

# MODULE HANDBOOK

for the study program

**European Master in Project Management (EuroMPM) (M.A.)**

(Examination regulations version 2025)

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## Curriculum and Catalogue of Electives

Module	Name of the Module	Code Number/ Examination Number	Type	ECTS	Semester (SWS weekly hours / ECTS credits)								
					1st (winter term)		2nd (summer term)		3rd (winter term)		4th (summer term)		
					SWS	ECTS	SWS	ECTS	SWS	ECTS	SWS	ECTS	
A	Project Management - Fundamentals	94010 / 94012	cm	6	4	6							
B	Project Planning and Controlling	94020 / 94021	cm	6	4	6							
C	Self Management and Social Competence	94030 / 94031	cm	6	4	6							
D	Transversal Skills	94040 / 94041	cm	6	4	6							
E	Quality Management and Standards	94050 / 94051	cm	6	4	6							
F	International Communication and Change Management	94060 / 94061	cm	6			4	6					
G	Digital Transformation	94070 / 94071	cm	6			4	6					
H	Leadership & Teams	94080 / 94081	cm	6			4	6					
I	Multi-Project Management	94090 / 94091	cm	6			4	6					
J	Elective I*	94200	em	6			4	6					
K	Elective II*	94210	em	6					4	6			
L	Elective III*	94220	em	6					4	6			
M	Project Thesis	94250 / 94251	cm	18						18			
	Thesis (26 weeks)												27
	Colloquium	103	cm	30									3
<b>sum</b>				<b>SWS</b>		20	20	8	0				
				<b>ECTS</b>	120	30	30	30	30				

cm: compulsory module

em: elective module

\* electives from the catalogue of electives

Catalogue of Electives	Examination number	SWS (weekly hours)	ECTS (credits)
Digital Business Ecosystems	94300	4	6
Management Systems and Audit	94301	4	6
Managing Digital Change	94302	4	6
Project Finance, Procurement, Legal Aspects	94303	4	6
Research Seminar	94304	4	6
Agile Management in Virtual Project Environments	94305	4	6
Global Business Projects	94306	4	6
Implementing Project Management in an Organisation	94307	4	6
Information Processing and Data Analytics	94308	4	6
Sustainability and Quality	94309	4	6
Trends in Project Management	94310	4	6
<b>Modules from partner institutions</b>			
	94320/21		
<b>Modules from other degree programmes at FH Dortmund*</b>			
	94330/31		

\* If compulsory elective modules of the Ruhr Master School (RMS) are part of the course programmes of Dortmund University of Applied Sciences and Arts (Fachhochschule Dortmund), students must complete the examinations within their own course programme. Upon application, modules of the course programmes participating in the RMS may be elected.

<b>Module A Project Management – Fundamentals</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94011	English	1 semester	1 <sup>st</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Project Management – Fundamentals		mandatory course	45	<b>Contact Hours</b> 60	<b>Self-Study</b> 120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> The students can</p> <ul style="list-style-type: none"> <li>describe the core issues of a project and various types of projects,</li> <li>explain the difference between projects, processes, and operational work,</li> <li>explain criteria for success and failure in projects,</li> <li>explain the concept of stakeholders and the roles of stakeholders in a project,</li> <li>explain the main Project Management approaches (traditional, agile, hybrid),</li> <li>explain the main management elements of Project Management (Scope, Time, Resources, Cost, Risks, Organisation, Stakeholders, Communication, etc.)</li> <li>explain main agile frameworks as Scrum, Kanban, and Design Thinking</li> <li>know the main trends in project management.</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students can</p> <ul style="list-style-type: none"> <li>apply main methods of traditional and agile Project Management (e.g. Stakeholder Matrix and Stakeholder Register, Work Breakdown Structure, Network Diagram, Gantt Chart, ,Resource Histogram, Cost Histogram. Risk Register, Project Organisational Structure, Responsibility Assignment Matrix, User Stories, Agile Estimation Methods)</li> <li>differentiate and decide between the main Project Management approaches (traditional, agile, hybrid),</li> <li>differentiate and decide between main Project Management frameworks as Waterfall, Scrum, Kanban, and Design Thinking</li> <li>can apply different Project Management roles</li> </ul> <p><i>Communication and Cooperation:</i> The students can</p> <ul style="list-style-type: none"> <li>take into account the developments and trends in project management and balance them to the project approach</li> <li>lead and coordinate teams in a results-oriented fashion,</li> <li>present and prudently defend team results in a complex and demanding environment,</li> <li>improve cooperation among human resource in projects and organizations,</li> <li>handle complexities while working in project teams,</li> <li>detect the HR competencies needed in a project or in an organization,</li> <li>develop team competencies among the members.</li> </ul>						

	<p><i>Scientific Self-Understanding / Professionalism:</i> The students can manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches, reflect operational challenges of a project and reflect own performance in a team.</p>
<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p>This course focuses on the core issues of projects and project management and provides an overview of project characteristics and project management approaches and core methods.</p> <p>Projects are distinguished from ongoing activities in organizations. Projects have a well-defined goal and scope. Projects have a start and an end. Projects need a special organization - different from ongoing activities. Projects are installed to create something new, a new building, a new application system, or a new application of an existing system. Projects are unique and risky.</p> <p>In this course the terms and meanings of traditional, agile and hybrid project management are introduced.</p> <p>Cases are analysed and discussed in order to develop an understanding of projects. The discussions contain the typical project constraints as scope, time, work / budget, stakeholders, risks, etc. as well as criteria for success and failure, project context and organization.</p> <p>The course shows how projects can be organized and how projects shape organizations.</p> <p>The latest developments concerning traditional, agile und hybrid project management are taught.</p> <p>The main trends in project management will be discussed and a link to the other modules and courses will be shown in this module in order to understand the relationship of the curriculum of the EuroMPM.</p> <p>This module contains the following topics:</p> <ul style="list-style-type: none"> <li>Characteristics of projects</li> <li>Separation of projects, processes and operational work</li> <li>Different types of projects</li> <li>Success factors of projects</li> <li>Characteristics of Project Management</li> <li>Different approaches of Project Management (traditional, agile hybrid)</li> <li>Life cycle of projects, Project Management, products</li> <li>Project Management Elements (Scope, Time, Resources, Cost, Risks, Organisation, Stakeholders, Communication, etc.)</li> <li>Overview Project Management Methods (Project Canvas, Stakeholder register, Work Breakdown structure, Gantt Chart, Network diagram, Resource Plan, Resource Histogram, Cost Plan, Organizational Chart, Role Description, RACI Matrix, Communication Plan, ground rules, Risk register, User Stories, Retrospectives, Dailys etc. )</li> <li>Trends in Project Management</li> </ul>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>e.g: Lectures incl. practitioners' best practices, Interactive case studies, Seminar, Case studies, (Short presentations, Results-oriented presentations in oral and written form</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Case Study to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Home work to add individual contributions</li> <li>• Presentations to communicate results</li> </ul>

<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: -
<b>6</b>	<b>Assessment of Course</b> 100% contributions within the course, thereof 40 % case study 60 % tests (two tests a 30 % with max. 30 min. duration each) homework, group work, presentations, case studies, tests)
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of assesement
<b>8</b>	<b>Module/Course Mapping</b> –
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. André Dechange
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• AXELOS (2017): Managing Successful Projects with PRINCE2, The Stationery Office Ltd.</li> <li>• Bea, F.X.; Scheurer, S.; Hesselman, S. (2020): Projektmanagement (3rd ed, UTB</li> <li>• Dechange, André (2020): Projektmanagement – Schnell erfasst, SpringerGabler</li> <li>• Gareis, Roland; Stummer, Michael (2008): Process and Projects, Manz Verlag</li> <li>• Hedeman, Bert, e.a. (2010): Project Management Based on PRINCE2®, Van Haren Publishing</li> <li>• International Project Management Association IPMA (2015): Individual Competence Baseline 4th version (ICB4)</li> <li>• International Project Management Association IPMA (2021): Organisational Competence Baseline (OCB)</li> <li>• IPMA (2016), ICB 4.0 International Project Management Association IPMA (2018): Project Excellence Baseline for Achieving Excellence in Projects and Programmes</li> <li>• ISO (2021): ISO 21500 - Guidance on project management; ISO</li> <li>• Kerzner, Harold: Project Management (2022): A Systems Approach to Planning, Scheduling and Controlling (13th ed.), John Wiley</li> <li>• Larson, Erik; Gray, Clifford (2021): Project Management - the Managerial Process, 8th edition, McGraw Hill</li> <li>• Project Management Institute (PMI) (2021): A guide to the project management body of knowledge (PMBOK guide) (7th ed.), Agile practice guide, PA</li> <li>• Timinger, Holger (2024): Modernes Projektmanagement: Mit traditionellem, agilem und hybridem Vorgehen zum Erfolg, 2. Auflage, Weinheim: Wiley</li> <li>• Timinger, Holger (2021): Modernes Projektmanagement: Mit System zum richtigen Projektmanagement. Weinheim: Wiley</li> <li>• Turner, Rodney (2014): Gower Handbook of Project Management (5th ed.), Gower Hampshire, Routledge</li> </ul>

## Module B Project Planning and Controlling

Number	Language	Duration	Semester	Frequency	ECTS		
94021	English	1 semester	1 <sup>st</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
					<b>Contact Hours</b>	<b>Self-Study</b>	
	a. Project Planning b. Project Controlling		mandatory course	45	60	120	4
<b>2</b>	<p><b>Learning Outcomes</b></p> <p><b>a. Project Planning</b></p> <p><i>Knowledge and Understanding:</i> After taking this course, students ...</p> <ul style="list-style-type: none"> <li>understand underlying concepts in project management, such as: project success as a multi-facetted concept (i.e., the various criteria/dimensions associated with project success); a project's lifecycle and the project management phases (project initialization etc.); the different project management approaches (traditional; agile; ...) and their implications on project planning,</li> <li>are able to memorize the elements of a project charter,</li> <li>are able to memorize the steps of project planning, i.e., work breakdown structuring; sequencing &amp; scheduling; resource planning; financial planning,</li> <li>understand and are able to explain the links between the abovementioned steps and potential iterations during project planning,</li> <li>understand the difference between an activity and a milestone, as well as the concept of a project schedule's critical path,</li> <li>are able to memorize the types of project risks and the various opportunities and techniques to identify project risks,</li> <li>remember how project planning might look like in an agile project environment (Sprint Planning; Planning Poker).</li> </ul> <p><i>Application and Generation of Knowledge:</i> After taking this course, students ...</p> <ul style="list-style-type: none"> <li>are able to use techniques and methods of project planning, as for instance, work breakdown structuring; netzplantechnik,</li> <li>are able to develop a Gantt Chart for a project,</li> <li>are able to develop a simple project schedule (Gantt Chart) in a project management software system (e.g., MS Project, Project Libre),</li> <li>are able to compile a project handbook,</li> <li>are able to compile a project risk register.</li> </ul> <p><i>Communication and Cooperation:</i> After taking this course, students are able to discuss the way to approach the initialization of a new project, as well as suitable methods of project planning, and project risk management (for a project that is being initialized) in a professional environment.</p>						

	<p><i>Scientific Self-Understanding / Professionalism:</i> After taking this course, students are able to analyze the surrounding conditions of a project that is being initialized, and select elements of project planning, accordingly.</p> <p><b>b. Project Controlling</b> <i>Knowledge and Understanding:</i> After taking this course, students ...</p> <ul style="list-style-type: none"> <li>• understand underlying concepts in project management, such as: project success as a multi-faceted concept (i.e., the various criteria/dimensions associated with project success); a project's lifecycle and the project management phases (i.e., initialization; execution; closure); the different project management approaches (traditional; agile; ...) and their implications on project monitoring and control.</li> <li>• understand the steps of project monitoring and control.</li> <li>• remember the different ways to collect as-is-data on a project.</li> <li>• remember how project monitoring and control might look like in an agile project environment (Daily Scrums/Stand-up meetings; Burndown Chart).</li> </ul> <p><i>Application and Generation of Knowledge:</i> After taking this course, students ...</p> <ul style="list-style-type: none"> <li>• are able to use techniques and methods of project monitoring and control, as for instance, as-is-to-be-comparisons; Earned Value Analysis; Milestone-Trend-Analysis.</li> <li>• are able to monitor risks through a project risk register and a project risk portfolio.</li> </ul> <p><i>Communication and Cooperation:</i> After taking this course, students are able to discuss suitable methods of project monitoring and control, and monitoring project risks in a professional environment.</p> <p><i>Scientific Self-Understanding / Professionalism:</i> After taking this course, students ...</p> <ul style="list-style-type: none"> <li>• are able to analyze the surrounding conditions of a project that is being initialized, and select methods of project monitoring and control, accordingly.</li> <li>• are able to evaluate and decide which interval for project monitoring and control is appropriate in the context of a specific project.</li> </ul>
<p><b>3</b></p>	<p><b>Course Description and Course Structure</b> To develop a basic understanding of the dimensions of project planning and project monitoring and control, project success as a multi-faceted concept is introduced first. Moreover, a project management lifecycle including project management phases is introduced to explain when project planning, and project monitoring and control, respectively, happen within the lifecycle.</p> <p><b>a. Project Planning</b> We start to look at the preliminary planning activities that take place during a project's initialization stage. Therefore, it is vital for the students to get acquainted with the constituents/elements of a project charter, and an external contract, respectively. The Work Breakdown Structure (WBS) is introduced as the central method to describe the scope of a project. Its various types and structural elements are explained with an emphasis on the work packages. In the further course of the lecture, the subsequent steps of project planning, i.e., sequencing &amp; scheduling (Netzplantechnik), resource planning, and financial planning are explained. Furthermore, the iterative nature of project planning is explained using practical examples. This part of the lecture is completed by a look into project management software systems: in terms of a software exercise the</p>



