



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Project Management [S1AiR2>PO1-ZP]

### Course

Field of study

Automatic Control and Robotics

Year/Semester

1/2

Area of study (specialization)

–

Profile of study

practical

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

15

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

15

### Number of credit points

3,00

### Coordinators

dr inż. Tomasz Piaścik

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### Lecturers

### Prerequisites

1. Elementary knowledge of praxeology, economics, and psychology. 2. Student is able to obtain information from bibliography, databases and other sources; has the ability to self-educate.

### Course objective

The aim of the course is to familiarize students with the project management.

### Course-related learning outcomes

Knowledge:

1. The graduate has basic knowledge of project management (including quality management).
2. The graduate has the basic knowledge necessary to understand the non-technical determinants of engineering activities. The graduate knows and understands the basic economic, legal and other conditions of different types of activities related to the given qualification.

[K1\_W27 (P6S\_WK), K1\_W25 (P6S\_WK)]

Skills:

1. Basic skills in planning and project management.

2. Is able to work individually and in a team; is able to plan and organize work - both individually and in a team; is able to estimate the time needed to complete a task; is able to develop and implement a work schedule ensuring that deadlines are met.

[K1\_U30 (P6S\_UO), K1\_U20 (P6S\_UO)]

Social competences:

1. The graduate is aware of responsibility for own work and willingness to conform to the principles of teamwork and taking responsibility for jointly implemented tasks; is able to lead a small team, set goals and set priorities leading to the implementation of the task. The graduate is ready to play a responsible professional role.

2. The graduate is aware of the need for a professional approach to technical issues, meticulous familiarization with the documentation and environmental conditions in which the equipment and its components can operate. The graduate is ready to observe the rules of professional ethics and to demand it from others, to respect the diversity of opinions and cultures.

[K1\_K03 (P6S\_KR), K1\_K04 (P6S\_KR)]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The final grade consists of partial grades for:

- answers to control questions during project classes,
- activity during classes,
- case study analysis,
- tasks commissioned to be performed outside the time of project classes,
- development of basic project management documents,
- final test.

## Programme content

A project is a temporary endeavor designed to produce a unique product, service or result with a defined beginning and end (usually time-constrained, and often constrained by funding or staffing) undertaken to meet unique goals and objectives, typically to bring about beneficial change or added value. Project management is the practice of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time.

Project management involves the application of knowledge, experience, tools, methods and techniques in project activities in order to meet the needs and achieve the expectations of the customer. These activities require consideration of elements such as scope, time, costs, risk and quality. In the project management process it is necessary to apply recognized standards and methodologies. During the lecture the following will be discussed:

- project definition and its parameters,
- traditional project management rules,
- group of processes within project management
- determining the scope of the project,
- project planning,
- forecasting time, resources, requirements and costs of the project,
- project network diagram,
- availability of resources and costs of the project and changes in the schedule,
- launching of the project,
- monitoring and controlling the progress of work on the project,
- closing the project,
- agile project management (APM, Scrum)
- project management live cycle
- PMBOK and PRINCE2 methodologies

## Course topics

none

## Teaching methods

Lecture

- lecture with multimedia presentation supplemented with examples given on the board,
- interactive lecture with elements of discussion,
- theory presented in close connection with practice.

#### Projects

- multimedia shows (instructional videos),
- discussions of the presented content,
- demonstration of examples at the table.

## Bibliography

#### Basic:

1. Wysocki R.K., Effective Project Management: Traditional, Agile, Extreme, Seventh Edition, Helion 2017
2. Żmigrodzki M., Zarządzanie projektami dla początkujących. Jak zmienić wyzwanie w proste zadanie. Wydanie II Helion, 2018

#### Additional:

1. Żmigrodzki M., W tym szaleństwie jest metoda. Powieść o zarządzaniu projektami. Helion, 2019
2. Kerzner H., Project Management Case Studies, Helion, 2005
3. Cobb C.G., Making Sense of Agile Project Management: Balancing Control and Agility, APN Promise, 2012

## Breakdown of average student's workload

|                                                                                                                                         | Hours | ECTS |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------|------|
| Total workload                                                                                                                          | 75    | 3,00 |
| Classes requiring direct contact with the teacher                                                                                       | 30    | 1,00 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 45    | 2,00 |