COURSE DESCRIPTION CARD - SYLLABUS

Course name
English [S1Mech2>JA1]

Course

Field of study
Mechatronics

Year/Semester
1/2

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
0

Tutorials
60

Projects/seminars
0

Number of credit points

5,00

Coordinators

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Lecturers

Prerequisites

The already acquired language competence compatible with level B1 (CEFR). The ability to use general and field specific vocabulary, and grammatical structures required on the first level of studies. 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 the level at least B2 (CEFR). 2. Developing the ability to effectively use general and field-specific language in both receptive and productive language skills. 3. Improving the ability to understand field-specific texts (presenting the students with the basic translation techniques). 4. Improving the ability to function effectively on an international market and in daily life.

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. Maths and geometry

2. Graphs
3. Engineering
4. Mechatronics
5. Mechanics: mechanisms, types of motion
6. Materials science
and to be able to define and explain associated terms, phenomena and processes.

Skills:
As a result of the course, the student has acquired the skills to communicate in English and use Mechatronics-specific language, and is able to:
1. give a presentation in English on a field-specific technical or popular topic, discuss general and technical topics using an appropriate linguistic and grammatical repertoire,
2. express basic mathematical formulae and interpret data presented on a graph/diagram,
3. describe a graph in English.

Social competences:
1. As a result of the course, the student is able to communicate effectively in a field specific/professional environment and typical daily-life situations, and to give a successful presentation in English.
2. The student is able to recognize and understand cultural differences in a professional and private conversation, and in a different cultural environment.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge acquired during the classes is verified by exam. Pass: 60% of points. The course topics the questions are based on are presented to students earlier. Students are also obliged to prepare a presentation on a technical topic.

Programme content

1. Issues and vocabulary related to engineering and its main branches, characteristics of different engineering disciplines, the place of mechatronics in the realm of engineering; the objectives of mechatronics.
2. Concepts and vocabulary connected with the structure and operation of simple machines including levers, cams, gears, pulleys, inclined planes, screws, mechanical advantage.
3. Classification, characteristics and application of materials used in engineering including metals, plastics, timber, composites and ceramics.

Course topics

1. Maths and geometry
2. Graphs
3. Engineering
4. Mechatronics
5. Mechanics: mechanisms, types of motion
6. Materials science

Teaching methods

Practical classes, guided text method.
The teaching methods are based on the improvement of four basic language competences (listening, speaking, reading, writing) as a means of expanding the substantive knowledge in the field of technical topics.

Bibliography

Basic:
Dubis, A., Firganek, J. 2006 English through electrical and energy engineering. Kraków: SPNJO Politechniki Krakowskiej
Glendinning, E., Glendinning, N. 1995, Oxford English for Electrcal and mechanical engineering, Oxford; Oxford University Press

Glendinning, E., McEwan, J.1996 Oxford English for Electronics, Oxford: Oxford university Press
Hanf, B. 2000 Angielski w Technice, Stuttgart: LektorKlett
Internet based materials

Additional:
Kubot, A., Maćków,W. 2015. „Mathematics and graphs - vocabulary pracice for academic English studies”.

Breakdown of average student's workload

	Hours	ECTS
Total workload	120	5,00
Classes requiring direct contact with the teacher	60	2,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	60	2,50