	<p>students are asked to develop a simple Gantt chart using the PM software system. What is more, the students get a first idea of agile project management in general, and its most popular methodology “Scrum” in specific. They learn how project planning is being conducted following the Scrum methodology.</p> <p>Finally, we also focus on the planning of other project management processes, such as change management, communications &amp; documentation, and project risk management. An emphasis is set on project risk management, the identification of project risks, and the compilation of a risk register.</p> <p><b>b. Project Controlling</b></p> <p>The general procedure of project monitoring and control is introduced first, i.e.: collection and compilation of as is-data; to be/as is comparison and analysis; creation of scenarios and forecasts; decision-making (control). The students get to know the influence factors on the suitable interval for monitoring and control.</p> <p>There is a strong focus on the various techniques and methods of data collection and project monitoring and control:</p> <ul style="list-style-type: none"> <li>• Collection of as is-data: <ul style="list-style-type: none"> <li>○ Subjective estimation</li> <li>○ Measurement through means of a quantitative variable</li> <li>○ Milestone technique</li> <li>○ 0/50/100% technique</li> </ul> </li> <li>• To be/as is comparison</li> <li>• Milestone-Trend-Analysis (MTA)</li> <li>• Earned Value Analysis (EVA)</li> </ul> <p>Furthermore, the students are introduced to the various types of project reports, to risk monitoring, and to monitoring and control in an agile environment (Scrum).</p>
<b>4</b>	<p><b>Teaching and Training Methods</b></p> <ul style="list-style-type: none"> <li>• Face-to-face teaching (presentation slides; whiteboard)</li> <li>• Group work</li> <li>• Individual reflection</li> <li>• Discussion</li> <li>• Software exercise</li> <li>• Case examples</li> </ul>
<b>5</b>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: -</p> <p>Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 25% assignments</li> <li>• 25% small written test during the semester</li> <li>• 50% written examination at the end of the course (60 minutes)</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of examination</p>
<b>8</b>	<p><b>Module/Course Mapping</b></p> <p>Business Management (MA)</p>
<b>9</b>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>

<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. Jan Christoph Albrecht
<b>11</b>	<b>References</b> <ul style="list-style-type: none"><li>• Dalcher, Darren (ed.) (2016): Advances in project management. Narrated journeys in unchartered territory. London, New York: Routledge.</li><li>• Kerzner, Harold (2022): Project Management: A Systems Approach to Planning, Scheduling and Controlling. 13<sup>th</sup> edition. Hoboken: John Wiley.</li><li>• Maylor, Harvey (2022): Project Management. 5<sup>th</sup> edition. Harlow: Pearson.</li><li>• Project Management Institute (2021): The standard for project management and a guide to the Project Management Body of Knowledge (PMBOK guide). 7<sup>th</sup> edition. Newtown Square, PA: Project Management Institute.</li><li>• Turner, J. Rodney (ed.) (2016): Gower handbook of project management. 4<sup>th</sup> edition. London, New York: Routledge.</li><li>• Bea, Franz Xaver; Scheurer, Steffen; Hesselmann, Sabine (2020): Projektmanagement. 3., vollständig überarbeitete und erweiterte Auflage, revidierte Ausgabe. München, Stuttgart: UVK Verlag/UTB.</li><li>• Dechange, André (2020): Projektmanagement – Schnell erfasst. 1. Aufl. Berlin, Heidelberg: Springer.</li><li>• Patzak, Gerold; Rattay, Günter (2018): Projektmanagement. Projekte, Projektportfolios, Programme und projektorientierte Unternehmen. 7., aktualisierte Auflage. Wien, München: Linde international.</li><li>• Timinger, Holger (2021): Modernes Projektmanagement in der Praxis. Mit System zum richtigen Vorgehensmodell. 1. Auflage. Weinheim: Wiley-VCH GmbH.</li></ul>

<b>Module C Self Management and Social Competence</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94031	English	1 semester	1 <sup>st</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
					<b>Contact Hours</b>	<b>Self-Study</b>	
	Self Management and Social Competence		mandatory course	45	60	120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> The students</p> <ul style="list-style-type: none"> <li>gain an understanding about Self-Management and Social Competence</li> <li>know relevant Theory about these topics</li> <li>know about the importance of Self-Management and socials competence on project management</li> </ul> <p><i>Application and Generation of Knowledge:</i> Students experience how they can ...</p> <ul style="list-style-type: none"> <li>motivate the team for your project</li> <li>implement group-dynamic models</li> <li>cope with difficult situations</li> <li>handle disturbances in projects</li> <li>have an impact on others</li> <li>expand their skills and self-image of project management</li> </ul> <p><i>Communication and Cooperation:</i> The students are able to</p> <ul style="list-style-type: none"> <li>use concepts of social competence in project management,</li> <li>evaluate social behaviour</li> <li>self-reflect their of own behavior</li> <li>observe, evaluate and apply the social context in a situation,</li> <li>develop self-awareness, self-confidence, self-assurance and self-actualisation and assist others in doing so.</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students are able to</p> <ul style="list-style-type: none"> <li>transform theoretical models to their own context</li> <li>reflect operational challenges of a project</li> <li>reflect upon own behavior</li> </ul>						
<b>3</b>	<b>Course Description and Course Structure</b>						
	<p>In an increasingly complex, globalised, and interdependent world, Self Management and Social Competence becomes more important.</p> <p>A core requirement before leading other is to know how to lead yourself. This module focuses on the</p>						

	<p>aspects of Self Management incl. time management and stressmanagement. Project management is teamwork. Therefore, social competence is an important factor for success. Especially any lack of social competence can cause serious problems and may lead to failure of the complete project. Therefore, aspects of social competence, which are especially relevant for project management (e.g. communication, leadership, team development, conflict management and motivational aspects) are taught. As some of these aspects will be taught in other courses (e.g. Self Management, Leadership &amp; Teams), this course adds the open aspects and integrates them all under the general roof of social competence.</p> <p>This course includes case studies and role play activities to develop skills and competences of students through real situations. The international orientation of the students is utilized to create case studies and role plays which are especially valid for European/ international projects.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Identification of one's own strengths and weaknesses</li> <li>• Self-Reflection about own behavior</li> <li>• Identification of work preferences</li> <li>• Identification of time savers and time wasters and how to deal with them</li> <li>• Finding one self's resources and use them</li> <li>• Define reachable goals and learn how to prioritize them</li> <li>• Communication</li> <li>• Leadership</li> <li>• Team development</li> <li>• Conflict management</li> <li>• Motivation</li> </ul>
<b>4</b>	<p><b>Teaching and Training Methods</b></p> <p>Lectures incl. practitioners' best practices, Interactive case studies, Seminar, Case studies, (Short) presentations, Results-oriented presentations in oral and written form</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Group work to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Role plays (videotaped for analysis) to experience, observe, evaluate and train behaviour in different contexts</li> <li>• Home work to add individual contributions</li> <li>• Presentations to communicate results</li> </ul>
<b>5</b>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: - Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 50% contributions within the course (paper - max. 10 pages, video – max. 5 minutes, case studies)</li> <li>• 50% presentation (max. 20 minutes).</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of assessment</p>
<b>8</b>	<p><b>Module/Course Mapping</b></p> <p>Business Management (MA)</p>
<b>9</b>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>

<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. André Dechange (module leader) Mathias Fritzen (lecturer)
<b>11</b>	<b>References</b> <ul style="list-style-type: none"><li>• AXELOS (2017): Managing Successful Projects with PRINCE2. London: The Stationery Office Ltd.</li><li>• International Project Management Association IPMA (2015): Individual Competence Baseline 4th version (ICB4)</li><li>• ISO (2012): ISO 21500 - Guidance on project management. Genf</li><li>• Christian Majer, Luis Stabauer (2010): social competence im Projektmanagement (in German), Goldegg Verlag</li><li>• Kerzner, Harold: Project Management (2017): A Systems Approach to Planning, Scheduling and Controlling, John Wiley</li><li>• Heckhausen, J., &amp; Heckhausen, H. (2008). Motivation and action. New York: Cambridge University Press, 2nd edition, 2008.</li><li>• International Project Management Association IPMA (2015): Individual Competence Baseline 4th version (ICB4)</li><li>• König, C. J., &amp; Kleinmann, M. (2006): Selbstmanagement. [Self-management]. In H. Schuler (Hrsg.), Lehrbuch der Personalpsychologie, 331–348. Göttingen: Hogrefe.</li><li>• Lee-Kelley, L., &amp; Loong, K. L. (2003): Turner's five-functions of project-based management and situational leadership in IT services projects. International Journal of Project Management, 21, 583–591.</li><li>• Norma C. Lang (2010): Group Work Practice to Advance Social Competence: A Specialized Methodology for Social Work, Columbia Univ</li><li>• Project Management Institute (2021): A guide to the project management body of knowledge (PMBOK guide) Seventh edition; Agile practice guide. Newtown Square, PA.</li><li>• Ronald Haccou, Ben Van Hamond 2006): Gaining &amp; Proving Yourself in Social Competence: The Atlas Way, Garant Uitgevers, N V</li></ul>

<b>Module D Transversal Skills</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94041	English	1 semester	1 <sup>st</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Transversal Skills		mandatory course	45	<b>Contact Hours</b> 60	<b>Self-Study</b> 120	4
<b>2</b>	<p><b>Learning Outcomes</b></p> <p><i>Knowledge and Understanding:</i> The students</p> <ul style="list-style-type: none"> <li>• know research methods and tools of the PM domain</li> <li>• know and understand the culture of different partner countries</li> <li>• have IT literacy in tools like MS Excel, Word and Powerpoint</li> <li>• know German vocabulary and grammar at least on A1 level</li> <li>• know English vocabulary and grammar at least on C1 level</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• apply research methods and tools of the PM domain</li> <li>• work in international and intercultural settings</li> <li>• use tools like MS Excel, Word and Powerpoint proficiently</li> <li>• speak, understand, read and write German at least on A1 level</li> <li>• speak, understand, read and write English at least on C1 level</li> </ul> <p><i>Communication and Cooperation:</i></p> <ul style="list-style-type: none"> <li>• Students can cooperate in a cross-border project with international students</li> <li>• Students can adapt and to cope with different European cultures</li> <li>• Students learn to communicate with people from different countries</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i></p> <ul style="list-style-type: none"> <li>• Students can plan and conduct scientific research in project management</li> <li>• Students are aware of their own cultural background and can interact with other cultural background adequately</li> </ul>						
<b>3</b>	<p><b>Course Description and Course Structure</b></p> <p>The module provides a set of several smaller training units to the students where they can choose in order to fill gaps from previous studies or add specific competences. 7 courses are offered in the winter term (according to availability). The intercultural training (see list below, No. 1) is mandatory for all students. Students have to choose 2 out of 4 optional training units (from No. 2-5). For students without at least German A1, the German course (No. 6) is mandatory. For German native speakers, another language course has to be concluded at least on A1 level (No. 7). More courses can be added according to the analysis of the needs:</p> <ol style="list-style-type: none"> <li>1. Intercultural Training (ICT): The intercultural training is intended to help the students to interact and work successfully with their teachers and peers at the university. It is conducted also as a</li> </ol>						

