

Syllabus: Project Management based on PMI (BIS6311E)

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Lecture	BIS6311E – Project Management on the Basis of PMI
Proof of Performance	Development of a Case Study including presentation
Workload	3 ECTS credits with 2 weekly semester lecture hours approximately divided into <ul style="list-style-type: none">– 24 hours within class (8 lectures, see below)– 24 hours to prepare little exercises– 32 hours to prepare a case study (teamwork)– 3 hours to present case study (for each team about 20-30 min)
Link to the course catalogue	https://lms.hs-pforzheim.de/course/view.php?id=3974
Information and additional documents	This lecture can be found on the e-learning platform as „...“ There you find this syllabus, the script, the case study and all other documents for this lecture.
Prerequisites	none
Validity	WS 2020/21
Lecturer	Thomas Slizyk, PMP®, IBM certified Senior Project Manager Office hours: only by appointment Email: thslizyk@gmail.com
Room and Time	Fridays, at 9:45-11:15 + 11:30-13:00, in room W.1.3.03, for weekly details please see the preliminary schedule on the next page. <i>Please note, due to COVID-19 restrictions and impacts the lessons can possibly take place as online course only</i>

Preliminary Schedule

Date	Topic / Content
Fri, 9. Oct. 2020	Introduction to lecture, expectations, objectives, timetable Project Mgmt. Fundamentals
Fri, 16. Oct. 2020	Introduction to Case Study Scope and Time Mgmt. (90 min)
<i>Fri, 23. Oct. 2020</i>	<i>No lecture due to other university events</i>
Fri, 30. Oct. 2020	Exercises to Scope and Time Mgmt. Q+A session to case study
<i>Fri, 6. Nov.2020</i>	<i>No lecture due to other university events</i>
Fri, 13. Nov.2020	Cost and Communications Mgmt. Exercises Q+A session to case study
Fri, 20. Nov. 2020	Exercises Stakeholder, Quality and Procurement Mgmt. Q+A session to case study
Fri, 27. Nov. 2020	HR Mgmt. and Burnout Prevention Q+A sessions to case study
Fri, 4. Dec 2020	Monitored case study teamwork including team related Q+A sessions
<i>Fri, 11. Dec. 2020</i>	<i>No lecture – Submission of Case Study!</i>
Fri, 18. Dec	Student’s presentation (180 min)
Fri, 15. Jan	Feedback and Results

Teaching and Learning Approach

The lecture provides a general overview on Project Management. The lecture is theoretically based on PMI’s “Project Management Body of Knowledge”, 5th edition, but structured and presented from a practitioner’s daily experience.

Agile methods are not specifically part of the lecture. But there will be references to them, to develop an understanding where agile methods have their benefits and should be used, and where they have their limitations and the “traditional” project management approach would be more appropriate.

The focus is to provide a solid understanding of the basic concepts, processes and methods of project management and to guide the students how to put these into action, illustrated by some specific exercises, a case study the students will elaborate and the presentation of their results.

The lecturer wants to emphasize his expectation of having interactions with the students and discussions on the subjects presented.

Alignment matrix to MIS learning objectives

Goal at program level	Learning Objectives	Course Contribution
1. Responsible leadership in organizational contexts	1.1 Knowledge of relevant management principles	Fundamental understanding of team building processes, motivation, communication models, methods & technologies, conflict management and leadership (see sessions on HR and Communication Mgmt)
	1.2 Abilities to apply relevant management principles	Not applicable
	1.3 Critical reflections of relevant management principles	Examples to learning objectives stated under goal 1.1
	1.4 Competency to act in a responsible way	Not applicable
2. Creative problem-solving skills in a complex business environment	2.1 Ability to identify, to demarcate, and to classify problems	<p>During any project problems (that is, issues) can occur any time in any part of the project, e.g. scope, time, budget, but also with all people involved.</p> <p>Therefore, we will throughout the lecture repeatedly come back</p> <ul style="list-style-type: none"> ▪ how to identify issues (e.g. in the sessions of scope, time, cost mgmt. and in HR and stakeholder mgmt.), ▪ how to deal with issues (e.g. in change mgmt., earned value analysis, critical path analysis) ▪ and better, how to anticipate issues prior they occur (i.e. in risk mgmt.).
	2.2 Ability to analyze problems	
	2.3 Ability to solve problems creatively and implement appropriate solutions in practice	
	2.4 Ability to clarify, explain and illustrate problems	
3. Research skills and their practical application	3.1 Knowledge of relevant methods	Not applicable
	3.2 Competency to apply relevant research methods in practice	Not applicable
	3.3 Ability to achieve innovative results by using relevant research methods	Not applicable
4. Design skills for specific IT management solutions or IT technology management architectures within complex process structures	4.1 Show sound IT competency and achieve IT-specific expertise	Not applicable
	4.2 Ability to use appropriate problem-solving methods for IT-specific tasks	Get an understanding where an agile approach is appropriate and beneficial and where the "traditional" project management methodologies should be preferred
	4.3 Ability to recognize causal problems for IT-specific tasks and to solve them	Not applicable

