



COURSE DESCRIPTION CARD - SYLLABUS

Course name

B+R Project management

Course

Field of study

Aerospace Engineering

Area of study (specialization)

-

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

practical

Course offered in

polish

Requirements

elective

Number of hours

Lecture

15

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

30

Number of credit points

4

Lecturers

Responsible for the course/lecturer:

Grzegorz Jankiewicz

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Polska Agencja Żeglugi Powietrznej

ul. Wieżowa 8; 02-147 Warszawa

Responsible for the course/lecturer:

Jarosław Pielunowicz

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Polska Agencja Żeglugi Powietrznej

ul. Wieżowa 8; 02-147 Warszawa

Prerequisites

Knowledge: Has knowledge of preparing reports, has general knowledge of project management

Skills: Can obtain information from literature, the Internet, databases and other sources. Is able to integrate the obtained information, interpret and draw conclusions from it, and create and justify opinions - Is able to use the following languages: native and international to a degree enabling the understanding of technical texts and writing technical descriptions of machines in the field of aviation and aerospace using dictionaries (knowledge of technical terminology)

Social competences: Can interact and work in a group, assuming different roles in it

Course objective

Understanding the basics of management, planning and implementation of research and development



projects and their distinguishing features. Understanding the project roles, basic techniques and IT management tools. Getting to know practical examples of good practices in managing research and development projects in the international air traffic management environment.

Course-related learning outcomes

Knowledge

1. Has basic knowledge of aircraft movement in the air and air traffic services [K2A_W10]
2. has detailed and structured knowledge in the field of using air technical facilities for the transport of passengers, goods, dangerous goods, as well as in the management of air operations and airports [K2A_W16]
3. Has structured knowledge and is fluent in the concepts of safety management, knows the standards in force on the territory of Poland in the field of civil aviation safety management, and safety programs at the global, European and national level [K2A_W20]

Skills

1. Can obtain information from literature, the Internet, databases and other sources. Can integrate the obtained information, interpret and draw conclusions from it, and create and justify opinions [K2A_U04]
2. Can use formulas and tables, technical and economic calculations with the use of a spreadsheet, programming tools of his own authorship, specialized software [K2A_U05]
3. Is able to prepare and present a short verbal and multimedia presentation devoted to the results of an engineering task [K2A_U07]

Social competences

1. Understands the need for lifelong learning; can inspire and organize the learning process of other people [K2A_K01]
2. Is ready to critically evaluate the knowledge and content received, recognize the importance of knowledge in solving cognitive and practical problems, and consult experts in case of difficulties in solving the problem on its own [K2A_K02]
3. Is able to interact and work in a group, assuming various roles in it [K2A_K04]
4. Is able to properly define priorities for the implementation of a task set by himself or others [K2A_K05]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: assessment of knowledge and skills shown on the written test.

Project: preparation and completion of the project Obtaining additional points for activity during classes, especially for:



- proposing to discuss additional aspects of the issue,
- the effectiveness of applying the acquired knowledge while solving a given problem

Programme content

1. Management of research and development projects in management sciences.
2. Main conditions for conducting R&D projects.
3. Project definition models and system analysis as the basis for R&D project management.
4. Algorithm of R&D project management and management documentation.
5. Project preparation and initiation
6. Supporting design documentation.
7. Project implementation phase.
8. IT support for the R&D project management process.
9. Commercialization of research and development works. 14. Closing and ending the project.
10. Research and development challenges at PANSA.
11. PANSA in SES ATM Research (SESAR).
12. Life cycle of an innovative concept in ATM - from invention to implementation - according to E-OCVM.
13. Practice in managing R&D projects in the field of development and implementation of air traffic management systems.

Teaching methods

Informative (conventional) lecture (providing information in a structured way) - may be of a course (introductory) or monographic (specialist) character

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

Kisielnicki J. - Zarządzanie projektami badawczo-rozwojowymi, wyd.II - ; Wydawnictwo Nieoczywiste, 2020

PRINCE2 - Skuteczne zarządzanie projektami, edycja 6; Axelos, (2019)

PRINCE2 Agile, podręcznik, edycja 1; Axelos, (2019)



E-OCVM, European Operational Concept Validation Methodology Ver. 3.0

Additional

Trocki M., Grucza B., Ogonek K., Zarządzanie Projektami, PWE, Warszawa (2003)

Trocki M., Bukłaha E., Zarządzanie projektami- wyzwania i wyniki badań, Szkoła Główna Handlowa w Warszawie (2016)

Trocki M., red. nauk., Planowanie przebiegu projektów, Oficyna Wydawnicza SGH (2015)

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,0
Classes requiring direct contact with the teacher	55	2,0
Student's own work (literature studies, preparation for test) ¹	45	2,0

¹ delete or add other activities as appropriate