	<p>team building event for the new class in the first semester. It should motivate students for exchange with the partner universities.</p> <ol style="list-style-type: none"> <li>2. Research Methods and Tools – part A (RMT-A): Introduction to scientific methods and tools in the PM domain. Furthermore, analysis of relevant scientific trends and communities. Students can prepare for scientific work via the sequence of RMT-A and RMT-B plus a Research Seminar.</li> <li>3. Cross-Border Project A: During the November Master block week or a workshop at a partner university, projects with teams of students from several partners are formed. They conduct projects, e.g. on industry cases.</li> <li>4. ICDL-Excel: students who lack relevant IT skills can take part in the preparation courses for the International Computer Driver License (ICDL) at FH Dortmund and do the respective exams. The Excel course puts the focus on using Excel for business cases.</li> <li>5. ICDL-Powerpoint (including presentation training): students who lack relevant IT skills can take part in the preparation courses for the International Computer Driver License (ICDL) at FH Dortmund and do the respective exams. The Powerpoint course contains a presentation training, too.</li> <li>6. International Project Communication 1 e (German A1): A language certificate of German at least on level A1 has to be provided at the end of the semester. Respective courses are organized and embedded into the weekly schedule.</li> <li>7. International Project Communication 1 g (other language): For students with native German background (e.g. German/Austrian/Swiss citizens or students with a prior degree taught in German (e.g. “Bildungsinländer”), a language certificate in an additional language (e.g. French, Spanish, Chinese, etc.) at least on A1 level is required. In case of an English language certificate, C2 level is needed.</li> </ol>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <ol style="list-style-type: none"> <li>1. Intercultural Training (ICT): lectures and role plays</li> <li>2. Research Methods and Tools – part A (RMT-A): lecture</li> <li>3. Cross-Border Project A: project and presentation</li> <li>4. ICDL Excel: tool training</li> <li>5. ICDL Power Point: tool training</li> <li>6. International Project Communication 1 e (German A1): language training</li> <li>7. International Project Communication 1 g (other language A1 or English C2): language training</li> </ol>
<p><b>5</b></p>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: -</p> <p>Knowledge and Competencies: -</p>
<p><b>6</b></p>	<p><b>Assessment of Course</b></p> <ol style="list-style-type: none"> <li>1. Intercultural Training (ICT): oral or written exam (max 45 min)</li> <li>2. Research Methods and Tools – part A (RMT-A): homework (paper assignment, 6-10 pages)</li> <li>3. Cross-Border Project A: presentation (max 30 min) and discussion (max 30 min)</li> <li>4. ICDL Excel: written test (max 90 min)</li> <li>5. ICDL Power Point: written test (max 90 min)</li> <li>6. International Project Communication 1 e (German A1): language test (similar to Goethe Institute, ca. 1.5 h)</li> <li>7. International Project Communication 1 g (other language A1 or English C2): language test</li> </ol>
<p><b>7</b></p>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of at least 4 out of 6 courses</p> <p>The module is not graded, only pass/fail</p>

<b>8</b>	<b>Module/Course Mapping</b> none
<b>9</b>	<b>Weighting of Grade</b> The examination of the module “Transversal Skills” is graded as “passed” or “failed” (see § 10 (1) examination regulations (StgPO)).
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. Carsten Wolff
<b>11</b>	<b>References</b> Specific material for each course <ul style="list-style-type: none"> <li>• Saunders, Mark; Lewis, Philip; Thornhill, Adrian (2019): Research Methods for Business Students, 8th edition, Pearson</li> <li>• Pasian, Beverly; Turner, Rodney (Eds.) (2016): Design Methods and Practices for Research of Project Management, 1<sup>st</sup> edition, Routledge</li> <li>• Bryman, Alan; Bell, Emma (2011): Business research methods, 3rd Edition, Oxford University Press</li> <li>• Creswell, John W. (2022): Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 6<sup>th</sup> edition, Sage Publications</li> <li>• Easterby-Smith, Mark; Thorpe, Richard; Jackson, Paul R.(2012): Management research, 4<sup>th</sup> Edition, Sage Publications</li> <li>• Mayring, Philipp (2021): Qualitative content analysis, 1<sup>st</sup> Edition, Sage Publications</li> <li>• Jordan, Conor (2021): ICDL Excel: A step-by-step guide to spreadsheets using Microsoft Excel, independently published, ISBN-13: 979-8590402915</li> <li>• Jordan, Conor (2021): ICDL PowerPoint: A step-by-step guide to presentations using Microsoft PowerPoint, independently published, ISBN-13: 979-8590410163</li> </ul>



<b>Module E Quality Management and Standards</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94051	English	1 semester	1 <sup>st</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
					<b>Contact Hours</b>	<b>Self-Study</b>	
	a. Standards and Mainstreams b. Managing Quality in Projects		mandatory course	45	60	120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<b>a. Standards and Mainstreams</b>						
	<i>Knowledge and Understanding:</i>						
	After taking this course, students ...						
	<ul style="list-style-type: none"> <li>• can memorize the benefits of standardization,</li> <li>• can distinguish the terms “standard” and “norm”,</li> <li>• know the most important international project management standards, and ...</li> <li>• understand the structure and core concepts of these standards,</li> <li>• understand what “tailoring” means in the context of (project management) standards,</li> <li>• can memorize what project management maturity models (PMMM) are, understand how they are applied, and what is the link to standards,</li> <li>• can memorize certain frameworks for agile project management, such as SAFe, etc.,</li> <li>• know which are the most important project management certifications in the field.</li> </ul>						
	<i>Application and Generation of Knowledge:</i>						
	After taking this course, students ...						
	<ul style="list-style-type: none"> <li>• are able to select and recommend an international project management standard to an organization (company), based on its specific environment,</li> <li>• can describe criteria for the selection of a project management standard based on organizational requirements and context,</li> <li>• can describe the contents that an organizational project management standard should cover,</li> <li>• can develop an implementation strategy for an organizational project management standard.</li> </ul>						
	<i>Communication and Cooperation:</i>						
	After taking this course, students can discuss the advantages and disadvantages, selection process and implementation strategy concerning international project management standards in a professional environment / in an organization that wants to implement a project management standard.						
	<i>Scientific Self-Understanding / Professionalism:</i>						
	After taking this course, students understand the opportunities and limitations of organizational project management standards.						
	<b>b. Managing Quality in Projects</b>						
	<i>Knowledge and Understanding:</i>						
	After taking this course, students ...						
	<ul style="list-style-type: none"> <li>• understand the different facets of quality in projects,</li> </ul>						

- have a deep understanding of quality management principles and how they apply to project management,
- understand what a business process is, how it can be described/modelled and documented, and what can be strategies to analyse and optimise a business process,
- are able to remember what the main processes for managing quality in projects are,
- understand the responsibilities of project managers and project quality managers/ engineers with respect to the abovementioned processes.

*Application and Generation of Knowledge:*

After taking this course, students ...

- are well-versed in industry-specific quality standards and frameworks, allowing them to apply these standards effectively in project settings,
- are equipped to plan, execute, and control projects to meet or exceed quality standards, resulting in improved project outcomes and heightened client satisfaction,
- are proficient in identifying and mitigating quality-related risks, reducing the likelihood of rework or project failure,
- have honed their problem-solving skills, enabling them to effectively identify and address quality issues that may arise during projects.

*Communication and Cooperation:*

After taking this course, students understand the importance of effective communication and collaboration among project team members to ensure quality standards are met.

*Scientific Self-Understanding / Professionalism:*

After taking this course, students are able to identify the factors that influence / contribute to the quality of a given project/its results and outcomes, and to define structures of project quality management to address these factors.

**3 Course Description and Course Structure**

**a. Standards and Mainstreams**

The course commences with the explanation of general benefits of standardization. International Standardization Organization's (ISO) process of creating a new standard is explained. After that, the project management standards the course will cover are mentioned, as well as a morphological box that includes criteria for the selection and review of these standards.

The most important international project management standards are discussed in detail. The term and concept of "tailoring" (of a PM standard) is explained during this. Further standards and mainstreams such as the V Model are also introduced. What is more, students get acquainted with the concept of project management maturity modelling.

Another focus of the lecture is to review how established project management standards cover the topic of agile project management. Agile frameworks (e.g., SAFe, LeSS) are introduced, accordingly.

Finally, potential implementation strategies to create/adopt an organizational project management standard are outlined and discussed.

**b. Managing Quality in Projects**

The foundation of this course are the three facets of project quality, i.e., the quality of the product; the quality of the (contractor's) project management processes; and the quality of the B2B interaction. In addition, the course builds on a theoretical framework that consists of the plan-do-check-act cycle, models of customer satisfaction (the Kano model, for instance), and three levels of quality management,

	<p>i.e., quality management <u>philosophies</u> (e.g., Lean Management); QM <u>methods</u> (e.g., Failure Mode and Effect Analysis, FMEA); and QM <u>tools and techniques</u> (e.g., Ishikawa diagram).</p> <p>The students learn how the topic of managing quality in projects is treated in various project management standards. The role of a project quality manager is explained. An important element of the course is the introduction to the ISO 9000 family of standards and to what a Quality Management System (QMS) is. This also offers the opportunity to introduce the students to the topic of business process management (BPM), and to what types of business processes there are, how they can be described/documented, etc. While ISO 9001 represents the minimum requirements of a QMS, the concept of Total Quality Management – as a QM philosophy – strives for business excellence in quality management. During this, the EFQM Model for Business Excellence, and its counterpart in project management, the Project Excellence Model, are outlined.</p> <p>As another quality management philosophy, Lean Management is introduced. Emphasis is put on the idea of <i>Muda</i> (waste). Moreover, the students get acquainted with tools and techniques of Lean Management, such as Pareto analysis, and the Ishikawa diagram.</p> <p>A major part of quality management’s body of knowledge stems from technical environments, and from technical projects (product development in particular), accordingly. Methods and processes such as Quality Function Deployment (QFD, “house of quality”) are introduced. This is complemented by looking at quality from further angles and by showing how to manage quality in other kinds of environments (e.g., organization projects).</p> <p>Another cornerstone of the course is the topic of quality- (management-) related costs, and its various types.</p>
<b>4</b>	<p><b>Teaching and Training Methods</b></p> <p>As regards the teaching methods, face to face lecturing and dialogues/discussions, small exercises, and groups works (based on case examples) intertwine.</p>
<b>5</b>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: - Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 50% contributions within the course (compile artefact of quality management (e.g., project QM plan / concept for managing quality in a project), group work, presentations, case studies)</li> <li>• 50% written (60 min) or oral examination (appr. 20 min) at the end of the course</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of examination</p>
<b>8</b>	<p><b>Module/Course Mapping</b></p> <p>Business Management (MA)</p>
<b>9</b>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>
<b>10</b>	<p><b>Module Leader / Lecturer</b></p> <p>Prof. Dr. Jan Christoph Albrecht</p>
<b>11</b>	<p><b>References</b></p> <p><b>a. Standards and Mainstreams</b></p> <ul style="list-style-type: none"> <li>• AXELOS (2023): PRINCE2® 7. Author’s own publishing.</li> </ul>

- Centre of Excellence in Project Management (2021): PM<sup>2</sup> Project Management Methodology – Guide. Version 3.0.1. Brussels-Luxembourg: The European Commission, DIGIT, Centre of Excellence in Project Management / Author's own publishing.
- Dechange, André (2024): Projektmanagement – Schnell erfasst. 2nd edition. Berlin: Springer-Gabler.
- DIN 69901 (2009). Project management systems. Berlin: Beuth Verlag.
- Hällgren, M., Nilsson, A., Blomquist, T., & Söderholm, A. (2012): Relevance lost! A critical review of project management standardisation. *International Journal of Managing Projects in Business*, 5(3), 457-485.
- International Project Management Association (2015): Individual Competence Baseline. 4th version. Author's own publishing.
- ISO 21502 (2020): Project, Programme and Portfolio Management - Guidance on Project Management. Berlin: Beuth Verlag.
- Project Management Institute (2021). A Guide to the Project Management Body of Knowledge (PMBOK Guide). 7<sup>th</sup> edition. Newtown Square, PA: Author's own publishing.
- Schwaber, Kent, Sutherland, Jeff (2011): The Scrum Guide. [scrum.org](http://scrum.org).

## **b. Managing Quality in Projects**

- Bartsch-Beuerlein, Sandra (2000): Qualitätsmanagement in IT-Projekten – Planung, Organisation, Umsetzung. München-Wien: Carl Hanser Verlag.
- Bryde, D. J. (2003): Modelling project management performance. *International Journal of Quality & Reliability Management*, 20(2), 229–254. <https://doi.org/10.1108/02656710310456635>
- Cicmil, S. (2000): Quality in project environments: a non-conventional agenda. *International Journal of Quality & Reliability Management*, 17(4/5), 554–570. <https://doi.org/10.1108/02656710010298599>
- Gadatsch, Andreas (2023): Business Process Management – Analysis, Modelling, Optimization and Controlling of Processes. 1<sup>st</sup> edition. Berlin: Springer-Verlag.
- Hilton, R. J., & Sohal, A. (2012): A conceptual model for the successful deployment of Lean Six Sigma. *International Journal of Quality & Reliability Management*, 29(1), 54–70. <https://doi.org/10.1108/02656711211190873>
- Kerzner, Harold (2022): Project Management: A Systems Approach to Planning, Scheduling and Controlling. 13<sup>th</sup> edition. Hoboken: John Wiley.
- Linß, Gerhard (2011): Qualitätsmanagement für Ingenieure. München-Wien: Carl Hanser Verlag.
- Parast, M. M. (2011). The effect of Six Sigma projects on innovation and firm performance. *International Journal of Project Management*, 29(1), 45–55. <https://doi.org/10.1016/j.ijproman.2010.01.006>

