**Statistics (ECTS credits: 6)**

Language: the course is offered in English, Serbian and Hungarian.

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**Course description:**

The course covers some elements of Combinatorics, Probability and Statistics.

This course cover the following topics, considering the Integrated Product Development:

1. Introduction – fundamentals of statistics
2. Data collection
3. Surveys
4. Presenting data
5. Descriptive statistics
6. Fundamentals of combinatorics
7. Fundamentals of probability
8. Probability variables, discrete probability distributions
9. Continuous probability distributions
10. Sampling and sampling distributions
11. Confidence interval estimation
12. Fundamentals of project management
13. Fundamentals of hypothesis testing
14. Hypothesis testing
15. Closing remarks

**Aims:**

The goals are the following:

* The students should understand the importance and usage of statistics in real problems;
* The students should be able to collect and present data;
* The students should be able to calculate descriptive statistics;
* The students should understand importance of probability variables and some probability distributions;
* The students should understand the concept of confidence interval estimation of distribution parameters;
* The students should understand the fundamentals of hypothesis testing.