STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Air Traffic**		Code **1010621261010624113**
Field of study **Transport**	Profile of study (general academic, practical) **(brak)**	Year /Semester **3 / 6**
Elective path/specialty **Aircraft Transport**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**
Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **full-time**	
No. of hours Lecture: **1** Classes: **-** Laboratory: **-** Project/seminars: **1**		No. of credits **2**
Status of the course in the study program (Basic, major, other) **(brak)**	(university-wide, from another field) **(brak)**	
Education areas and fields of science and art **technical sciences**		ECTS distribution (number and %) **2 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Basic knowledge of physics and geography
2	**Skills**	Is able analyze the interrelationships between the effects and causes of phenomena and events arising from the laws of physics.
3	**Social competencies**	Prepared for teamwork

Assumptions and objectives of the course:

Get to know the history of the development of air traffic in Europe and worldwide. Structures, organizations, air traffic management systems. Air traffic services, air traffic flow management.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Has a basic knowledge of what to do to solve a given problem - [-]
2. Is aware of the existing laws of physics in the air transport - [-]
3. Has a basic knowledge of aircraft equipment necessary to move in the sky - [-]

Skills:

1. Is able to identify the problem in the field of air transport. - [-]
2. Is able to analyze the cause and effect of the problem and propose a solution to - [-]
3. Is able to formulate the tasks and steps in air transport - [-]
4. Understands the essence of action navigation systems used in aviation - [-]

Social competencies:

1. Understands the need for learning throughout life - [-]
2. Is aware of the importance and understand the business impact of non-technical engineer in the field of multi-faceted impact of air transport - [-]

Assessment methods of study outcomes

Exam and colloquium

Course description

Origins of airspace control. Basic abbreviations used in air traffic. Key definitions used in air traffic. Aviation Law. Airport codes. Air traffic services. Advisory service flight information. Alerting service. Polish airspace. Work on the map, the basic definitions (course, bearing, azimuth, radial, glisada) Calculation of courses and distances. Calculation speed, drift angle of the aircraft. Preparation of the flight plan.

Basic bibliography:

1. Compa t., Zarządzanie przestrzenią powietrzną, AON, Warszawa 2003
2. Chmur S., Wykorzystanie lotnictwa w morskich i powietrznych operacjach desantowych w okresie II Wojny Światowej. ASG, Warszawa 1976.
3. Glen A., Marud W., Kontrola przestrzeni powietrznej w czasie kryzysu i wojny, AON, Warszawa2002
4. Pszeniczny A., Siły i straty w działaniach powietrznych, ASG, Warszawa 1976
5. Szutowski L., Poradnik pilota samolotowego, Poznań 2007

Additional bibliography:

1. Zarządzanie ruchem lotniczym PL 4444 ? rozdział 1.
2. Zarządzanie ruchem lotniczym w przestrzeni powietrznej RP, WLOP, Warszawa 2002

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	1
2. Participation in lectures	15
3. Learning of lectures content	5
4. Office hours - lectures	5
5. Preparation for exam	10
6. Participation in exam	1
7. Preparation for excersises	1
8. Participation in excersises	15
9. Office hours - excersises	5
10. Preparation for test	10
11. Participation in test	1

Student’s workload

Source of workload	hours	ECTS
Total workload	69	2
Contact hours	42	2
Practical activities	0	0