Focus Areas and Learning Objectives:

Lesson / Subject	Focus Area	Learning Objectives <i>At the end of each lesson you should have understood and be able to tell ...</i>
Fundamentals	<ul style="list-style-type: none"> ▪ Basic definitions ▪ Organizational structures ▪ Environmental factors ▪ Project determination and decision-making criteria ▪ Project charter ▪ Project management plan ▪ Project change management ▪ Agile methods vs “traditional” project/program management 	<ul style="list-style-type: none"> ▪ What is a Project, a Program and a Portfolio? ▪ What is Project Management? ▪ What are the major focus areas of a project manager (PM)? ▪ What is a Project Management Office (PMO) and what are its objectives? ▪ What is a project life cycle and what are processes and process groups? ▪ How does the company’s organizational structure in which the project is executed influence the project and the power of the project manager? ▪ What are environmental factors and how could they influence the project and the project manager? ▪ How can an organization determine which project to choose, if it must select one out of many? ▪ What are decision making criteria? ▪ What is a Project Charter? ▪ What is a Project Management Plan? ▪ What is Project Change Control and a Project Change Management plan? ▪ Where are the benefits for an agile approach and where are its limits?
Scope management	<ul style="list-style-type: none"> ▪ The Work Breakdown Structure (WBS) ▪ Determine the project’s scope and deliverables ▪ The RACI Matrix ▪ Statement of Work and Project Scope Statement ▪ Project Plan 	<ul style="list-style-type: none"> ▪ What how to determine the scope and deliverables of your project? ▪ What is a Work Breakdown Structure (WBS) and how can it be created? ▪ What is a RACI matrix? ▪ What is a Statement of Work (SOW)? ▪ What is Project Scope Statement and how can it be set-up? ▪ How to create a (MS) Project Plan?
Time management	<ul style="list-style-type: none"> ▪ Estimating techniques ▪ Basic terms & techniques of time management ▪ Milestone trend analysis ▪ Methods to create network diagrams 	<ul style="list-style-type: none"> ▪ Basics about estimating: time and cost ▪ What is a network diagram? ▪ What is a critical path and how can it be calculated? ▪ What is a milestone? ▪ How to create a milestone trend analysis? ▪ What is a float? ▪ What is a lead or a lag?
Cost management	<ul style="list-style-type: none"> ▪ Basic terms & techniques of cost management ▪ Budget determination ▪ The Earned Value Method 	<ul style="list-style-type: none"> ▪ What is a present value and net present value? ▪ What are sunk cost and opportunity cost? ▪ How is a project budget being set-up? ▪ Know the details about Earned Value and how to determine cost variances, indices and forecasts,

