

Title Programming of robots (Programowanie robotów)	Code 1010401161010220751
Field Edukacja Techniczno-Informatyczna	Year / Semester 3 / 6
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 5
	Language polish

Lecturer:

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Status of the course in the study program:

Core course of the study for Education in Technology and Informatics, Faculty of Technical Physics.

Assumptions and objectives of the course:

The student should obtain theoretical and practical knowledge of programming robots.

Contents of the course (course description):

Lecture: Structure kinematics and dynamics of two-dimensional mechanisms; Design of two-dimensional mechanisms. Kinematics (forward - direct and inverse transformation) of industrial robots with serial and parallel structures. Today?s programming languages of industrial robots (algorithms and instructions). Configuration of movement parameters. Robot safety basics.
Laboratory: Controlling and programming of the educational and industry robots.

Introductory courses and the required pre-knowledge:

Basic knowledge of mechanics, automation and basics of programming.

Courses form and teaching methods:

Lectures supported by slides and video films, Laboratory of robotics.

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

Written tests and oral examination. Estimation of project realized on laboratory exercises.

Basic Bibliography:

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Additional Bibliography:

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