



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Flight planning and monitoring 2

### Course

Field of study

Aviation

Area of study (specialization)

Flight Training For Civil Aviation

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

### Number of hours

Lecture

15

Laboratory classes

Other (e.g. online)

Tutorials

15

Projects/seminars

### Number of credit points

1

### 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 activity on the surrounding environment
2. has detailed knowledge related to selected issues in the field of navigation, flight mechanics and piloting techniques, the use of simulators, flight rules, its preparation, and related operating procedures



### Skills

1. is able to obtain information from various sources, including literature and databases, both in Polish and in English, integrate them properly, interpret them and make a critical evaluation, draw conclusions and exhaustively justify the opinions they formulate
2. can, when formulating and solving tasks related to civil aviation, apply appropriately selected methods, including analytical, simulation or experimental methods
3. is able to organize, cooperate and work in a group, assuming various roles in it, and is able to properly define priorities for the implementation of a task set by himself or others

### Social competences

1. correctly identifies and resolves dilemmas related to the profession of an aerospace engineer

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture:

- 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

### Programme content

Lecture:

semester 3:

PERFORMANCE - AEROPLANES

GENERAL

Performance legislation

Applicability of airworthiness requirements of CS-23 and CS-25

Operational regulations and safety

Performance and safety

Performance definitions and safety factors

General performance theory

Definitions and terms

Variables influencing performance

Level flight, range and endurance



Steady level flight

Range

Maximum endurance

Climbing

Climbing (climb performance)

Descending

Descending (descent performance)

Exercises:

semester 3:

FLIGHT PLANNING AND MONITORING

FLIGHT PLANNING FOR VFR FLIGHTS. Remark: Using the GSPRM VFR charts.

VFR navigation plan

Airspace, communication, visual and radio-navigation data from VFR charts

Planning courses, distances and cruising levels with VFR charts

Aerodrome charts and aerodrome directory

Completion of navigation plan

FLIGHT PLANNING FOR IFR FLIGHTS. Remark: Using the GSPRM IFR charts.

IFR navigation plan

Air traffic service (ATS) routes

Courses and distances from en-route charts

Altitudes

Standard instrument departure (SID) and standard instrument arrival (STAR) routes

Instrument-approach charts

Communications and radio-navigation planning data

Completion of a manual navigation plan



## 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	25	1,0
Classes requiring direct contact with the teacher	12	0,5
Student's own work (literature studies, preparation for written tests ) <sup>1</sup>	13	0,5

<sup>1</sup> delete or add other activities as appropriate