

COURSE DESCRIPTION

name	Project management
shortname/abbr.	PM
course objectives	see in syllabus (Knowledge, Skills, Competences)
description	see in syllabus
target students	bachelor, master, Ph.D. students
intro	see in syllabus
developed by	Technical University Berlin, Chair of Space Technologies
evaluation	see in syllabus

Syllabus "Project management"

Course topic

A practice oriented course for understanding project management and diverse related subjects including inter alia management skills and interpersonal skills.

Number of credits

3 ECTS

Course responsible

Technical University Berlin
Elena Eyngorn

Course lecturers

Elena Eyngorn

Prerequisites

no prerequisites required

Learning outcomes

Knowledge: Advanced knowledge in the field of Project Management. Ability to define projects, project management, project managers and identify the importance of the PMBOK and PMI.

Skills: Ability to perform a project needs assessment and write goals, requirements, and deliverables; Create key project documents and project planning documents, Build a project schedule by estimating time, costs, and resources; Understand and use the work breakdown structure.

Competences: Demonstration of the advanced ability to use planning tools, including the gantt chart, network diagram, and RACI chart. In addition the knowledge how to establish

and use baselines, monitor and maintain the project. As well as the ability to perform basic management tasks, including leading status meetings and ensuring all documents are complete at the end of the project.

Abstract

In the past few decades, organizations have discovered something incredible: the principles that have been used to create enormous successes in large projects can be applied to projects of any size to create amazing success. As a result, many employees are expected to understand project management techniques and how to apply them to projects of any size. This course will give participants an overview of the entire project management process, as well as key project management tools that they can use every day. With focusing on the five process groups and nine knowledge areas as defined by the PMI as well as the description of triple constraint the students will have the possibility to identify the importance of the PMBOK and PMI.

Besides of transmitting the theory of all relevant aspects in the field of PM, the course will additionally enable students to create key project documents, including the statement of work, project planning worksheet, project charter and project planning documents, such as a schedule, risk management plan, and communication plan. Finally attendees will have a unique opportunity to obtain first-hand information on project management based on modern methods.

Content

- 1) Project Management (PM)
 - 1.1 Definition and introduction to PM
 - 1.2 Project management techniques
 - 1.3 "Triple constraint"
- 2) Importance of the PMBOK and PMI
 - 2.1 Introduction to PMBOK and PMI
 - 2.2 The five process groups
 - 2.3 The nine knowledge areas
- 3) Business writing as key method of communication
 - 3.1 Introduction
 - 3.2 Key project documents
 - 3.2.1 The statement of work
 - 3.2.2 Project planning worksheet
 - 3.2.3 Project charter
 - 3.3 Project planning documents
 - 3.4.1 Schedule
 - 3.4.2 Risk management plan
 - 3.4.3 Communication plan
- 4) Business etiquette
- 5) Management skills
 - 4.1 Meeting management
 - 4.2 Time management
 - 4.3 Stress management
- 6) Leadership and influence
 - 5.1 Leadership techniques
 - 5.2 Teamwork and team building
 - 5.3 Supervising others
 - 5.4 Motivating employees
- 7) Interpersonal skills

Teaching methods

The theoretical part of the course is presented with PowerPoint slides, practical examples/projects and problem-based learning. A course on the e-learning platform moodle of the Technical University Berlin is also considered. The contents will be presented in lectures but also group and project work will be offered to put the theory into practice but also “serious games” will be applied.

Evaluation/Assessment

The evaluation is based on the examination of concepts acquired in the course and consists of the following components:

- 40% - Final report targeting various problems and issues, according to those solved during the lectures and the labs;
- 60% - Final design project of a small complexity electronic circuit.

Recommended reading

- Chambers, Harry E. (2001): *Effective Communication Skills for Scientific and Technical Professionals*, New York: Basic Books.
- Day, Dave (2013): *Effective Management: Interpersonal Skills That Will Help You Earn the Respect and Commitment of Employees*, Toronto: Productive Publications.
- Dr. Gordon, Thomas (2001): *Leader Effectiveness Training: L.E.T. Proven Skills for Leading Today's Business into Tomorrow*, New York: The Berkley Publishing Group.
- Kliem, Ralph L. (2007): *Effective Communications for Project Management*, Boca Raton: Auerbach Publications.
- Lester, Albert (2014): *Project Management, Planning and Control: Managing Engineering, Construction and manufacturing Projects to PMI, APM and BSI Standards*, Waltham: Butterworth-Heinemann (for Elsevier).
- Levin, Ginger (2010): *Interpersonal Skills for Portfolio, Program, and Project Managers*, Vienna (VA): Management Concepts.
- Mosley, Donald C.Sr.; Mosley, Donald C.Jr.; Pietri, Paul H. (2011): *Supervisory Management: The Art of Inspiring, Empowering and Developing People*, Mason: South-Western Cengage Learning.
- Project Management Institute (2014): *A Guide to the Project Management Body of Knowledge: PMBOK Guide*, Project Management Institute.