COURSE DESCRIPTION CARD - SYLLABUS

Course name
German [S1MiKC1E>JNIEM1]

Course

Field of study
Microelectronics and Digital Communication

Year/Semester
1/1

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
niemiecki

Form of study
full-time

Requirements
elective

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
45

Projects/seminars
0

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

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

Course objective

1. Bringing the language competence to at least B2 level (CEFR). 2. Developing the ability to effectively use both general academic language and specialized language relevant to the field of study across the four language skills. 3. Improving the ability to work with technical professional texts. 4. Developing the skills needed to function in the international job market and in everyday life.

Course-related learning outcomes

Knowledge:
As a result of the course, the student:
1. acquires technical vocabulary related to programmable electronics and telecommunications;
2. defines and understands various issues within the scope of the field of study;

3.knows and understands grammatical and lexical rules of the German language and effectively uses them in various types of written and spoken communication;
4. knows the principles of formulating both functional and academic spoken and written statements, including the rules for conducting correspondence, presenting technical problems, and reporting research findings in various written and spoken forms.

Skills:
A a result of the course, the student:
1.is able to independently obtain and use information from various types of sources in German
2. can formulate a text and deliver a presentation in German, explaining/describing a selected specialized topic in the field of ICT
3. is able to discuss latest achievements in their field, based on specialized sources
4. can communicate in German in both professional and non-professional environments
5. has language skills in the area of programmable electronics and telecommunications consistent with the requirements for the B2 level of the Common European Framework of Reference for Languages
6. is able to independently plan and carry out their own work to improve language skills .

Social competences:
As a result of the course, the student
1. is able to work in a team, also in a multicultural environment, using their language skills
2. is capable of thinking and acting in a creative and entrepreneurial manner
3. can formulate opinions on the development and dilemmas of their field of study in German and express them in public speeches
4. is able to effectively communicate their arguments in German and understands their importance and significance

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The formative assessment may include:
1.Oral and written tasks and expressions
2. Control tests
3. Homework assignments
4. Projects/presentations
The concluding semester assessment may include:
1. Oral and/or written tests
2. Class Performance Evaluation
The summative course evaluation after the completion of the 4th semester: oral and written examination. Earning at least 50% of the possible points is a prerequisite for passing.

Programme content

1. Mathematics
2. Description and interpretation of graphs
3. ICT and electronics: definition and scope of interest
4. Information technology: history and latest advancements
5. Computer system components and functioning
6. Programming.

Course topics

1. Numbers and basic mathematical operations
2. Elements of geometry
3. Methods of visual data presentation
4. Description and interpretation of graphs
5. ICT: definition and applications
6. Electronics: definition and applications
7. History of computers: 5 generations of computers
8. Quantum computers and artificial intelligence
9. Computer structure: architecture, RAM, ROM, hardware, and software

10. Memory and data storage
11. Operating system
12. Programming and programming languages

Teaching methods

1. Presentations, discussions, lexical and grammatical exercises, also online
2. Teamwork, project work, case studies
3. Individual work

Bibliography

Basic:
Steinmetz, M., Dintera, H. (2014). Deutsch für Ingenieure. Springer Vieweg
Eichstädt, T., Spieker, S. (2024). 52 Stunden Informatik (2. Auflage). Springer Vieweg

Additional:
Becky, U., Bewer, F., Fernandes, N., Hensch, J., Liske, M., Thommes, J. (2018). Einfach zum Studium! (3. Auflage). telc GmbH
Drenkert, P., Pinzhoffer, G., Grzunefeld, A. (2013). Uni Deutsch 2 Training Hörverstehen. Booksbaum
Gerling, R., Gerling, S. (2022) IT-Sicherheit für Dummies. Wiley-VCH GmbH
Mathes, A. (2018). Uni? Sicher! Deutsch 3 (3. Auflage). Booksbaum
Morztz, U., Rodi, M., Rohrmann, L., Kaufmann, S. (2022). Linie 1 Beruf B2. Ernst Klett Sprachen
Gerhard, C., Pohlschmidt, A., Schmitz, H., Schwieger, B. (2022). Aspekte Beruf B2. Ernst Klett Sprachen
Kärchner-Ober, R. (2020). Im Beruf neu Fachwortschatztrainer Technik. Hueber Verlag
Nissen, K. (2018). Grammatiktraining Deutsch für B2. telc gGmbH
Selected online sources.

Breakdown of average student's workload

	Hours	ECTS
Total workload	110	4,00
Classes requiring direct contact with the teacher	45	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	65	2,50