

Efekty kształcenia na kierunku TRANSPORT

Studia drugiego stopnia w języku angielskim, profil ogólnoakademicki

Lp.	Category of learning outcomes	Symbol	Expected learning outcomes	Uniwersalne charakterystyki pierwszego stopnia	Ogólne charakterystyki drugiego stopnia
1	Wiedza: zna i rozumie	K2A_W01	one has knowledge required to understand social, legal and other non-technical conditions of engineering activities and knowledge of their application in engineering practice	P7U_W	P7S_WK
2	Wiedza: zna i rozumie	K2A_W02	one has knowledge necessary to understand economic and other non-technical conditions of engineering activities and knowledge of their application in engineering practice	P7U_W	P7S_WK
3	Wiedza: zna i rozumie	K2A_W03	one has basic knowledge related to management, including quality management and pursuing of a business activity	P7U_W	P7S_WK
4	Wiedza: zna i rozumie	K2A_W04	one is familiar with the principles of establishing and developing different forms of an individual enterprise, based on the use of knowledge from the specific areas of expertise and scientific disciplines typically applied in the field of transport	P7U_W	P7S_WK
5	Wiedza: zna i rozumie	K2A_W05	one has both general and specialist knowledge within transport in a foreign language, knowledge of grammar and lexical structures enabling one to understand and create various spoken and written texts, both formal and informal relating to exact as well as abstract subjects, including understanding a discussion concerning technical aspects of transport, advanced knowledge of general technical and specialist transport vocabulary; knowledge of grammatical and syntactic structures used in specialist texts	P7U_W	P7S_WG
6	Wiedza: zna i rozumie	K2A_W06	one has advanced knowledge about the principles of conducting physical measurements and processing their results, measurement uncertainties and methods of their determination and presentation	P7U_W	P7S_WG

7	Wiedza: zna i rozumie	K2A_W07	one has extended and advanced knowledge in the field of mathematical methods and analyses applied to describe technical processes, transport systems and processes	P7U_W	P7S_WG
8	Wiedza: zna i rozumie	K2A_W08	one has extended and advanced knowledge in the field of analysis of physical phenomena and solutions of technical problems with the application of the laws of physics in the construction, operation and maintenance of means of transport	P7U_W	P7S_WG
9	Wiedza: zna i rozumie	K2A_W09	one has knowledge in the field of materials science and laws of mechanics as well as their application in transport	P7U_W	P7S_WG
10	Wiedza: zna i rozumie	K2A_W10	one has extended knowledge of how modern transport functions and areas connected with it	P7U_W	P7S_WG
11	Wiedza: zna i rozumie	K2A_W11	one has advanced knowledge in the field of reliability and safety in transport	P7U_W	P7S_WG
12	Wiedza: zna i rozumie	K2A_W12	one has knowledge related to transport process management and modelling considering social, economic and legal aspects	P7U_W	P7S_WG
13	Wiedza: zna i rozumie	K2A_W13	one has knowledge in the field of transport and logistic systems as well as their development trends and technical assistance methods for their processes	P7U_W	P7S_WG
14	Wiedza: zna i rozumie	K2A_W14	one is familiar with basic methods, techniques and tools applied in the designing and analysis of transport systems	P7U_W	P7S_WG
15	Wiedza: zna i rozumie	K2A_W15	one has theoretically grounded and detailed knowledge about the use of means of transport as well as their technical operation	P7U_W	P7S_WG
16	Wiedza: zna i rozumie	K2A_W16	one has knowledge in the field of control and management in transport, including quality engineering	P7U_W	P7S_WG
17	Wiedza: zna i rozumie	K2A_W17	one has knowledge about the state of the art and the latest development trends in transport as well as its impact on the natural environment	P7U_W	P7S_WG
18	Wiedza: zna i rozumie	K2A_W18	one has well-organised and theoretically grounded knowledge in the field of applied mechanics	P7U_W	P7S_WG

19	Wiedza: zna i rozumie	K2A_W19	one has knowledge required to understand economic and other non-technical conditions of engineering activities and principles of occupational health and safety applied in engineering work	P7U_W	P7S_WK
20	Wiedza: zna i rozumie	K2A_W20	one has knowledge in the field of resource management and protection of intellectual property rights, copyrights and patent regulations	P7U_W	P7S_WK
21	Wiedza: zna i rozumie	K2A_W21	one has advanced knowledge related to the application of mathematical methods to describe transport related problems	P7U_W	P7S_WG
22	Wiedza: zna i rozumie	K2A_W22	One is familiar with typical engineering techniques in the field of learning course of study	P7U_W	P7S_WG
23	Umiejętności: potrafi	K2A_U01	one can interpret and explain social phenomena and mutual relations between phenomena	P7U_U	P7S_UW
24	Umiejętności: potrafi	K2A_U02	one can conduct preliminary economic analysis of the undertaken engineering activities and apply mathematical tools to analyse engineering problems	P7U_U	P7S_UW
25	Umiejętności: potrafi	K2A_U03	one can design a complex transport related device, system or process in compliance with the given specification including non-technical aspects, and implement such a project - at least partially - applying appropriate methods, techniques and tools, including adaptation of the existing tools or development of new ones for these purposes	P7U_U	P7S_UW
26	Umiejętności: potrafi	K2A_U04	one can acquire information from publications and other sources; one can integrate the retrieved pieces of information, interpret them, draw conclusions as well as formulate and exhaustively substantiate opinions, also in a foreign language	P7U_U	P7S_UK
27	Umiejętności: potrafi	K2A_U05	one is capable of both individual and team work, and can communicate using selected techniques in different professional environments, also in a foreign language	P7U_U	P7S_UO
28	Umiejętności: potrafi	K2A_U06	one can develop documentation related to the performance of one's own studies and prepare a scientific text discussing the relevant outcomes, also in a foreign language	P7U_U	P7S_UK

