

**CARD OF THE PROGRAM OF STUDIES**

Name of the education program (field of study): **LOGISTICS**

Name of the Faculty: FACULTY OF PRODUCTION AND ENGINEERING AND LOGISTIC

education program	Resolution of the Council of	24.04.2019r.
	In force since academic year	2019/2020
level of education (1 <sup>st</sup> cycle / 2 <sup>nd</sup> cycle)		2nd cycle degree
education profile (general academic / practical)		General academic
The date and the number of a senate resolution accepting directional effects of the education		29.05.2019r resolution nr 322
Form of the studies (full-time / part-time)		full-time
assignment to the area(a) of education		- <u>area of technical sciences</u>
indication of fields (science or art) and disciplines (scientific or artistic) to which educational effects refer to the education program (underline the leading one)		- <u>field of technical sciences</u> - disciplines: <u>production engineering</u> construction and operation of machines transport informatics material engineering
duration (in semesters)		3
Number of ECTS points		90
professional title received by graduate		magister inżynier (in English: Master Engineer)
connection with the University's mission and its strategy of development		Education of highly qualified personnel as well as development and implementation of new technologies, building a modern information society with respect for ethics, promoting individual development, cooperation with the economic and business environment, training in the labor market - these goals are included in the assumed educational outcomes. Completing the mission of the Opole University of Technology and strategic goals included in the OUT Development Strategy as well as the objectives set out in the Development Strategy of the Production Engineering and Logistics Department until 2020, and taking into account changes on the national labor market and the interests of future students.
objectives of education and opportunities for employment and continuation of studies		Graduates of the second-cycle studies at <i>Logistics</i> have advanced preparation in the field of logistics with elements of management, production engineering and security sciences. <b>Knowledge</b> The graduate has advanced knowledge on concepts, methods, techniques, directions of logistics management development, marketing of logistics services and international logistics. The graduate also has a structured and in-depth knowledge of insurance in logistics. In

addition, he has an extensive knowledge in the field of transport logistics, national and international logistic institutions and the TSL industry, relations between logistics entities at the micro, meso, macro, eurologistics level. He has in-depth knowledge of issues related to the transport policy of Poland and the European Union, the market of transport and forwarding services and trends, changes and innovations occurring in transport all over the world, as well as in the field of universal and specialized transport technologies taking into account security aspects. The graduate has in-depth knowledge of project management, as well as knowledge about methods and procedures related to planning, testing, or running simulations as part of the project and building project teams. The graduate has an extended knowledge of materials used especially in logistics and their impact on the course and implementation of logistics processes, as well as their applications with particular emphasis on packaging and process safety. The graduate has an extended knowledge of the methodology of conducting scientific research and verification of results, including in particular on the essence and principles of scientific research, scientific methods and research procedures.

### **Skills**

A graduate of the 2nd degree of Logistics can identify complex logistic systems and supply chains in all areas of logistics and correctly interpret phenomena (e.g. costs, correctness, variability of demand) in logistics and assess the mutual relations that occur between these phenomena in the areas of transport, procurement, distribution, and customer service. The graduate can use the optimization methods to make decisions in the area of logistics, can use specialized IT tools to analyze, evaluate and design (modeling) logistic processes. The graduate can also identify, evaluate and manage the risks related to the functioning of man-made systems and select adequate types of security for systems operating in unpredictable conditions. The graduate can determine the financial condition of the company, make a calculation of the costs of logistic operations and economic and technical analyzes. The graduate is able to use a foreign language at the B2 + level of the European System of Language Description and to a greater extent in the field of specialist terminology.

### **Competences**

The graduate understands the need for lifelong learning, expanding knowledge, knows the possibilities of further education and can orientate and encourage other people to learn, understands the need to promote the achievements of science and technology in society. The graduate is able to cooperate and cooperate in a group, adopting various roles related to the development of professional achievements. In addition, he is able to identify and resolve problems related to the profession of logistics, observing the principles of integrity and professional ethics and to work for simple rules, including those related to work safety.

