COURSE DESCRIPTION CARD - SYLLABUS

Course name
Transition thesis [S1Lot2-BSP>PPrzej]

Course

Field of study
Aviation

Year/Semester
3/6

Area of study (specialization)
Unmanned Aerial Vehicles

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
elective

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
4

Number of credit points

5,00

Coordinators

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Lecturers

Prerequisites

Basic knowledge of physics, mathematics, economics, and major subjects. Basic computer programs MS Office, CAD, and others, depending on interest and the problem being addressed. Teamwork skills.

Course objective

Familiarization with the methodology of solving engineering problems on the example of selected system and process issues in the field of air transport. Development of skills in creating studies and texts of a scientific nature.

Course-related learning outcomes

Knowledge:
1. has knowledge of how to present research results in the form of a table and a graph, and how to perform measurement uncertainty analysis
2. has basic knowledge of research methods and how to prepare and conduct scientific research, and knows the principles of editing a scientific paper
3. has the ability to self-educate using modern teaching tools, such as remote lectures, Internet sites and databases, teaching programs, e-books 14. has basic knowledge of aviation law, organizations

operating in civil aviation and knows the basic principles of functioning of state aviation, has basic knowledge of key issues of functioning of civil aviation

Skills:
1. is able to obtain information from various sources, including literature and databases, both in Polish and English, integrate it properly, interpret and critically evaluate it, draw conclusions, and comprehensively justify the opinions he/she formulates
2. is able to properly use information and communication techniques that are used 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 results obtained, and correctly draw conclusions from them
4. the student is able to use theoretical probability distributions. the student is able to analyze and interpret statistical data. the student is able to use the methods and tools of mathematical statistics in engineering practice
5. is able to prepare a short scientific paper, observing basic editorial principles. is able to select appropriate
methods for the research carried out and is able to conduct a basic analysis of the results.
6. is able to organize, cooperate and work in a group, assuming different roles in it and is able to properly determine priorities for the implementation of a task specified by himself/herself or others
7. is able to plan and implement the process of his/her own permanent learning and knows the possibilities of further education (second and third cycle studies, postgraduate studies, courses and examinations conducted by universities, companies and professional organizations)

Social competences:
1. understands that in technology, knowledge and skills become outdated very quickly
2. correctly identifies and resolves dilemmas related to the profession of an aviation and astronautics engineer

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: writing exam
Exercises: writing exam

Programme content

Cause-effect analysis of a selected problem, methodology for developing scientific papers, in-depth analysis of a selected issue. The program content is contained in the broadly understood field of air transport and has a technical, organizational, logistic and economic character.

Course topics

Individual development of a selected theoretical, research or design issue in the form of a short diploma thesis.
1. Selection of the topic
2. preparation of the work implementation plan
3. Discussion and description of the selected topic
4. presentation of the work results in the form of a document

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. Wisłocki K.: Methodology and editing of scientific papers. Poznań University of Technology Publishing House, Poznań 2013
2. B. Branowski - Methods of creative solving of engineering problems, Wielkopolska Technical Corporation NOT, Poznań 1999

3. Lewitowicz J. (ed.) - Problems of research and operation of aviation technology. ITWL Publishing House, Warsaw 22006.

Additional:
1. Zb. Kłos (ed.) - Scientific Papers. Poznań University of Technology Publishing House, Poznań 2011
2. Rydzkowski W., Wojewódzka-Król K. (ed.): Transport. PWN, Warsaw 1998

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,00
Classes requiring direct contact with the teacher	10	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	115	4,00