Polish course name	CENTRA LOGISTYCZNE		
English course name	LOGISTICS CENTRES		
Course code	WIP-MDL-D1-LC-04		
Field of study	Materials design and logistics		
Level of qualification	First degree		
Form of study	Full-time		
Semester	4		
Number of ECTS points	2		
Ways of assessment	Exam		

Number of hours per semester

Lecture	Seminar	Classes	Laboratory	Project
15		15		

TEACHERS:

Dr inż. Monika Kozerska.

COURSE OBJECTIVES:

- > **C1** Students should be familiarized with the main assumptions and the main problems related to the operation of logistics centers.
- C2 Acquisition of specialised knowledge and expertise in the field of organisation and operation of logistics centers.

PRELIMINARY REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES:

- 1. Student has basic knowledge in the field of corporate logistics.
- 2. Student can represent the main sources of financing for the activities of the company.
- 3. Student can list and explain the steps of the logistical process.

COURSE CONTENT

LECTURE

- > L1, L2 Logistics Centers Introduction to the topic, overview of the definition.
- > L3, L4 Object and functional area of logistics centres.
- > **L5** Sources of financing for the construction and development of centres in Poland.
- > **L6** The public-private partnership formula as a source of financing for the construction and development of logistics centres in Poland.
- > **L7, L8** The role of the logistics centre in the coordination and consolidation of transport flows.
- > L9, L10 Explanation of multimodal and intermodal transport differences.
- L11 Logistics centres are a driving force for the development of multimodal transport.
- > L12, L13 Possibilities of developing inland ports in Poland as logistics centers.
- > L14, L15 Logistics centers worldwide.

CLASSES

- > C1 C4 The nature and role of logistics centres in large supply chains.
- > C5 C8 Development trends in logistics centres.
- > **C9 C14** Development strategies of logistics centres based on examples.
- > C15 Knowledge check.

BASIC REFERENCES

- Logistyka, Praca zbiorowa pod red. D. Kisperska-Moroń i S. Krzyżaniaka.
 Wyd. Instytut Logistyki i Magazynowania, Poznań 2009 r.
- 2. Skowron-Grabowska B., Centra logistyczne w łańcuchach dostaw, Wyd. PWE, Warszawa 2010 r.
- 3. Ciesielski M. (red.), Instrumenty zarządzania łańcuchami dostaw. PWE, Warszawa 2009 r
- 4. Biesok G., Logistyka usług, Wyd. CeDeWu Sp. z o.o, Warszawa 2013 r.

SUPPLEMENTARY REFERENCE MATERIALS

1. Markusik S., Infrastruktura logistyczna w transporcie tom 1 i tom 2, Wyd. Politechniki Ślaskiej 2011 r.

- 2. Rydzkowski Wł. (red.), Usługi logistyczne, Wyd. Biblioteka Logistyka, Poznań 2012 r.
- Kozerska, M., Jakość usług logistycznych zewnętrznych usługodawców i ich klientów w zintegrowanym łańcuchu dostaw, Wyd. Politechniki Częstochowskiej, Częstochowa 2019 r.
- 4. Kozerska M., Najważniejsze cetra dystrybucji w kraju i za granicą, Logistyka dystrybucji (red.) Nowakowska-Grunt Joanna, Starostka-Patyk Marta, Wydawnictwa Komunikacji i Łączności 2017 r.
- Kozerska M., Szczupak L., The Influence of Logistics Centers on the Region Development on the Example of Bełchatów District, Zeszyty Naukowe Politechniki Częstochowskiej. Zarządzanie 2017 r.
- 6. Fechner I., Centra logistyczne Cel Realizacja -Przyszłość, Wyd. Biblioteka Logistyka, ILiM, Poznań, 2004 r.

LEARNING OUTCOMES

- > **EU1** Student knows the basic concepts: logistics centers, distribution centers.
- > **EU2** Student knows the classification of logistics centers according to various criteria.
- > **EU3** Student can define the Formula of Public Private Partnership and list the sources of financing for the construction and development of centers in Poland.

TEACHING TOOLS

- Multimedia presentations.
- The study of literature.
- Case studies/discussion.
- > E-learning platform.

WAYS OF ASSESSMENT (F - FORMATIVE, P - SUMMATIVE)

- > **F1**. Participation of students in discussions.
- > **F2.** Solving case studies.
- > **P1.** Assessment of thematic presentations.
- P2. Assessment of the implementation of tasks included in the curriculum exam.

STUDENT WORKLOAD

Form of activity	Number of hours	ECTS
Contact hours with the t	eacher	
Lectures	15	0,6
Seminar		
Classes	15	0,6
Laboratory		
Project		
Test		
Exam	3	0,12
Total contact hours	33	1,32
Student's own wor	rk	
Getting acquainted with the indicated literature	5	0,2
Preparation for seminar		0
Preparation for classes	5	0,2
Preparation for lab		0
Project preparation		0
Consultation	2	0,08
Preparation for the exam	5	0,2
Total student's own work	17	0,68
Total number of hours/ ECTS points for the course	50	2,0

ADDITIONAL INFORMATION

Timetable of classes	https://wip.pcz.pl/dla-studentow/plan-

	zajec/studia-stacjonarne
Information about the consultation (time	https://wip.pcz.pl/dla-
+ place)	studentow/konsultacje-dla-studentow

MATRIX OF LEARNING OUTCOMES REALISATION

Learning outcome	Reference of given outcomes defined for whole program	Course objectives	Course content	Ways of assessment
EU 1	K_W01, K_W02, K_W06, K_W07, K_W08, K_W09,	C1, C2	L1 - L2, C1 - C12	F1, F2, P1
EU 2	K_W01, K_W02, K_W06, K_W07, K_W08, K_W09, K_K01,	C1, C2	L1 - L9, C3 - C6	F1,F2, P1, P2
EU 3	K_W01, K_W02, K_W06, K_W07, K_W08, K_W09, K_U07, K_U08, K_K01, K_K02, K_K03, K_K04,	C2	L1 - L15, C3 - C15	F1, F2, P1, P2

FORM OF ASSESSMENT - DETAILS

EU1 Student knows the basic concepts: logistics centers, distribution centers.

- > 2,0 Student does not know the basic concepts of the subject matter.
- > 3,0 Student partially knows the basic concepts of the subject.
- > 3,5 Student almost knows the basic concepts of the subject.
- > 4,0 Student knows the concepts of the subject well.
- > 4,5 Student has a very good understanding of the subject matter.

> 5,0 Student knows the basic concepts of the subject very well.

EU2 Student knows the classification of logistics centers according to various criteria.

- > 2,0 Student does not know the rules of classification of logistics centers.
- > 3,0 Student partially knows the rules of classification of logistics centers.
- 3,5 Student almost knows the general rules of classification of logistics centers.
- > 4,0 Student knows the general rules of classification of logistics centers well.
- 4,5 Student knows almost very well the general rules of classification of logistics centers.
- > 5,0 Student knows the general rules of classification of logistics centers very well.
- **EU 3** Student can define the Formula of Public-Private Partnership and list the sources of financing for the construction and development of centers in Poland.
 - > 2,0 Student is not able to identify the concept of Public Private.
 - > 3,0 Student is able to partially identify the notions of Public Private.
 - > 3,5 Student is almost able to identify the concepts of Public Private.
 - > 4,0 Student is able to define well the concept of Public Private.
 - > 4,5 Student almost very well define the concept of Public Private.
 - > 5,0 Student is very good at defining the concept of Public Private. He knows the rules for drawing up applications in this area.