



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Preparation for scientific research

### Course

Field of study

Automatic Control and Robotics

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

4/7

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

6

### Number of credit points

1

### Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. Krzysztof Kozłowski

email: krzysztof.kozlowski@put.poznan.pl

tel. 61 6652199

Faculty of Control, Robotics and Electrical

Engineering

Poznań, ul. Piotrowo 3a

Responsible for the course/lecturer:

prof. dr hab. inż. Andrzej Kasiński

email: andrzej.kasinski@put.poznan.pl

Faculty of Control, Robotics and Electrical

Engineering

Poznań, ul. Piotrowo 3a

### Prerequisites

A student starting this subject should have the knowledge, skills and competences acquired in the previous years of study - knowledge, skills and competences of an in-depth nature that can be used in conducting scientific research. In addition, in terms of social competences, the student must present attitudes such as honesty, responsibility, perseverance, cognitive curiosity, creativity, personal culture, respect for other people.

### Course objective

The main aim of the seminar "Preparation for scientific research" is to present the basic methodology of



conducting research in the field of Automation and Robotics and to present the subject of research conducted in the units assigned to this field.

### Course-related learning outcomes

#### Knowledge

1. is familiar with the current state and the latest development trends in the field of automation and robotics;
2. knows the basic methods, techniques, tools and materials used to solve simple engineering tasks in the field of automation and robotics;

#### Skills

1. is able to obtain information from literature, databases and other sources also in a selected foreign language;
2. is able to communicate using various techniques in the professional environment and in other environments;
3. has self-education skills in order to raise and update professional competences;

#### Social competences

1. understands the need and knows the possibilities of continuous learning: improving professional, personal and social competences, can inspire and organize the learning process of other people;
2. is aware of the social role of a technical university graduate and understands the need to formulate and transmit to the society (in particular through the mass media) information and opinions on the achievements of automation and robotics and other aspects of engineering activities; makes efforts to provide such information and opinions in a commonly understandable manner;

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative evaluation within the scope of the seminar: on the basis of evaluation of activity in the discussion;

Summative assessment: Checking the assumed learning outcomes is carried out by: assessing the increase in the ability to use the learned principles and methods;

### Programme content

As part of the seminar, the methodology of conducting scientific research in the field of Automation and Robotics will be presented in the basic scope and the subject of scientific research conducted in the units assigned to this field will be presented.

### Teaching methods

Presentations, discussions and consultations in the field of ongoing research projects



## Bibliography

Basic

Additional

### Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	8	0,5
Student's own work (literature studies, preparation for seminars, making presentations) <sup>1</sup>	17	0,5

<sup>1</sup> delete or add other activities as appropriate