<b>Module F International Communication and Change Management</b>						
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>	
940061	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6	
<b>1</b>	<b>Lecture</b>	<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
				<b>Contact Hours</b>	<b>Self-Study</b>	
	a. International Cooperation and Communication b. Change Management	mandatory course	45	60	120	4
<b>2</b>	<b>Learning Outcomes</b>					
	<p><i>Knowledge and Understanding:</i></p> <p>a. International Cooperation and Communication</p> <p>The students can...</p> <ul style="list-style-type: none"> <li>• explain the components of situations of interaction,</li> <li>• explain the relationship between role behaviour and situational context,</li> <li>• explain the understanding of role behaviours as the re-construction of mental processes through observing behaviour,</li> <li>• explain the role of culture in the attribution of meaning to situational contexts and role behaviours,</li> <li>• know German at least on A2 level.</li> </ul> <p>b. Change Management</p> <p>The students...</p> <ul style="list-style-type: none"> <li>• can explain core aspects of changes - types of changes, needs and reasons for change, aims of change,</li> <li>• can describe the role of change drivers, change opponents and change agents,</li> <li>• know the main characteristics of organizational change and individual change,</li> <li>• can describe the role of stakeholders in change management and their responsibilities, interests and impacts,</li> <li>• know how to manage a change process, how to deal with change requests,</li> <li>• can explain the impact analysis and sensitivity analysis,</li> <li>• can describe different change models (e.g., Levin, Kotter).</li> </ul> <p><i>Application and Generation of Knowledge:</i></p> <p>a. International Cooperation and Communication</p> <p>The students...</p> <ul style="list-style-type: none"> <li>• are able to analyze analyse descriptions of proto-typical situational contexts,</li> <li>• can analyse differences in the way cultures attribute meanings to situational contexts and role behaviours,</li> <li>• are able to optimise situational contexts for international cooperation,</li> <li>• can analyse their own and others' perspectives of situational contexts and role behaviours,</li> <li>• are able to analyse concrete situational contexts in which they interact with others,</li> <li>• apply their insights when managing project-related cooperation in international situational contexts,</li> </ul>					

	<ul style="list-style-type: none"> <li>• can speak, understand, read and write German at least on A2 level.</li> </ul> <p>b. Change Management</p> <p>The students...</p> <ul style="list-style-type: none"> <li>• are able to analyse the main reasons and perspectives of changes in selected cases,</li> <li>• can analyse the impact of changes by influence analysis and sensitivity analysis in selected cases,</li> <li>• are able to prepare change endeavours by using different models in selected cases,</li> <li>• can develop change management concepts for selected cases.</li> </ul> <p><i>Communication and Cooperation:</i></p> <p>a. International Cooperation and Communication</p> <p>The students...</p> <ul style="list-style-type: none"> <li>• can negotiate differences in the assessment of role behaviours,</li> <li>• can successfully participate in teams in a results-oriented fashion, and lead and coordinate such teams,</li> <li>• can present and defend team results in a complex and demanding environment,</li> <li>• communicate with people from different countries.</li> </ul> <p>b. Change Management</p> <p>The students...</p> <ul style="list-style-type: none"> <li>• reflect, discuss, and manage challenges of an organisation,</li> <li>• communicate Change Management approaches and frameworks in an organization.</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i></p> <p>a. International Cooperation and Communication</p> <p>The students...</p> <ul style="list-style-type: none"> <li>• are able to deeper understand their own and others' role behaviours,</li> <li>• have developed perspectives of situational contexts by escaping from the "ladder of inference",</li> <li>• have identified the challenges of international cooperation and can develop strategies to meet them,</li> <li>• have interpreted information about different cultures and can assess how cultures are likely to affect situational contexts in international projects,</li> <li>• have distinguished between personality characteristics and cultural characteristics and avoid stereotyping,</li> <li>• were aware of the emotional responses likely to emerge in situations of international cooperation and know how to deal with them.</li> </ul> <p>b. Change Management</p> <p>The students can...</p> <ul style="list-style-type: none"> <li>• have managed and transformed work or study contexts that are complex, unpredictable and require new strategic approaches,</li> <li>• have analysed the interplay between economic regulation and institutional framework and the strategic outline of a company and can derive an own mind on it,</li> <li>• have elaborated on independent projects and ideas and can do what is necessary to carry out a sustainable management initiative.</li> </ul>
<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p><b>a. International Cooperation and Communication</b></p> <p>In international projects, people from various cultures need to cooperate in a situational context, and in</p>

	<p>such a context, many differing views on values, methods, procedures and so forth come together in people's individual role behaviours. The essential co-ordination of role behaviours in an international project depends on an adequate understanding of such behaviours both in their verbal and non-verbal forms.</p> <p>People's role behaviour is influenced by the way they understand, and respond to, the situational context, and their perspective of this has as a rule been developed during their enculturation in a particular community. As a result, they are strongly influenced by the notions prevalent in their culture. Understanding other people's role behaviour can therefore not be separated from understanding cultural differences in the way people interpret and ascribe meaning to situational contexts.</p> <p>This course therefore focuses on the situational context of international projects, especially from differing cultural perspectives and their effects on role behaviours.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Matsumoto's template of situations</li> <li>• Senge and Argyris' Ladder of Inference</li> <li>• Human universals</li> <li>• Culture and personality</li> <li>• Understanding and assessing role behaviour</li> <li>• Understanding situational contexts</li> <li>• The meaning of settings</li> <li>• The roles of participants</li> <li>• The meaning of social roles</li> <li>• Expectations and emotions</li> <li>• The nature and role of normative behaviours</li> <li>• Different languages</li> </ul> <p><b>b. Change Management</b></p> <p>Project management and change management are closely interconnected.</p> <p>Projects are often initiated in response to the need for organizational changes. It is important to assess which specific changes an organization is willing and capable of implementing.</p> <p>Projects frequently bring about changes within organizations. It is crucial to evaluate the impact of projects on both organizations and all stakeholders involved.</p> <p>Change management encompasses both technical and organizational aspects, addressing changes in processes, roles, and responsibilities. Additionally, change management also has a human aspect. Project managers must ensure that individuals affected by a project are willing and able to adapt. In many cases, managing the human side poses greater difficulty and risk compared to the technical or organizational aspects.</p>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts and methods</li> <li>• Class discussions</li> <li>• Group work to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Homework to add individual contributions</li> <li>• Presentations to communicate results</li> </ul>



<b>5</b>	<p><b>Course Admittance Prerequisites</b>          Formal: -          Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b>          a. International Cooperation and Communication         <ul style="list-style-type: none"> <li>• 50 % contributions within the module (presentations, case study, tests)</li> <li>• Language Certificate</li> </ul>         b. Change Management         <ul style="list-style-type: none"> <li>• 25 % contributions throughout the term (presentations; case study; tests; homework) and 25 % written (max. 60 min.) or oral exam (max. 30 min.) at the end of the term</li> </ul> </p>
<b>7</b>	<p><b>Requirements For Award of Credits</b>          Successful completion of examination, presentation (individual / group)</p>
<b>8</b>	<p><b>Module/Course Mapping</b>          Business Management (MA)</p>
<b>9</b>	<p><b>Weighting of Grade</b>          5,4 % (6/84) x 75</p>
<b>10</b>	<p><b>Module Leader / Lecturer</b>          Prof. Dr. Jan Christoph Albrecht          Dr. De Jongste (lecturer)          Associate Prof. Dr. Rao Aamir Ali Khan (lecturer)</p>
<b>11</b>	<p><b>References</b></p> <p><b>a. International Cooperation and Communication</b></p> <ul style="list-style-type: none"> <li>• Matsumoto, David (2007): Culture, Context, and Behavior, <i>Journal of Personality</i>, 75(6), 1285-1319.</li> <li>• Burgoon, Judee K.; Ebesu Hubbard, Amy S. (2005): Cross-cultural and intercultural applications of expectancy violations theory and interaction adaptation theory. In Gudykunst, William B.: <i>Theorizing about intercultural communication</i>. Sage: 149–171.</li> <li>• Nishida, Hiroko: Cultural schema theory. In: Gudykunst, William B. (Ed.) (2005): <i>Theorizing about intercultural communication</i>. SAGE: 2005, 401–418.</li> <li>• Bhagat, Rabi S.; Steers, Richard M. (eds.) (2009): <i>Cambridge Handbook of Culture, Organizations, and Work</i>. Cambridge University Press</li> <li>• Boutyline, A., &amp; Soter, L. (2021). Cultural schemas: what they are, how to find them, and what to do once you’ve caught one. <i>American Sociological Review</i>, 86(4), 728–758.  <a href="https://doi.org/10.1177/00031224211024525">https://doi.org/10.1177/00031224211024525</a></li> <li>• Hofstede, Geert; Hofstede, Gert Jan; Minkov, Michael (2010): <i>Cultures and Organizations: Software for the Mind</i>, Third Edition. Mc-Graw-Hill</li> <li>• Nakata, Cheryl (ed.): <i>Beyond Hofstede (2009): Culture Frameworks for Global Marketing and Management</i>. Palgrave</li> <li>• Tomalin, Barry; Nicks, Mike (2010): <i>The World's Business Cultures and How to Unlock Them</i>, Second Edition. Thorogood</li> </ul> <p><b>b. Change Management</b></p> <ul style="list-style-type: none"> <li>• AXELOS (2017): <i>Managing Successful Projects with PRINCE2</i>. London: The Stationery Office Ltd.</li> <li>• Cameron, E., &amp; Green, M. (2022). <i>Making sense of change management: A Complete Guide to the Models, Tools and Techniques of Organizational Change</i>. Kogan Page.</li> </ul>



- Cummings, T. G., & Worley, C. G. (2018). Organization Development & Change (11th ed.). Cengage Learning. South-Western Pub.
- Dallas, M., & Clackworthy, S. (2010). Management of value. The Stationery Office.
- International Project Management Association IPMA (2015): Individual Competence Baseline 4th version (ICB4)
- Kotter, J. P. (2012). Leading change. Harvard Business Press.
- Kotter, J. P. et. al. (2005): Harvard Business Review on Change, Harvard Business School Press
- Project Management Institute (2021): A guide to the Project Management Body of Knowledge (PMBOK Guide) (7th ed.); Agile practice guide. Newtown Square, PA
- Senge, P. M. (2006). The fifth discipline: The Art & Practice of The Learning Organization. National Geographic Books.
- Trompenaars, F., Trompenaars, A., & Prud'Homme, P. (2004). Managing change across corporate cultures. Capstone.

Module G Digital Transformation						
Number	Language	Duration	Semester	Frequency	ECTS	
94071	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6	
1	Lecture	Type of Course	Planned Group Size	Workload		SWS
	Digital Transformation	mandatory course	45	Contact Hours	Self-Study	4
	60	120				
2	Learning Outcomes					
	<p><i>Knowledge and Understanding:</i> The students</p> <ul style="list-style-type: none"> <li>• know about digital transformation, digitalization and digitization</li> <li>• understand the characteristics of digital transformation and digital transformation projects</li> <li>• know relevant digital technology trends and their influence on the digital transformation</li> <li>• understand digital business models</li> <li>• know relevant IT tools for project management and project collaboration</li> <li>• know the basics of Scrum</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• analyze digital transformation processes</li> <li>• plan digital transformation projects</li> <li>• cooperate in virtual collaboration environments</li> <li>• use IT tools for project management</li> <li>• can manage their team's online work with Scrum</li> </ul> <p><i>Communication and Cooperation:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• cooperate in a virtual team via collaboration tools</li> <li>• present and defend individual and team results in a complex environment</li> <li>• handle complexities while working in international teams</li> <li>• engage effectively in discussions concerning the relevance and appropriateness of different management models and frameworks, both in general academic terms and in project situations and environments</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• develop an educated judgement on the relevance, influence, chances and risks of the digital transformation in business and society contexts</li> <li>• assess the influence of digital technology trends on the digital transformation of products, services, business models and organizations</li> <li>• take decisions on the setup of IT environment for project management based on their judgement and on team consensus.</li> <li>• work in a virtual team under pressure of time and make decisions in the team</li> </ul>					

<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p>This course addresses two aspects related to project management and digital transformation. The first aspect is that the digital transformation is conducted to a large extent by doing digital transformation projects (DTP). The digital change is planned, organized, managed and executed with projects. Therefore, prospective project managers need to understand the basic concepts of the digital transformation as a major trend. They need to know what they manage to be successful.</p> <p>The second aspect is that the digital transformation has implications on the processes, methods and tools in project management. Projects are managed by using digital tools and by establishing virtual organizations. Digital tools enable project managers to work in a new way which is often much more agile than in the past. The competence for using such tools and selecting the right IT environment for a project is crucial.</p> <p>The course covers 5 areas:</p> <ol style="list-style-type: none"> <li>1. Introduction to Digital Transformation: Digital Transformation as a phenomenon and trend is explained and compared with other trends, especially Digitalization/IT Automation</li> <li>2. Digital Technology Trends – Development of a Wiki on Digital Technologies: Student teams research on relevant digital trends (e.g. AI, Industry 4.0, eCommerce, digital education) and document their research in a wiki. The results are presented and discussed in the plenary.</li> <li>3. Digital Transformation Projects (DTP) – Planning Study of a DTP based on a case: Students are introduced to the planning and development of a DTP. Based on a case, they develop the planning for a DTP and present and discuss it in the plenary. The planning task is conducted as a team project over 2 months in agile sprints using Scrum.</li> <li>4. Characteristics and Challenges of Digital Change: A specific focus is put on the change management aspects of the digital transformation.</li> <li>5. IT Tools for Project Management: The students participate in a Scrum training and in 4 IT-Tools Trainings (e.g. Atlassian Jira, Atlassian Confluence, MS Teams, MS Planner, MS Project). Each training unit covers 2-3 hours.</li> </ol>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>Students will be introduced to technologies, processes, methods and tools by lectures and online-material (e.g. tutorial). They will gain practical skills by using IT tools.</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Group work in developing a wiki on a selected digital technology trend, presentation in a recorded video or a quiz</li> <li>• 5 training units on Scrum and 4 IT tools for project management</li> <li>• Team project (project simulation using Scrum) for the development of a concept and plan for a digital transformation project (DTP) based on a selected case study</li> <li>• Presentations to communicate results</li> </ul>
<p><b>5</b></p>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: - Knowledge and Competencies: -</p>
<p><b>6</b></p>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 20% on the digital technology wiki and group presentation</li> <li>• 30% on the 5 training units (individual online tests)</li> <li>• 30% on the group presentation of the digital transformation project</li> <li>• 20% oral examination at the end of the course (max 30 min)</li> </ul>