### **Development perspectives and career prospects**

	<p>After completing education in the second degree of Logistics and defense of the diploma thesis, the graduate will receive the professional title of Master of Science and is ready to take up employment. Acquired qualifications predispose graduates to work as specialists and managers in logistics and related departments of both production, trade and service enterprises. The graduate is especially prepared to work as a coordinator of logistics chains and as a logistics specialist in companies providing logistics services (forwarding and transport companies, logistics service centers, logistics distribution centers, modern warehouses, catering, supply and distribution companies). The graduate is also prepared to run his own business.</p>
<p>prerequisites - expected competences of the candidate (especially in the case of second-cycle studies)</p>	<p>For the second-cycle program are admitted candidates with an engineering diploma who have the following first-cycle qualifications:</p> <p>A) in terms of <b>knowledge</b>:</p> <ul style="list-style-type: none"> <li>- well-built general knowledge from selected areas of mathematics and statistics</li> <li>- basic knowledge about concepts, methods, techniques, directions of management development, including quality management and in the field of conducting business operations in Poland</li> <li>- basic knowledge about systems, their features, types, principles used in modeling and designing systems, as well as the life cycle of devices, objects and technical systems</li> <li>- knowledge in the field of finance and accounting</li> <li>- basic knowledge of natural phenomena and processes, knowledge of the principles and methods used in environmentalism and return logistics as well as knowledge of the waste management and recycling system</li> <li>- basic knowledge about health and safety and ergonomic principles</li> <li>- basic knowledge about the structure, architecture and principles of operation of computer systems</li> <li>- knowledge of analysis methods and tools as well as modern IT systems (including MRP, CAD, CAM, CAX)</li> <li>- knowledge of concepts and basic knowledge about developmental trajectories, modern methods and concepts in logistics (including JIT, TQM, Lean Manufacturing)</li> <li>- knowledge of standardization systems and standards from the ISO 9000, 13000, 18000, and 27000 series</li> <li>- knowledge of the principles of drawing sketches, constructing projections and normalization in a technical drawing</li> <li>- basic knowledge of professional ethics (moral decisions, rules for the protection of industrial property and copyright)</li> <li>- basic knowledge in physics, allowing to solve simple technical problems</li> <li>- basic knowledge about transport and the market of transport services</li> <li>- detailed knowledge about logistics infrastructure</li> <li>- basic knowledge about the division of machines and devices and their basic technical parameters</li> <li>- basic knowledge of materials used in industry (their applications, storage conditions, storage, methods of</li> </ul>

production or processing)

- basic knowledge in the field of microeconomics and macroeconomics
- structured and advanced knowledge of the foreign language, including business vocabulary

B) in terms of **skills**:

- ability to solve tasks from selected branches of mathematics, physics and statistics, interpreting results and using them to make decisions in the sphere of logistics
- the ability to characterize resources and the company's environment, and to identify the basic methods of raising capital
- the ability to prepare a simple business plan for a microenterprise
- ability to identify the system (technical, social or economic) and processes occurring in it (including mapping) and the ability to build a model for the system
- the ability to identify and assess risks and select appropriate tools to eliminate or reduce the risk
- ability to assess the financial condition of the enterprise and explain the essence of costs in the generic and functional-calculating system
- the ability to prepare a written work and multimedia presentation with an oral presentation of selected problems and aspects in the field of logistics or production engineering
- the ability to construct algorithms for simple IT tasks and to adapt programs of other authors to your own needs
- ability to analyze and evaluate devices, systems, processes or services used in logistics
- the ability to carry out simple experiments, including physical and chemical ones, as well as computer measurements and simulations that help to make decisions in the sphere of logistics or production engineering
- the ability to identify participants in the supply chain and simple relationships between them
- the ability to design a distribution channel and formulate a distribution strategy for a selected product or service
- the ability to interpret Polish and European product designations
- the ability to assess purchasing needs and plan purchase strategies based on a company strategy or other company documents
- ability to dimension and draw objects using the rules required in the technical drawing
- the ability to analyze interpersonal relationships in the work environment
- the ability to describe the construction and operation of the basic machine components
- the ability to choose the storage conditions of materials
- the ability to use, in terms of the TSL market, selected standards, rules and legal regulations
- the ability to communicate freely and create documents and presentations in a foreign language

