COURSE DESCRIPTION CARD - SYLLABUS

Course name
Sustainable mobility

Course

Field of study
Transport
Area of study (specialization)
-
Level of study
Second-cycle studies
Form of study
part-time
Year/Semester
2/3
Profile of study
general academic
Course offered in
Polish
Requirements
compulsory

Number of hours

Lecture
18
Laboratory classes
0
Other (e.g. online)
0
Tutorials
9
Projects/seminars
0

Number of credit points

3

Lecturers

Responsible for the course/lecturer:
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Faculty of Transport Engineering
ul. Piotrowo 3, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

Knowledge: The student has a basic knowledge of transport and logistics systems
Skills: The student is able to integrate the information obtained, make their interpretation, draw conclusions, formulate justify opinions, has the ability to see, associate and interpret phenomena occurring in logistics
Social competencies: The student is aware of the importance and understands the non-technical aspects and effects of transport activities; the student is able to cooperate with the group

Course objective

The aim of the course is to familiarize students with the issues of sustainable mobility and to provide them with the skills of planning sustainable mobility systems at the level od enterprise or government.

Course-related learning outcomes

Knowledge

1. has detailed knowledge of selected issues in the field of transport engineering
2. has knowledge about development trends and the most important new achievements of transport means and other, selected, related scientific disciplines

Skills

1. can determine the directions of further learning and implement the process of self-education
2. can use information and communication techniques used in the implementation of transport projects

Social competences

1. understands the importance of using the latest knowledge in the field of transport engineering in solving research and practical problems
2. understands the importance of popularizing activities regarding the latest achievements in the field of transport engineering

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: Written test summarizing the subject.

Tutorials: Measurement and visualization of mobility, determination of its emissivity and assessment of the possibility of its improvement on the example of academic mobility

Programme content

1. Sustainable mobility and its planning - introduction.
2. Stakeholders in sustainable mobility planning.
3. Mobility data coleection and analysis.
4. Planning the implementation of the mobility plan for traffic generator or administrative region
5. Sustainable mobility in varoius modes of transport: car, public transport, bicycle, pedestrian, multimodal mobility.
6. Best practices in mobility.
7. Shaping the community awerness (awerness campaigns).
8. Networking for sustainability.
9. Green procurement in transport.

Tutorials: classes on the methods of measurment and visualization of mobility, assessment of the emissivity of various modes of transport and tools for reducing this emissivity on the example of commuting to universities.

Teaching methods

Lecturing, demonstrating, collaborating, tutorials

Bibliography

Basic

1. Zmuda-Trzebiatowski P.: Partycypacyjna ocena miejskich projektów transportowych. Wyd. PP, Poznań 2016

2. Banister D. et al.: European transport policy and sustainable mobility, Spon Press, 2000
3. Książkiewicz D., Rolbiecki R.: Transport development and performance in relation to the idea of sustainable development. Gdansk University Press, 2017

Additional

1. Training materials from U-MOB's course on Sustainable Mobility Management at Universities
2. QGIS training material (https://www.qgis.org/en/site/forusers/trainingmaterial/index.html)
3. Gonzalez-Feliu J., Semet F., Routhier J. (eds.): Sustainable urban logistics: concepts, methods and information systems. Springer Science+Business Media. Springer-Verlag, 2014
4. Zrównoważone zakupy - Wytyczne PN-ISO 20400, PKN, 2018
5. Belvedere V., Grando A.: Sustainable operations and supply chain management, Wiley, 2017
6. Rolbiecki R. [et al.]: Współczesna polityka transportowa, PWE, 2017
7. Wojewódzka-Król K., Rydzkowski W.: Transport. PWN, 2017
8. Kłos-Adamkiewicz Z., Załoga E.: Miejski transport zbiorowy. Kształtowanie wartości usług dla pasażera w świetle wyzwań nowej kultury mobilności. Bel Studio, 2017

Breakdown of average student's workload

	Hours	ECTS
Total workload	80	3,0
Classes requiring direct contact with the teacher	27	1,0
Student's own work (preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	53	2,0

[1] delete or add other activities as appropriate