

Course description

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| Course abbreviation: | UJP/AST5 | Page: | 1 / 5 |
| Course name: | English for Mechanical Engineering 5 | | |
| Academic Year: | 2023/2024 | Printed: | 03.06.2024 10:12 |

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|---|--|----------|----------|-------------------------------|-----------------|
| Department/Unit / | UJP / AST5 | | | Academic Year | 2023/2024 |
| Title | English for Mechanical Engineering 5 | | | Type of completion | Pre-Exam Credit |
| Accredited/Credits | Yes, 4 Cred. | | | Type of completion | |
| Number of hours | Tutorial 4 [Hours/Week] | | | | |
| Occ/max | Status A | Status B | Status C | Course credit prior to | NO |
| Summer semester | 0 / - | 0 / - | 0 / - | Counted into average | NO |
| Winter semester | 0 / - | 0 / - | 36 / - | Min. (B+C) students | 15 |
| Timetable | Yes | | | Repeated registration | NO |
| Language of instruction | English | | | Semester taught | Winter semester |
| Optional course | Yes | | | Internship duration | 0 |
| Evaluation scale | S\N | | | | |
| No. of hours of on-premise | | | | | |
| Auto acc. of credit | Yes in the case of a previous evaluation 4 nebo nic. | | | | |
| Periodicity | K | | | | |
| Substituted course | CJP/AST5 | | | | |
| Preclusive courses | N/A | | | | |
| Prerequisite courses | N/A | | | | |
| Informally recommended courses | N/A | | | | |
| Courses depending on this Course | N/A | | | | |

Course objectives:

The course is designed for students of technical universities focusing mainly on Mechanical Engineering with pre-intermediate or intermediate knowledge of English. Students will learn to communicate in technically oriented working environments. The course should equip students with language competencies at the level B1 according to the Common European Framework for Languages.

Requirements on student

Course credit requirement: a student must obtain minimum 75 points for the whole course to pass the subject and receive ECTS credits.

Course requirements consist of

the obligatory part which includes 1) 50% course attendance (12 classes); 2) 4 homework assignments with specified DEADLINES (*Submission takes place online via Google Classroom, access via your Orion account under @gapps.zcu.cz).

and the voluntary part which includes 3) Moodle course - 5 points for each completed block; 4) Final test. Test contains 50 questions and is worth 25 points (1 point for every 2 questions answered correctly)

Attendance requirements: 50% course attendance is obligatory to qualify for course credits Every class attended is worth 1 point, therefore, at least 12 points must be obtained.

Content

Block 1: Classes 1-6

Course introduction. Formal presentation and course requirements.
Scope of Mechanical Engineering, Job Roles, Field of work

The choice of ME, Steps to becoming a Mechanical Engineer, Required Skills

LinkedIn strategy, Tips for Mechanical Engineering Interview

What (Not) to say in Job Interview

Job Application Emails, Resume Design

Future Trends of Mechanical Engineering

Grammar and Vocab revision. Comparing and contrasting engine types and their future: Hydrogen, Electric, Internal combustion engines

Block 2: Describing visuals, forces and processes

4-6, Classes 7-12

Describing visuals

Grammar and Vocab revision, Picture dictations, group presentations

Describing forces, simple mechanisms

Grammar and Vocab revision, Describing the way things work

Describing processes: Milling and Grinding

Grammar and Vocab revision, Describing processes: Welding and Casting

Block 3: Materials, energy sources, forces and machines

7-8, Classes 13-16

Properties of Material, Ferrous Materials, Non-Ferrous Materials, Alloys

Energy sources: Renewable/non-renewable. Current state of each, + and -, problems and potential solutions

Describing Lathe Machines and how they work

Describing Drilling Machines and how they work

Block 4: Units of Measurement

9-10, Classes 17-20

Types of Metrology, Measurement Terminologies

Limit & Fit, Linear Measurement

Comparative gauges, Angular Measurement

Force and Torque, Temperature Measurement

Giving presentations

AST5 students can use an e-learning online course, available from moodle.zcu.cz.

<https://phix.zcu.cz/moodle/course/view.php?id=8951>

Fields of study

Guarantors and lecturers

- **Guarantors:** Olesya Petrenko, Ph.D. (100%)
- **Tutorial lecturer:** Mgr. Bc. Věra Bublíková (50%), Mgr. Jan Hartman (100%), Olesya Petrenko, Ph.D. (100%)

Literature

- **Basic:** Čepičková, J. *English for Mechanical Engineers 5*.
- **Recommended:** Ibbotson, Mark. *Cambridge English for engineering*. Cambridge : Cambridge University Press, 2008. ISBN 978-0-521-71518-8.
- **Recommended:** Murphy, Raymond. *English grammar in use : with answers : a self-study reference and practice book for intermediate students of English*. 3rd ed. Cambridge : Cambridge University Press, 2004. ISBN 0-521-53289-2.
- **Recommended:** Glendinning, E. H., Glendinning, N. *Oxford English for Electrical and Mechanical Engineering*. Oxford, 1994.