C) in terms of **social competences**

- awareness of the need for lifelong learning and complementing knowledge

	<ul style="list-style-type: none"> <li>- ability to cooperate in a group and take different roles in it</li> <li>- the skill of creative and entrepreneurial thinking</li> <li>- awareness of the roles and importance of managers</li> <li>- awareness of the essence of competition on the market</li> <li>- ability to act independently and responsibly</li> <li>- ability to set priorities when solving simple tasks in the field of logistics and production engineering</li> <li>- awareness of social, ethical and professional responsibility for decisions made</li> <li>- ability to define research problems</li> <li>- awareness of the need to consider the environmental aspects of business operations, awareness of the need to apply a system and process approach in logistics.</li> </ul>	
rules of the recruitment (in accordance with the recruitment resolution)	The basis for admission to the second-cycle studies is obtaining the professional title of an engineer obtained in the same field or course with the same learning outcomes.	
differences in relation to other programs with similarly defined goals and learning outcomes conducted at the Opole University of Technology	No education programs with similarly defined goals and effects were found at the Opole University of Technology.	
Means of the verification of the assumed education outcomes	The assumed learning outcomes for the course are formulated in Annex No. 8 to the Ordinance No. 78/2018 of the Rector of Technical University of Opole, Annex No. 14 to the Learning Quality Framework, will be subject to verification in a manner consistent with the OP-M-01 Procedure - Assessment and verification of learning outcomes and study programs, Annex No. 16 to Regulation No. 78/2018 Rector of Technical University of Opole	
Summary indicators being characteristic of a program of the education including:	the total number of ECTS points that a student must obtain in the course of classes requiring direct participation of academic teachers	70
	the total number of ECTS points that a student must obtain as part of the basic classes, to which the education outcomes apply for a specific education program, the level and profile of education	13
	For the practical profile total number of ECTS points assigned for the classes associated with practical vocational education, For the general academic profile total number of ECTS points assigned for classes associated with conducted researches in field of science or art associated with the field of study	47
	the number of ECTS points that a student must obtain as part of classes in the humanities or social sciences	5
	in the case of full-time first-cycle or uniform master's studies, the number of hours of physical education classes	-

	percentage share of the number of ECTS points for the discipline of science (or art) "and" in the total number of ECTS points - necessary to determine for each discipline, in the case of a study program associated with more than one discipline (or art)	<ul style="list-style-type: none"> <li>* management and quality education - 55%;</li> <li>* security science - 20%</li> <li>* discipline: mechanical engineering - 25%</li> </ul>
--	--	---

Study program approved by the faculty student self-government body

.....  
Signature of the faculty representative of the student self—government body

.....  
date, Dean’s signature and stamp

## The table of major-related learning outcomes

Name of the education program (Field of Studies): <b>Logistics</b> The Level of Education: <b>Second-Cycle Degree Studies</b> Educational Profile: <b>General Academic Studies</b>	
Symbols of Major-related Learning Outcomes	Learning outcomes
<b>KNOWLEDGE</b>	
K2_W01	The graduate has good underpinning knowledge of selected areas of mathematics and statistics which is requisite to formulate and resolve tasks within economic, technical and exploitative issues of logistics
K2_W02	The graduate has in-depth knowledge of concept, techniques, development directions of management including, in particular: logistics management, financial management, movement of people and goods, strategic management, knowledge management and negotiations
K2_W03	The graduate has in-depth knowledge of systems, their characteristics, types as well as the rules of their application in engineering (including, in particular modeling and design) which is requisite to modify or streamline/optimize the processes taking place in them as well as the knowledge of principles and procedures of risk analysis and safety within systems and processes
K2_W04	The graduate has organized and in-depth knowledge of the insurance classification, its functions and the principles of its functioning, insurance contract as well as types of insurance especially consignment insurance as well as non-life insurance including mishap and theft insurance
K2_W05	The graduate has in-depth knowledge regarding project management, methods of project management (managing the scope of work, time, costs, human resources i.a. CPM, PERT, Gantt chart) as well as knowledge of methods and procedures related to planning, testing, or running simulation within a project and building project teams
K2_W06	The graduate has in-depth knowledge of Information Technology including computer systems structure and their modus operandi as well as of simple data structures and information storing and processing in computer systems which is requisite to create documents and outcome presentations with special regard to the area of logistics
K2_W07	The graduate has advanced knowledge the principles, instruments, techniques, tools and materials used to resolve engineering tasks and the principles of process organization i.e. within manufacturing, logistics and commercial activities (including computer support methods)
K2_W08	The graduate has advanced knowledge the notions and have in-depth knowledge of developmental trends, advanced methods and conceptions used in logistics management, marketing and international logistics
K2_W09	The graduate has in-depth knowledge necessary to understand social, civilizational, economic, legal, technical and other non-technical conditions of engineering activities in logistics, trade and industry, including the principles of protection of industrial property and copyright
K2_W10	The graduate has extended knowledge of the methodology of conducting scientific research and verification of results including in particular the nature and principles of scientific research, scientific methods (including analysis, synthesis, deduction, comparison, generalization, inference, empirical research, applied research, diagnostic tests) and research procedures.
K2_W11	The graduate has in-depth knowledge of optimization theory, optimization methods (including numerical methods, soft computing), static and dynamic optimization and decision theory, as well as statistical and mathematical methods used in operational research
K2_W12	The graduate has in-depth knowledge of the directions of international logistics development, modeling of international logistics systems, logistics position in theories of international trade and the institutions regulating logistics operations in the world, as well as logistics systems operating at EU, international, national, regional and local level
K2_W13	The graduate has in-depth knowledge of issues related to Poland and the European Union's transport policy, market for transport and forwarding services, trends, changes and innovations occurring in transport all over the world, as well as in the field of universal and specialized transport technologies
K2_W14	The graduate has in-depth knowledge of marketing, including marketing mix, segmentation

