

KARTA PRZEDMIOTU

Nazwa przedmiotu: **Technical english (WTCNXCSI-TE)**

Nazwa w języku polskim:

Nazwa w jęz. angielskim: **Technical English**

Dane dotyczące przedmiotu:

Jednostka oferująca przedmiot: Wydział Nowych Technologii i Chemii

Przedmiot dla jednostki: Wydział Nowych Technologii i Chemii

Domyślny typ protokołu dla przedmiotu:

Zaliczenie na ocenę

Język wykładowy:

angielski

Skrócony opis:

The basic idea behind this course is to help student of different branches of engineering to increase their knowledge of technical English and develop their ability to reach out the word of technology and business through grammar, vocabulary, technical presentations, and report writing. This course is made through a variety of tasks that bring alive the language in the classroom and prepare the student for the word work. Besides, the course has in mind the task of preparing students to produce clear and effective basic functions with language that come their way during study, such as being able to compose email effectively in precise writing, essay writing, prepare technical reports/papers, write effective business, formal and job application letters. Student will improve their reading, writing, and speaking skills in a context relevant to their specialist studies.

Opis:

SEMESTR III

1. Technology in use. Describing technical functions and application. Explaining how technology works. Language: verbs and adjectives to describe advantages. Adverbs for adding emphasis. Phrases for simplifying and rephrasing.
2. Manufacturing and assembly. Describing component shapes and features. Explaining and assessing manufacturing techniques. Machining with cutting tools. High-temperature metal cutting techniques. Language: Words to describe machining. Phrases for describing suitability. Proposition of position.
3. Technical development. Discussing technical requirements. Suggesting ideas and solutions. Describing improvements and redesigns. Language: Phrases for suggesting solutions and alternatives. Phrases for referring to quality and extent.
4. Technical writing.
5. Monitoring and control. Describing automated systems. Describing readings and trends. Language: Words to describe automated system. Words to describe measurable parameters.
6. Electrical Engineering. Current, voltage and resistance. Electrical supply. Circuit and components. Language: Phrases for comparing results. Words for linking causes and effects.
7. Fluids. Fluid containment. Fluid pressure. Fluid dynamics. Language: Verbs and adjectives for describing technical problems. Words for describing faults and their severity. Adjectives and prefix for describing technical problems.
8. Static and Dynamic Principle. Load, stress and strain. Force deformation and failure. Structural mechanics. Motion and simple machine. Language: words to describe test types. Words and phrases for stating assumptions. Adjectives for describing suitability and performance. Words to describe types of forces factor, criteria, and consideration.
9. Energy and temperature. Forms of energy. Heat and temperature. Language: Words to describe test types. Words to describe measurable parameters. Words to describe fluctuations and approximating numbers.
10. Engineering design. Areas, size and mass, measurable parameters. Describing design phrases and procedures. Resolving design problems. Language: Phrases related to scale. Phrases related to tolerance length, width, thickness etc. Verbs and noun for describing stages of a design process and design problems
11. Breaking point. Describing types of technical problem. Assessing and interpreting faults. Describing the cause of faults. Discussing repairs and maintenance. Language Verbs and adjectives for describing technical problems. Adjectives with prefix for describing technical problems. Verbs for describing repairs and maintenance.
12. Theory and practice. Explaining tests and experiment. Exchanging views on predictions and theories. Comparing results with expectation. Language: Words and phrases for stating assumptions. Words and phrases for agreeing and disagreeing. Phrases for comparing expectation and results.
13. Mechanisms. Engines and motors. Transmission. Discussing, performance and suitability. Describing capability and limitations. Describing physical forces. Language: Adjectives for describing suitability and performance. Words and phrases to describe degrees of difference. Words to describe capabilities and limits.
14. Measurement techniques. Description of technological properties of some measuring devices, especially the characteristics of electronic measurement instruments. Discussion of the measurement's precision. Error calculus. Standard deviations and other ways of estimation of accuracy of measurements.
15. Methodology of presentation of research results in the form of a paper and a poster. Components of a paper.

Literatura:

Podstawowa:

1. P. Domański, English in Science and Technology, WNT, 1993.
2. L. Szkutnik, An Introductory Course in Scientific English, PWN, 1978.
3. R. Macpherson, University English, Wydawnictwa Szkolne i Pedagogiczne, 1994.
4. E. B. Uvarov, A. Isaacs, Dictionary of Science, The Penguin, 1993.
5. David. W. A. Sharp, The Penguin Dictionary of Chemistry, 1991.