<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of examinations (individual) and presentations (group)
<b>8</b>	<b>Module/Course Mapping</b> Business Management (MA)
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. Christian Reimann Prof. Dr. Carsten Wolff
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• Herbert, Lindsay (2017): Digital Transformation: Build Your Organization's Future for the Innovation Age, Bloomsbury Business, 1st edition, 2017</li> <li>• Zimmermann, Alfred; Schmidt, Rainer; Jain, Lakhmi (2021): Architecting the Digital Transformation - Digital Business, Technology, Decision Support, Management, Intelligent Systems Reference Library 188, Springer</li> <li>• Perkin, Neil (2019): Agile Transformation: Structures, Processes and Mindsets for the Digital Age, 1st edition, Kogan Page</li> <li>• Raskino, Mark; Waller, Graham (2016): Digital to the Core: Remastering Leadership for Your Industry, Your Enterprise, and Yourself, 1st edition, Routledge</li> <li>• Schallmo, Daniel R.A.; Williams, Christopher A. (2018): Digital Transformation Now! Guiding the Successful Digitalization of Your Business Model, SpringerBriefs in Business, Springer</li> <li>• Vial, Gregory (2019): Understanding digital transformation: A review and a research agenda, The Journal of Strategic Information Systems, Volume 28, Issue 2, Elsevier</li> <li>• Verhoef, Peter C.; Broekhuizen, Thijs; Bart, Yakov; Bhattacharya, Abhi; Qi Dong, John; Fabian, Nicolai; Haenlein, Michael (2021): Digital transformation: A multidisciplinary reflection and research agenda, Journal of Business Research, Volume 122, Elsevier</li> <li>• Barthel, Philipp; Hess, Thomas (2020): Towards a characterization of digitalization projects in the context of organizational transformation. Pacific Asia Journal of the Association for Information Systems, 12(3)</li> <li>• Ries, Eric (2011): The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, 1st edition, Currency,</li> <li>• Ustundag, Alp; Cevikcan, Emre (2018): Industry 4.0: Managing The Digital Transformation, 1st edition, Springer Series in Advanced Manufacturing</li> </ul>

Module H Leadership & Teams						
Number	Language	Duration	Semester	Frequency	ECTS	
94081	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6	
1	Lecture	Type of Course	Planned Group Size	Workload		SWS
	Leadership & Teams	mandatory course	45	Contact Hours	Self-Study	4
	60	120				
2	Learning Outcomes					
	<p><i>Knowledge and Understanding:</i></p> <p>The students</p> <ul style="list-style-type: none"> <li>• know key functions of Human Resource Management and their impact on the project's success (like recruitment/resourcing, selection, performance management, training and development),</li> <li>• understand the importance and crucial role of leadership in Project Management and how to cope with it successfully,</li> <li>• know the demands on leaders in Project Management, respective leadership models and vital theories of motivation,</li> <li>• understand the importance and crucial role of team building and development in Project Management and how to design it successfully,</li> <li>• know key teambuilding models and team developing concepts.</li> </ul> <p><i>Application and Generation of Knowledge:</i></p> <p>The students</p> <ul style="list-style-type: none"> <li>• can manage varying HR-specific challenges in projects by using adequate tools and methods in different HR functions (e. g. identifying required HR competencies, conducting a job analysis/job description, resourcing appropriate project employees, selecting the right people, conducting performance management, developing project members),</li> <li>• apply different leadership styles and leadership roles suitable for the situation and the respective team members,</li> <li>• apply different communication styles and tools depending on the target group and the content,</li> <li>• apply different team building and team developing approaches and adapt them to specific situations,</li> <li>• can lead and manage diverse teams successfully based on current methods and tools.</li> </ul> <p><i>Communication and Cooperation:</i></p> <p>The students</p> <ul style="list-style-type: none"> <li>• can handle work or study contexts that are complex, unpredictable and require new strategic approaches,</li> <li>• apply how to cope with complexities while working in diverse international teams,</li> <li>• discuss and try different approaches (e. g. leadership styles) and provide feedback to one another,</li> <li>• improve cooperation in and among groups while applying appropriate theoretical basics, methods, and tools,</li> </ul>					

	<ul style="list-style-type: none"> <li>persuasively present individual and team results that refer to complex and demanding assessments/conditions.</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students</p> <ul style="list-style-type: none"> <li>are able to try, apply and further develop key functions of Human Resource Management with regard to Project Management,</li> <li>link their personal work experiences and business knowledge, as part of their professional development, with the specifics of leadership and teams in Project Management and discuss how to handle potential challenges successfully,</li> <li>reflect themselves in their future project management role to develop individually consistent leadership approaches, -roles and -styles in Project Management,</li> <li>try, apply and further develop team management concepts and leadership skills to enable them to become leaders capable of managing major projects and programs in international, complex strategic contexts.</li> </ul>
<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <ul style="list-style-type: none"> <li>Introduction: Specifics of Human Resource Management in projects</li> <li>Key functions of Human Resource Management in projects: Resourcing, selection, performance management, training and development,</li> <li>Leadership styles, leadership communication</li> <li>Specific demands on leaders in Project Management (including different settings, e. g. Hybrid Project Management and remote leadership),</li> <li>Selected theories of motivation and their application in a Project Management context,</li> <li>Team building models and team development concepts and their implementation in Project Management.</li> </ul> <p>Leadership in projects without having disciplinary responsibility is probably one of the most challenging leadership roles you can take in organizations. However, even today this role is often still underestimated.</p> <p>Knowledge about key functions in Human Resource Management is one essential basis for professionalizing the leadership role in Project Management: Team members for projects must be resourced and selected carefully, assessed in a coherent performance management system, and developed accordingly.</p> <p>Furthermore, there are various demands on leaders in Project Management who do not have disciplinary responsibility. The execution of leadership styles shapes the framework of collaboration within a project and is a crucial factor for every project’s effectiveness and success.</p> <p>Building and developing coherent project teams is another key success factor.</p> <p>This course aims to familiarize students with current key functions in Human Resource Management that are vital in Project Management. It illustrates and elaborates how students can apply knowledge and skills about leadership, motivation, teambuilding, and team development for own future projects - including the respective recent research fields.</p>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>Lectures incl. practitioners’ best practices, group working activities, interactive case studies, role plays, and, where appropriate, results-oriented presentations in oral and written form</p> <ul style="list-style-type: none"> <li>Lectures introducing theoretical frameworks, concepts, methods, and tools,</li> </ul>

	<ul style="list-style-type: none"> <li>• Group work to practice and reflect on concepts and methods, to apply and develop skills and to work on case studies,</li> <li>• Homework to add individual contributions.</li> <li>• Presentations for communication, discussion, and reflection of results</li> </ul>
<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: -
<b>6</b>	<b>Assessment of Course</b> <ul style="list-style-type: none"> <li>• Examination (60 minutes) (75%) and</li> <li>• Continuous assessment (coursework assignment – 5 pages, presentation – 30 min.) (25%)</li> </ul>
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of examination, and successful continuous assessment (individual / group)
<b>8</b>	<b>Module/Course Mapping</b> Business Management (MA)
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. Sabine Kiunke
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• Dessler, Gary (2020): Human Resource Management, 16th Edition, Upper Saddle River/New Jersey</li> <li>• International Project Management Association IPMA (2015): Individual Competence Baseline 4th version (ICB4)</li> <li>• Lee, Margaret R. (2021): Leading Virtual Project Teams. Adapting Leadership Theories and Communications Techniques to 21<sup>st</sup> Century Organizations, 2<sup>nd</sup> edition, New York</li> <li>• Project Management Institute (2021): A guide to the project management body of knowledge (PMBOK guide) 7<sup>th</sup> edition; Agile practice guide. Newtown Square, PA: Project Management Institute</li> </ul>

<b>Module I Multi-Project Management</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94091	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Multi-Project Management		mandatory course	45	<b>Contact Hours</b> 60	<b>Self-Study</b> 120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> The students are able</p> <ul style="list-style-type: none"> <li>to explain the core concepts of projects, programs, and portfolios</li> <li>to describe the characteristics of Multi Project Management</li> <li>to describe the characteristics of Project Portfolio Management</li> <li>to describe the characteristics and roles of PMO (Project Management Office)</li> <li>to explain the core concepts of scaled agility</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>analyse programs and portfolios,</li> <li>develop elementary programs and portfolios,</li> <li>apply selected methods and tools for program and portfolio management - regarding project evaluation and prioritization</li> <li>develop concepts for different organization of a projects (agile, traditional, hybrid)</li> <li>solve the problems a.m. different type of project organisations</li> <li>design a PMO (Project Management Office).</li> </ul> <p><i>Communication and Cooperation:</i> The students are able to</p> <ul style="list-style-type: none"> <li>lead and coordinate large, interdisciplinary and international project teams in different types of organisation,</li> <li>present and prudently defend team results in a complex and demanding environment,</li> <li>improve cooperation among human resource in projects and organizations based upon appropriate policies and strategies,</li> <li>handle complexities while working in temporary organisation,</li> <li>develop team competencies among the members,</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students can/know/apply</p> <ul style="list-style-type: none"> <li>manage and transform work or study contexts that are complex, unpredictable and require new approaches,</li> <li>reflect operational challenges of a project, programs, portfolios in a temporary and permanent organisation,</li> </ul>						



<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p>Multi Project Management (MPM) encompasses all management activities for selection, prioritisation, planning, balancing, and controlling several projects in an organization.</p> <p>The portfolio of a company in the sense of Project Portfolio Management (PPM) is a collection of components (projects, programs, other work to be done) to reach the strategic business objectives of the company.</p> <p>Programs are collections of components (projects, other work to be done) with a common goal.</p> <p>Agile approaches on Multi project Management level as LeSS (Large Scale Scrum) and SAFe (Scaled Agile Framework) are part of the content.</p> <p>The course considers developments in Multi project management from different points of view, e.g. standardization, research, agile. The course follows the standards of PMI, Axeloss, and IPMA.</p> <p>This course deals with:</p> <ul style="list-style-type: none"> <li>• Main characteristics of Multi-project Management</li> <li>• Differentiation from Portfolio Management and programs</li> <li>• Different functions and areas of MPM, e.g. Resource Management</li> <li>• Characteristics and concept of Project Portfolio Management</li> <li>• Organisation and standardization of MPM (e.g. IPMA (OCB, PEB, ICB, PCB); PMI (PMBOK, OPM), Anxelos (MoP, P3M3,P3O),</li> <li>• Agile multi-project management approaches (e.g. LeSS and SAFe)</li> <li>• Maturity Models</li> <li>• The PMO concept</li> </ul>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>Lectures incl. practitioners' best practices, seminar, case studies, (short) presentations, Results-oriented presentations in oral and written form</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Group work to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Home work to add individual contributions</li> <li>• Presentations to communicate results</li> </ul>
<p><b>5</b></p>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: - Knowledge and Competencies: Project Management Fundamentals (Modul A)</p>
<p><b>6</b></p>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 50% contributions within the course (homework, group work, presentations, case studies, tests)</li> <li>• 50% written (max. 60 min.) or oral (max. 30 min.) examination at the end of the course</li> </ul>
<p><b>7</b></p>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of assesement</p>
<p><b>8</b></p>	<p><b>Module/Course Mapping</b></p> <p>–</p>
<p><b>9</b></p>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>
<p><b>10</b></p>	<p><b>Module Leader / Lecturer</b></p> <p>Prof. Dr. André Dechange</p>