	market analysis, marketing research, marketing strategies, pricing strategies, especially applied by logistics service providers
K2_W15	The graduate has extended knowledge of materials used especially in logistics and their impact on the sequence and execution of logistics processes, as well as their implementation with particular focus on packaging
K2_W16	The graduate knows and understands theory and terminology in a foreign language adequate to the studied discipline, enabling the use of a foreign language at B2+ level of Common European Framework of Reference for Languages
<b>SKILLS</b>	
K2_U01	The graduate can solve tasks within mathematics and statistics, present and interpret obtained results and use them to make proper decisions in the area of industrial, logistic (e.g. the optimisation of logistic processes) and commercial activities
K2_U02	The graduate can define a system, specify the processes ongoing in it and present them in a form of a scheme, as well as formulate its suitable model, make the optimisation, verification and validation of his or her observations
K2_U03	The graduate can identify, assess and manage the risks connected with functioning of systems created by a human and assort appropriate kinds of protection for systems functioning in unpredictable conditions
K2_U04	The graduate can define the financial condition of a company, estimate the costs of logistic activities and make the classification of costs by type and by function
K2_U05	The graduate can plan and carry out self- studying, including acquiring information from Polish and foreign literature, databases, the Internet and other sources (including the ones in foreign languages), interpret them, draw conclusions, formulate comments, coordinate the work of the research team and on these grounds prepare well documented problem elaboration, written assignment, documentation, report or multimedia presentation regarding management, logistics, production engineering and other areas or related disciplines and guide others in this task
K2_U06	The graduate can construct algorithms of IT tasks, make the adaptation of IT programmes for his or her own needs in order to solve tasks
K2_U07	The graduate can speak about and discuss the developing trends in logistics, production engineering, management – existing technical solutions especially concerning appliances, objects, systems, processes, services using i.a. the quantitative and qualitative methods and techniques as well as suggest improvements
K2_U08	The graduate can plan and carry out innovative experiments including measurements and simulations useful in making decisions in the area of logistics, management or production engineering
K2_U09	The graduate can, in unspecified conditions and according to a given specification, design, map and realize a system or process typical for logistics using adequate methods, techniques and tools
K2_U10	The graduate can identify and interpret stages of project management, suggesting solutions related to resources management [ time, money, people] taking active part in the team work and managing the team at the same time.
K2_U11	The graduate can analyze marketing and price strategies as well as advertising campaigns used in logistics orders and suggest a marketing mix for a given company from TSL sector
K2_U12	The graduate can classify materials by their origin, match the storage system with the materials and also divide them all into groups in which they can be used in packaging
K2_U13	The graduate can identify basic activities and problem-solving methods in transportation including planning and ensuring security especially in international transportation
K2_U14	The graduate has a good command of normative systems and certain norms and rules (legal, occupational, ethical) to make decisions and solve problems in logistics, production engineering or management in an innovative way
K2_U15	The graduate can speak a foreign language at B2 + level according to Common European Framework of Reference for Languages and also use technical terms
K2_U16	The graduate can formulate, and test hypothesis related to engineering, production, logistics and simple research problems
<b>SOCIAL COMPETENCES</b>	
K2_K01	The graduate understands the need for life-long learning and deepening the knowledge, knows the possibilities of further education and is able to direct and encourage other people to learn; understands the need to promote the achievements of science and technology in the society



