Developing Engineering English Through Language Courses at PUT

Poznan University of Technology
Poland

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Languages for Specific Purposes in Higher Education 2016
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Centrum Języków i Komunikacji
Centre of Languages and Communication

Content:

1. Poznan University of Technology,
   Center of Languages and Communication

2. Teaching ESP at PUT- examples

3. ACERT exam

4. Students' and teachers' opinions

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Poznan University of Technology

- Established in 1919
- 22 000 students
- 1 200 academic teachers
- 1st, 2nd, 3rd cycles
- 10 faculties

www.put.poznan.pl

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Centre of Languages and Communication

Center of Languages and Communication- CLC

Interfaculty Unit at PUT

Founded in 1953

Courses:

- Teaching Modern Languages
- Teaching Soft Skills
- Courses - E-learning platform Moodle
- European and National Projects:

e.g. Tempus, Leonardo da Vinci, Maggic, Venoces,

Linguanet, Language Rich Europe etc.

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CLC PUT- 1st and 2nd cycle language modules:

1. Languages for specific purposes
2. 1st cycle: final exam at B2
3. 2nd cycle: final exam at B2+/ C1
4. Studies in English (CLIL)

www.clc.put.poznan.pl

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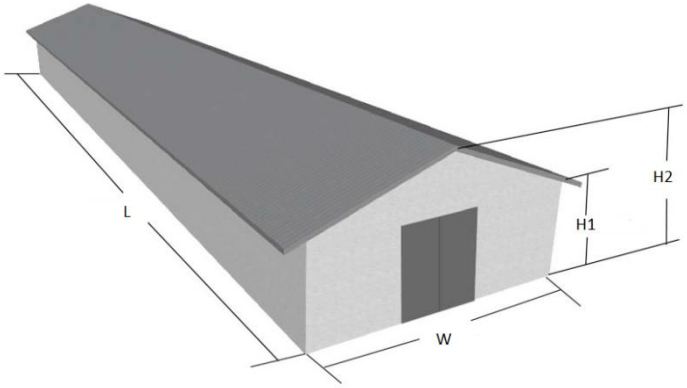
EXERCISES FOR STUDENTS

Developing mathematical vocabulary

This is a poultry house, where
L is the l_ _ _ _ _ (1) of the house,
W is the w_ _ _ _ (2) of the house,
H1, H2 - the h_ _ _ _ _ (3) of the wall .



Complete the description:
The shape of the base of the house (L x W) is a r_ _ _ _ _ _ _ _ _ (4).
We can calculate the area of the floor (L x W) , and the result is given in s_ _ _ _ _ (5) meters.
In order to know how much ventilation equipment we need for a poultry house, we must first calculate the v_ _ _ _ _ (6) (V) of the house.
V = L x W x H1 + ½ (H2-H1) x L x W
It reads:
V e_ _ _ _ _ (7) L m_ _ _ _ _ _ _ _ _ _ (8) by W plus ½ times H2 – H1 in b_ _ _ _ _ _ _ (9) times L times W.

The result is given in c_ _ _ _ (10) meters.

*adapted from http://www.doublel.com/poultrydivision/poultryinlets/side-wall-inlets/tjp-inlets/TJP_Inlets_No&PlacementEndwalls.pdf

KEY:

1 – length	2 – width	3 - height	4 - rectangle	5 - square
6 – volume	7 – equals	8 – multiplied	9 - brackets	10 - cubic

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AIM OF EXERCISE:

1. Students will learn the new mathematical words which can be used in solving mathematical problems in engineering.
2. Students will be expected to understand and write scientific technical texts using specific mathematical vocabulary.

STUDENTS' ROLE:

Learning new vocabulary and practicing – completing the tasks.

DESCRIPTION OF THE EXERCISE:

The sample math tasks are examples of engineering problems aligned to both the content and language standards. They provide examples of real tasks connected with the specific Faculties and Departments.