## 11 References

- AXELOS, (2017): Managing Successful Projects with PRINCE2. London: The Stationery Office Ltd.
- Bea, F.X.; Scheurer, S.; Hesselman, S. (2020): Projektmanagement (3rd ed.), Konstanz und München
- Brown, J. T. (2014). The Handbook of Program Management: How to Facilitate Project Success with Optimal Program Management, (2nd ed.). McGraw-Hill Education.
- Dechange, A., & Friedrich, B. (2013): Multiprojektmanagement in der Energiewirtschaft In: C. Lau, A. Dechange, T. Flegel (Hrsg.): Projektmanagement im Energiebereich, Springer Verlag, Wiesbaden, S. 101 – 124
- Dechange, A.; Lau, C. (2008): Effiziente und erfolgreiche Implementierung von Projekt Management Offices In: Steinle, Eßeling und Eichenberg (Hrsg.) (2010): Handbuch Multiprojektmanagement und –controlling – Projekte erfolgreich strukturieren und steuern. (2nd ed.). Erich Schmidt Verlag, S. 69 – 86
- Dechange, A. (2020): Projektmanagement – Schnell erfasst, Springer Gabler
- Kendall, G. I., & Rollins, S. C. (2003). Advanced project portfolio management and the PMO: Multiplying ROI at Warp Speed. J. Ross Publishing.
- Levin, G., & Green, A. R. (2013). Implementing program management: Templates and Forms Aligned with the Standard for Program Management, (3rd ed.). Auerbach Publications.
- Hill, G. M. (2013): The Complete Project Management Office, (3rd ed.). Auerbach Publications
- International Project Management Association IPMA (2015): Individual Competence Baseline 4th version (ICB4)
- Milosevic, D. Z., Patanakul, P., & Srivannaboon, S. (2010). Case studies in project, program, and organizational project management. John Wiley & Sons.
- Project Management Institute (2017): The Standard for Portfolio Management (4th ed.), Newtown Square, PA
- Project Management Institute (2021): A guide to the project management body of knowledge (PMBOK guide) (7th ed.); Agile practice guide. Newtown Square, PA

<b>Module J/K/L Agile Management in Virtual Project Environments</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94305	English	1 semester	3 <sup>rd</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
					<b>Contact Hours</b>	<b>Self-Study</b>	
	Agile Management in Virtual Project Environments		elective course	30	60	120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> The students</p> <ul style="list-style-type: none"> <li>• understand core issues of agile projects</li> <li>• know software development and deployment concept and processes, e.g. DevOps, CI/CD</li> <li>• can explain methods for user participation in the software development process</li> <li>• understand cooperation in virtual teams with collaboration tools</li> <li>• can explain and compare methods for managing agile projects, esp. Scrum, Kanban</li> <li>• explain and compare workflows and design flows for agile projects</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• conduct a software development project in an agile team, using scrum in a virtual collaboration setting</li> <li>• apply tools for management of software development projects</li> <li>• develop tailored processes for managing software development projects</li> <li>• define the team roles, especially Scrum Master and Product Owner</li> <li>• setup IT environments for collaboration in virtual teams</li> </ul> <p><i>Communication and Cooperation:</i> The students</p> <ul style="list-style-type: none"> <li>• are able to cooperate in a virtual team via online collaboration tools</li> <li>• develop an agile mindset</li> <li>• can handle complexities while working in groups</li> <li>• are able to present and defend team results in a complex virtual environment</li> <li>• develop team competencies among the members</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• perform successfully in an agile virtual team and accomplish tasks</li> <li>• reflect on team situations, resulting issues and ways to solve such issues</li> <li>• cooperate with team of software developers (from other Master's programme) and manage interdisciplinary work successfully</li> <li>• manage teams and projects in intercultural and international settings</li> <li>• compile findings and literatures reviews into scientific papers on virtual team collaboration in agile cross-border projects</li> </ul>						

<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p>This course offers students a systematic approach to the management of software development projects. Specifically, the development of software in virtual team environments using agile methodology is considered. This is part of Software Engineering Methodology, User Centered Design Methodology and Project Management Methodology. The intention of the course is to prepare the students on managing complex software development. The focus is the introduction of modern software development processes and the discussion of the implication of these processes on project management. One core aspect is the consideration of the recent and ongoing research on virtual collaboration in cross-border teams. In this course, students get mixed with students from Master Digital Transformation (MDT) which are performing the roles of the software development team. The corresponding course in MDT is called “R&amp;D Project Management”.</p> <p>The module has 3 core elements:</p> <p><b>1. Introduction to Software Engineering Processes (lectures)</b></p> <p>1.1 Introduction to Agile Software Development (SW) Projects  1.2 Refresher Course on Scrum  1.3 Software Engineering Methodology, esp. DevOps, CI/CD  1.4 User Centered Design</p> <p><b>2. Project Simulation of an Agile SW Development Project in a virtual setting (team project)</b></p> <p>2.1 Setting up the team and assigning the roles, especially Scrum Master and Product Owner (based on a Belbin Test for all team members and reflection on own team/project personality)  2.2 Developing an idea for a mobile app (based on a selection of cases) and pitching of the idea and the project planning as a kick-off event.  2.3 Conducting 2 months of (weekly) sprints, documentation and review of project artefacts  2.4 Demonstration of a klick prototype and final project review</p> <p><b>3. Research Seminar on virtual collaboration in agile cross-border SW development projects</b></p> <p>3.1 Introduction to scientific methodology, especially literature reviews and paper writing  3.2 Review and discussion of the recent research in the field, selection of topics for own paper  3.3 Preparation of a scientific paper in group work (ca. 2 months)  3.4 Peer review of the papers and assessment  3.5 (if possible) submission to a scientific conference and presentation</p>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>Students will be guided through a case study project. They form agile teams and collaborate in the project execution via IT tools. In addition, they write a scientific paper as group work.</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Project simulation (agile, virtual SW development projects with Scrum) on the case study of a mobile app development, in mixed teams with SW developers from another international Master’s programme. Several sprints are conducted over 2 months time. Review meetings with teachers and 2 reviews in the plenary.</li> <li>• Group work on writing a scientific paper, peer review by students and teachers</li> <li>• Presentations to communicate results</li> </ul>
<p><b>5</b></p>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: -  Knowledge and Competencies: project management, especially agile methods (Scrum)</p>

6	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 50% project presentation (team presentation) and oral (individual) discussion</li> <li>• 20% written examination or online test (individual) at the end of the course (max 90 min)</li> <li>• 20% assessment (peer review) of the scientific paper (group work, 6-10 pages)</li> </ul>
7	<p><b>Requirements For Award of Credits</b> Successful completion of examination (individual), presentation (group) and paper (group)</p>
8	<p><b>Module/Course Mapping</b> Digital Transformation (MSc) – for the module “R&amp;D Project Management”</p>
9	<p><b>Weighting of Grade</b> 5,4 % (6/84) x 75</p>
10	<p><b>Module Leader / Lecturer</b> Prof. Dr. Carsten Wolff Prof. Dr. Christian Reimann</p>
11	<p><b>References</b></p> <ul style="list-style-type: none"> <li>• Breyter, Mariya (2022): Agile Product and Project Management: A Step-by-Step Guide to Building the Right Products Right, 1st ed. Edition, Apress</li> <li>• Rose, Robert F. (2022): Software Development Activity Cycles: Collaborative Development, Continuous Testing and User Acceptance, 1st ed. Edition, Apress</li> <li>• Schwaber, Ken; Sutherland, Jeff (2020): The Scrum Guide - The Definitive Guide to Scrum: The Rules of the Game, online <a href="https://www.scrum.org/resources/scrum-guide">https://www.scrum.org/resources/scrum-guide</a></li> <li>• Martin, Robert C. (2014): Agile Software Development, Principles, Patterns, and Practices, First Edition, Pearson New International Edition, Pearson</li> <li>• Atlassian: The Agile Coach: <a href="https://www.atlassian.com/agile">https://www.atlassian.com/agile</a>, last visited March 31, 2024</li> <li>• Agile Alliance: <a href="https://www.agilealliance.org/">https://www.agilealliance.org/</a>, last visited March 31, 2024</li> <li>• Scrum.org: <a href="https://www.scrum.org/">https://www.scrum.org/</a>, last visited March 31, 2024</li> <li>• Scrum Alliance: <a href="https://www.scrumalliance.org/">https://www.scrumalliance.org/</a>, last visited March 31, 2024</li> <li>• Scaled Agile Framework, SAFe 6.0: <a href="https://scaledagileframework.com/">https://scaledagileframework.com/</a>, last visited March 31, 2024</li> <li>• Project Management Institute (PMI) (2017): Agile Practice Guide, online <a href="http://www.pmi.org">www.pmi.org</a></li> <li>• International Project Management Association (IPMA) (2018): IPMA Reference Guide ICB4 in an Agile World, online <a href="http://www.ipma.world">www.ipma.world</a></li> <li>• Lous, Pernille; Kuhrmann, Marco; Tell, Paolo (2017): Is Scrum Fit for Global Software Engineering? 2017 IEEE 12th International Conference on Global Software Engineering (ICGSE), IEEE Xplore</li> <li>• Hummel, Markus; Rosenkranz, Christian; Holten, Roland (2013): The Role of Communication in Agile Systems Development - An Analysis of the State of the Art, Business &amp; Information Systems Engineering 5</li> <li>• Šmite, Darja; Moe, Nils Brede; Gonzalez-Huerta, Javier (2021): Overcoming cultural barriers to being agile in distributed teams. Information and Software Technology, 138</li> <li>• Saunders, Mark; Lewis, Philip; Thornhill, Adrian (2019): Research Methods for Business Students, 8<sup>th</sup> edition, Pearson</li> </ul>

<b>Module J/K/L Digital Business Ecosystems</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94300	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Digital Business Ecosystems		elective course	30	<b>Contact Hours</b>	<b>Self-Study</b>	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> Students</p> <ul style="list-style-type: none"> <li>• can explain process models for developing digital business ecosystems.</li> <li>• can explain techniques for designing digital business ecosystems.</li> <li>• can explain the application of prototypes for the design of digital business ecosystems.</li> <li>• can explain design patterns for digital business models and digital systems .</li> <li>• can contrast design patterns for digital business models and digital systems in terms of their advantages and disadvantages for the design of a digital business ecosystems.</li> </ul> <p><i>Application and Generation of Knowledge:</i> Students</p> <ul style="list-style-type: none"> <li>• can plan the development of a digital business ecosystem.</li> <li>• can create a design of digital business ecosystem.</li> <li>• can create initial prototypes of digital business ecosystems.</li> <li>• can critically comment on and discuss a given design for a digital business ecosystem regarding its quality.</li> <li>• can explain the structures and the organization of of a given digital business ecosystem in terms of system structure and business model.</li> <li>• can critically comment on ethical and social issues of given digital business ecosystems.</li> </ul> <p><i>Communication and Cooperation:</i> Students are able to</p> <ul style="list-style-type: none"> <li>• develop and discuss concepts in teams.</li> <li>• develop an attitude towards digitization in from a system theory perspective.</li> <li>• achieve effectiveness and efficiency in analyzing and assessing the effects of digitization in different systems.</li> <li>• handle complexities while working in groups.</li> <li>• present and prudently defend team results in a complex and demanding environment.</li> <li>• develop team competencies among the members.</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> Students</p> <ul style="list-style-type: none"> <li>• are able to work in teams and set up DBE environments for their respective case study project.</li> <li>• can manage and transform work or study contexts that are complex and require new strategic approaches.</li> </ul>						

	<ul style="list-style-type: none"> <li>• can reflect operational challenges of a project in the background of digitization.</li> <li>• are able to work out independent projects and ideas.</li> </ul>
<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p>The term “Digital Business Ecosystem” (DBE) emerged beginning of the 2000s by adding “Digital” to Moore’s (1996) “Business Ecosystem” concept. The analysis, structuring, development and management of DBEs combine socio-economic concepts, ICT and cybernetic concepts.</p> <p>1. Fundamentals</p> <p>1.1 Business/value perspective: Ecosystems should create added value or business value. In this lecture, the perspectives business/business value and added value will be considered.</p> <p>1.2 Systems and ecosystems: The perspective of ecosystems is a form of systemic thinking and therefore a different perspective than the pure perspective on a company or a business process. The basics of systemic thinking are therefore taught and practiced in this lecture.</p> <p>1.3 Analogue vs. digital business ecosystems: This lecture will focus on understanding DBEs as a whole. The important keyword is digital and the question of what digital means in the context of ecosystems and what is the difference to analogue business ecosystems.</p> <p>1.4 Technological drivers of digital ecosystems: Technological developments in recent years have produced a number of drivers that have a significant influence on the design and possibilities of digital ecosystems. These technological drivers will be examined and discussed in this lecture.</p> <p>2. Design</p> <p>2.1 Design techniques: To describe a design for a DBE, techniques (means of description) are required to describe the solution (economic perspective) and the system (technical perspective). These techniques will be introduced and practiced in this lecture.</p> <p>2.2 Patterns for business models: A number of patterns exist with regard to business models/added value through DBEs. These patterns will be discussed in this lecture.</p> <p>2.3 Patterns for digital systems: As with business models, there are also patterns for the structure of technical systems of DBE s. These patterns will be discussed in this lecture.</p> <p>3. Process</p> <p>3.1 Scoping / Case for action: The first step in designing a DBE is to clarify the vision and the solution space. This lecture will look at the different perspectives of clarifying the vision from a design perspective.</p> <p>3.2 Conceptual work and evaluation: Before the actual realization of a DBE can begin, a concept must be created and evaluated. In this lecture, a concept development and evaluation appaoach is taught and practiced.</p> <p>3.3 Development and operation: The realization of a DBE can take place in different ways. In this lecture, three process models are considered as categories for different philosophies to approach the development and operation of a DBE.</p>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>Students will be introduced to the relevant topics and to literature for further reading. Students will be guided through a case study project where they set up a small DBE for an example case. They form teams and set up IT tools.</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Group work in the case study project to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Presentations to communicate results and do a scientific discussion and reflection</li> </ul>



