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| ***Description of course*** |
| *Code of course* | **1160-TRTSEM-MSA-0205** |
| *Name of course* | ***Urban and Regional Transport Management*** |
| *Version of course* | 2021/22 |
| **A. *Place of the course in system of studies*** |
| *Level of education* | *Second-cycle degree* |
| *Form and mode of studies* | *Full-time studies* |
| *Field of studies* | *Transport* |
| *Profile of studies* | *General academic profile* |
| *Specialization* | *Transport systems engineering and management* |
| *Place of teaching of course* | *Warsaw University of Technology, Faculty of Transport, Division of Traffic Control and Transport Infrastructure* |
| *Place of realization of course* | *Not applicable* |
| *Coordinator of course* | *Anna Górka Ph.D., Warsaw University of Technology, Faculty of Transport, Division of Traffic Control and Transport Infrastructure* |
| **B. *General characteristic of the course*** |
| Group/*Block of courses* | *Specialization subject* |
| *Level of course* | *Intermediate level* |
| *Type of course* | *Compulsory subject* |
| *Language of course* | *English* |
| *Location of the course in the study plan* – *nominal semester* | 2 |
| *Location of the course in the academic year* | *Summer semester* |
| *Preliminary requirements - formal* | *Basic knowledge about urban transport systems, means of urban transport and how to use them. Basic knowledge of AutoCAD software and maps designing.* |
| *Limit of students* | *Lecture: 100; project 18* |
| **C. *Effects of education and manner of teaching*** |
| *Purpose of course* | *To acquire the knowledge and skills needed to manage urban and regional transport, in particular to gain knowledge about citizen mobility, types of urban transport networks, integrated passenger transport systems – Park and Ride, create timetables, control and management of public transport systems, capacity and economics of public transport systems.* |
| ***Effects of education with reference to the learning outcomes for the area and field of study*** |
| ***No. effect*** | ***Description of the effect*** | ***Reference to the characteristics of learning outcomes*** | ***Reference to the learning outcomes in the program*** |
| ***Assumed learning outcomes in terms of knowledge*** |
| W01 | *Has detailed knowledge of management and control in urban public transport.* | I.P7S\_WG.o | Tr2A\_W09 |
| W02 | *Knows the principles and methods of designing public transport systems.* | I.P7S\_WG.o | Tr2A\_W10 |
| ***Assumed learning outcomes in terms of skills*** |
| U01 | *Is able to develop a project of public transport system.* | I.P7S\_UW.oIII.P7S\_UW.o | Tr2A\_U17 |
| U02 | *Can assess and compare the efficiency of public transport systems.* | I.P7S\_UW.o.III.P7S\_UW.o | Tr2A\_U13 Tr2A\_U18 |
| ***Assumed learning outcomes in the field of social competences*** |
| – | – | – | – |
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| *Form of didactic studies and number of hours* | *Lecture* | *Exercise* | *Laboratory* | *Project* | *Other* |
| *On a weekly plan* | 1 | 0 | 0 | 1 | 0 |
| *Throughout the semester* | 15 | 0 | 0 | 15 | 0 |
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| *Contents of education - separately for each form of didactic studies* | *Lecture*: *Classification of transport systems, technical data, history of urban transport development. Technical and operational characteristics: Transportation needs: Mobility of city dwellers, sources and destinations, streams of passengers and their characteristics in time and space. Urban transport lines and networks designation and optimization of public transport routes, integrated passenger transport systems - Park and Ride. Timetables: Classification and characteristics of timetables, coordination between timetables. The work plan of . Public transport planning: stopping time at stops, interference from other traffic, impact of traffic devices, accumulation of delays, deviations from the timetable. Capacity of public transport systems: Criteria and means of evaluation of public transport. Economics of public transport: Transport and operating costs, investments, tariff systems, types of tickets, and security systems.**Project*: *Designing a public transport network for a medium-sized city (analysis of existing situation, distribution of stops and lines, calculation of passenger flows and number of vehicle required).* |
| *Teaching methods* | *Lecture:* *Lecture class, discussing further issues, providing examples, discussion with lecture participants.**Project:* *Project assignment given at the beginning of the semester, systematically carried out in teams.* |
| ***Methods of verification of effects of education***  |
| ***No. effect*** | ***Methods of verification*** |
| ***Assumed learning outcomes in terms of knowledge*** |
| W01 | *Two questions on this topic for credit in the lecture. A correct answer to at least one question is required.* |
| W02 | *Question on this topic during the lecture credit. Correct answer to this question required.* |
| ***Assumed learning outcomes in terms of skills*** |
| U01 | *The condition for passing is correct execution of the project task in terms of content and demonstration of basic knowledge necessary for its execution.* |
| U02 | *Defending the design work, verifying the correctness of the thinking process and the assumptions made and the conclusions formulated by the listener.* |
| ***Assumed learning outcomes in the field of social competences*** |
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| *Methods of evaluation* | *Lecture:* *Theoretical questions asked during the project defence.**Project:* *Defense of the project taking into account the accuracy of the implementation of the project task (60%), general knowledge of the subject (30%), activity in class (10%) and regularity in the design process during the semester (10%). A 51% satisfactory completion of the above requirements is required to get a credit for the course.**Integrated degree:**Average of the partial grades.* |
| *Exam* | *No* |
| *Literature* | *Basic literature*: 1) Nielsen G., et al.: Public transport. Planning the networks. HiTrans Best Practice Guide, 2005.2) http://civitas.no/assets/hitrans2publictran sportplanningthe-networks.pdf,3) David E. Boyce, Huw C.W.L. Williams: Forecasting Urban Travel Past, Present and Future, 2016.4) Juan de Dios Ortúzar, Luis G. Willumsen: Modelling Transport, 4th Edition, 2011. |
| *Website of the course* | –– |
| **D. *Student’s activity*** |
| *Number of ECTS credits* | 3 |
| *Number of hours of student’s work to achieve effects of education* | *86 hours, including: work at lectures 15 hours, work on exercises 15 hours, literature study 12 hours, consultations 3 hours (Including 2 hours project consultation), preparation for test 10 hours, working on project outside of class hours 25 hours, preparation for the test of the lecture 6 hours, defense of the project 1 hour.* |
| *Number of ECTS credits on the course with direct participation of academic teacher* | *1,5 ECTS (34 hours, including: work at lectures 15 hours, work on exercises 15 hours, consultations 3 hours, defense of the project 1 hour)* |
| *Number of ECTS credits on practical activities on the course* | *1,5 ECTS (43 hours, including: work on exercises 15 hours, 2 hours project consultation, working on project outside of class hours 25 hours, defense of the project 1 hour)* |
| **E. *Additional information*** |
| *Notes* | *As long as it does not cause changes in the relationship of a given subject with the directional effects in the content of education, changes may be introduced on an ongoing basis, taking into account the latest scientific achievements.* |
| *Date of last edition* | 2021-02-21 20:10 |