COURSE DESCRIPTION CARD - SYLLABUS

Course name
Cargo management [N1Trans1>ŁAD]

Course

Field of study
Transport

Year/Semester
3/5

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
18

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

2,00

Coordinators

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Lecturers

Prerequisites

Knowledge: student has a basic knowledge of logistics (including transportation and warehousing) moreover packaging and physics as well Skills: student is able to accumulate information, interpret it, reasoning based on it, express and justify opinions, identify, associate and interpret phenomena occurring in a practice Social competence: student is aware of the importance and understands non-technical aspects and effects of transportation processes, including those connected with cargos

Course objective

To give to students a basic theoretical and practical knowledge of cargo management as well as methods and techniques of forming, transporting, handling and storing cargo units in connection with a real life solutions allowing for such operations.

Course-related learning outcomes

Knowledge:
1. Students know the notion, features and types of cargo units. Know types and methods of forming cargo units.
2. Students know principles of loading and fastening cargo units on vehicles. Know principles and

techniques of cargo units labeling and identification.
3. Students know main transportation technologies and associated with them legislative aspects. Know principles of cargo units monitoring during transportation processes and loss and damage procedures.

Skills:
1. Students are able to design transportation processes of selected types of commodities. Are able to select cargo units forming and fastening methods.
2. Students are able to assess transportability of cargo units and transportation risks. Are able to select appropriate labeling and identification techniques.
3. Students are able to carry out a loss and damage procedure (transportation claim).

Social competences:
1. Students are aware of the significance of cargo units forming process and risks and responsibilities associated with this.
2. Students are aware of potential technical, economic and social effects that an improper / incorrect forming, transportation and storing of cargo units may cause.
3. Students are able to develop independently their knowledge of cargo management.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:
A final written exam based on the knowledge obtained within the lectures.

Programme content

The content of the module program:
1) Cargo units.
2) Dimensional systems of packaging and cargo units.
3) Labeling and identification of cargo.
4) Loading planning.
5) Loads securing on a vehicle.
6) Damages of loads.

Course topics

The content of lectures:
1) Cargo units. Definition and essence of cargo units, tasks of cargo units and means, auxiliary means of preparation of cargo units - classification, types of cargo units and detailed discussion of: container cargo units, pallet cargo units, container cargo units and package cargo units. Foiling and banding of container and pallet units.
2) Dimensional systems of cargo/packaging units. Dimensional size chain, interrelation of dimensional sizes, dimensional system of packaging, dimensional system of cargo units - ISO containers, means of transport - basic parameters.
3) Labeling of cargo units / packages and their identification. Definition and legal basis, basic types of signs and their form, labeling of cargo units (pallet and container ones), basic principles of labeling and bar codes, logistics label and RFID.
4) Load distribution on the vehicle. Basic guidelines. King pin. Axle pressures and their measurement. Loading plan - preparation and software.
5) Securing loads on a vehicle. Factors determining the safety of cargo on a vehicle. Normative immobilization of cargo. Stability / stability of cargo. Lashing methods and securing measures. Lashing/ transport straps, tensioners, anchor bars, spreader bars, overboard beams, anti-slip mats, safety nets and dunnage bags. Number of lashing means. 10 principles of proper cargo securing in transportation.
6) Cargo damage. Causes and procedures for handling and insurance issues, cargo condition monitoring.

Teaching methods

Lectures including multimedia presentation, movies, discussions, short checking ad-hoc tests

Bibliography

Basic
1. Korzeń Z.: Logistyczne systemy transportu bliskiego i magazynowania. Tom I: Infrastruktura, technika, informacja. Instytut Logistyki i Magazynowania w Poznaniu, Poznań, 1998 (in Polish)
2. Mindur L. (red.): Technologie transportowe XXI wieku. Instytut Technologii Eksploatacji – PIB, Warszawa, 2008 (in Polish)
3. Mokrzyszczak H.: Ładunkoznawstwo. Technologia zabezpieczenia ładunków w transporcie. WKiŁ, Warszawa, 1985 (in Polish)
4. Krasowska K., Popek M.: Ładunkoznawstwo. Wydawnictwo Uczelniane AM Gdynia, Gdynia, 2006 (in Polish)
5. Podręcznik Stosowania Systemu EAN•UCC. Instytut Logistyki i Magazynowania, Poznań, 2004 (in Polish)
6. Prochowski L. Żuchowski A.: Technika transportu ładunków. WKiŁ, Warszawa, 2009 (in Polish)
Additional
1. Karpiel Ł., Skrzypek M.: Towaroznawstwo ogólne. Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków, 2000 (in Polish)
2. Korzeniowski A., Skrzypek M., Szyszka G.: Opakowania w systemach logistycznych. Instytut Logistyki i Magazynowania w Poznaniu, Poznań, 2001 (in Polish)
3. Lisińska-Kuśnierz M., Ucherek M.: Współczesne opakowania. Wydawnictwo Naukowe PTTŻ, Kraków, 2003 (in Polish)
4. Praca zbiorowa: Kody Kreskowe. Rodzaje, standardy, sprzęt, zastosowania. Instytut Logistyki i Magazynowania, Poznań, 2000 (in Polish)
5. Pusty T.: Przewóz materiałów niebezpiecznych. Poradnik kierowcy. WKiŁ, Warszawa, 2003 (in Polish)
6. Sikorski P.M., Zembrzycki T: Spedycja w praktyce. Polskie Wydawnictwo Transportowe, Warszawa, 2006 (in Polish)

Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,00
Classes requiring direct contact with the teacher	18	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	42	1,00