



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Flight performance and planning 2

Course

Field of study

Aerospace Engineering

Area of study (specialization)

Flight Training For Civil Aviation

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

3/5

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

Number of hours

Lecture

15

Laboratory classes

15

Other (e.g. online)

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

mgr inż. Tomasz Duda

Responsible for the course/lecturer:

Prerequisites

The student starting this subject should have a basic knowledge of flight planning. He should also have the ability to apply the scientific method in solving problems and be ready to cooperate within a team.

Course objective

To acquaint the student with the rules of flight planning and monitoring in accordance with applicable regulations, developing an operational flight plan and flight plan for air navigation services.

Course-related learning outcomes

Knowledge

1. has detailed knowledge related to selected issues in the field of the most important phenomena occurring in the Earth's atmosphere, the possibility of their prediction, recognition, research, as well as limiting the negative impact of human activities on the surrounding environment.
2. has detailed knowledge related to selected issues in the field of flight rules, its preparation, as well as related operational procedures.



3. has expanded knowledge necessary to understand profile subjects and specialist knowledge about construction, methods of construction, manufacture, operation, aircraft control, safety systems, economic, social and environmental impact in the field of aviation engineering for selected specialties:

1. Piloting of aircraft
2. Aero engines and airframes.

Skills

1. has the ability to self-study using modern teaching tools, such as remote lectures, websites and databases, teaching programs, e-books.
2. is able to communicate using various techniques in a professional environment and other environments using the formal record of construction, technical drawing, concepts and definitions of the scope of the studied field of study.
3. can obtain information from literature, the Internet, databases and other sources. Is able to integrate obtained information, interpret and draw conclusions from them.

Social competences

1. is able to properly define priorities for the implementation of tasks specified by himself or others based on available knowledge.
2. is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment, and the associated responsibility for the decisions taken.
3. Understands the need for critical assessment of knowledge and continuous learning.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture:

FUEL PLANNING — CAT.OP.MPA.106 and CAT.OP.MPA.150 plus AMC1, 2 and 3

General

Fuel planning (general)

Pre-flight fuel planning for commercial flights

Taxi fuel

Trip fuel

Reserve fuel and its components

Contingency fuel



Alternate fuel

Final reserve fuel

Additional fuel

Extra fuel

Calculation of total fuel and completion of the fuel section of the navigation plan (fuel plan)

Specific fuel-calculation procedures

Reduced contingency fuel procedure

Isolated aerodrome or heliport procedure

Predetermined-point procedure

Fuel-tankering

PRE-FLIGHT PREPARATION

Notice to airmen (NOTAM) briefing

Ground- and satellite-based facilities and services

Departure, destination and alternate aerodromes

Airway routings and airspace structure

Pre-flight preparation of GNSS achievability

Meteorological briefing

Update of navigation plan using the latest meteorological information

Update of fuel plan

Point of equal time (PET) and point of safe return (PSR)

Point of equal time (PET)

Point of safe return (PSR)

- assessment of knowledge and skills demonstrated on the written test - 1.5 hour

Exercises:

- knowledge acquired as part of the exercises is verified by two 45-minute colloquia carried out in 3 and 7 classes

Laboratory exercises:



test and rewarding knowledge necessary to implement the problems posed in a given area of laboratory tasks,

assessment of knowledge and skills related to the implementation of the laboratory exercise, assessment of the report on the performed exercise.

Programme content

Lecture:

semester 5:

Laboratory exercises:

semester 5:

Teaching methods

1. Lecture: multimedia presentation, illustrated with examples given on the board.
2. Exercises: examples given on the board and performance of tasks given by the teacher - practical exercises.

Bibliography

Basic

Additional

Breakdown of average student's workload

	Hours	ECTS
Total workload	49	2,0
Classes requiring direct contact with the teacher	34	1,5
Student's own work (literature studies, preparation for written tests) ¹	15	0,5

¹ delete or add other activities as appropriate