29	Umiejętności: potrafi	K2A_U07	one can prepare and deliver a concise presentation concerning individual transport related problems, also in a foreign language	P7U_U	P7S_UK
30	Umiejętności: potrafi	K2A_U08	one understands the relevance of main themes conveyed in complex texts devoted both to specific and abstract subjects; one can fluently and spontaneously talk to a native speaker of a given foreign language in a manner not causing any tension to either party; one can formulate both oral and written opinions pertaining to a wide variety of topics in a transparent and comprehensible manner, explaining one's standpoint, providing arguments for and against; one can easily display, in both an oral and written form, knowledge acquired about the given subject delivered in the form of a lecture in a foreign language; one can search for information in various types of foreign language sources	P7U_U	P7S_UK
31	Umiejętności: potrafi	K2A_U09	one can determine the directions of continued learning and implement the self-learning process	P7U_U	P7S_UU
32	Umiejętności: potrafi	K2A_U10	one can plan and conduct experiments concerning simple research problems using diverse methods of analysis or simulation, interpret the obtained results and draw conclusions or formulate hypotheses	P7U_U	P7S_UK
33	Umiejętności: potrafi	K2A_U11	one can apply systemic approach considering non-technical aspects in engineering tasks	P7U_U	P7S_UW
34	Umiejętności: potrafi	K2A_U12	one can apply computer-aided design tools for simulation and the design of transport infrastructure and suprastructure elements	P7U_U	P7S_UW
35	Umiejętności: potrafi	K2A_U13	one can use suitable methods as well as instruments and workstations enabling measurements of basic quantities determining technical condition of elements of means of transport	P7U_U	P7S_UW
36	Umiejętności: potrafi	K2A_U14	one can analyse and assess various transport systems and propose their suitable modifications and improvements	P7U_U	P7S_UW
37	Umiejętności: potrafi	K2A_U15	one can identify and verify transport elements, devices and processes	P7U_U	P7S_UW

38	Umiejętności: potrafi	K2A_U16	one can design technical back-up elements, facilities and systems for transport and logistics infrastructure with the consideration of given utility and economic criteria, using appropriate methods, techniques and tools	P7U_U	P7S_UW
39	Umiejętności: potrafi	K2A_U17	one can make the use of standards, catalogues, technical documentation and other sources in order to perform various engineering tasks, including materials in foreign languages	P7U_U	P7S_UW
40	Umiejętności: potrafi	K2A_U18	one applies databases and Internet-based sources to perform engineering tasks	P7U_U	P7S_UW
41	Umiejętności: potrafi	K2A_U19	one can conduct critical analysis and plan transport processes	P7U_U	P7S_UW
42	Umiejętności: potrafi	K2A_U20	while formulating and solving tasks including the design of transport facilities, systems and processes, one can integrate and systematise knowledge considering non-technical, environmental, economic and legal aspects	P7U_U	P7S_UW
43	Umiejętności: potrafi	K2A_U21	one applies principles of occupational health and safety in transport	P7U_U	P7S_UW
44	Umiejętności: potrafi	K2A_U22	on the basis of the assessment of applicability of methods, tools and new engineering achievements and applying new conceptual methods, one can solve complex or atypical engineering tasks, including research tasks in the fields of transport or logistics	P7U_U	P7S_UW
45	Umiejętności: potrafi	K2A_U23	one is capable of conducting an analysis in the field of a technical system reliability and safety	P7U_U	P7S_UW
46	Kompetencje społeczne: jest gotów do	K2A_K01	one understands the need for lifelong learning, can inspire others to learn and organise their learning process	P7U_K	P7S_KO
47	Kompetencje społeczne: jest gotów do	K2A_K02	one is aware of the relevance and understands non-technical aspects and effects of engineering activities, including its environmental impact and the related responsibility for the decisions made	P7U_K	P7S_KK
48	Kompetencje społeczne: jest gotów do	K2A_K03	one can collaborate in a group of people, assuming different roles	P7U_K	P7S_KR

49	Kompetencje społeczne: jest gotów do	K2A_K04	one can define the priority as well as identify and resolve dilemmas related to the performance of a task set by oneself and others	P7U_K	P7S_KK
50	Kompetencje społeczne: jest gotów do	K2A_K05	one can identify and resolve dilemmas involved in the performance of a specific profession	P7U_K	P7S_KK
51	Kompetencje społeczne: jest gotów do	K2A_K06	one can think and act in a creative and entrepreneurial manner	P7U_K	P7S_KO
52	Kompetencje społeczne: jest gotów do	K2A_K07	one is aware of the social role of a technical university graduate, and in particular, one understands the need to formulate and provide the society with information and opinions related to technical achievements and other aspects of engineer's work, among others by the means of mass media; one attempts to deliver such information and opinions in a generally comprehensive manner, substantiating various points of view	P7U_K	P7S_KR