

Załącznik nr 5 do ZW

MATRIX OF CORRELATION BETWEEN AREA EDUCATIONAL EFFECTS AND MAIN-FIELD-OF-STUDY EDUCATIONAL EFFECTS

1st level studies in main field-of-study *geodesy and cartography*, general academic profile

Symbol of educational effect for area of education in technical sciences	Description of educational effects for area of education in technical sciences	Correlation with educational effects for 1st level studies in main field of study <i>geodesy and cartography</i>
KNOWLEDGE		
OT1A_W01, W03	- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline	K_W01
OT1A_W06	- has fundamental knowledge of the lifecycle of devices, objects and technical systems	K_W02
OT1A_W02, W05	- has fundamental knowledge in the field of study related to the studied discipline - has fundamental knowledge of trends in development in scientific disciplines and fields of study related to the studied discipline	K_W03
OT1A_W04, W07	- has detailed knowledge connected with the chosen issues in the field of the studied discipline - knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline	K_W04
OT1A_W01, W07	- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline	K_W05
OT1A_W02, W03	- has fundamental knowledge in the field of study related to the studied discipline - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline	K_W06
OT1A_W04, W07	- has detailed knowledge connected with the chosen issues in the field of the studied discipline - knows fundamental methods, techniques, tools and materials used for solving	K_W07

	simple engineering tasks in the field of the studied discipline	
OT1A_W03, W04	<ul style="list-style-type: none"> - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has detailed knowledge connected with the chosen issues in the field of the studied discipline 	K_W08
OT1A_W01, W02, W03	<ul style="list-style-type: none"> - has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - has fundamental knowledge in the field of study related to the studied discipline - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline 	K_W09
OT1A_W01, W03, W07	<ul style="list-style-type: none"> - has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline 	K_W10
OT1A_W02	<ul style="list-style-type: none"> - has fundamental knowledge in the field of study related to the studied discipline 	K_W11
OT1A_W03, W04	<ul style="list-style-type: none"> - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has detailed knowledge connected with the chosen issues in the field of the studied discipline 	K_W12
OT1A_W04, W06	<ul style="list-style-type: none"> - has detailed knowledge connected with the chosen issues in the field of the studied discipline - has fundamental knowledge of the lifecycle of devices, objects and technical systems 	K_W13
OT1A_W01, W03, W05	<ul style="list-style-type: none"> - has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has fundamental knowledge of trends in development in scientific disciplines and fields of study related to the studied discipline 	K_W14
OT1A_W03, W04, W07	<ul style="list-style-type: none"> - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has detailed knowledge connected with the chosen issues in the field of the studied discipline 	K_W15

	- knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline	
OT1A_W01, W03, W05	- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has fundamental knowledge of trends in development in scientific disciplines and fields of study related to the studied discipline	K_W16
OT1A_W03, W04	- has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has detailed knowledge connected with the chosen issues in the field of the studied discipline	K_W17
OT1A_W04, W08	- has detailed knowledge connected with the chosen issues in the field of the studied discipline - has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities	K_W18
OT1A_W03, W05	- has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has fundamental knowledge of trends in development in scientific disciplines and fields of study related to the studied discipline	K_W19
OT1A_W02, W08	- has fundamental knowledge in the field of study related to the studied discipline - has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities	K_W20
OT1A_W02, W07, W08	- has fundamental knowledge in the field of study related to the studied discipline - knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline - has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities	K_W21
OT1A_W03, W04	- has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has detailed knowledge connected with the chosen issues in the field of the studied discipline	K_W12
OT1A_W04, W06	- has detailed knowledge connected with the chosen issues in the field of the studied discipline - has fundamental knowledge of the lifecycle of devices, objects and technical systems	K_W23
OT1A_W01, W03, W05	- has knowledge of mathematics, physics and chemistry and other areas related to the	K_W24