RESULTS:

1. Students learn the meaning of new mathematical words which can be used when counting and solving mathematical, technical and engineering problems.
2. Students are expected to understand grade-level words in a variety of contexts.
3. Students determine word meaning by analyzing the textual content.

EXERCISES FOR STUDENTS

Reading Comprehension

Read the text and complete task A and task B.

The technical text (with gaps) is given.

A. Choose a sentence / clause (a - f) which best fits each gap (1-5). There is one extra option which cannot be used.

B. For questions 6 - 10 find the words in the text that correspond to the definitions.

1. A minute life form, especially a bacterium that causes disease. (par.1) ……
2. Ultramicroscopic (20 to 300 nm in diameter), metabolically inert,infectious agents that replicate only within the cells of living hosts,mainly bacteria, plants, and animals: composed of an RNA or DNAcore, a protein coat, and, in more complex types, a surrounding envelope. (par.1) ……
3. Free from living germs or microorganisms; aseptic. (par.2) ……
4. The act of polluting, or of making something impure. (par.2) ……
5. Variations among and within plant and animal species in an environment. (par.3) ……

KEY:

1. MICROBIAL 2.VIRUSES 3. STERILE 4. CONTAMINATION 5. BIODIVERSITY

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AIM OF EXERCISE:

1. Students will improve the skill of technical reading and comprehension.
2. Students will learn technical vocabulary.

STUDENTS' ROLE:

Learning new vocabulary and content; completing the tasks.

DESCRIPTION OF THE EXERCISE:

The text provides a real content.
The task combines both aquiring knowledge and vocabulary.

RESULTS:

1. Students learn the meaning of new technical words which are commonly used in the specific faculty and field of study.
2. Students are expected to understand words in a specific technical context.
3. Students determine word meaning by analyzing the textual content.

SERMO

Association of Academic Modern Languages Centres in Poland

- Founded in 2006

www.sermo.org.pl

- Member of CercleS

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ACERT in CLC PUT *– written part*

- LISTENING COMPREHENSION

- READING COMPREHENSION

❑ 2 exercises - 1 ESP

- GRAMMAR AND VOCABULARY

❑ 3 exercises - 1 ESP

- WRITING

❑ GUIDED WRITING

❑ GRAPH INTERPRETATION

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ACERT – examples

ESP – AUTOMATICS AND ROBOTICS:

Write a paragraph in which you will compare different jointing methods:

- compare mechanical fixings to non-mechanical fixings
- give at least two examples of each type of fixing
- explain what are advantages and disadvantages of different types of jointing methods
- use Passive Voice in at least two sentences

ACERT

ELECTRICAL ENGINEERING

Read carefully the statements in the table below. Then match each of them with ONE word from the list. Do not use any word from the list twice. (10 x 0.5 = 5 points)

battery, capacitor, circuit, coulomb, farad, filament, fuse, generator, germanium , oxygen, thermistor, transformer, turbine

No	Statement	YOUR ANSWERS
1	It is a basic safety mechanism in home electric installations.	
2	It consumes power whenever it is plugged in, either connected to a load or not.	
3	It stores electrons like a battery (but is NOT a battery).	
4	It is a part of a light bulb .	
5	It provides motion for an electrical generator.	
6	It produces AC power.	
7	It may be rechargeable.	
8	It may be used to produce integrated circuits.	
9	It is a unit of electric charge.	
10	It is used to detect temperature change .	

ACERT– *oral part*

Two questions:

- Languages for Specific Purposes
- Dialogue with a partner

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ACERT – examples of a dialogue

Give an opinion and try to convince:

1A. E-books have become increasingly popular in recent years.

Convince your partner that e-books are better than traditional books. Take into account, for example, functionality, beauty, form, durability, ease of use.

1B. E-books have become increasingly popular in recent years.