K2_K02	The graduate is able to collaborate and cooperate in a group, in which they take on different roles associated with professional achievement development.
K2_K03	The graduate is able to think in an innovative way (especially in the logistics field), demonstrates creativity and criticism in their approach to content reception
K2_K04	The graduate understands the managers' role on given positions on an organizational level and understands the global context of management.
K2_K05	The graduate is able to think and work in a responsible, self-reliant way, set workable goals, and yet is open to constructive remarks of other people, and is ready to critically assess his/her own knowledge
K2_K06	The graduate is able to correctly determine priorities requisite to solve tasks of both engineering and non-engineering character, and also understands the value of the choice of tools and of setting the order and the course of each technological operation, as well as is able to formulate opinions concerning the course of the processes in logistics
K2_K07	The graduate is able to define research problems, formulate conclusions and interpret data
K2_K08	The graduate is able to identify and solve problems regarding the profession of logistics, observing the integrity principles, and work ethic, and yet, act in aid of following these rules.
K2_K09	The graduate understands the value and reasonability of using in-depth knowledge in the field of systemic and process approach in solving tasks of engineering and non-engineering character.
K2_K10	The graduate is responsible for their own and the team's safety.
K2_K11	The graduate demonstrates readiness to work for the benefit of the society, understands the need to promote the achievements of science and technology in the society.

### **Symbols**

The symbol of the outcome contains:

- letter K – characteristics denoting the major-related outcomes,
- number 1 – undergraduate studies,
- symbol\_ (underscore),
- letters: W, U and K – denote the categories of the outcomes (W – knowledge, U – skills, K – social competences),
- 01, ... - number of outcomes in a given category, expressed by two digits (numbers 1-9 are preceded by 0).

**WYDZIAŁ INŻYNIERII PRODUKCJI I  
LOGISTYKI**



**PLANY I PROGRAMY STUDIÓW**  
***STUDY PLANS AND PROGRAMS***

**KIERUNEK STUDIÓW - ***FIELD OF STUDY*****

- LOGISTICS

- ***LOGISTICS***

***Studia stacjonarne  
drugiego stopnia  
- wg specjalności***

***Second Cycle Programme - Full-Time Studies***

## CHARAKTERYSTYKA OGÓLNA

**kierunek studiów: LOGISTICS**

**specjalność: INTERNATIONAL SUPPLY CHAINS**

**profil: OGÓLNOAKADEMICKI**

**nazwa wydziału: WYDZIAŁ INŻYNIERII PRODUKCJI I LOGISTYKI**

<b>plan studiów</b>	uchwała Rady Wydziału z dnia	<b>24.04.2019</b>
	obowiązuje od roku akademickiego	<b>2019/2020</b>
<b>forma studiów (stacjonarne / niestacjonarne)</b>	<b>stacjonarne</b>	
<b>poziom studiów (I stopnia / II stopnia)</b>	<b>II-go stopnia</b>	
<b>czas trwania (w sem.)</b>	<b>3</b>	
<b>tytuł zawodowy otrzymywany przez absolwenta</b>	<b>magister inżynier</b>	
<b>liczba punktów ECTS</b>	<b>90</b>	

## PLAN STUDIÓW – STUDY PLAN

<b>POLITECHNIKA OPOLSKA WYDZIAŁ INŻYNIERII PRODUKCJI I LOGISTYKI</b>	<b>OPOLE UNIVERSITY OF TECHNOLOGY FACULTY OF PRODUCTION ENGINEERING AND LOGISTICS</b>
<b>Kierunek studiów: LOGISTICS</b>	<b>Field of study: LOGISTICS</b>
<b>STUDIA STACJONARNE DRUGIEGO STOPNIA – MAGISTERSKIE</b>	
<b>SECOND CYCLE PROGRAMME - FULL-TIME STUDIES (Master of Science degree)</b>	

<b>SPECJALNOŚĆ – SPECIALIZATION:</b>
<b>INTERNATIONAL SUPPLY CHAINS - INTERNATIONAL SUPPLY CHAINS</b>

<b>SEMESTR: 1 (1<sup>st</sup> Semester)</b>		<b>Liczba godzin zajęć w semestrze; E – egzamin Working time (hours) a semester; E – Exam</b>					<b>ECTS</b>	<b>TYP</b>
<b>Nr</b>	<b>Przedmiot Subject unit – semester curricular</b>	<b>W (Lecture)</b>	<b>C (Practical classes)</b>	<b>L (Laboratory classes)</b>	<b>P (Project)</b>	<b>S (Seminar)</b>		
1.1	Strategic management for engineers Zarządzanie strategiczne dla inżynierów	15E	15	–	–	–	4	K
1.2	Operational research and optimization theory Badania operacyjne i teoria optymalizacji	15	30	–	–	–	4	KO
1.3	Research methodology Metodologia badań naukowych	30	–	–	–	30	5	KO
1.4	Logistics management Zarządzanie logistyczne	15	15	–	–	15	4	K
1.5	Cost accounting of logistic activities Rachunek kosztów działań logistycznych	15	30	–	–	–	4	K
1.6	Marketing of logistic services Marketing usług logistycznych	15E	15	–	–	–	4	K
1.7	Design of logistics systems and processes Projektowanie systemów i procesów logistycznych	15	–	15	30	–	5	K
Liczba godzin w semestrze (Number of hours in a semester)		120	105	15	30	45	30	
Razem godzin/ECTS w semestrze (Total hours/ECTS in a semester)		315						

