



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Undergraduate practice

Course

Field of study

Year/Semester

Aviation

3/6

Area of study (specialization)

Profile of study

Flight training for civil aviation

general academic

Level of study

Course offered in

First-cycle studies

polish

Form of study

Requirements

full-time

elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

0

Number of credit points

10

Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

PhD inż. Łukasz Brodzik

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Faculty of Environmental Engineering and Energy

Piotrowo 3 st., 60-965 Poznań

Prerequisites

Student has knowledge of the applicable rules for the implementation of practical training. Knows the regulations of practical training and the conditions for passing them. Has basic knowledge of issues covered by the study program. Has the ability to creatively use the knowledge acquired during studies. Can work in a working group. Is able to transparently distribute tasks in a group. Is able to interpret and perform received tasks correctly.

Course objective

Verification of the theoretical knowledge possessed by the student with reality, gaining new professional experience in real working conditions.



Course-related learning outcomes

Knowledge

1. has extended and in-depth knowledge of mathematics including algebra, analysis, theory of differential equations, probability, analytical geometry as well as physics covering the basics of classical mechanics, optics, electricity and magnetism, solid state physics, thermodynamics, useful for formulating and solving complex technical tasks related to engineering aeronautical and modeling
2. has ordered, theoretically founded general knowledge in the field of technology and various means of air transport, about the life cycle of means of transport, both hardware and software, and in particular about the key processes taking place in them
3. has ordered and theoretically founded general knowledge in the field of key technical issues and detailed knowledge of selected issues related to air transport, knows the basic techniques, methods and tools used in the process of solving tasks related to air transport, mainly of an engineering nature
4. has ordered, theoretically founded general knowledge covering key issues in the field of technical thermodynamics, fluid mechanics, in particular aerodynamics
5. has detailed knowledge related to selected issues in the field of manned and unmanned aircraft construction, in the field of on-board equipment, control systems, communication and recording systems, automation of individual systems, has basic knowledge of flight simulation training devices and simulation methods used to solve air transport issues

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. is able to properly use information and communication techniques, applicable at various stages of the implementation of aviation projects
3. is able to properly plan and perform experiments, including measurements and computer simulations, interpret the obtained results, and correctly draw conclusions from them
4. can, when formulating and solving tasks related to civil aviation, apply appropriately selected methods, including analytical, simulation or experimental methods
5. student can use theoretical probability distributions. Student is able to analyze and interpret statistical data. Student is able to use the methods and tools of mathematical statistics in engineering practice
6. is able to prepare a short research paper while maintaining the basic editorial rules. He can choose appropriate methods for the conducted research and is able to carry out a basic analysis of the results.
7. 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



8. is able to plan and implement the process of own permanent learning and knows the possibilities of further education (2nd and 3rd degree studies, postgraduate studies, courses and exams conducted by universities, companies and professional organizations)

Social competences

1. is aware of the social role of a technical university graduate, in particular understands the need to formulate and provide the society, in an appropriate form, with information and opinions on engineering activities, technological achievements, as well as the achievements and traditions of the engineer profession

2. 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:

Aviation Practice

Programme content

Practical implementation of integrated training for the ATPL (A) frozen line pilot license

Teaching methods

Completion of internships based on the completed aviation training program

Bibliography

Basic

not applicable

Additional

not applicable

Breakdown of average student's workload

	Hours	ECTS
Total workload	278	10,0
Classes requiring direct contact with the teacher	8	0,2
Student's own work (literature studies, preparation for flights / passing aircraft construction, passing theoretical tests) ¹	270	9,8

¹ delete or add other activities as appropriate