



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma thesis

Course

Field of study

Aviation

Area of study (specialization)

Unmanned aerial vehicles

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

4/7

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

5

Number of credit points

13

Lecturers

Responsible for the course/lecturer:

dr inż. Anna Kobaszyńska-Twardowska

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Wydział Inżynierii Lądowej i Transportu

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Responsible for the course/lecturer:

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Prerequisites

Basic knowledge of physics, mathematics, economics, major subjects. Support for basic computer programs MS Office, CAD, and others depending on the interest and the problem taken. Ability to work in a team.

Course objective

Getting acquainted with the methodology of solving engineering problems on the example of selected system and process issues in the field of air transport. Developing the ability to create studies and texts of a scientific nature.



Course-related learning outcomes

Knowledge

1. has knowledge of the method of presenting test results in the form of tables and graphs, performing the analysis of measurement uncertainties
2. has basic knowledge of research methods and how to prepare and conduct research, and knows the rules of editing a scientific work
3. has the ability to self-study with the use of modern teaching tools, such as remote lectures, websites and databases, teaching programs, e-books

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. 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
5. 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.
6. 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
7. 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. understands that in technology, knowledge and skills very quickly become obsolete
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:

Written work, formatted according to the pattern, covering a selected issue. The student selects and analyzes the topic in cooperation with the thesis supervisor, in the form of consultations



After identifying the problem and separating the area of phenomena from broadly understood air transport, a written study is carried out.

Programme content

Cause-and-effect analysis of a selected problem, methodology of developing scientific works, in-depth analysis of a selected issue.

The content of the program includes the broadly understood field of air transport and is of a technical, organizational, logistic and economic nature.

Teaching methods

Paper discussion (or after the lecture in the form of a seminar) (paper on the topic as a basis for discussion)

Bibliography

Basic

1. Wiślocki K.: Metodologia i redakcja prac naukowych. Wyd. Politechniki Poznańskiej, Poznań 2013
2. B. Branowski - Metody twórczego rozwiązywania problemów inżynierskich, Wielkopolska Korporacja Techniczna NOT, Poznań 1999
3. Lewitowicz J. (red) - Problemy badań i eksploatacji techniki lotniczej. Wydawnictwo ITWL, Warszawa 2006.

Additional

1. Zb. Kłos (red.) - Rozprawy naukowe. Wydawnictwo Politechniki Poznańskiej, Poznań 2011
2. Rydzkowski W., Wojewódzka-Król K. (red.): Transport. PWN, Warszawa 1998

Breakdown of average student's workload

	Hours	ECTS
Total workload	325	13,0
Classes requiring direct contact with the teacher	60	5,0
Student's own work (literature studies, preparation for classes, preparation for tests,) ¹	265	8,0

¹ delete or add other activities as appropriate