COURSE DESCRIPTION CARD - SYLLABUS

Course name

Transport i magazynowanie paliw gazowych

Course

Field of study

Transport

Year/Semester

3/6

Area of study (specialization)

Engineering of Pipeline Transport

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

Polish

Form of study

full-time

Requirements

elective

Number of hours

Lecture

30

Laboratory classes

15

Other (e.g. online)

0

Tutorials

0

Projects/seminars

0

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr hab. inż. Rafał Ślefarski

email: rafalslefarski@put.poznan.pl

tel.: 616652218

Piotrowo 3, 60-965 Poznan

Responsible for the course/lecturer:

Prerequisites

Basic information about thermodynamics, fluid mechanics and heat exchange. Knowledge about the construction of powered energy machines and transport processes. Is able to prepare and present a short presentation of the results of an engineering task by communicating using specialized terminology. Is aware of the need to expand their competences, readiness to cooperate within a team

Course objective

To familiarize students with aspects of the gas fuel transport process, gas fuel storage, and construction of machinery and equipment for gas fuel transport.

Course-related learning outcomes

Knowledge

The student has extended and in-depth knowledge of physics useful for formulating and solving selected technical tasks, in particular for correct modeling of real problems

The student has knowledge of important development trends and the most important technical achievements and of other related scientific disciplines, in particular transport engineering

Skills

The student has the ability to formulate tasks in the field of transport engineering and their implementation using at least one of the popular tools

The student is able to design elements in the field of transport engineering and construct simple machines

Social competences

The student is aware of the social role of a technical university graduate, in particular, he/she understands the need to formulate and transfer to the society, in an appropriate style, information and opinions on engineering activities, technological achievements, as well as the achievements and traditions of the transport engineer profession

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture - written exam. Obtaining credit from a minimum of 51% of the points possible to get. There is a possibility of an oral question to raise the grade.

Laboratories - positive evaluation of reports on exercises performed

Programme content

resources of conventional and unconventional gas fuels, gaseous fuel purification processes, gas fuel transport, reduction stations, elements of reduction station construction, energy storage, construction of gas fuel transport machinery

Teaching methods

Informative lecture (conventional) (information transfer in a systematic way)

Bibliography

Basic

1. Instalacje gazowe na paliwa gazowe / [aut. komentarzy do "Warunków technicznych" oraz wymagań eksploatacyjnych Ryszard Zajda ; red. Kazimierz Kukulski, Jan Sieczkowski]. Cobo-Profil, 2003.

2. Paliwa gazowe - Klasyfikacja, oznaczenie i wymagania PN-C-04750 / Polski Komitet Normalizacyjny. 2011

3. Przesyłanie, rozdział i magazynowanie paliw gazowych / Janusz Girzejowski ; Politechnika Poznańska. Wydawnictwo Uczelniane Politechniki Poznańskiej, 1975.

Additional

1. Przesyłanie, rozdział i magazynowanie paliw gazowych / Janusz Girzejowski ; Politechnika Poznańska. Wydawnictwo Politechniki Poznańskiej, 1977.

Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,0
Classes requiring direct contact with the teacher	45	1,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	15	0,5

[1] delete or add other activities as appropriate