# **Faculty of Transport Engineering**

STUDY MODULE D	ESCRIPTION FORM		
Name of the module/subject		Code 1010601151010637638	
Field of study  Aerospace Engineering	Profile of study (general academic, practical) general academic	Year /Semester 3 / 5	
Elective path/specialty  Aircraft Piloting	Subject offered in: Polish	Course (compulsory, elective)  obligatory	
Cycle of study:	Form of study (full-time,part-time)		
First-cycle studies	full-time		
No. of hours		No. of credits	
Lecture: 1 Classes: - Laboratory: -	Project/seminars:	- 1	
Status of the course in the study program (Basic, major, other) (university-wide, from another field)			
other university-wide			
Education areas and fields of science and art	ECTS distribution (number and %)		
technical sciences		1 100%	
Technical sciences		1 100%	
Responsible for subject / lecturer:		1	
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### Prerequisites in terms of knowledge, skills and social competencies:

1	Knowledge	in the field of general and air psychology, the essence and functioning of the cognitive, emotional and motivational processes of man [PRK4]
2	Skills	can apply the scientific method in solving problems [PRK4]
3	Social competencies	knows the limits of own knowledge and skills; can work in a group [PRK4]

### Assumptions and objectives of the course:

familiarize the student with the rules of planning and monitoring the flight in accordance with applicable regulations, development of operational flight plan and flight plan for air navigation services

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

## Knowledge:

- 1. has detailed knowledge related to selected issues in the field of flight rules, its preparation, as well as related operational procedures [K1A\_W17]
- 2. has detailed knowledge related to selected issues in the area of the most important phenomena occurring in the Earth's atmosphere, the possibilities of their prediction, recognition, testing, as well as limiting the negative impact of human activity on the surrounding environment [K1A\_W14]

#### Skills:

- 1. has the ability to self-study using modern teaching tools, such as remote lectures, websites and databases, didactic programs, e-books  $\cdot$  [K1A\_U03]
- 2. can use verbal communication in one additional foreign language at the level of everyday language, can describe issues in the field of the studied field of study in this language, can prepare technical documentation descriptively drawing engineering, transport and / or logistic tasks [K1A\_U07]

### Social competencies:

- 1. can interact and work in a group, taking on different roles in it [K1A\_K03]
- $2. is able to properly define the priorities for the implementation of a task set by himself or others [K1A\_K04]\\$

### Assessment methods of study outcomes

computer exam using Aviationexam software

# **Course description**

Mass and Balance, Center of Gravity, Loads, Mass of the empty aircraft, Mass of the aircraft ready for flight, Mass of the aircraft without fuel, Standard masses, Usable load (payload + consumable fuel), Aircraft mass checking, Requirements for re-weighing, Equipment lists, The effect of mass and balance on performance and pilot properties. Determining and practical use of data on takeoff and landing performance, during horizontal, elevational and shaft flight. Elaboration of a navigational plan, operational flight plan and flight plan for air traffic. Flight monitoring, changes to the in-flight plan

### Basic bibliography:

- 1. Jeppesen EASA ATPL Mass and Balanc
- 2. Jeppesen EASA ATPL Flight Planning and Flight Monitoring
- 3. Aircraft Weight and Balance Handbook
- 4. Commission Regulation (EU) No 965/2012 of 5 October 2012

# Additional bibliography:

## Result of average student's workload

Activity	Time (working hours)
	-

#### Student's workload

Source of workload	hours	ECTS		
Total workload	26	1		
Contact hours	16	1		
Practical activities	0	0		