

DESCRIPTION OF THE COURSE OF STUDY FOR EXCHANGE STUDENTS

Name of the course in	English	Mathematical statistics I
	Polish	Statystyka matematyczna I

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1 Field of study	Mathematics
1.2 Level of study	Undergraduate (Bachelor)

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1 Language of instruction	English
2.2 Semesters in which the course of study is offered	winter (V)
2.3 ECTS credits	5

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	lecture, classes
3.2. Form of assessment	Exam (lecture), assessment (classes)

4. OBJECTIVES AND SYLLABUS CONTENT

4.1. Course objectives <i>C1.</i> Introduction to elementary methods of statistical inference <i>C2.</i> Practical implementation of basic methods of mathematical statistics <i>C3.</i> Raising awareness about taking both accepting and questioning attitude towards effects of statistical inference
4.2. Detailed syllabus Random sample, sample distribution. Notion of estimator, 'good' properties of estimators. Point estimation, interval estimation. Question of minimum sample size. Hypothesis testing. Type I error, and type II error. Power of tests. Selected tests for population parameters. Goodness of fit tests. Examples of statistical inference in correlation and regression analyses.