



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Unmanned Aerial Vehicle

### Course

Field of study

Aerospace Engineering

Area of study (specialization)

–

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

0

Other (e.g. online)

0

Tutorials

15

Projects/seminars

0

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

dr Jędrzej Łukasiewicz

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tel. 61 2244511

Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 3, 60-965 Poznań

Responsible for the course/lecturer:

### Prerequisites

Knowledge:

Basics of mathematics, chemistry and physics.

Skills:

Using literature (textbooks, internet), the ability to perceive lecture content

Social competences:

Awareness of the need to deepen engineering knowledge and its place in everyday life



### Course objective

Provide students with basic knowledge in the field of flight organization and piloting of unmanned aerial vehicles in the scope specified by the program content appropriate for the field of study.

### Course-related learning outcomes

#### Knowledge

1. has structured, theoretically founded specialist knowledge in the field of on-board equipment: as well as on-board and terrestrial electronic communication systems, remote sensing systems, observation systems, satellite navigation systems
2. has detailed knowledge related to selected issues in the field of manned and unmanned aerial vehicles, in the field of on-board equipment, control systems, communication and registration systems, automation of individual systems
3. has extended knowledge necessary to understand the profiled subjects and specialist knowledge about the construction, operation, air traffic management, safety systems, economic, social and environmental impact in the field of aviation and space

#### Skills

1. can communicate using various techniques in the professional environment and other environments using the formal notation of construction, technical drawing, concepts and definitions of the scope of the field of study studied

#### Social competences

1. understands the need for lifelong learning; can inspire and organize the learning process of other people
2. is ready to critically evaluate his knowledge and received content, recognize the importance of knowledge in solving cognitive and practical problems and consult experts in the event of difficulties with solving the problem on his own

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: Assessment of knowledge and skills on the basis of a test

Exercises: assessing solutions to tasks

### Programme content

1. Construction of unmanned aerial vehicles,
2. Aviation law with regard to unmanned aerial vehicles,
3. Rules for the performance of flights with unmanned aerial vehicles,
4. Flight safety and dangerous situations.

### Teaching methods

Information lecture (conventional), information transfer in a structured way

Exercises, solving tasks

### Bibliography



Basic

1. Drony dla początkujących, Terry Kilby, Belinda Kilby

Additional

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for tutorials, preparation for tests) <sup>1</sup>	20	1,0

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