Name o	f the module/subject			Code
Con	trol and Manage	ment in Transportation		1010612211010612215
Field of Tran	study		Profile of study (general academic, practical (brak)	Year /Semester
Elective	path/specialty		Subject offered in:	Course (compulsory, elective)
	Food Industry I	Machines and Refrigeratior	n Polish	obligatory
Cycle o	f study:	F	Form of study (full-time,part-time)	)
	Second-c	ycle studies	full-	-time
No. of h	iours			No. of credits
Lectur	re: 1 Classes	s: <b>1</b> Laboratory: -	Project/seminars:	- 2
Status o	of the course in the study	program (Basic, major, other)	(university-wide, from another	field)
		(brak)		(brak)
Educati	on areas and fields of sci	ence and art		ECTS distribution (number and % <b>)</b>
Fac	ulty of Machines and T	Transport		
ul. F Prere	Piotrowo 3, 60-965 Po: equisites in term	s of knowledge, skills and	social competencies	:
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1. Is able to collaborate in a group in resolving the problems of traffic control - [K2A\_K04]

- 2. Is able to define priorities in the problems of traffic control [K2A\_K05]
- 3. Understands the need of systematic work for achieving the traffic control projects [K2A\_K01]
- 4. Understands that traffic problems should be presented and solved as the IT problems [K2A\_K05]

## Assessment methods of study outcomes Lectures: written examination of lecture materials Exercises: individual reports from performed traffic analyses **Course description** Definitions of the steering (or control) and management, with a reference to the transport systems and traffic flow. Fundamental traffic parameters. The purpose, scope and methods of traffic control. Modelling and simulation of road traffic. The impact of traffic control on their flow in macroscopic and microscopic terms. Visualization of the various factors effect. Hybrid systems od the simulation, control and monitoring in the local urban or motorway traffic. Coordination of the traffic lights. Basic legal arrangements in the sphere of road traffic. The civil and state aviation. The classifications: airports, air carriers, and the airspace. ICAO. IATA. The aviation law. The air traffic management: objectives and functions. The air traffic flow management. The airspace management. Air traffic services: the tasks and their division. Classification of models and the air traffic simulations. Specificities of the rail transport. The railway network: its elements (rail lines and nodes, stations and posts) and their classification. The rail safety. Legislation. Control command and signalling system for the rail transport, and its elements. Traffic at rail stations and posts. The traffic control devices. Rules for the carriage and the traffic organization. Timetables. Maritime transport and traffic. The maritime register. Ship classification. The liner and non-scheduled shipping. The passenger and ferry shipping. Chartering. Contracts. Bill of lading. Models for the maritime traffic. Simulations. Inland waterway transport and traffic. Classification of waterways and ports. The vessel characteristics. The inland waterway traffic modelling. Rules of inland traffic simulation. **Basic bibliography:**

## Additional bibliography:

## Result of average student's workload Time (working Activity hours) 15 1. Participation in lectures 2. Lecture consultations 1 8 3. Preparing for the egzam 4. Admission to the egzamination 1 5. Participation in classes 15 6. Class exercise consultations 1 7. Preparing for the credit 1 0 8. Admission to credit tests Student's workload Source of workload hours ECTS 2 Total workload 42 2 33 Contact hours

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Practical activities