Uzupełniająca:

1. P. Atkins & J. de Paula, Physical Chemistry, Oxford University Press, 2005.

Efekty uczenia się:

Symbol / Efekty uczenia się / Odniesienie do efektów kierunku

W1 / Student will have sufficient English vocabulary in the range of material structure, notions related to phase transformations. Student will be familiar with the way of describing structural parameters. / K_W02,
W2 / Student will improve his professional communication skills. Such as describing technical problems and discussing dimensions and precisions. K_W02

W3 / Knows the general chemical, mathematical and physical terminology necessary to translate papers on scientific and technological issues / K_W02, K_W017
 U1 / Student can collect data from literature, data bases and other information resources. Furthermore, can analyze and interpret obtained information as well as formulate and justify opinion in the range of materials science. / K_U01
 U2 / Student will have the ability to present scientific and technological issues both in written and oral way as well as to describe results of scientific research / K_U015
 U3 / Student will be able to make use of electronic and printed sources of scientific information / K_U10
 U4 / Student will be able to present scientific and technological issues in the form of publications, lectures and conference appearances / K_U15
 K1 / Properly recognizes and solves problems related to his/her profession / K_K05

Metody i kryteria oceniania:

The subject is credited under condition of the positive results of the oral seminar presentation of a chosen problem in English within the range of electronics and its consequent preparation for publication in a scientific journal.

The final mark is the arithmetical average of the marks obtained for the two requirements mentioned above.

Accomplishment of the effects W1, W2, W3, W4, U3, U4, K1 i K3 is verified during the oral presentation and during formulation and preparation of the paper.

mark 2 – less than 50% of the required knowledge;

mark 3 – 50 ÷ 60% of the required knowledge;

mark 3,5 – 61 ÷ 70% of the required knowledge;

mark 4 – 71 ÷ 80% of the required knowledge;

mark 4,5 – 81 ÷ 90% of the required knowledge;

mark 5 – more than 91% of the required knowledge.

Mark 5 is given to a student who has acquired knowledge, skills and competencies contained in the teaching results system, is competent and consistent in the knowledge acquirement process.

Mark 4 is given to a student who has acquired knowledge, skills and competencies contained in the teaching results system on a good level.

Mark 3 is given to a student who has acquired knowledge, skills and competencies contained in the teaching results system on a satisfactory level.

Mark 2 is given to a student who has not acquired the basic knowledge, skills and competencies contained in the teaching results system and has not accomplished the necessary requirements.

Forma studiów

stacjonarne

Rodzaj studiów

I stopnia

Rodzaj przedmiotu

obowiązkowy

Przedmioty wprowadzające

Fizyka 1, 2 – general physics at basic level of a technical university

Matematyka 1, 2, 3 – general mathematics at basic level of a technical university

Język obcy – English within the range of secondary comprehensive school

Programy

kierunek: inżynieria materiałowa, specjalność: inżynieria fotoniczna

Forma zajęć liczba godzin/rygor

S 30/z

Autor

dr hab. Nouredine BENNIS

Bilans ECTS

Lp. Aktywność Obciążenie w godz.

1. Udział w wykładach

2. Udział w laboratoriach

3. Udział w ćwiczeniach

4. Udział w seminariach 30

5. Samodzielne studiowanie tematyki wykładów

6. Samodzielne przygotowanie do laboratoriów

7. Samodzielne przygotowanie do ćwiczeń

8. Samodzielne przygotowanie do seminarium 50

9. Realizacja projektu

10. Udział w konsultacjach 6

11. Przygotowanie do egzaminu

12. Przygotowanie do zaliczenia 4

13. Udział w egzaminie

godz.; ECTS

Sumaryczne obciążenie pracą studenta: 90; 3,0

Zajęcia z udziałem nauczycieli: 1+2+3+4+9+10+13: 36; 1,0

Zajęcia powiązane z działalnością naukową: 30; 1,0

Punkty przedmiotu w cyklach:

<bez przypisanego programu>			
Typ punktów	Liczba	Cykl pocz.	Cykl kon.
Europejski System Transferu i Akumulacji Punktów (ECTS)	3	2020/21Z	