

COURSE OFFERED IN THE DOCTORAL SCHOOL

Code of the course	4606-EW-0000000-0086	Name of the course	Polish	Zarządzanie projektem dla doktorantów		
			English	Project management for PhD researchers		
Type of the course	Researcher's Workshop					
Course coordinator	Eryk Głodziński, Eng., PhD, DSc					
Implementing unit	Faculty of Management	Scientific discipline / disciplines*				
Level of education	Doctoral Program	Semester	Winter semester			
Language of the course	English					
Type of assessment:	Evaluation of tasks prepared by participants	Number of hours in a semester	15	ECTS credits	1	
Minimum number of participants	10	Maximum number of participants	12	Available for students (BSc, MSc)	No	
Type of classes		Lecture	Auditory classes	Project classes	Laboratory	Seminar
Number of hours	in a week	1		2		
	in a semester	5		10		

* does not apply to the Researcher's Workshop

1. Prerequisites

The entry condition to attend the course is a thorough awareness of critical research issues in own PhD. You need to have a plan sketched out for your research (IPB) which will be used during the workshop. Courses are stationary at CZIITT building

2. Course objectives

The aim of the course is to support PhD student in applying project management methodologies and good practices to his/her PhD research, to see how PM methods and techniques could be utilized to increase efficiency and effectiveness of PhD project.

3. Course content (separate for each type of classes)

Lecture

- 1a. Course introduction
- 1b. Fundamentals of project management
 - a) idea
 - b) peculiarities
 - c) examples
 - d) methodologies, approaches
 - e) PhD research as a project
 - f) processes
 - g) business/scientific justification
 - h) product quality and delivery
2. Project and product description
 - a) PBS (Product Breakdown Structure)
 - b) WBS (Work Breakdown Structure)
 - c) stakeholders' analysis
 - d) project supply chain
3. Project scheduling – waterfall and agile approach
 - a) project activity plan, milestones
 - b) project schedule, split into timeboxes/sprints
 - c) scheduling methods and techniques
 - d) monitoring and controlling of project schedule
 - e) IT supporting scheduling

4. Resources plan a) type of resources b) source of resources c) hard and soft skills required in PhD project (human resources - HR) d) techniques supporting HR management - RAM (Responsibility Assignment Matrix), RACI (Responsible, Accountable, Consultant, Inform) e) IT supporting resource management 5. Budget and outcomes a) estimation of inputs' value and project costs b) project benefits vs outcomes c) monitoring of PhD performance
Project
Following tasks are based on PhD student research plan: a) project charter b) PBS and WBS c) project schedule d) resources' plan e) budget

6. Learning outcomes			
	Learning outcomes description	Reference to the learning outcomes of the WUT DS	Learning outcomes verification methods*
Knowledge			
K01	PhD student is familiar with scientific and practical achievements, including theoretical foundations and general issues and selected specific issues in the field of project management	SD_W2	active participation during classes, homework
K02	PhD student is familiar with economical, ethical and methodological conditions of research work, including aspects related to research project financing	SD_W4	active participation during classes, homework
Skills			
S01	PhD student is able to use knowledge from management discipline and to apply selected elements of project management for creative identification, formulation and innovatively solve complex PhD research issues	SD_U1	active participation during classes, homework
S02	PhD student is able to speak and write English at the B2+ level of the Common European Framework of Reference for Languages, to participate in an international scientific and professional environment	SD_U6	active participation during classes, homework
S03	PhD student is able to independently plan and act on his/her own development in conducting the doctoral research project	SD_U7 SD_U8	
Social competences			
SC01	PhD student is ready to recognize the importance of knowledge in solving cognitive and practical problems, especially those related to his own PhD project	SD_K2	active participation during classes, homework
SC02	The doctoral student is ready to think and act creatively and entrepreneurially based on project management methodology	SD_K4	active participation during classes, homework

*Allowed learning outcomes verification methods: exam; oral exam; written test; oral test; project evaluation;

report evaluation; presentation evaluation; active participation during classes; homework; tests

7. Assessment criteria

Lecture: active participation during classes

Project: quality of tasks (homework), punctuality of task delivery

8. Literature

Badiru, A.B. (2021). Project Management Essentials : Analytics for Control, CEC Press

Grit, R. (2021). Project management: A practical approach. Routledge.

Zwikael, O., Smyrk, J.R. (2019). Project Management: A Benefit Realisation Approach. Springer,

Project Management Institute (2021), A Guide Project Management Body of Knowledge - PMBOK Guide, Seventh Edition

Axelos (2017), Managing Successful Projects with PRINCE2

APMG (2019), Agile PM. Agile Project Management Handbook v2

9. PhD student's workload necessary to achieve the learning outcomes**

No.		Number of hours
1.	Participation the classes	15
2.	Development of project charter (homework) – task 1	2
3.	Development of PBS&WBS (homework) – task 2	2
4.	Development of project schedule (homework) – task 3	2
5.	Development of resources' plan (homework) – task 4	2
6.	Development of project budget (homework) – task 5	2
Total number of hours		25
ECTS credits		1

** 1 ECTS = 25-30 hours of the PhD students work (2 ECTS = 60 hours; 4 ECTS = 110 hours, etc.)