COURSE DESCRIPTION CARD - SYLLABUS

Course name

PO 3.1.1 Managing research projects - EC 3.1.1 Managing research projects

Course

Field of study
Teleinformatics

Year/Semester
2/3

Area of study (specialization)

Profile of study
general academic

Level of study
second-cycle studies

Course offered in
Polish

Form of study
full-time

Requirements
elective

Number of hours

Lecture
30

Laboratory classes
0

Other (e.g. online)

Tutorials
0

Projects/seminars
15/0

Number of credit points

4

Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. Jerzy Nawrocki
email: jerzy.nawrocki@put.poznan.pl
tel: 616652980
wydział: Informatyki i Telekomunikacji
adres: ul. Piotrowo 3, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

Good command of English (at least level B2).

Course objective

The aim of the course is to present basic principles and methods useful in the context of small research projects.

Course-related learning outcomes

Knowledge

Knowledge about project life cycles and team structure proposed by various methodologies of project management.
Knowledge about most popular theories of motivation.
Knowledge about rudiments of the Scrum methodology.
Knowledge about most important principles of risk management.

Skills

Ability to manage issues according to PRINCE2.
Ability to retrieve information from bibliographic databases.
Ability to run stand-up meetings used in Scrum and Extreme Programming.
Ability to formulate research aim based on PRINCE2's Business Case and GQM, and evaluate it according to the SMART criteria.
Ability to adapt the Scrum methodology to the specificity of research projects.
Ability to prepare a protocol of Systematic Literature Review.

Social competences

Readiness to act according to the principles of effectiveness proposed by S. Covey.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

There will be 1 or 2 midterm exams (tests with multiple-choice items or short open text items) and a final exam. Practical skills will be checked via evaluation of the work done as part of the project classes.

Programme content

The lectures will cover the following topics:
- Aim of a research project and "elevator pitch"
- Systematic Literature Review
- Introduction to Scrum
- Risk management
- Empirical research and validity threats
- Communication and issue management
- Planning a research project
- Technology Readiness Levels and TAM
- Famous motivation theories

- Bibliometrics and progress indicators
Classes will be used for practical exercises.

Teaching methods

Interactive lectures (i.e. with active participation of the students by answering questions asked by the lecturer) and exercises concerning some activities done during the project classes.

Bibliography

Basic

- Ken Schwaber and Jeff Sutherland, The Scrum Guide, 2017, https://www.scrumguides.org/docs/scrumguide/v2017/2017-Scrum-Guide-US.pdf
- Barbara Kitchenham, Guidelines for performing Systematic Literature Reviews in Software Engineering, 2007, https://www.elsevier.com/__data/promis_misc/525444systematicreviewsguide.pdf
- Stephen Covey, The 7 habits of highly effective people.

Additional

- Managing Successful Projects with PRINCE2, OGC.
- C. Wohlin et al., Experimentation in Software Engineering, Springer, 2012, Chapter 8.

Breakdown of average student's workload

	Hours	ECTS
Total workload	90	4.0
Classes requiring direct contact with the teacher	49	2.0
Student's own work (project preparation, preparation for exam, literature studies)	41	2.0