

Title <b>Mechanics and mechanisms theory</b>	Code <b>10102542410102101531</b>
Field <b>Mechanical Engineering</b>	Year / Semester <b>2 / 4</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>1</b> Classes: <b>12</b> Laboratory: -    Projects / seminars: -	Number of credits <b>4</b>
	Language <b>polish</b>

**Lecturer:**

- Jacek Buśkiewicz, Ph. D., Eng.  
tel. +48(61) 6652177  
e-mail: jacek.buskiewicz@put.poznan.pl

**Faculty:**

Faculty of Mechanical Engineering and Management  
ul. Piotrowo 3  
60-965 Poznań  
tel. (061) 665-2361, fax. (061) 665-2363  
e-mail: office\_dmef@put.poznan.pl

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

- Core course at the Faculty of Mechanical Engineering and Management, field of study - Mechanical Engineering

**Assumptions and objectives of the course:**

- Knowledge of the scope of theory of machines and mechanisms required for solving technical problems connected with construction and exploitation of machines.

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

- Structure of mechanisms Basic definitions. Classification of kinematic pairs. Structural and functional classification of mechanisms. Kinematics of mechanisms. Mobility of mechanisms. Analytical methods of kinematic analysis of lever mechanisms: four-bar linkage, slider-crank mechanism. Total compensating torque. Balancing of planar mechanisms. Selection of flywheel.

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

- Basic knowledge of calculus of vectors, differential calculus, static, kinematics and dynamics of rigid body.

**Courses form and teaching methods:**

- Lectures, exercises.

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

- Test and written examination.

**Basic Bibliography:**

**Additional Bibliography:**