**Automation of Measurement and Inspection**

**Course Overview**

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| **Level of study** | **Master Degree** |
| **Workload** | **ECTS: 3**  **Total Hours: 96**  **Contact Hours: 24**   * **Lectures: 6** * **Labs: -** * **Seminars: 18** |
| **Course Code** |  |
| **Semester** | **Winter or Summer** |
| **Prerequisites** | *Mathematics; Physics; Theoretical Mechanics; Structural Materials Engineering; Metrology, Standardisation and Certification; Engineering Mechanics; Mechanical Engineering Metrology* |
| **Course Objectives** | *The objective of the course is to develop knowledge, skills and experience in the field of automation of measurement and inspection; introduce student to the basic principles of selection of universal and special purpose instruments for measurement and inspection; measurements with coordinate measuring machine (CMM)* |
| **Learning Outcomes** | *Will be able to:*  *select probes and auxiliary devices for CMM;*  *calibrate probes and CMM;*  *perform locating of samples and various components for measurements;*  *carry out measurements using CMM* |
| **Syllabus** | *1. Means of measurement automation*  *2. Measuring devices for machine tools*  *3. Coordinate measuring machines: types, calibration, methods of measurement* |
| **Labs** |  |
| **Projects** |  |
| **Assessment** | *Credit test* |
| **Resources** |  |
| **Instructors** | *Kim Alexey Bogowhich*  *http://portal.tpu.ru/SHARED/b/BOGOWHICH* |