STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Means of Air Transport		**1010621251010623812**

Field of study	Profile of study (general academic, practical)	Year /Semester
Transport	**(brak)**	**3 / 5**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Aircraft Transport	**Polish**	**obligatory**

Cycle of study:	Form of study (full-time,part-time)
First-cycle studies	**full-time**

No. of hours				No. of credits
Lecture: **2**	Classes: **1**	Laboratory: **-**	Project/seminars: **-**	**3**

Status of the course in the study program (Basic, major, other)	(university-wide, from another field)
(brak)	**(brak)**

Education areas and fields of science and art	ECTS distribution (number and %)
technical sciences	**3 100%**

Responsible for subject / lecturer:

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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 thought and aircraft structures. Airports, ports, passenger and cargo air traffic and ground infrastructure, aircraft construction, purpose and use.

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. has a basic knowledge about the construction of aircraft - [-]
3. Has a basic knowledge of aircraft equipment necessary to move in the sky - [-]
4. Is aware of the existing laws of physics in the construction and design of aircraft - [-]

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 the field of airplane construction - [-]
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

End exam, colloquium and test from excersises

Course description

History of the development of aircraft (aerostats, gliders, drives, aircraft), the beginnings of air transport. Aerospace structures, construction and design features of aircraft (why the plane years). The origins and development of international aviation organizations. Principles and organization of air traffic in Poland and in the world, terrestrial infrastructure. Airports, airports, airport equipment, radar systems, space control, approach and landing. Construction and equipment of civilian and military airframe passenger and cargo aircraft. Aircraft avionics systems, information visualization, and flight management. Rules for the use of aircraft in air transport. Prospects for the development of transport aircraft structures.

Basic bibliography:

1. Bilski J., Polak J., Rypulak Z., Awonika, przyrządy i systemy pokładowe, WSOSP, Dęblin 2001.
2. Błaszczyk J., Wprowadzenie w technikę lotniczą, WAT, Warszawa 1982
3. Cheda W., Malski M., Techniczny poradnik lotniczy. Płatowce, WKŁ, Warszawa 1981
4. Dzierżanowski P., Turbinowe silniki śmigłowe i śmigłowcowe, WKŁ, Warszawa 1985
5. Gotowała J. ? Lotnictwo XXI wieku. AON, Warszawa 2002
6. Karpowicz J., Współczesne konstrukcje lotnicze, AON, Warszawa 2003.
7. Lewitowicz J., Podstawy eksploatacji statków powietrznych. Tom I, ITWL, Warszawa 2001.
8. Lotnictwo, stulecie, przemiany ? pod red. ST. Januszewskiego. Wrocław 2003

Additional bibliography:

1. Pilecki S., Lotnictwo i kosmonautyka, WKŁ, Warszawa 1984
2. Szczeciński S., Ilustrowany leksykon lotniczy. Technika lotnicza, WKŁ, Warszawa 1988.
3. Tomczyk A., Pokładowe cyfrowe systemy sterowania samolotem, Politechnika Rzeszowska, Rzeszów 1999

Result of average student's workload

Activity	Time (working hours)
1. Preparation for lectures	1
2. Participation in lectures	30
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	7
8. Participation in excersises	15
9. Office hours - excersises	10
10. Preparation for test	10
11. Participation in test	1

Student's workload

Source of workload	hours	ECTS
Total workload	95	3
Contact hours	62	2
Practical activities	15	1