| Title Introduction to Physics Laboratory (Wprow do I prac. fiz.) | Code<br>1010401211010430684 |
|--|-----------------------------|
| Field TECHNICAL PHYSICS  | Year / Semester             |
| Specialty  | Course                      |
| -  | core                        |
| Hours  | Number of credits           |
| Lectures: 1 Classes: - Laboratory: - Projects / seminars: -      | 2                           |
|  | Language                    |
|  | polish                      |

# Lecturer:

| dr Krzysztof Łapsa         |       |
|----------------------------|-------|
| Katedra Spektroskopii Opty | cznej |
| Poznań, ul. Nieszawska 13/ | 4     |
| tel. 61 6653164            |       |
| Krzysztof.Lapsa@put.pozna  | an.pl |
|                            |       |

### Faculty:

Faculty of Technical Physics ul. Nieszawska 13A 60-965 Poznań tel. (061) 665-3160, fax. (061) 665-3201 e-mail: office\_dtpf@put.poznan.pl

#### Status of the course in the study program:

Core course of the study for Technical Physics, Faculty of Technical Physics.

## Assumptions and objectives of the course:

Introduction to carrying out laboratory experiments and processing experimental data.

### Contents of the course (course description):

Operation of common laboratory instruments (rules of operating, certainty of instrument). Classification of uncertainties. Basic definitions of uncertainties theory (Gauss distribution function, average value, standard deviation, Student-Fisher method for small series of events). Evaluating uncertainties of the complex quantities by complete differential method. Rounding results und uncertainties. Rules of making graphs. Linear regression method.

### Introductory courses and the required pre-knowledge:

Secondary school mathematics and physics.

# Courses form and teaching methods:

Lectures.

### Form and terms of complete the course - requirements and assessment methods: Written test.

# **Basic Bibliography:**

Additional Bibliography: