GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Transitional team work, PG_00057330						
Field of study	Power Engineering						
Date of commencement of studies	February 2024		Academic year of realisation of subject	2024/2025			
Education level	second-cycle studies		Subject group	Optional subject group Subject group related to scientific research in the field of study			
Mode of study	Full-time studies		Mode of delivery	at the university			
Year of study	1		Language of instruction	Polish			
Semester of study	2		ECTS credits	2.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Department of Electrical Power Engineering -> Faculty of Electrical and Control Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Piotr Szczeciński					
	Teachers	dr inż. Piotr Szczeciński					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	30.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours	Self-study		SUM
	Number of study hours	30		2.0	18.0		50
Subject objectives	Proseminar where students prepare transitional papers. It is a self-prepared written study, which is designedto characterize the problem being solved or the issue discussed in as much detail as possible.The general objectives of transitional work are: preparing the student for independent methodical and systematic work and learning necessary to solveselected issues alone, acquiring the ability to formulate scientific content and correct inference, as well as the ability to conductdiscussions,						

Learning outcomes			
	Course outcome	Subject outcome	Method of verification
	[K7_U01] is able to acquire information from literature, databases and other sources, has the ability of self-education in order to improve his/her professional competence (also in English), is able to prepare a simple scientific paper and its summary in English, as well as an oral presentation	Student presents the effects of work, discusses existing problems and remains open to suggestions from people in the group, exchanges experiences with other listeners. He shares his own previous experience, observations and gathered knowledge. Encountered design problems are discussed in the general forum. Thematic issues developed by each of the participants are coordinated in relation to the work performed by the team members.	[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information
	[K7_U04] is able to plan and perform experiments using measurements and computer simulations, together with interpretation of results, is able to present and evaluate the course and results of work in a team realizing an advanced engineering project, is able to use technical documentation and to create it independently	Based on the analysis of literature, technological solutions used and introduced technologies in the issues described, the student performs simplified technical and economic analyses, additionally determining the impact of the technologies used and introduced impacts on technological processes, the power system, including the transmission and distribution network, as well as the internal installation.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
	[K7_K01] is aware of the necessity of self-education and self-improvement within the scope of his/her occupation as a power engineer and possibilities of further education	Student presents the effects of work, discusses existing problems and remains open to suggestions from people in the group, exchanges experiences with other listeners. He shares his own previous experience, observations and gathered knowledge. Encountered design problems are discussed in the general forum. Thematic issues developed by each of the participants are coordinated in relation to the work performed by the team members.	[SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills
	[K7_K02] is able to work in a group and take on different roles	Project groups distribute tasks to each member of the group, the work is coordinated by people who develop thematic issues that make up the whole work. Development of the schedule. The process of obtaining information, analyzing information, adapting technological solutions	[SK3] Assessment of ability to organize work [SK1] Assessment of group work skills
	[K7_K03] is able to think and act creatively and entrepreneurially, is aware of the responsibility for his/her own work and takes responsibility for teamwork	Project groups distribute tasks to each member of the group, the work is coordinated by people who develop thematic issues that make up the whole work. Development of the schedule. The process of obtaining information, analyzing information, adapting technological solutions.	[SK3] Assessment of ability to organize work [SK2] Assessment of progress of work
Subject contents	Writing a transitional thesis is carried out according to the following scheme: title page with subject, contents, introduction, containing a brief overview of the subject, purpose and scope of the work, substantive content of the work, consistent with its scope and topic, conclusions along with the assessment of the problem being solved, list of source literature used, attachments: tables, drawings, etc.Determining the editorial requirements of the work, requirements for references, etc.There is no fixed size of transition work. It is assumed that both the number of pages and its form should bestrictly adapted to the substantive scope of the discussed issue or the problem being solved. Indicative,recommended volume that a transitional job can have is 15 to 20 standard pages		

Prerequisites and co-requisites	Course content: preparing the student for independent methodical and systematic work and learning necessary to solveselected issues alone and in a group, acquiring the ability to formulate scientific content and correct inference, as well as the ability to conductdiscussions, gaining experience by the student enabling independent implementation of the later diploma thesisOn the basis of a specific substantive scope discussed in class, divided and consisting of issues to besolved by particular people, or problems solved by particular people, a work consisting of a written text and apresentation presenting the achieved results of the task will be prepared.The definition of the subject results from the interests of students. The division into thematic groups thatjointly implement thematic issues and results from the interests of students.The tasks adopted for implementation require an analysis of the current state and the state that can beobtained after the introduction of new technologies allowing for the introduction of changes in the existingtechnological, functional, ecological and economic processes. The scope of the analyzes is limited to theexisting state and to the state with a possible technical and technological change defined as a possibility bystudents and modified depending on the technologies learned and the possibility of their use. The analyzedchanges to the existing solutions result mainly from reducing the impact on the environment, reducingoperating costs, and building synergies that allow for better use of existing resources. The introducedchange should result from the need defined in the future time horizon or resulting from limiting climatechange, including better management of raw materials while maintaining the climate strategies adopted bythe EU.Form of classes:Determining the task to be performed in a group and individually by each student. Division and assignmentof small tasks dedicated to individual people combined into thematic groups,During the classes, the progress of individual students' work is discussed, problems are identified andsolutions are sought for the implementation of thematic tasks by students,Schedule of works to be performed.Analysis of technological solutions in terms of the possibility of their use, which of the technologicalsolutions adequate to achieve the planned thematic objectives is possible to use, e.g. is cheaper orintroduces other economic, ecological effects, etc. What additional benefits can be achieved after the use ofthe analyzed technologies. Energy intensity, energy efficiency also seen in the field of energy management.Determination of an additional problem to be solved not related to thematic activity,Coordination of joint work, combining smaller tasks and the possibility of solving large ones. Determinationof additional thematic issues that build the value of the work. Reducing issues and distracting topics that donot add quality to the work. The ability to identify it.Implementation of group work on one document, coordination, information exchange. Presentation of thecollected experience and modifications of the original idea. Analysis of new possible research anddevelopment directions.The solution of the problem to be solved. Determination of possible ecological and economic benefits.Preparation of presentations and presentation of results.Handing over the work and presentation for evaluation.
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
Works	60.0%	10.0%
Based on the written study	60.0%	80.0%
Based on the presentation	60.0%	10.0%

Recommended reading	Basic literature	The reading list is agreed according to the thematic group, the issues ofliterature concern: 1. Electric energy storage techniques 2. Generation of thermal energy 3. Generation of electricity 4. Transmission of electricity. 5. Energy Law (after amendment) 6. Polish Energy Policy until 2040
	Supplementary literature	1. Automation systems 2. Control systems in power engineering 3. DSM Mechanisms 4. DSR mechanisms 5. Electricity market6. Heating techniques
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	Thematic issues depend on the assigned topic pursued by students
Work placement	Not applicable