



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Preparation of diploma thesis with elements of research

### Course

Field of study

Year/Semester

Aviation

4/7

Area of study (specialization)

Profile of study

Aircraft engines and airframes

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)

0

0

0

Tutorials

Projects/seminars

5

0

### Number of credit points

13

### 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 issues related to the realized diploma topic, is able to apply the scientific method in solving problems, carrying out experiments and inference, knows the limitations of their own knowledge, skills and is able to formulate questions precisely, and understands the need for further education.

### Course objective

Preparing students to independently perform engineering thesis and scientific research.

### Course-related learning outcomes

Knowledge



1. knows the basic concepts of economics, relating in particular to air transport, has basic knowledge of managing and running a business and knows the general principles of creating and developing forms of individual entrepreneurship, especially in the aspect of aviation companies
2. 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. can see legal aspects in the process of formulating and solving tasks in air transport, in particular, use the aspects of European and national aviation law regulations
4. can assess - at least in a basic scope - various aspects of the risk associated with a logistics undertaking in air transport
5. can analyze the strategies of enterprises and interpret their activities, and can use in practice the basic tools of strategic analysis
6. is able to estimate various types of costs, is able to verify and assess market phenomena, is able to assess the factors of economic growth and the importance of money for its development, is able to decide about economic choices in the field of consumption and production
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 able to think and act in an entrepreneurial way, incl. finding commercial applications for the created system, bearing in mind not only the business benefits, but also the social benefits of the activity
2. 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
3. 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 exam

### Programme content

Program content in accordance with the detailed tasks given in the topic of engineering thesis.

### Teaching methods

Ongoing consultation and evaluation of text formatting for the selected example

### Bibliography

Basic

1 Korzyński M., Metodyka eksperymentu. Wydawnictwo NT, Warszawa 2006

Additional

-

### 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, implementation of tasks related to the thesis) <sup>1</sup> | 265   | 8,0  |

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