	<p>studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline</p> <ul style="list-style-type: none"> - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has fundamental knowledge of trends in development in scientific disciplines and fields of study related to the studied discipline 	
OT1A_W01, W03, W05	<ul style="list-style-type: none"> - has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has fundamental knowledge of trends in development in scientific disciplines and fields of study related to the studied discipline 	K_W25
OT1A_W03, W05, W07, W08	<ul style="list-style-type: none"> - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has fundamental knowledge of trends in development in scientific disciplines and fields of study related to the studied discipline - knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline - has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities 	K_W26
OT1A_W03, W04	<ul style="list-style-type: none"> - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline - has detailed knowledge connected with the chosen issues in the field of the studied discipline 	K_W27
OT1A_W01, W07	<ul style="list-style-type: none"> - has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline 	K_W27
OT1A_W01, W08	<ul style="list-style-type: none"> - has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline - has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities 	K_W29
OT1A_W03	<ul style="list-style-type: none"> - has organized, general knowledge and theoretical grounding including key issues related to the studied discipline 	K_W30
OT1A_W01, W03	<ul style="list-style-type: none"> - has knowledge of mathematics, physics and chemistry and other areas related to the 	K_W31

	<p>studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline</p> <p>- has organized, general knowledge and theoretical grounding including key issues related to the studied discipline</p>	
OT1A_W01, W06	<p>- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline</p> <p>- has fundamental knowledge of the lifecycle of devices, objects and technical systems</p>	K_W32
OT1A_W03, W07	<p>- has organized, general knowledge and theoretical grounding including key issues related to the studied discipline</p> <p>- knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline</p>	K_W33
OT1A_W08, W10	<p>- has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities</p> <p>- is able -while formulating and solving engineering tasks-to notice their system and non technical aspects</p>	K_W34
OT1A_W01, W07	<p>- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline</p> <p>- knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline</p>	K_W35
OT1A_W01, W07	<p>- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline</p> <p>- knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline</p>	K_W36
OT1A_W07, W08	<p>- knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline</p> <p>- has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities</p>	K_W37
OT1A_W02, W03	<p>- has fundamental knowledge in the field of study related to the studied discipline</p> <p>- has organized, general knowledge and theoretical grounding including key issues related to the studied discipline</p>	K_W38
OT1A_W08	<p>- has fundamental knowledge necessary to understand social, economical ,legal and other non-technical factors of engineering activities</p>	K_W39
	<p>- has fundamental knowledge of choosen sport</p>	K_W40

OT1A_W01	- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline	K_W41
OT1A_W01	- has knowledge of mathematics, physics and chemistry and other areas related to the studied discipline necessary to formulate and solve simple tasks in the field of the studied discipline	K_W42
OT1A_W04, W07	- has detailed knowledge connected with the chosen issues in the field of the studied discipline - knows fundamental methods, techniques, tools and materials used for solving simple engineering tasks in the field of the studied discipline	K_W43
SKILLS		
OT1A_U015	- is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools	K_U01
OT1A_U02, U05, U07	- is able to communicate in their professional environment and other environments using various techniques - has ability to self-learning - is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U02
OT1A_U07, U16	- is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able – according to a given specification- to design and complete a simple device, object, system or process specific for the studied discipline, using appropriate methods, techniques and tools	K_U03
OT1A_U08, U15	- is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools	K_U04
OT1A_U15, U16	- is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools - is able – according to a given specification- to design and complete a simple device, object, system or process specific for the studied discipline, using appropriate methods, techniques and tools	K_U05
OT1A_U07, U09, U15	- is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U06

	<ul style="list-style-type: none"> - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools 	
OT1A_U05, U07, U09	<ul style="list-style-type: none"> - has ability to self-learning - is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks 	K_U07
OT1A_U03, U08	<ul style="list-style-type: none"> - is able to prepare a well documented study of problems in the field of studied discipline both in Polish and a foreign language regarded as a basic one in the scientific disciplines and fields of study related to the studied discipline - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions 	K_U08
OT1A_U08, U15	<ul style="list-style-type: none"> - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools 	K_U09
OT1A_U15, U16	<ul style="list-style-type: none"> - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools - is able – according to a given specification- to design and complete a simple device, object, system or process specific for the studied discipline, using appropriate methods, techniques and tools 	K_U10
OT1A_U08, U09, U12	<ul style="list-style-type: none"> - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able to carry out primary economic analysis of undertaken engineering activities 	K_U11
OT1A_U07, U08, U15, U16	<ul style="list-style-type: none"> - is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools 	K_U12

