Statistical Terms, Sampling, Variables,
2. Test-1; Diagrams, Statistical Measures, Frequency, Estimate, Confidence Interval
3. Test-2; Transformations, Density and Distribution Functions, Gaussian-distribution
4. Identification of statistical problem types based on text problems.
5. Binomial-distribution, Estimate, Introduction to Statistical Hypothesis Testing
6. Test-3; Hypothesis Testing, Probe Strength, Type-1 and Type-2 Errors, Statistical Probes
7. Statistical Probes, t-distribution, F-distribution
8. Test-4; Statistical Probes, chi-square-distribution
9. Non-Parametric Probes
10. Fall Semester Break
11. Test-5; Statistical Probes, ANOVA
12. ANOVA (continued), Probes for Two Variables: Independence, Association, Correlation
13. Test-6; Regression Analysis, Predictions in Linear Models
14. Test-7

System of examing and valuation:

Attendance is compulsory. Any non-justified absence or more than three justified absences results in failing to complete the course. Justified absences require medical note (from physician); or thesis supervisor's note on study related absence, such as conference trip.



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System of examining and valuation:

Marks are formed based on the average of six midterm tests as:

average % < 60%, failed (1)

60% < average % < 70%, passed (2)

70% < average % < 80%, average (3)

80% < average % < 85%, good (4)

average % > 85%, excellent (5)

Students with an average % < 60 have one retake opportunity at the end of the semester. This is an oral examination including both theory and calculations. Successful oral exam will result in the mark: passed (2).

Bibliography:

There is no compulsory reading. Summaries will be made available via eLearning.

Students are encouraged to take their own notes and use these for studies.

Bibliography: