# COURSE DESCRIPTION CARD - SYLLABUS

Course name
German [N1AiR2>JNiem3]

## Course

Field of study
Automatic Control and Robotics

Year/Semester
2/4

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
elective

## Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
30

Projects/seminars
0

## Number of credit points

2,00

## Coordinators

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## 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. 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

The programm includes the following content:
- Drones
- Robots
- Manufacturing automation
- Industry 4.0

## Course topics

The programm covers the following topics:
- Drones, types and uses
- Robot and its construction
- Classification and purpose of robots (e.g. industrial robot, humanoid robot)
-The importance of automation techniques in production
- Industry 4.0, its objectives, advantages and risks

## 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.Braun, B./Fügert, N.: Kompass DaF B1/B2, Ernst Klett Sprachen,, Stuttgart 2022
Additional:
1.Zettl, E.: Aus moderner Technik und Naturwissenschaft, Max Hueber Verlag 2003
2. Guzik, D. : Wissenschaft im Alltag“, Kraków 2010
3. Fearns/ Buhlmann: Technisches Deutsch für Ausbildung und Beruf, Verlag

Europa-Lehrmittel, 2013
4. Jabłońska,D.: Energie Roboter Autos Züge, Politechnika Krakowska, 2014
5. Targosz,E.: Angst vor Fachtexten, Politechnika Krakowska, 2005
6. Professional literature (online resources)

## Breakdown of average student's workload

| | Hours | ECTS |
|---|---|---|
| Total workload | 50 | 2,00 |
| 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) | 20 | 1,00 |