

Title Mechanics and Mechatronics	Code 1010324271010320371
Field Electrical engineering	Year / Semester 4 / 7
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: - Projects / seminars: -	Number of credits 3
	Language polish

Lecturer:

dr inż. Dorota Stachowiak
Instytut Elektrotechniki i Elektroniki Przemysłowej
60-965 Poznań, ul. Piotrowo 3a
tel. +4861 665 23 96
e-mail: Dorota.Stachowiak@put.poznan.pl

Faculty:

Faculty of Electrical Engineering
ul. Piotrowo 3A
60-965 Poznań
tel. (061) 665-2539, fax. (061) 665-2548
e-mail: office_deef@put.poznan.pl

Status of the course in the study program:

Obligatory subject, Faculty of Electrical Engineering, Field: Electrical Engineering, Extramural first-degree studies

Assumptions and objectives of the course:

The student should obtain knowledge of construction and operation principle of mechatronics devices.

Contents of the course (course description):

The definition and key elements of mechatronics. Mechatronic Systems ? analysis, optimization and design; examples. Electromechanical, Electrostatic, Piezoelectric, Hydraulic and Pneumatic Actuators. Microelectromechanical systems (MEMS): microsensors, microactuators, silicon technology applications. Electrostatic Microactuators.

Introductory courses and the required pre-knowledge:

Basic knowledge of physics, electrical engineering, electronics and mechanics.

Courses form and teaching methods:

Lectures supported by transparencies

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

Tests.

Basic Bibliography:

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Additional Bibliography:

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