

Information sheet for the course Technical English

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>	
Course unit code: <i>MI-I-P-12</i>	Course unit title: <i>Technical English</i>
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods: <i>Lecture: 0</i> <i>Seminar: 2 hours weekly/26 hours per semester of study; face to face 0</i> <i>Laboratory tutorial:0</i> <i>-</i>	
Number of credits: <i>2</i>	
Recommended semester: <i>the 2nd semester in the 1st year of the full-time form of study</i> <i>the 2nd semester in the 1st year of the part-time form of study</i>	
Degree of study: <i>the 2nd degree of study (Engineer's degree)</i>	
Course prerequisites: <i>none</i>	
Assessment methods: <i>To accomplish the given study subject, the students have to be present at seminars as well as they have to show activity and creative work during the seminar.</i> <i>Student has to prepare the final seminar work and write the final test in a required quality.</i> <i>In relation to all prerequisites, the date and all important facts are predetermined on the basis of the agreement with the student.</i> <i>The successful accomplishment of the test is connected with the fact that student has to obtain 70% from the specified number of points (the total number of points referring to 100% is variable). In relation to the written test, if student obtains 70% from the total number of points referring to 100%, his/her final evaluation mark is A (Excellent). Students will not be given the specified number of credits if they do not obtain 70% from the total number of points referring to 100%. Moreover, the students are also obliged to write and present their final seminar work.</i>	
Learning outcomes of the course unit: <i>From the aspect of the specific principles which are characteristic for the technical English or English for special purposes with the reference to academic English, student is able to specify and analyse the latest scientific knowledge in relation to materials science and engineering. Accomplishment of this study subject is connected with student's ability to present coherent and understandable attitude in relation to technical English. Student has improved his/her skills in relation to understanding, speaking, writing, reading and listening from the aspect of technical as well as common spoken English. Student is able to operate with different kinds of dictionaries in order to find the most appropriate or suitable equivalent technical expression in relation to translation form or to English language. On the basis of analytical approach, student is able to find connections between specific expressions and he/she is able to express his/her attitude to many specialised topics and he/she can summarise the results with utilisation of the information from various sources. Student has also enhanced vocabulary and by this way he/she is able to keep the continuity of the specialised technical style. He/she is familiar with some specific as well as distinctive features occurring in the common spoken English. The accomplishment of this course leads to continuous enhancement on the basis of systematic practise with regard to communication, phraseology phrasal verbs which are characteristic for academic and technical English.</i>	
Course contents: <i>- at the beginning, students are given the basic and initial information on the educational process, literature references, conceptual framework and objectives in relation to the given subject; moreover, the requirements referring to the acquisition of the credits are also determined;</i> <i>- individual English tenses with focus on technical expressions (utilisation of different text-based materials and summarisation of the most common English tenses – grammar structure, application,</i>	

mutual comparison and

- *summarisation of the basic and former knowledge referring to parts of speech (text-based tasks and exercises with the application of terminology from linguistics as well as scientific and technological sources);*
- *specification of the correct English sentence (syntactic constituents in relation to English sentence); word order in the English sentence as well as specific distinctive features of some sentence constructions – text-based exercises focused on materials science and engineering (division of materials from the functional and structural or construction aspect; specification of properties);*
- *summarisation and analysis of some tenses which are mostly used in the technical or scientific documents and some specific features relating to the parts of speech with the reference to English for special purposes – utilisation of text-based materials focused on different processing methods and procedures;*
- *exercises focused on passive voice; summarisation and complementation of basic principles referring to passive voice; comparison of passive voice with active voice and demonstration of its utilisation in technical English - some specific terms relating to automotive industry (materials used for production of individual vehicle parts, description of tyre); summarisation of the knowledge in relation to the classification of materials;*
- *refractory materials and their utilisation in the industry (involving advanced materials); adverbial modifiers, some specific types of sentences, clauses (additional exercises); word formation – affixes; compound expressions; short description and characterisation of the cutting tools as well as machining methods;*
- *comparison of conventional and non-conventional methods of machining, forming processes, casting processes – description, characteristic features and mutual comparison with the reference to specific types of materials; adjectives and adverbs as parts of speech as well as their function in the sentence; introduction and some basic facts on modal auxiliaries;*
- *simplification of the technical text using the specific linking words or grammar constructions which make technical text or document be clearer and more understandable; observation of prepared samples (light microscopy, electron microscopy, atomic force microscopy, defectoscopy); structural levels relating to observation of various types of material samples;*
- *important shapes, reading of diagrams and graphs, some specific symbols in scientific fields, acronyms and abbreviations and their utilisation (text-based material); advanced materials, smart materials, nanomaterials and shape memory materials – description, evaluation of advantages and disadvantages in relation to conventional materials (revision of gradation of adjectives and adverbs, comparison);*
- *verb and its specific forms (gerund, infinitive, past participle form) – utilisation of specific text-based material with the focus on crystalline and non-crystalline material structures, single crystals, polycrystals with high and low porosity (optical properties), anisotropy...;*
- *polymeric structures – thermosetting plastics, thermoplastics, specification and evaluation of some natural polymers and synthesised plastic materials (PMA, PDE, HDPE, neoprene...); elastomers – specific features and processing; some words and word phrases referring to relations, inversion in the English sentence and omission of words in technical expressions or utterance;*
- *different types of composite materials and specification of reinforcement agent; degradation of materials from the general aspect (deteriorative properties, erosion, corrosion, cyclic loading, thermal shocks...); compound words, summarisation of selected tenses with focus on technical English; some specific subordinate and coordinate sentences;*
- *revision of the determined tasks, revision of presentation of seminar works and overall evaluation of the individual course units with focus on acquisition of credits (evaluation of student's activity as well as tests).*
- *specific expressions and their combination with prepositions, purpose infinitive (revision), indirect speech and fundamental principles; superalloys, biocompatible materials and utilisation of finite element method and analysis in computer modelling (utilisation of some specific vocabulary relating to the information technologies);*
- *students are given the basic and initial information on the educational process, literature references, conceptual framework and objectives in relation to the given subject; moreover, the requirements referring to the acquisition of the credits are also determined;*
- *summarisation of the most common structures relating to English tenses – grammar structure,*

