## POZNAN UNIVERSITY OF TECHNOLOGY



### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Pre-seminar

**Course** 

Field of study Year/Semester

Aerospace Engineering 3/6

Area of study (specialization) Profile of study

- general academic
Level of study Course offered in

First-cycle studies polish

Form of study Requirements full-time compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

0 0

Tutorials Projects/seminars

0 15

**Number of credit points** 

1

**Lecturers** 

Responsible for the course/lecturer: Responsible for the course/lecturer:

Prof. dr hab. inż. Karol Nadolny

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tel. 61 665

Faculty of Civil Engineering and Transport

ul. Piotrowo 3; 60-965 Poznań

**Prerequisites** 

Knowledge: Knowledge of issues related to the diploma topic

Skills: Can apply the scientific method in solving problems

Social competences: Knows the limitations of own knowledge and skills; can precisely formulate questions, understand the need for further education

## **Course objective**

Deepening the knowledge and skills on the organization and conduct of scientific and technical works and the presentation of the results of these works

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## **Course-related learning outcomes**

### Knowledge

- 1. knows the general principles of creating and developing forms of individual entrepreneurship, also taking into account time management, as well as the skills of proper self-presentation, using knowledge in the field of science and scientific disciplines relevant to aviation and astronautics [K2A W26]
- 2. Has basic knowledge of research methods and how to prepare and conduct research, and knows the rules of editing a research paper [K2A\_W34]

### Skills

- 1. is able to communicate with the use of various techniques in the professional environment and other environments, using the formal notation of the structure, technical drawing, concepts and definitions of the scope of the field of study [P7S\_UK, K2A\_U02]
- 2. Is able to prepare a short research paper, respecting 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 [K2A\_U25].

## Social competences

- 1. understands the need for lifelong learning; can inspire and organize the learning process of other people [P7S UU K2A K01]
- 2. Is ready to critically assess the knowledge and content received, recognize the importance of knowledge in solving cognitive and practical problems and consult experts in the event of difficulties with solving the problem on its own [P7S\_KK, K2A\_K02]
- 3. is able to cooperate and work in a group, assuming different roles in it [P7S\_UO, K2A\_K04]
- 4. is able to properly define the priorities for the implementation of the tasks defined by himself or others [P7S\_UO, K2A\_K05]
- 5. correctly identifies and resolves dilemmas related to the profession [P7S\_KR, K2A\_K06]
- 6. is aware of the social role of a technical university graduate, and especially understands the need to formulate and convey to the society, in particular through the mass media, information and opinions on the achievements of technology and other aspects of engineering activities; makes efforts to provide such information and opinions in a commonly understandable manner [P7S\_KO, K2A\_K08]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

based on the work completed

### **Programme content**

General part: types of qualification works, including diploma theses and rules for their implementation, requirements for diploma theses. Formulation of the technical problem and thesis, literature study, methodological part of the thesis, presentation of research results, development of observations and

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conclusions. Principles of work editing, editing support, development of graphic elements, preparation of work for printing and duplication.

Specialist part: reporting on the dissertations carried out by the authors and discussion on them.

## **Teaching methods**

Project method (individual or team implementation of a large, multi-stage cognitive or practical task, the effect of which is the creation of a work)

## **Bibliography**

### Basic

- 1. Good manners in science. Collection of Principles and Guidelines (3rd edition), Ed. PAN Warsaw 2001
- 2. Leszek W., Selected methodological issues of empirical research. Institute of Sustainable Technologies, Radom 2006
- 3. Szubert-Zarzeczny U., Technique of writing scientific papers, Wyd. Higher School of Management

#### Additional

1. Wojciechowska R., Methodical guide to writing a thesis. Ed. DIFIN, 2010

# Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	15	1,0
Student's own work (literature studies, preparation for laboratory	10	0,0
classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>		

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