Syllabus

Intermodal Transportation Management

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1. CourseDescription

a) Pre-requisites

knowledge of basics of transportation and logistics

b) Abstract

The economic globalization is to a big extent supported by the intermodal transportation growth, and the “intermodal approach” (“intermodalism”) is the principle route of the transport systems development both at the international and the national level. Effective management in supply chains and logistic systems needs the understanding of the main features of intermodal transportation technologies, the specifics of the intermodal transport services as well as the knowledge of numerous opportunities given by modern intermodal transport.

2. Learning Objectives and outcomes

The main learning objectives are:

- getting the knowledge on intermodal transport services and technologies;
- deep study of utilization of intermodal technologies in modern logistics and supply chains;
- learning of decision making mechanisms in intermodal transportation;
- developing the interest in scientific research in intermodalism

3. Learning outcomes

While passing the course the student:

- understands of the role of intermodal transportation in modern supply chains;
- gets the basic knowledge on modern transportation technologies necessary for successful career in logistics and supply chain sphere;
- learns the intermodal transport services scope and features.

4. Course Plan

	Theme	Class hours lectures	Class hours seminars	Self study
1.	Intermodal concept prerequisites	3	5	12
2.	Mulimodal and Intermodal transportation: main models, terms and definitions	3	5	12
3.	Global container system as the transport basis of modern supply chains	3	5	12
4.	Infrastructure of intermodal transport	3	5	12
5.	Role of different transport modes in intermodal transport systems	3	5	20
	Total	*15*	*25*	*68*

5. Reading List

a) Required

1) White paper on Transport. Roadmap to a Single Transport Area – Towards a Competitive and Resource-Efficient Transport System: European Comission. Directorate General for Mobility and Transport. – http://www.ptferroviaria.es/docs/Documentos/White_paper_Brochure.pdf

2) Vrenken, H. Intermodal Transport in Europe / HuubVrenken, Cathy Macharis, Peter Wolters. – Brussels: EIA, 2005. -267 p.

3) 2016 Report on Combined Transport in Europe / International Union of Railways (UIC). Paris, 2017. - 88 p.p. http://uic.org/IMG/pdf/2016_report_on_combined_transport_in_europe_cles.pdf

b) Optional

1) Combined Transport in Europe: a success story. International Union of Combined Road-Rail Transport Companies, 2015 http://www.uirr.com/en/media-

centre/articles-from-the-press/2015/mediacentre/133-combined-transport-in-europe-a-success-story-bic-magazine.html

2) Donovan, Arthur. Intermodal Transportation in Historical-Perspective. Denver, CO: National Center for Intermodal Transportation,2000. http://ncit.msstate.edu/PDF/2-.pdf
3) William Dewitt, Jennifer Clinger. Intermodal Freight Transportation / Louis Berger Group, Inc http://onlinepubs.trb.org/onlinepubs/millennium/00061.pdf

4) European Commission. Analysis of the EU Combined Transport. https://ec.europa.eu/transport/sites/transport/files/themes/strategies/studies/doc/2015-01-freight-logistics-lot2-combined-transport.pdf

5) Intermodality and intermodal freight transport in the European Union. A system approach to freight transport. http://cordis.europa.eu/pub/transport/docs/intermodal_freight_transport_en.pdf

6) Levinson, M. The Box How the Shipping Container Made the World Smaller and the World Economy Bigger / Mark Levinson. – Princeton: Princeton University Press, 2006. – 376 pp. http://www.kvimis.co.in/sites/kvimis.co.in/files/ebook_attachments/Marc%20Levinson%20The_Box.pdf

7) The Geography of Transport Systems. Hofstra University. https://people.hofstra.edu/geotrans/

8) Johan Woxenius. Intermodal transshipment technologies: an overview http://cmspres-vir-1.it.gu.se/digitalAssets/1344/1344731_1998_transshipment_technologies_part1.pdf

6. Grading System

The 10-points knowledge assessment system is used in the course.
The main control elements used to calculate the final mark are:

- attendance;
- seminar work (presentation, general activities)
- final examination.

The final examination mark is the blocking element (the examination should be re-passed if the mark is unsatisfactory).
The final mark is calculated using the following formulae:

$$M_F = 0,4xM_{int} + 0,6\ x \cdot M_{ex}$$

$$M_{int} = 0,5xM_{att} + 0,5\ xM_{sem}$$

where:
M_F–finalmark;
M_{int} – intermediarymark;
M_{ex}– final e[amination mark;
M_{att} – attendancemark;
M_{sem}– seminar work mark.

7. Examination Type

Final examination is oral.