

Title <b>Metrology and Experimental Techniques</b>	Code <b>1018051310108030305</b>
Field <b>Electronics and Telecommunications</b>	Year / Semester <b>2 / 3</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>1</b> Classes: -    Laboratory: -    Projects / seminars: -	Number of credits <b>0</b>
	Language <b>polish</b>

**Lecturer:**

PhD Maciej Wawrzyniak  
Faculty of Electronics and Telecommunications  
Piotrowo 3A  
60-965 Poznań  
phone 665 3835, fax. 665 2678  
e-mail: mwawrz@et.put.poznan.pl

**Faculty:**

Faculty of Electronics and Telecommunications  
ul. Piotrowo 3A  
60-965 Poznań  
tel. (061) 665-2293, fax. (061) 665-2572  
e-mail: office\_det@put.poznan.pl

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

Obligatory course for students of Electronics and Telecommunications.

**Assumptions and objectives of the course:**

To provide students with the skills for analyze experimental data and present results of measurement. To introduce students to method of prepare, organize, conduct measurements and eliminate errors during the measurement process.

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

Methods, principles and procedures of measurements. Sources of errors. Identification of systematic errors. Statistics in metrology. Point and range estimation. Uncertainty and error in direct and indirect measurements. Calculation of the total standard uncertainty. Metrological attributes of modern measuring instruments. Selected characteristics of analog and digital measurements. Automatization of measurement process. Measurement systems and computer-aided measurements.

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

Fundamentals of circuit theory and metrology.

**Courses form and teaching methods:**

Lectures illustrated by multimedia presentations.

**Form and terms of complete the course - requirements and assessment methods:**

Written examination

**Basic Bibliography:**

-

**Additional Bibliography:**

-