	- is able – according to a given specification- to design and complete a simple device, object, system or process specific for the studied discipline, using appropriate methods, techniques and tools	
OT1A_U01, U07	- is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions - is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U13
OT1A_U08, U09, U12	- is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able to carry out primary economic analysis of undertaken engineering activities	K_U14
OT1A_U16	- is able – according to a given specification- to design and complete a simple device, object, system or process specific for the studied discipline, using appropriate methods, techniques and tools	K_U15
OT1A_U07, U08	- is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions	K_U16
OT1A_U03, U07, U08	- is able to prepare a well documented study of problems in the field of studied discipline both in Polish and a foreign language regarded as a basic one in the scientific disciplines and fields of study related to the studied discipline - is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions	K_U17
OT1A_U01, U07	- is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions - is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U18
OT1A_U08, U09, U12	- is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks	K_U19

	- is able to carry out primary economic analysis of undertaken engineering activities	
OT1A_U03, U08	- is able to prepare a well documented study of problems in the field of studied discipline both in Polish and a foreign language regarded as a basic one in the scientific disciplines and fields of study related to the studied discipline - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions	K_U20
OT1A_U09, U12	- is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able to carry out primary economic analysis of undertaken engineering activities	K_U21
	is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks	K_U22
OT1A_U02, U05, U03, U07, U15	- is able to communicate in their professional environment and other environments using various techniques - has ability to self-learning - is able to prepare a well documented study of problems in the field of studied discipline both in Polish and a foreign language regarded as a basic one in the scientific disciplines and fields of study related to the studied discipline - is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools	K_U23
OT1A_U08, U09, U12	- is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able to carry out primary economic analysis of undertaken engineering activities	K_U24
OT1A_U14, U15	- is able to identify and formulate specifications of simple, practical engineering tasks specific for the studied discipline - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools	K_U25
OT1A_U08, U11, U14, U15	- is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is prepared to work in industry environment and knows safety rules in the workplace - is able to identify and formulate specifications of simple, practical engineering tasks specific for the studied discipline - is able to assess the usefulness of routine methods and tools for solving a simple,	K_U26

	practical engineering task specific for the studied discipline and choose and apply a proper method and tools	
OT1A_U07, U08, U10	<ul style="list-style-type: none"> - is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able -while formulating and solving engineering tasks-to notice their system and non technical aspects 	K_U27
OT1A_U07, U08, U10	<ul style="list-style-type: none"> - is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able -while formulating and solving engineering tasks-to notice their system and non technical aspects 	K_U28
OT1A_U07, U08, U10, U14, U15	<ul style="list-style-type: none"> is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able -while formulating and solving engineering tasks-to notice their system and non technical aspects - is able to identify and formulate specifications of simple, practical engineering tasks specific for the studied discipline - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools 	K_U29
OT1A_U08, U09, U12	<ul style="list-style-type: none"> - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able to carry out primary economic analysis of undertaken engineering activities 	K_U30
OT1A_U02, U16, U14	<ul style="list-style-type: none"> - is able to communicate in their professional environment and other environments using various techniques - is able – according to a given specification- to design and complete a simple device, object, system or process specific for the studied discipline, using appropriate methods, techniques and tools - is able to identify and formulate specifications of simple, practical engineering tasks specific for the studied discipline 	K_U31
OT1A_U07	is able to use information and communication technologies necessary to perform	K_U32

	tasks typical of engineering activities	
OT1A_U07	is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U33
OT1A_U03, U08,U09	- is able to prepare a well documented study of problems in the field of studied discipline both in Polish and a foreign language regarded as a basic one in the scientific disciplines and fields of study related to the studied discipline - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks	K_U34
OT1A_U01, U07	- is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions - is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U35
OT1A_U01, U07	- is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions - is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U36
OT1A_U01, U07	- is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions - is able to use information and communication technologies necessary to perform tasks typical of engineering activities	K_U37
OT1A_U09, U10	- is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able -while formulating and solving engineering tasks-to notice their system and non technical aspects	K_U38
OT1A_U09, U10	- is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks - is able -while formulating and solving engineering tasks-to notice their system and non technical aspects	K_U39
OT1A_U01, U02, U03, U04	- is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for	K_U40

