

APPROVED BY

Director of Power Engineering
School

 A.S. Matveev

«30» 06 2020

SYLLABUS FOR
Professional training in English

Field of study: "Electric Generation and Transportation"

Programme name: 13.04.02 «Electrical Power Engineering and Electrical engineering»

Level of Study: Master Degree Program

Year of admission: 2019 year

Semester, year: 1, 2, 2019, 2020

ECTS: 6 (3/3)

Total Hours: 216

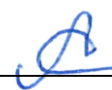
Contact hours:

- **Lectures:** 0
- **Labs:** 0
- **Practical expertise:** 64

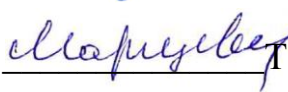
Assessment: credit test

Department: Department for Electric Power and Electrical Engineering

Head of department: of Electric Power and Electrical
Engineering Department

 Ivaschutenko A.S.

Instructor:

 T.A. Marceva

Foreign Language for Specific Purposes (English)

Course Overview

Course Objectives	The main goal of the following course is to provide knowledge and understanding of professionally-related vocabulary in the field of Economics of Power Engineering, competence in making presentations and conducting research in the area of scientific interests. The structure of the course provides a lot of self-study material which will serve as the basis for the academic autonomy development. The course will enable students to demonstrate knowledge and understanding of how to write and analyze technical texts; to interpret a wide range of information necessary for conducting research and to prepare and deliver presentations, both individually and as a part of team
Learning Outcomes	Upon completion of this course students should be able to demonstrate: - proficiency in searching and summarizing the information required for professional development including graphically presented materials (plots, charts, tables) as well as ability to write and edit research papers (abstracts, summaries, articles, essays) in compliance with the requirements of the academic style of writing; - developed communication skills at the level required for problem solving in the field of study as well as for making presentations of the results obtained in the course of research; - ability to understand economics-related professional discourse and understanding of main strategies of organizing and planning the autonomous learning and cognitive activity.
Course Outline	Course refers to Master's Program. For successful mastering the course student should: know: terminology of business and professional technical foreign language, basic methods, methods and means of obtaining, storing and processing information; be able to: use knowledge of a foreign language for professional communication and academic writing, reliably and adequately receive information in a foreign language from various sources of information, use computer and information technologies in students' professional activities, to understand the essence and significance of information in the development of modern society, to understand the dangers and threats arising in this process, to comply with the basic requirements of information security; experience to: communicate in a foreign language with professional community, be competent in academic writing, use modern technical means and information technologies in the field of professional and academic studies.
Prerequisites (if available)	Foreign language (English), Professional development through the medium of English.
Course Structure	<i>Autumn semester</i> Part I. English for Academics (16 classes, 32 contact hours)

Practical class 1. International academic conferences (announcements, calls for papers, academic and professional events).

Practical class 2. Academic publications (publishing matters, popular science articles, research reports).

Practical class 3. International cooperation (international cooperation programs, grants).

Practical class 4. Avoiding plagiarism (citation and referencing). Quoting and paraphrasing.

Practical class 5. Reading and critical thinking.

Practical class 6. Literature review (how to search for information and process it).

Practical class 7. Text editing practices (how to use machine translation and edit the text). Proofreading.

Practical class 8. Grammar for academic purposes I (attributive groups, structures for the purpose, choice of tenses).

Practical class 9. Presentation skills (what makes a good presentation, developing presentation skills, working with visuals).

Practical class 10. Presentation skills II (how to deliver oral presentations, making a pitch, contrasting of oral and written languages).

Practical class 11. Grammar for academic purposes (changing an emphasis in a sentence, modal verbs in writing, impersonal style and passive forms).

Practical class 12. Vocabulary for academic purposes I (concordance, language for classifying, confusable words).

Practical class 13. Vocabulary for academic purposes II (introduction to abstract vocabulary, terms and importance of semi-technical vocabulary).

Practical class 14. Describing the trends and graphs.

Practical class 15. Writing a summary (what makes a good summary, topic sentences).

Practical class 16. How to write an abstract. (making the abstract cohesive, differences in abstracts from various field of study, characteristic features of abstracts).

Spring semester.

Part II. Economics in Power Engineering

E-Course: Economics in Power Engineering.

URL: <http://stud.lms.tpu.ru/course/view.php?id=998>

This course is targeted at students mastering the economic aspects of Power Engineering. It can help to understand main notions and concepts of the energy business in English on the examples of Russian and European Energy markets.

Module I.

Topic 1: Energy Economics

Practical class 1. Introduction to energy economics, basic terms and their definitions.

Practical class 2. Introduction to energy economics. Brainstorming and discussion.

Practical class 3. Are Solar panels worth the cost? (video). Discussion and written statements

Practical class 4. Video presentations. Peer assessment and commenting.

Topic 2: Energy Markets

Practical class 5. Energy saving techniques (chat discussion). Energy efficient technologies.

Practical class 6. Electricity Trading in Competitive Power Market: An Overview and Key Issues.

Practical class 7. Abstract writing.

Practical class 8. Poster presentations (in teams): Electricity markets on the examples of Russia, China, France and Brazil.

Module II

Topic 3. Energy Regulation.

Practical class 9. Discussion “Why regulate?”. Mini-reports on “Levels of energy regulation in Russia”.

Practical class 10. Regulation: UK Market. Video presentation, peer assessment, discussion.

Practical class 11. Test.

Practical class 12. Webinar “Energy Regulation” (students’ reports).

Topic 4. Liberalization of Markets.

	<i>Practical class 13. Energy markets liberalization terms. Definitions.</i> <i>Practical class 14. Short speeches on Russian energy market liberalization.</i> <i>Practical class 15. Energy market liberalization (reading). Test and discussion</i> <i>Practical class 16. Writing an essay “Main reasons for liberalization-induced price decrease”.</i> Peer assessment.
Facilities and Equipment	Practical classes are conducted in specialized classrooms, computers are connected to the network of Institute of Power Engineering with access to the Internet;
Grading Policy	<i>In accordance with TPU rating system we use:</i> - <i>Current assessment which is performed on a regular basis during the semester by scoring the quality of mastering of theoretical material and the results of practical activities (performance tests, perform tasks, problem solving). Max score for current assessment is 80 points, min - 55 points.</i> - <i>Course final assessment (credit test) is performed at the end of the semester. Max score for course final assessment is 20 points.</i> <i>The final rating is determined by summing the points of the current assessment during the semester and exam scores at the end of the semester. Maximum overall rating corresponds to 100 points, min pass score is 55.</i>
Course Policy	<i>Class attendance will be taken into consideration when evaluating students' participation in the course. Students are expected to actively engage in class discussions about the assigned readings.</i>
Teaching Aids and Resources	Compulsory Readings: 1. English for Academics. Cambridge University Press. 2014. 175 pages. 2. Economics in Power Engineering. URL: http://stud.lms.tpu.ru/course/view.php?id=998 3. English for Academic Purposes: http://www.elanguages.ac.uk/tomsk 4. The Mayfield Handbook of Technical and Scientific Writing. URL: http://www.mhhe.com/mayfieldpub/tsw/toc.htm 5. English for the Energy Industry. Simon Campbell. Oxford University Press. 2013. 80 pages <i>Additional Readings:</i> 6. Understanding Electric Power Systems: An Overview of the Technology, the Marketplace, and Government Regulation, 2nd Edition. Frank Delea, Jack Casazza March 2010, Wiley-IEEE Press. 344 pages. 7. English language teaching global blog. URL: http://oupeltglobalblog.com/ 8. Monash University: Language and Learning Online. URL: http://www.monash.edu.au/lls/llonline/reading/index.xml 9. Writing Technical Articles. URL: http://www.cs.columbia.edu/~hgs/etc/writing-style.html 10. Karakaya, E., Nuur, C., Hidalgo, A. Business model challenge: Lessons from a local solar company (Article). URL: http://www.scopus.com/record/display.url?eid=2-s2.0-84938351504&origin=resultslist&sort=plf-f&src=s&st1=energy+markets&nlo=&nlr=&nls=&sid=3E5AE8404FD1B217DEB518DBD66DA8CE.WXhD7YyTQ6A7Pvk9AIA%3a330&sot=b&sdt=sisr&sl=29&s=TITLE-ABS-KEY%28energy+markets%29&ref=%28liberalization+of+energy+market%29&relpos=1&relpos=1&citeCnt=0&searchTerm=%28TITLE-ABS-KEY%28energy+markets%29%29+AND+%28liberalization+of+energy+market%29 11. McConnell, D., Forcey, T., Sandiford, M. Estimating the value of electricity

	storage in an energy-only wholesale market (Article). URL: http://www.scopus.com/record/display.url?eid=2-s2.0-84941893265&origin=resultslist&sort=plf-f&src=s&st1=energy+markets&nlo=&nlr=&nls=&sid=3E5AE8404FD1B217DEB518DBD66DA8CE.WXhD7YyTQ6A7Pvk9AIA%3a330&sot=b&sdt=sisr&sl=29&s=TITLE-ABS-KEY%28energy+markets%29&ref=%28liberalization+of+energy+market%29&relpos=2&relpos=2&citeCnt=0&searchTerm=%28TITLE-ABS-KEY%28energy+markets%29%29+AND+%28liberalization+of+energy+market%29 12. Kekatos, V., Wang, G., Conejo, A.J., Giannakis, G.B. Stochastic Reactive Power Management in Microgrids with Renewables (Article). URL: http://www.scopus.com/record/display.url?eid=2-s2.0-84939225624&origin=resultslist&sort=plf-f&src=s&st1=electric+energy+regulator&st2=&sid=3E5AE8404FD1B217DEB518DBD66DA8CE.WXhD7YyTQ6A7Pvk9AIA%3a50&sot=b&sdt=b&sl=40&s=TITLE-ABS-KEY%28electric+energy+regulator%29&relpos=8&relpos=8&citeCnt=0&searchTerm=TITLE-ABS-KEY%28electric+energy+regulator%29
Instructor	T.A. Marceva, tam14@tpu.ru