Time requirements

All forms of study

| Activities | Time requirements for activity [h] |
|---|------------------------------------|
| E-learning [dáno e-learningovým kurzem] | 65 |

| | |
|--|------------|
| Preparation for comprehensive test (10-40) | 32 |
| Contact hours | 52 |
| Undergraduate study programme term essay (20-40) | 20 |
| Total: | 169 |

assessment methods

Knowledge - knowledge achieved by taking this course are verified by the following means:

- Test
- Seminar work
- Continuous assessment

Skills - skills achieved by taking this course are verified by the following means:

- Test
- Seminar work
- Continuous assessment

Competences - competence achieved by taking this course are verified by the following means:

- Test
- Seminar work
- Continuous assessment

prerequisite

Knowledge - students are expected to possess the following knowledge before the course commences to finish it successfully:

- distinguish grammatical structures at the A2/B1 level according to SERR
- name materials
- name machine components
- list simple safety rules
- choose appropriate vocabulary for communication in formal and informal situations

Skills - students are expected to possess the following skills before the course commences to finish it successfully:

- describe a problem and suggest a simple solution
- write a simple ad and announcement
- lead a basic conversation in a restaurant: ordering food, paying
- have a basic conversation in the hotel: booking a room, solving simple problems
- describe basic material properties
- compare devices
- describe attachments and locations of machine parts

Competences - students are expected to possess the following competences before the course commences to finish it successfully:

- N/A
- N/A

teaching methods

Knowledge - the following training methods are used to achieve the required knowledge:

- Practicum
- E-learning
- Multimedia supported teaching

Collaborative instruction
 Cooperative instruction
 Discussion
 Self-study of literature

Skills - the following training methods are used to achieve the required skills:

Practicum
 E-learning
 Multimedia supported teaching
 Collaborative instruction
 Cooperative instruction
 Discussion
 Self-study of literature

Competences - the following training methods are used to achieve the required competences:

Practicum
 E-learning
 Multimedia supported teaching
 Collaborative instruction
 Cooperative instruction
 Discussion
 Self-study of literature

learning outcomes

Knowledge - knowledge resulting from the course:

- distinguish grammatical structures at the B1 level according to SERR
- distinguish mathematical expressions and specifications
- list material properties

Skills - skills resulting from the course:

- introduce one's profession and workplace
- write a structured resume and job application
- attend an interview
- make a phone call, leave and take a message
- write a request
- describe a production process
- explain functions
- describe an experiment
- give detailed instructions, including notification of problems
- have a discussion on a work-related topic
- compare the advantages and disadvantages of technical solutions

Competences - competences resulting from the course:

N/A
 N/A

Course is included in study programmes:

| Study Programme | Type of | Form of | Branch | Stage St. plan v. | Year | Block | Status | R.year | R. |
|-----------------|---------|---------|--------|-------------------|------|-------|--------|--------|----|
|-----------------|---------|---------|--------|-------------------|------|-------|--------|--------|----|

| Study Programme | Type of | Form of | Branch | Stage | St. plan v. | Year | Block | Status | R.year | R. |
|------------------------|----------|-----------|--|-------|-------------|------|--|--------|--------|----|
| Engineering | Bachelor | Full-time | Automotive Industry Specialist | 1 | 2020 | 2023 | Doporučené výběrové předměty - CIZÍ JAZYKY | C | 3 | ZS |
| Engineering | Bachelor | Full-time | Programming of NC Machines | 1 | 2020 | 2023 | Doporučené výběrové předměty - CIZÍ JAZYKY | C | 3 | ZS |
| Engineering | Bachelor | Full-time | Quality Control | 1 | 2020 | 2023 | Doporučené výběrové předměty - CIZÍ JAZYKY | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Full-time | Design Engineering of Power Machines and Equipment | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Full-time | Design Engineering of Machines and Technical Devices | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Combined | Design Engineering of Machines and Technical Devices | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Combined | Engineering Materials and Manufacturing Technology | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Full-time | Engineering Materials and Technology | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Full-time | Industrial Engineering and Management | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Combined | Mechanical Engineering | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Full-time | Mechanical Engineering | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |
| Mechanical Engineering | Bachelor | Full-time | Technology of Metal Cutting | 1 | 2020 | 2023 | Elective courses: Foreign Languages | C | 3 | ZS |