	<p>international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions</p> <ul style="list-style-type: none"> - is able to communicate in their professional environment and other environments using various techniques - is able to prepare a well documented study of problems in the field of studied discipline both in Polish and a foreign language regarded as a basic one in the scientific disciplines and fields of study related to the studied discipline - is able to prepare and give an oral presentation concerning detailed issues in the field of the studied discipline both in Polish and a foreign language 	
OT1A_U01, U02, U03, U04	<ul style="list-style-type: none"> - is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions - is able to communicate in their professional environment and other environments using various techniques - is able to prepare a well documented study of problems in the field of studied discipline both in Polish and a foreign language regarded as a basic one in the scientific disciplines and fields of study related to the studied discipline - is able to prepare and give an oral presentation concerning detailed issues in the field of the studied discipline both in Polish and a foreign language 	K_U41
OT1A_U01	<ul style="list-style-type: none"> - is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions 	K_U42
	<ul style="list-style-type: none"> - has fundamental skills in choosen sport, has skills in healthy way of life and continuation of lifetime activities 	K_U43
OT1A_U08	<ul style="list-style-type: none"> - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks 	K_U44
OT1A_U08	<ul style="list-style-type: none"> - is able to plan and run experiments including measurements and computer simulations, interpret results and draw conclusions - is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks 	K_U45
OT1A_U01	<ul style="list-style-type: none"> - is able to obtain information from literature, databases and other properly selected sources, either in English or another foreign language regarded as a language for international communication in the studied discipline ; is able to integrate obtained information, interpret it and draw conclusions, formulate and justify opinions 	K_U46

OT1A_U07, U12, U14, U15	<ul style="list-style-type: none"> - is able to use information and communication technologies necessary to perform tasks typical of engineering activities - is able to carry out primary economic analysis of undertaken engineering activities - is able to identify and formulate specifications of simple, practical engineering tasks specific for the studied discipline - is able to assess the usefulness of routine methods and tools for solving a simple, practical engineering task specific for the studied discipline and choose and apply a proper method and tools 	K_U47
SOCIAL COMPETENCES		
OT1A_K01	- understands the necessity of a lifetime learning process; is able to inspire and organize the process of learning for others	K_K01
OT1A_K02	- realizes the significance and understands non-technical aspects and consequences of engineering activity and especially its influence on the natural environment and the related responsibility for decisions	K_K02
OT1A_K05	- identifies correctly and solves dilemmas connected with the profession	K_K03
OT1A_K04, K07	<ul style="list-style-type: none"> - is able to set clear priorities leading to the realization tasks set by himself or others - realizes the social role of technical university graduates and especially understands the need to formulate information and share it with society, e.g. through mass media, in relation to achievements in environmental engineering and other aspects of engineering activity; makes attempts at sharing such information and opinions in an understandable way 	K_K04
OT1A_K06	- is able to think and act in an entrepreneurial way	K_K05
OT1A_K06	- is able to think and act in an entrepreneurial way	K_K06
OT1A_K07	- realizes the social role of technical university graduates and especially understands the need to formulate information and share it with society, e.g. through mass media, in relation to achievements in environmental engineering and other aspects of engineering activity; makes attempts at sharing such information and opinions in an understandable way	K_K07
	- advances of social and cultural importance of sport and physical activities. Fosters of its own liking.	K_K08
	-has skills in practical selection of monitoring methods of deformations in mining and civil engineering	K_U09

*niepotrzebne skreślić