Convince your partner that traditional books are better than e-books. Take into account, for example, functionality, beauty, form, durability, ease of use.

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ACERT- ESP examples:

1. Give four examples of detection devices in an alarm system and characterize them.
2. Describe the structure, advantages and disadvantages of optical fibers.
3. What is a radar system? How does it work?
4. What is the principle of operation of a transformer? Draw a sketch and explain how a transformer works.
5. What is the difference between closed circuit, open circuit and short circuit?

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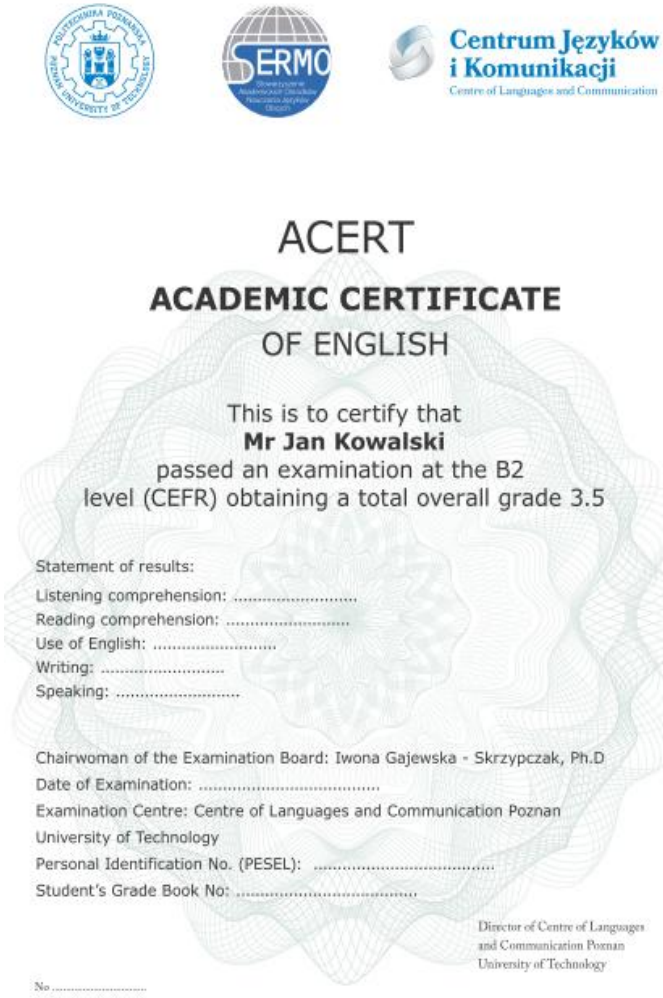

ACERT

ACADEMIC CERTIFICATE

OF ENGLISH

This is to certify that
Mr Jan Kowalski
passed an examination at the B2
level (CEFR) obtaining a total overall grade 3.5

Statement of results:

Listening comprehension: .....
Reading comprehension: .....
Use of English: .....
Writing: .....
Speaking: .....

Chairwoman of the Examination Board: Iwona Gajewska - Skrzypczak, Ph.D
Date of Examination: .....
Examination Centre: Centre of Languages and Communication Poznan University of Technology
Personal Identification No. (PESEL): .....
Student's Grade Book No: .....

Director of Centre of Languages and Communication Poznan University of Technology

No .....

ACERT

ACERT in Poland:

Poznań

Łódź

Szczecin

Wrocław

Gniezno

ACERT accreditation:

a. Ministry of Higher Education

b. CercleS

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ACERT – students' and teachers' opinions

- ✓ Multicultural competences
- ✓ Communicative competences – needs and expectations of of employers
- ✓ CEFR
- ✓ Clear assessmnet criteria (written and oral part)
- ✓ E-portfolio for academics

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Discussion:

→ course books – problems with ESP content at B1/B2 levels

→ teachers' role in ESP: leaders + staff

→ students' expectations

Thank you for your attention

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