

Module: Statistics 1

Lecturer: dr inž. Monika Maj

Semester: Winter/Summer

Hours: 15

Type: Classes

Credit: Paper

ECTS: 6

1. BASIC DESCRIPTIVE STATISTICS: types of data, some graphical displays, numerical summaries.

2. INTRODUCING PROBABILITY

3. CONDITIONAL PROBABILITY

4. RANDOM VARIABLES & PROBABILITY DISTRIBUTIONS: discrete random variables, examples of Probability Mass Functions for Discrete Random Variables, continuous random variables, cumulative distribution function, probability Density Functions.

5. THE NORMAL DISTRIBUTION: standardization, Central Limit Theorem

6. DESCRIPTIVE STATISTICS: measures of central tendency and measures of variability (spread). Measures of central tendency include the mean, median, and mode, while measures of variability include the standard deviation, variance, the minimum and maximum variables, and the kurtosis and skewness. Measures of center: the mean, median, and mode. Distributive array, histogram.