# STUDY MODULE DESCRIPTION FORM

| Name of the module/subject | | Code |
|---|---|---|
| **Pilot technology and flight simulators** | | **1010601151010637636** |
| Field of study<br>**Aerospace Engineering** | Profile of study (general academic, practical)<br>**(brak)** | Year /Semester<br>**3 / 5** |
| Elective path/specialty<br>**Aircraft Piloting** | Subject offered in:<br>**Polish** | Course (compulsory, elective)<br>**obligatory** |
| Cycle of study:<br>**First-cycle studies** | Form of study (full-time,part-time)<br>**full-time** | |
| No. of hours<br>Lecture: **-** Classes: **2** Laboratory: **-** Project/seminars: **-** | | No. of credits<br>**2** |
| Status of the course in the study program (Basic, major, other)<br>**(brak)** | (university-wide, from another field)<br>**(brak)** | |
| Education areas and fields of science and art<br>**technical sciences**<br>**Technical sciences** | | ECTS distribution (number and %)<br>**2 100%**<br>**2 100%** |

**Responsible for subject / lecturer:**

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## Prerequisites in terms of knowledge, skills and social competencies:

| | | |
|---|---|---|
| 1 | **Knowledge** | in the field of airframe assemblies, control systems, hydraulic, pneumatic, fuel, air-conditioning and emergency systems [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:

Construction and operating rules of an aircraft simulator. Daily flights VFR. IFR daily flights. Approach landing approach. Navigating the airplane on the basis of instruments and ground radio navigation means. Assessment of the situation and proper operation in special situations during the flight. Principles of conducting radio correspondence.

## 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 navigation and flight techniques and the use of flight simulators - [K1A_W16]

2. has broadened knowledge necessary for understanding of profile subjects and specialist knowledge about construction, methods of construction, manufacturing, operation, air traffic management, security systems, impact on the economy, society and the aviation and aerospace environment - [K1A_W23]

### Skills:

1. 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. understands the need to learn throughout life; can inspire and organize the learning process of other people - [K1A_K01]

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 related responsibility for decisions - [K1A_K02]

3. can interact and work in a group, taking on different roles in it - [K1A_K03]

## Assessment methods of study outcomes

oral exam

## Course description

Ability to interpret the indications of on-board instruments, maneuvering the plane in a horizontal and inclined plane, circle flight, en-route, flight to the geographical orientation zone of the take-off and landing airport, and navigating the airplane based on instrument and ground radio navigation indications. Knowledge of the phenomena occurring during emergency situations in flight. Ability to act in emergency situations.

## Basic bibliography:

1. Instrukcja użytkowania w locie Cessna 150 SP-GZP
2. Instrukcja użytkowania w locie Cessna 152 SP-POZ
3. Instrukcja użytkowania w locie Cessna 172 SP-KMB
4. Instrukcja użytkowania w locie Extra 330LX SP-UTA
5. Pilots Guide Garmin Aera 500
6. Pilots Guide Garmin GMA 342
7. Pilots Guide Garmin GNT 650
8. Pilots Guide Garmin GTX 328
9. Instrukcja użytkowania w locie Zlin 242L SP-UTB

## Additional bibliography:

## Result of average student's workload

| Activity | Time (working hours) |
|---|---|
| 1. Participation in classes (according to plan) | 30 |
| 2. Preparation for the exam / pass | 20 |
| 3. Participation in the exam / pass | 1 |

## Student's workload

| Source of workload | hours | ECTS |
|---|---|---|
| Total workload | 51 | 2 |
| Contact hours | 31 | 1 |
| Practical activities | 51 | 2 |