



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

German [S1AiR1>JNiem3]

### Course

Field of study

Automatic Control and Robotics

Year/Semester

2/3

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

polish

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

30

Projects/seminars

0

### Number of credit points

1,00

### Coordinators

mgr Ewa Kapalczyńska

ewa.kapalczynska@put.poznan.pl

### Lecturers

### Prerequisites

1.The already acquired language competence compatible with level B1 (CEFR) 2.The ability to use vocabulary and grammatical structures required on the high school graduation exam with regard to productive and receptive skills 3.The ability to work individually and in a group; the ability to use various sources of information and reference works.

### Course objective

1. Advancing students' language competence towards at least level B2 (CEFR). 2. Development of the ability to use academic and field specific language effectively in both receptive and productive language skills. 3. Improving the ability to understand field specific texts (familiarizing students with basic translation techniques). 4. Improving the ability to function effectively on an international market and on a daily basis.

### Course-related learning outcomes

Knowledge

As a result of the course, the student ought to acquire field specific vocabulary related to the following issues:

1.Drones

- 2.Robots and their types
- 3.Industrial automation
- 4.Smarthome
- 5.Sensors
- 6.Laser

and to be able to define and explain associated terms, phenomena and processes.

#### Skills

As a result of the course, the student is able to:

1. give a talk on field specific or popular science topic (in English), and discuss general and field specific issues using an appropriate linguistic and grammatical repertoire - [K1\_U1, K1\_U5 ]
2. express basic mathematical formulas and to interpret data presented on graphs/diagrams- [K1\_U4, K1\_U7]
3. formulate a text in English where he/she explains/describes a selected specific topic-[K1\_U4, K1\_U7]

#### Social competences

- 1.As a result of the course, the student is able to communicate effectively in a field specific/professional area, and to give a successful presentation in English. -[K1\_K1, K1\_K4]
- 2.The student is able to recognize and understand cultural differences in a professional and private conversation, and in a different cultural environment.-[ K1\_K1, K1\_K4]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

- 1.Formative assessment: formal coursework assignments (presentations, tests)
- 2.Summative assessment: credit and exam. To obtain a positive assessment the student is obliged to pass the material covered by the program with at least 50%.

### Programme content

- Drones and their types
- Robots and their types
- Robots classification and applications (e.g. industrial robot, humanoid )
- Automation technologies in production
- Construction and operation of an automation system in an intelligent building
- Sensors, sensors in automatic control and robotics, types, applications
- Laser, its structure and principle of operation, applications
- Technical presentations

### Teaching methods

1. Presentation, analysis of topics/problems through examples shown on the board, lexical and grammatical tasks,
2. Language practice: discussion, teamwork, case study, linguistic and integration games,
3. Student's individual work, reading and listening comprehension exercises, writing practice.

### Bibliography

#### Basic

- 1.Steinmetz, M./Dintera, H.: Deutsch für Ingenieure, Springer Vieweg, Wiesbaden 2014
2. Guzik, D. : Wissenschaft im Alltag“, Kraków 2010

#### Additional

- 1.Zettl, E.: Aus moderner Technik und Naturwissenschaft, Max Hueber Verlag 2003
2. Fearn/ Buhlmann: Technisches Deutsch für Ausbildung und Beruf, Verlag Europa-Lehrmittel, 2013
3. Targosz,E.: Angst vor Fachtexten, Politechnika Krakowska, 2005
4. Jabłońska,D.: Energie Roboter Autos Züge, Politechnika Krakowska, 2014
5. Jin,F./Voß,U.: Grammatik aktiv, Cornelsen Verlag, 2013
6. Buchwald-Wargenau, I./Giersberg, D.: Im Beruf neu, Hueber Verlag, 2019
7. Professional literature (online resources)

## Breakdown of average student's workload

	Hours	ECTS
Total workload	40	1,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	10	0,00