<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: -
<b>6</b>	<b>Assessment of Course</b> <ul style="list-style-type: none"> <li>• 50 % seminar paper (ca. 6-10 pages)</li> <li>• 50 % contributions within case study project (team presentation, max 45 min)</li> </ul>
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of examination, presentation (individual / group)
<b>8</b>	<b>Module/Course Mapping</b> Master Digital Transformation
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. Carsten Wolff
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• Celaya, Javier; Vázquez, José Antonio; Rojas, María Jesús; Yuste, Elisa; (2016): How the new business models in the digital age have evolved, Dosdoce</li> <li>• Reillier, Laure Claire; Reillier, Benoit (2017): Platform Strategy: How to Unlock the Power of Communities and Networks to Grow Your Business, Routledge</li> <li>• Humphreys, K. Grayson (2008): The Intersecting Roles of Consumer and Producer: A Critical Perspective on Co-Production, Co-Creation and Prosumption, Sociology Compass 2</li> <li>• El Sawy, Omar A.; F. Pereira, Francis (2013): Business Modelling in the Dynamic Digital Space: An Ecosystem Approach, Springer</li> <li>• Tiwana, Amrit (2013): Platform Ecosystems: Aligning Architecture, Governance, and Strategy, Morgan Kaufmann</li> <li>• Kelly, Kevin (2016): The inevitable – Understanding the 12 technological forces that will shape out future. Viking, 2016.</li> <li>• Osterwalder, Alexander; Pigneur, Yves (2010): Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Wiley</li> <li>• Osterwalder, Alexander et al. (2014): Value Proposition Design: How to Create Products and Services Customers Want. Wiley</li> <li>• Liedtka, Jeanne, Ogilivue, Tim (2011): Designing for Growth: A Design Thinking Tool Kit for Managers. Columbia Business School Publishing</li> </ul>



<b>Module J/K/L Global Business Projects</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94306	English	1 semester	3 <sup>rd</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Global Business Projects		elective course	30	<b>Contact Hours</b> 60	<b>Self-Study</b> 120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>• can distinguish between different types of projects,</li> <li>• remember for what reasons a project can be international,</li> <li>• know that the initialisation of international projects deserves special attention, and for what reasons this is so,</li> <li>• can distinguish between the different approaches to project management (traditional, agile, hybrid), and are able to select a suitable approach in a specific context of a global business project,</li> <li>• are aware of success factors and legal considerations concerning international projects.</li> </ul> <p><i>Application and Generation of Knowledge:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>• can apply tools &amp; methods of project scope management (work breakdown structure); project stakeholder management; project risk management,</li> <li>• can structure the goals and work for a global business project and produce a coherent project charter,</li> <li>• can apply tools &amp; methods that can help the members of an international project team to understand their different cultural backgrounds and agree on how to approach the project jointly (as regards meetings; dealing with risks and changes; decision-making; ...),</li> <li>• are able to analyse encounters that happen during project work from the viewpoint of cultural dimensions.</li> </ul> <p><i>Communication and Cooperation:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>• are sensitised for cultural aspects and pitfalls concerning the collaboration within and management of international/cross-cultural project teams,</li> <li>• can communicate adequately in cross-cultural situations.</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> After taking this course students are sensitised for aspects of cross-cultural collaboration and can develop effective strategies for the successful management of global business projects.</p>						

<b>3</b>	<p><b>Course Description and Course Structure</b></p> <p>Projects can be international for various reasons, incl. multi-location project teams; working with a client from another country; having foreigners on your team; working with business partners or suppliers from other countries; etc. Examples are the implementation of a production or sales infrastructure in a foreign country; the integration of another organisation (and/or its IT systems) after an acquisition; the multi-site development of a product; an international efficiency/rationalisation programme within a corporate enterprise.</p> <p>The course is structured along the three project management stages initialisation, execution, and closure. Even though the traditional approach to PM stands in the centre of the course, agile and hybrid PM are also introduced. To pay regard to the definition of international (project) management (practising standard management tasks in cross-cultural situations/environments), culture is another core element of the course. Culture is studied through the lens of cultural dimensions, and through the review of research articles for instance about decision-making and meeting habits (cf. literature recommendations). This is complemented by further topics such as, success factors of international projects; legal aspects of international projects; and international PM standards &amp; certification systems.</p> <p><i>Remark: There is a conceptual overlap of about 30 % to the module “Project Planning &amp; Controlling” (topics: project (management) lifecycle; project success; project planning; project monitoring &amp; control; project risk management).</i></p>
<b>4</b>	<p><b>Teaching and Training Methods</b></p> <p>Face-to-face lecturing intertwine with discussions and individual/group exercises.</p> <p>As part of the examination the students work on case examples in groups of about 3-6. They present their results in class.</p>
<b>5</b>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: -</p> <p>Knowledge and competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 50 % contributions throughout the term (presentations, case studies)</li> <li>• 50 % written exam (60 min) or term paper (appr. 10...15 pages) at the end of the term</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of examination, presentation (individual / group)</p>
<b>8</b>	<p><b>Module/Course Mapping</b></p> <p>Business Management (MA)</p> <p>International Management (MA)</p>
<b>9</b>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>
<b>10</b>	<p><b>Module Leader / Lecturer</b></p> <p>Prof. Dr. Jan Christoph Albrecht</p>
<b>11</b>	<p><b>References</b></p> <p>General books about project management:</p> <ul style="list-style-type: none"> <li>• Bea, F. X., Scheurer, S. &amp; Hesselmann, S. (2020): Projektmanagement (3., vollständig überarbeitete und erweiterte Auflage, revidierte Ausgabe). Unternehmensführung: Bd. 8706. Stuttgart: UVK Verlag; UTB.</li> <li>• Kerzner, H. (2022): Project management: A systems approach to planning, scheduling, and controlling (Thirteenth edition). Hoboken: John Wiley.</li> </ul>

- Körner, M. (2008): Geschäftsprojekte zum Erfolg führen: Das neue Projektmanagement für Innovation und Veränderung im Unternehmen. Berlin, Heidelberg: Springer.
- Maylor, H. (2022): Project Management (5th Edition). London: Pearson.
- Patzak, G. & Rattay, G. (2018): Projektmanagement: Projekte, Projektportfolios, Programme und projektorientierte Unternehmen (7., aktualisierte Auflage). Wien, München: Linde international.

Books about international (project) management:

- Binder, J. (2016). Global project management: Communication, collaboration and management across borders (1st ed.). Milton Park: Routledge.
- Grisham, T. W. (2010). International project management: Leadership in complex environments. Hoboken: John Wiley.
- Szkudlarek, B., Romani, L., Caprar, D. V. & Osland, J. (eds.). (2021). The SAGE Handbook of contemporary cross-cultural management. Thousand Oaks, CA: Sage.

Research articles about international (project) management:

- Anantatmula, V., & Thomas, M. (2010). Managing global projects: A structured approach for better performance. *Project Management Journal*, 41(2), 60-72.
- Henrie, M., & Sousa-Poza, A. (2005). Project management: A cultural literary review. *Project Management Journal*, 36(2), 5-14.
- Köhler, T., Cramton, C. D., & Hinds, P. J. (2012). The meeting genre across cultures: Insights from three German–American collaborations. *Small Group Research*, 43(2), 159-185.
- Müller, R., Spang, K., & Özcan, S. (2009). Cultural differences in decision making in project teams. *International Journal of Managing Projects in Business*, 2(1), 70-93.

<b>Module J/K/L Implementing Project Management in an Organisation</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94307	English	1 semester	3 <sup>rd</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
					<b>Contact Hours</b>	<b>Self-Study</b>	
	Implementing Project Management in an Organisation		elective course	30	60	120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> The students can</p> <ul style="list-style-type: none"> <li>• explain the different project management approaches (traditional, agile, hybride) and the link to different project types</li> <li>• explain the different elements of a Project Management standards</li> <li>• the latest state of knowledge regarding characteristics of a Project Oriented Organizations and PMOs,</li> <li>• understand differentiate between different types of PMO</li> <li>• explain the processes and activities to implement and establish Project Management in an organisation,</li> <li>• explain and interpret success factors for implementation of Project Management in an organisation.</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students can</p> <ul style="list-style-type: none"> <li>• implement specialised analysing skills required in research and/or innovation in order to develop Project Management standards in an organisation,</li> <li>• detect and identify risk by implementing Project Management in an organisation,</li> <li>• apply tools for environmental analysis in different organisational settings,</li> <li>• develop a project management set up and a project plan by using methods like work breakdown structure (WBS), Gantt chart, stakeholder and risk register, backlogs, user stories, and / or retrospective for implementing a Project Management Standard in an organisation,</li> <li>• control a project for Project Management implementation.</li> </ul> <p><i>Communication and Cooperation:</i> The students can</p> <ul style="list-style-type: none"> <li>• lead and coordinate teams in a results-oriented fashion,</li> <li>• present and prudently defend results in a complex and demanding environment,</li> <li>• improve cooperation among human resource in projects and organizations based upon appropriate policies and strategies,</li> <li>• handle complexities while working in project teams.</li> </ul>						

	<p><i>Scientific Self-Understanding / Professionalism:</i></p> <p>The students can</p> <ul style="list-style-type: none"> <li>• manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches,</li> <li>• reflect challenges of an organisation in the background of social values,</li> <li>• work out implementation projects and ideas and can do what is necessary to carry out a sustainable management initiative.</li> </ul>
<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p>The Module “Implementing Project Management in an Organisation” considers one of the main trends in Project Management in the recent decades. The topic is part of the broad topic Multi-project Management and Project oriented Organisation. Implementing Project Management in an Organisation encompasses approaches, processes, roles, methods and tools to professionally implement and establish project management in different types of organisations, e.g. company, non-profit Organisations, departments of a company.</p> <p>The module has interfaces to other Project Management areas, as Stakeholder Management, Project Management Standards, Maturity Level as well as interfaces to areas as Consulting, Change Management, Process Management, Soft-Skills (Communication, Negotiation, Self-Management, Social Competence, etc.)</p> <p>Rather than describe the course attempts to provide a conceptual framework for implementing Project Management in an organisation.</p> <p>Topics include:</p> <ul style="list-style-type: none"> <li>• Different Project Views</li> <li>• Different Project Management approaches</li> <li>• Definition of a Project Management model</li> <li>• Differences and characteristics of Single and Multi-Project Management (SPM and MPM)</li> <li>• Success Factors of Multi Project Management (Organisation, People, Methodology, IT)</li> <li>• Characteristics of Project-Orientated Organisations (POO)</li> <li>• Processes of Single-Project Management</li> <li>• Company standards of Project Management</li> <li>• Maturity Level of Project Management</li> <li>• Goal, characteristics, types and tasks of a Project Management Office (PMO)</li> <li>• Phases of implementation of Project Management</li> <li>• Different roles in EPM and MPM</li> <li>• Fundamentals of business consulting</li> <li>• Relevant elements of Change Management</li> </ul> <p>The course aims both to familiarize students with influential papers and current research, and to promote new research ideas in the area.</p>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>e.g: Lectures incl. practitioners’ best practices, Interactive case studies, Seminar, Case studies, (Short) presentations, Results-oriented presentations in oral and written form</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Group work to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Home work to add individual contributions</li> <li>• Presentations to communicate results</li> </ul>

<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: mandatory modules of the 1 <sup>st</sup> and 2 <sup>nd</sup> semester
<b>6</b>	<b>Assessment of Course</b> 100% contributions within the course, thereof <ul style="list-style-type: none"> <li>• 25 % case study</li> <li>• 25 % tests (max. 30 min. duration)</li> <li>• 50 % term paper (6 – 10 pages)</li> </ul>
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of presentation, case studies, assignments, tests
<b>8</b>	<b>Module/Course Mapping</b> –
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. André Dechange
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• AXELOS (2017): Managing Successful Projects with PRINCE2. London: The Stationery Office Ltd.</li> <li>• Bea, F.X.; Scheurer, S.; Hesselman, S. (2020): Projektmanagement (3rd ed.), UTB</li> <li>• Dechange, André (2020): Projektmanagement – Schnell erfasst, SpringerGabler</li> <li>• Dechange, A.; Friedrich, B. (2013): Multiprojektmanagement in der Energiewirtschaft in: Lau, C; Dechange, A; Flegel, T. (Hrsg.): Projektmanagement im Energiebereich, Springer Verlag, S. 101 – 124</li> <li>• Dechange, A.; Lau, C. (2008): Effiziente und erfolgreiche Implementierung von Projekt Management Offices in: Steinle, Eßeling und Eichenberg (Hrsg.) (2010): Handbuch Multiprojektmanagement und –controlling – Projekte erfolgreich strukturieren und steuern. 2. Auflage. Erich Schmidt Verlag, S. 69 – 86</li> <li>• Gareis, R. (2001): Programmmanagement und Projektportfolio-Management. Zentrale Kompetenzen Projektorientierter Unternehmen", in: Projektmanagement 1/2001, S. 4-11.</li> <li>• Gareis, Roland; Stummer, Michael (2008): Process and Projects, Manz Verlag</li> <li>• Hedeman, Bert, e.a. (2010): Project Management Based on PRINCE2®, Van Haren Publishing</li> <li>• International Project Management Association IPMA (2015): Individual Competence Baseline 4th version (ICB4)</li> <li>• International Project Management Association IPMA (2021): Organisational Competence Baseline (OCB)</li> <li>• IPMA (2016), ICB 4.0 International Project Management Association IPMA (2018): Project Excellence Baseline for Achieving Excellence in Projects and Programmes</li> <li>• ISO (2021): ISO 21500 - Guidance on project management. Genf: ISO.</li> <li>• Kerzner, Harold: Project Management (2022): A Systems Approach to Planning, Scheduling and Controlling (13th ed.), John Wiley</li> <li>• Larson, Erik; Gray, Clifford (2021): Project Management - the Managerial Process, 8th edition, McGraw Hill</li> <li>• Project Management Institute (PMI) (2021): A guide to the project management body of knowledge (PMBOK guide) (7th ed.). Agile practice guide. Newtown Square, PA</li> <li>• Timinger, H. (2024): Modernes Projektmanagement: Mit traditionellem, agilem und hybridem Vorgehen zum Erfolg. Weinheim: Wiley</li> </ul>