<b>SEMESTR: 2 (2<sup>nd</sup> Semester)</b>		<b>Liczba godzin zajęć w semestrze; E – egzamin Working time (hours) a semester; E – Exam</b>					<b>ECTS</b>	<b>TYP</b>
<b>Nr</b>	<b>Przedmiot Subject unit – semester curricular</b>	<b>W (Lecture)</b>	<b>C (Practical classes)</b>	<b>L (Laboratory classes)</b>	<b>P (Project)</b>	<b>S (Seminar)</b>		
2.1	Insurance in logistics Ubezpieczenia w logistyce	15	–	–	–	–	1	K
2.2	IT in logistics Informatyka w logistyce	–	–	30	–	–	3	K
2.3	International logistics Logistyka międzynarodowa	30E	15	–	–	–	4	K
2.4	Project management Zarządzanie projektem	15	–	–	15	–	3	K
2.5	Packaging in the supply chains Opakowanie w łańcuchach dostaw	15	15	–	–	–	3	K
2.6	Risk in logistics systems Ryzyko w systemach logistycznych	15	30	–	–	–	4	K

2.7	Inventory management and warehouse management	15E	-	30	-	-	4	K
	Zarządzanie zapasami i gospodarka magazynowa							
2.8	Global information standards	15E	-	-	-	15	3	K
	Globalne standardy informacyjne							
2.9	International logistics centers	15E	15	-	15	-	3	K
	Międzynarodowe centra logistyczne							
2.10	Diploma seminar 1	-	-	-	-	30	2	KO
	Seminarium dyplomowe 1							
Liczba godzin w semestrze (Number of hours in a semester)		135	75	60	30	45	30	
Razem godzin/ECTS w semestrze (Total hours/ECTS in a semester)		345						

SEMESTR: 3 (3 <sup>rd</sup> Semester)		Liczba godzin zajęć w semestrze; E – egzamin Working time (hours) a semester; E – Exam					ECTS	TYP
Nr	Przedmiot Subject unit – semester curricular	W (Lecture)	C (Practical classes)	L (Laboratory classes)	P (Project)	S (Seminar)		
3.1	Technical and economic analysis of enterprises	15	-	-	30	-	3	P
	Analiza techniczno-ekonomiczna przedsiębiorstw							
3.2	Negotiations in the supply chains	15	-	-	-	-	1	K
	Negocjacje w łańcuchach dostaw							
3.3	Market and financial strategies in the logistics chain	15E	15	-	-	-	2	K
	Strategie rynkowe i finansowe w łańcuchu logistycznym							
3.4	Diploma seminar 2	-	-	-	-	30	2	KO
	Seminarium dyplomowe 2							
3.5	Diploma thesis	godziny niekontaktowe (un-contact hours)					20	KO
	Praca dyplomowa							
3.6	Foreign language	-	-	30	-	-	2	KO
	Język obcy							
Liczba godzin w semestrze (Number of hours in a semester)		45	15	30	30	30	30	
Razem godzin/ECTS w semestrze (Total hours/ECTS in a semester)		150						

PLAN STUDIÓW RAZEM (TOTAL STUDY PLAN)		ECTS
Łącznie godzin kontaktowych/ECTS w planie studiów		90
Total contact hours/ECTS in study plan		
		810

STATYSTYKA PROGRAMU KSZTAŁCENIA			
Typ	Przedmioty - p. ECTS razem	wg planu	udział
K	Kierunkowe	52	57.78 %
KO	Kształcenia ogólnego	35	38.89 %
P	Podstawowe	3	3.33 %
Łącznie:		90	100.00 %

Program kształcenia dostosowany do wydziałowych efektów uczenia się dla kierunku studiów LOGISTICS (studia drugiego stopnia)  
Plan i program studiów:  
– uchwalony przez Radę Wydziału Inżynierii Produkcji i Logistyki w dniu 24.04.2019  
– zaopiniowany przez wydziałowy organ samorządu studenckiego.