application, mutual comparison and summarisation of the knowledge referring to parts of speech (text-based tasks and exercises with the application of terminology from science and technology as well as linguistics);

- *correct construction of the English sentence from the syntactic as well as morphological aspect; utilisation of the fundamental principles for individual English tenses with focus on technical expressions (utilisation of different text-based materials in order to translate, compare and evaluate various language expressions relating to different styles);*
- *useful expressions representing mutual relations or interactions, additional information to the text, expression of summarisations or conclusions, expression referring to probability and certainty (in contrast to, firstly, in summary, there is no doubt that, apparently...);*
- *evaluation and summarisation of problems which can occur during the translation into and from English language – utilisation of the special scientific text regarding to English for special purposes; internet or any other translator and its utilisation for translation;*
- *exercises focused on affixes, utilisation of internet for translation – utilisation of the scientific special text-based material devoted to materials and their mechanical and physical properties; the fundamental vocabulary relating to terms in the sphere of the properties;*
- *summarisation and completion of the knowledge referring to passive voice and its comparison with passive voice in relation to scientific or specialised text – text-based material focused on production and processing of specific types of materials;*
- *Latin and any other abbreviations or acronyms relating to language for special purposes, some useful technical phrases which can be seen in information technologies; short specification of Computer aided design and Computer aided manufacturing in relation to the engineering and material science and short description of some computer software systems for design;*
- *mathematics as the science, some interesting facts and symbols and their utilisation in English for special purposes – reading and specifying parameters from graphs and diagrams (short description of the graph with the focus on expression of one variable from another);*
- *text-based exercises focused on rubber industry – different part of tyre, types of tyres and any other technical specification; composed terms and their structure and variability; composed terms part of which is presented by help of acronyms or abbreviations;*
- *summarisation and complementation of knowledge in relation to the present tenses and their utilisation in technical language; summarisation and utilisation of modal verbs as well as utilisation of these verbs in passive voice; utilisation of specialised text-based material focused on Robotics.*
- *future tenses, predictions to the future and utilisation of the infinitive form in the various functions; gerund in technical documents; text-based material focused on lasers; summarisation of all principles leading to correct form of Abstracts and Annotations – analysis of some abstracts from some papers;*
- *revision of the determined tasks, revision of presentation of seminar works and overall evaluation of the individual course units with focus on acquisition of credits (evaluation of student's activity as well as tests).*

Recommended or required literature:

Required literature:

1. *Hewings, M.: Advanced Grammar in Use. University Press, Cambridge. 2005. ISBN 978-0-521-61403-0*
2. *Glendinning E. H., Glendinning N.: Electirical and Mechanical Engineering. University Press, Oxford. 1995. ISBN 978-0-19-457392-4*
3. *Murphy M.: English Grammar in Use. University Press, Cambridge. 2004. ISBN 978-0-521-53289-1*
4. *Hashemi L., Murphy M.: English Grammar in Use, Supplementary Exercises. University Press, Cambridge. 1995. ISBN 978-0-521-44954-5*
5. *internet*
6. *Várkonyi, L., Zuidema, J., Várkonyová, B., Chalupová, M.: Únavové Porušovanie Materiálov. Edičné stredisko ŽU, Žilina. 1998. ISBN 80-7100-382-4*
7. *Štěpánek, L. a kol.: Akademická Angličtina. Grada Publishing, Praha. 2011. ISBN 978-80-247-3577-1*

Recommended literature:

Monolingual dictionary (e.g. Oxford Student's Dictionary, Oxford Advanced Learner's Dictionary, Longman Dictionary of Contemporary English, Longman New Junior Dictionary, Cambridge International Dictionary of

<i>English, or any other suitable dictionary)</i>					
Language: <i>Slovak</i>					
Remarks: —					
Evaluation history: /Grading system/					
A	B	C	D	E	FX
<i>Excellent</i>	<i>Laudable</i>	<i>Good</i>	<i>Accepted results</i>	<i>Pass</i>	<i>Fail</i>
Lecturers: <i>Mgr. Silvia Koišová</i>					
Last modification: <i>31.03.2014</i>					
Supervisor: <i>prof. Ing. Darina Ondrušová, PhD.</i>					