COURSE DESCRIPTION CARD - SYLLABUS

Course name

Operation of food and refrigeration equipment

Course

Field of study

Construction and Exploitation of Means of Transport

Year/Semester

3/6

Area of study (specialization)

Food Industry Machines and Refrigeration

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
30	15	
Tutorials	Projects/seminars	
0	0	

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. Wiesław Zwierzycki,

email: wiesław.zwierzycki@put.poznan.pl

tel. 61665-2236,

Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 3, 60-695 Poznań

Responsible for the course/lecturer:

dr inż. Andrzej Waliszewski

email: andrzej.waliszewski@put.poznan.pl

tel. 616652232

Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 3, 60-965 Poznań

Prerequisites

Has basic knowledge of surface chemistry, physicochemistry and tribology. Can synthesize information from various sources.

Course objective

Getting to know the specific problems of the operation of technological devices used in the food industry.

Course-related learning outcomes

Knowledge

Has basic knowledge in the field of chemistry, in the field of construction of organic and inorganic

compounds, chemical analysis: in the scope enabling the understanding of lectures on metal and non-metal materials, environmental sciences, fuels and lubricants, soil, biomechanics and biological materials processed by agricultural machinery and food

Has a basic, structured knowledge of non-metallic and composite materials used in the construction and operation of machines, including fuels, lubricants, refrigerants, etc.

Skills

He can organize and substantively manage the process of designing and operating a simple machine from a group of machines covered by a selected specialty.

Social competences

Is ready to fulfill professional roles responsibly, including adherence to the principles of professional ethics and demanding this from others, caring for the achievements and traditions of the profession

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Written tests, examination and ongoing control of preparation for laboratory exercises and report evaluation.

Programme content

The specificity of the operation of machines and devices in the food industry. Characteristics of machine aging processes. Basics of the selection of consumables (oils and greases, working fluids, cleaning and disinfecting agents). Operation of machines and devices in the food industry (lubrication technology, washing technologies). Organization of operational services in food processing plants.

Teaching methods

Lecture with a multimedia presentation and laboratory exercises

Bibliography

Basic

1. Niziński M. Eksploatacja obiektów technicznych, Wyd. ITeE, Radom 2002

2. Kiliński W. Eksploatacja maszyn. WNT 1989

3. Zwierzycki W. Paliwa, oleje i smary dla motoryzacji i przemysłu, Wyd. ITeE Radom 2000

4. (http://www.wbc.poznan.pl)

Additional

Breakdown of average student's workload

	Hours	ECTS
Total workload	65	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]	20	0,5

[1] delete or add other activities as appropriate