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		and understand what they can tell you about the status of your project.
Human Resource management	<ul style="list-style-type: none"> ▪ Resource planning and team building ▪ Power of management and management styles ▪ Conflict management ▪ Motivation and motivation theories ▪ Develop mindfulness to prevent burn-out situations 	<ul style="list-style-type: none"> ▪ How to plan the resources for your project team? ▪ What are the basic team building processes? ▪ How to basic principles of how to manage people: <ul style="list-style-type: none"> - know forms of power as (project) manager, - know / be aware of the various styles of leadership, - know about the five deadly diseases of western management. ▪ Understand the basics of conflict management. ▪ What drives or prevents motivation? ▪ Know some important motivation theories and concepts (Maslow, Herzberg, McClelland, McGregor).
Communications and Stakeholder management	<ul style="list-style-type: none"> ▪ Communication models, methods & technologies ▪ Interpersonal and management skills ▪ Stakeholder identification & analysis ▪ Stakeholder assessment matrix ▪ Stakeholder register 	<ul style="list-style-type: none"> ▪ How communication functions in general? ▪ Know when and why to use the appropriate communication technology? ▪ Know the means of a communications management plan. ▪ Know how to identify your stakeholders. ▪ Know how to assess your stakeholders. ▪ Know how to set-up a stakeholder register and a power-interest matrix.
Risk and Issue Management	<ul style="list-style-type: none"> ▪ Risk types and categories ▪ Concepts of risk identification ▪ Concepts for qualitative and quantitative risk analysis ▪ Strategies for threats ▪ Strategies for opportunities ▪ Risk register and the risk probability & impact matrix 	<ul style="list-style-type: none"> ▪ What is the difference between risk and issue? ▪ What is the difference between probability and impact? ▪ What are the types of risk? ▪ What are negative and positive risks? ▪ What are the strategies to approach threats? ▪ What are important risk identification techniques? ▪ How to setup a risk register?
Quality management	<ul style="list-style-type: none"> ▪ Basic terms of (project) quality management ▪ Important quality researchers ▪ Quality concepts ▪ Quality tools and techniques ▪ Cost of quality 	<ul style="list-style-type: none"> ▪ Who are Pareto, Deming, Ishikawa, Juran, Crosby and what are their major (quality) concepts? ▪ What are the seven basic quality tools? ▪ What is a normal distribution and a standard deviation? ▪ What are the cost of quality and which fundamental differences exist in the approaches to cost of quality?
Procurement management	<ul style="list-style-type: none"> ▪ Basic terms of project procurement ▪ Regulatory requirements (e.g. ITAR, FDA, BAFIN) and data privacy laws ▪ Fixed-price contracts 	<ul style="list-style-type: none"> ▪ What are basic terms of project procurement? ▪ What are fixed-price contracts, cost contracts, and time & material contracts? ▪ Which important (international and local) legal and regulatory requirements may impact my contract and project?

Lesson / Subject	Focus Area	Learning Objectives <i>At the end of each lesson you should have understood and be able to tell ...</i>
	<ul style="list-style-type: none"> ▪ Cost contracts ▪ Time & material contracts ▪ The German contract types "Dienstvertrag" and "Werkvertrag" 	<ul style="list-style-type: none"> ▪ What are the major legal requirements and regulations in Germany when hiring sub-contractors for my project, know the details and implications of "Dienstvertrag" and "Werkvertrag"?

Additional literature and related course material:

The lecture is based on:

- A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Fifth Edition, © 2013, ISBN 978-1-935589-67-9, Project Management Institute Inc., 14 Campus Boulevard, Newton Square, Pennsylvania, USA

Other helpful material or information:

- Rita Mulcahy, "PMP® Exam Prep", RMC Publications Inc., 2009, 6th Edition, ISBN 978-1-932735-18-5
Note: this version is still aligned to PMBOK, 4th edition! (Later versions are available, but not any longer from Rita Mulcahy herself)
- Harold Kerzner, „Project Management: A Systems Approach to Planning, Scheduling, and Controlling“, 11th edition,
Note: helpful to look up information, but not actually to learn from.
- The Portable PMP® Exam Prep, „Conversations on Passing the PMP® Exam“ by J. LeRoy Ward, PMP®, PgMP® and Carl L. Pritchard, PMP®, 2009, 4thEdition, 9 CDs
Note: very interesting to listen to, but expensive (not recommended to buy) and still based on PMBOK, 4th edition!
- "ITIL® V3-Basiswissen", Addison-Wesley, 2008
- „ITIL® V3 – "Das Taschenbuch", Van Hare Publishing, 6. Auflage, 2010
- David G. Myers, "Psychologie", Springer Verlag 2005

Interesting to read

- Lothar J. Seiwert, „Mehr Zeit für das Wesentliche“, Verlag Moderne Industrie, 10. Auflage, 1989
- Tom DeMarco, „Der Termin, Ein Roman über Projektmanagement“, Hanser Vlg. 1998

Rules of behavior:

- To read and exercise with support of scientific literature belongs to the basic capabilities of every graduate of the university of Pforzheim; make use of the bibliographic references made in this course.
- Please behave fair to all others in this course. This includes of being on time, to stop all other business while sitting in the lecture, do not disturb others by talking with your neighbors, and mute your mobile phones.
- It is recommended and highly welcomed that you take an active part in the lecture, please be actively engaged and ask questions directly.

Conception of myself as teacher

My aim is to contribute to your studies' success. With this course, I want to support you of not only accumulating theoretical knowledge but that you get – as far as this is possible in a lecture of one semester – practical experience on how to setup a project, evaluate its status of performance, and monitor and control its progress.

I therefore make it my objective to enrich the theoretical lessons with practical exercises and a case study derived from real life projects and experience.

Any recommendation to improve the lecture and comments that might help all participants are at any time highly welcomed. In case of any issues please do not hesitate to contact me.

I wish you an interesting lecture and a successful semester. Good luck!

Thomas Slizyk