	<ul style="list-style-type: none"><li>• Timinger, H. (2021): Modernes Projektmanagement: Mit System zum richtigen Projektmanagement. Weinheim: Wiley</li></ul>
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<b>Module J/K/L Information Processing and Data Analytics</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94308	English	1 semester	3 <sup>rd</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Information Processing and Data Analytics		elective course	30	<b>Contact Hours</b> 60	<b>Self- Study</b> 120	4
<b>2</b>	<b>Learning Outcomes</b>						
<p><i>Knowledge and Understanding:</i> The students</p> <ul style="list-style-type: none"> <li>• explain the basic characteristics of data and data collection</li> <li>• explain advanced functionality of Excel</li> <li>• explain database and data warehouse concepts</li> <li>• explain the core concepts of data analytics and business intelligence</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• develop data collection experiments with online tools</li> <li>• apply MS Excel for data analytics</li> <li>• set up and use simple SQL databases</li> <li>• set up and use tools for statistical data analysis</li> <li>• use IBM Watson for AI experiments</li> </ul> <p><i>Communication and Cooperation:</i> The students</p> <ul style="list-style-type: none"> <li>• train to reflect on the impact of their work and their projects</li> <li>• train to do surveys with people from different cultural backgrounds</li> <li>• are able to lead discussions and bring conflicting ideas and goals to a consensus</li> <li>• develop a critical attitude to data based decision making</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• develop a critical attitude to issues like privacy and data protection</li> <li>• apply their judgement on controversial topics and learn to lead a team to a consensus</li> </ul>							
<b>3</b>	<b>Course Description and Course Structure</b>						
<p>Modern project management is based on facts and on data. Dealing with data, analysing data and deriving conclusions and decisions from data is crucial for project management. The module is developing the topics of information processing and data analytics along a case study.</p> <p><b>1. Information processing and data collection</b> 1.1 Development of indicator systems</p>							



	<p>1.2 Design of data collection experiments with online tools 1.3 IT tools for data collection 1.4 Advanced MS Excel</p> <p><b>2. Data bases and data warehouses</b> 2.1 Introduction to databases, SQL 2.2 Data warehouse systems 2.3 Cloud based systems 2.3 Analysis of Case Studies</p> <p><b>3. Data analytics</b> 3.1 Data refinement 3.2 Data analytics and business intelligence 3.3 Probabilistic methods 3.4 Artificial intelligence and learning (introduction to IBM Watson)</p>
<b>4</b>	<p><b>Teaching and Training Methods</b> Students will be introduced to the relevant topics and to literature for further reading. Students will be guided through a case study project where they set up a small experiments for data collection, data storage and query and data processing for an example case. They form teams and set up IT tools.</p> <ul style="list-style-type: none"> <li>• Lectures introducing concepts, methods and tools</li> <li>• Group work in the case study project to practice concepts and methods, to develop skills and to work on case studies</li> <li>• Presentations to communicate results and do a scientific discussion and reflection</li> </ul>
<b>5</b>	<p><b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 100 % contributions within the course (group and individual work in role play and case studies, individual paper on research topic)</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b> Successful completion of examination, presentation (individual / group)</p>
<b>8</b>	<p><b>Module/Course Mapping</b> Digital Transformation (MSc)</p>
<b>9</b>	<p><b>Weighting of Grade</b> 5,4 % (6/84) x 75</p>
<b>10</b>	<p><b>Module Leader / Lecturer</b> Prof. Dr. Christian Reimann</p>
<b>11</b>	<p><b>References</b></p> <ul style="list-style-type: none"> <li>• Bruce, P. &amp; Bruce; A. (2017): Practical Statistics for Data Scientists: 50 Essential Concepts, , O'Reilly Media</li> <li>• Provost, F.; Fawcett T. (2013): Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking, O'Reilly Media</li> <li>• Rafael A. Irizarry, Chapman and Hall (2019): Introduction to Data Science: Data Analysis and Prediction Algorithms with R, /CRC</li> <li>• Sherman, R.; Kaufmann, M. (2014): Business Intelligence Guidebook: From Data Integration to</li> </ul>

	<p>Analytics</p> <ul style="list-style-type: none"><li>• Winston, Wayne L. (2019): Microsoft Excel 2019 Data Analysis and Business Modeling, Microsoft Press, 6<sup>th</sup> edition</li></ul>
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<b>Module J/K/L Management and Audit Systems</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
940302	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Management Systems and Audit		elective course	30	<b>Contact Hours</b> 60	<b>Self- Study</b> 120	4
<b>2</b>	<b>Learning Outcomes</b>						
<p><i>Knowledge and Understanding:</i> The students</p> <ul style="list-style-type: none"> <li>• can explain the importance of management systems and audit management for a company</li> <li>• know laws and regulation concerning these topics in Germany, Europe and beyond</li> <li>• know the international management norms for management systems and audit and can explain the reasoning for and the structure of these norms</li> <li>• can explain company responsibilities for management systems and audit and the elements of implementing management processes for these</li> <li>• know management tools &amp; techniques needed in project work</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• analyze given sets of rules and regulations on management systems and audit</li> <li>• implement management processes for management systems and audit</li> <li>• analyze and establish concepts on management systems and audit in teams &amp; projects</li> <li>• develop and maintain management systems and audit processes and guidelines according to given company &amp; country rules and regulations and international management practice</li> </ul> <p><i>Communication and Cooperation:</i> The students</p> <ul style="list-style-type: none"> <li>• train to reflect on the impact of their work and their projects</li> <li>• are able to lead discussions and bring conflicting ideas and goals to a consensus</li> <li>• reflect on ecological, economic, societal, legal and political aspects as well as on the ethical aspects and compare these within the international and intercultural environment of the course</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• develop a working culture in their projects or in their company as responsible for management systems and audit</li> <li>• apply their judgement on controversial topics and learn to lead a team to a consensus</li> </ul>							
<b>3</b>	<b>Course Description and Course Structure</b>						
<p>This course addresses the organisation of processes related to questions of health, safety and environment as well as energy. It especially focusses on the introduction and operation of international management norms which deal with these topics.</p>							

	<p>Managing safety, health and environmental issues is not only regulated by many laws and thus mandatory for most societies in the world, but also an important factor not to endanger a project. Besides the direct economic impact of failures in this area a consistent management of safety, health and environment shows a company's attitude – and a project manager's personal attitude – towards its employees and towards the society in general.</p> <p>The use of energy and connected with it the ecologic impact of it are becoming more important for our future world. This is taken into account in legislation – not only in Germany – which focusses on replacing fossil fuels and enhancing the efficiency of energy use. A part of this legislation explicitly stresses the importance of efficient management processes by giving financial incentives.</p> <p>Norms are used on a national and transnational basis to define internationally respected standards for technical equipment but also for management processes. Management of health and safety is dealt with in ISO 4500x, environmental management in ISO 1400x and energy management in ISO 5000x.</p> <p>This course focusses on the implementation and operation of management processes for management systems and audit as given by the above mentioned norms. It also emphasis the integration of management systems and audit topics in project management.</p> <p>After a general introduction and motivation, different laws and regulations (within and outside the EU) and different tools and techniques for project work are discussed. The international diversity of the students allows the comparison of rules and regulations and also of management traditions of different countries and companies.</p> <p>Similarities and differences in the mentioned norms and their implementation are worked out. Tools and techniques to implement the norms and make efficient use of the created management structures are discussed. Special regard is taken in the advantages to not only implement one management norm but to implement a series of norms in an enterprise.</p> <p>The course includes case studies and role play activities applying the theory in situations arising from either the implementation of management structures in a company or from typical project management situations concerning questions of management systems and audit.</p> <p>1. Theoretical Foundation</p> <p>1.1 Management of Health, Safety and Environment</p> <p>1.2 Energy Management</p> <p>1.3 Management Traditions and Company Reports</p> <p>1.4 Laws and Regulation</p> <p>1.5 International Management Norms for Health, Safety, Environment and Energy</p> <p>1.6 Project Management Basics</p> <p>2. Practice/Case Studies</p> <p>2.1 Definition of Case Studies/Role Plays</p> <p>2.2 Management Tools and Techniques</p> <p>2.3 Implementation and Operation of Management Norms</p> <p>2.4 Health, Safety, Environment and Energy in Project Management</p>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <ul style="list-style-type: none"> <li>• Lectures and e-learning material will introduce students to concepts, methods and tools</li> <li>• Group work using case studies and role plays will be used to work on the development and implementation of management processes concerning management systems and audit as well as integrating management systems and audit in project work</li> <li>• Homework to add individual contributions</li> </ul>

	Presentations to communicate results
<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: -
<b>6</b>	<b>Assessment of Course</b> 100 % contributions within the course (group and individual work in role play and case studies, individual paper on research topic)
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of examination, scientific paper and presentation
<b>8</b>	<b>Module/Course Mapping</b> Digital Transformation (MSc)
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. Christian Reimann Prof. Dr. Torsten Füg
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• Heras-Saizarbitoria, I. (2018): ISO 9001, ISO 14001, and New Management Standards, Springer</li> <li>• ISO standards for ISO 4500x, ISO 1400x, ISO 5500x</li> <li>• Laws and Regulation on Health, Safety, Environment and Energy</li> <li>• Project Management:</li> <li>• Pardy, W.; Andrews, T. (2019): Integrated Management Systems: Leading Strategies and Solutions, Bernan Press, 2nd edition</li> <li>• Rossiter, A.P.; Jones, B.P. (eds) (2015): Energy Management and Efficiency for the Process Industry, Wiley, Hoboken</li> <li>• Smith, C.B.; Parmenter, K.E. (2016): Energy Management Principles, 2nd ed., Elsevier, Amsterdam</li> </ul>

<b>Module J/K/L Managing Digital Change</b>						
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>	
94302	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6	
<b>1</b>	<b>Lecture</b>	<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
				<b>Contact Hours</b>	<b>Self-Study</b>	
	Managing Digital Change	elective course	30	60	120	4
<b>2</b>	<b>Learning Outcomes</b>					
	<p><i>Knowledge and Understanding:</i> The students</p> <ul style="list-style-type: none"> <li>• can explain the basics of the digital transformation in organizations</li> <li>• can explain and compare digital business models</li> <li>• know methods and tools for change management</li> <li>• know the characteristics and specifics of digital change</li> <li>• can explain the various aspects involved in setting up and running a company</li> <li>• know maturity models and leadership concepts</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• analyze and develop digital transformation projects</li> <li>• apply change management to organizations</li> <li>• design people development and trainings concepts for digital change</li> <li>• develop tailored concepts for sustainable digital transformation</li> </ul> <p><i>Communication and Cooperation:</i> The students have the ability to</p> <ul style="list-style-type: none"> <li>• develop and discuss concepts in teams</li> <li>• support teams as change agent or technology steward</li> <li>• communicate, facilitate and motivate digital change</li> <li>• present the results to companies and discuss in a professional context</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> The students have developed the attitude to</p> <ul style="list-style-type: none"> <li>• foster and promote digital change</li> <li>• develop an ethical sense towards digital change and an entrepreneurial mindset</li> <li>• think strategically in an uncertain environment</li> <li>• work in teams and set up a digital transformation project for the respective case study</li> </ul>					
<b>3</b>	<b>Course Description and Course Structure</b>					
	<p>The digital transformation is to a relevant extent a change process with a huge impact on organizations, processes, business model, the socio-economic environment and finally the affected human beings. Managing the digital change means doing change management in a specific context by implementing change projects, including new work, digital ethics, sustainability and other often neglected aspects in digital transformation. The module intends to give students a scientific insight into the relevant</p>					

	<p>underlying mechanisms of the digital change process.</p> <p><b>Course Structure</b></p> <p><b>1. What is Digital Change?</b></p> <p>1.1 Digital Transformation – Incremental Change &amp; Disruption</p> <p>1.2 Definitions &amp; Characteristics of Digital Change</p> <p><b>2. Manage the Pace – Practice - Collaboration</b></p> <p>2.1 New Digitalized Forms of Management, Iterative &amp; Incremental</p> <p>2.2 Business Models and Business Relations in the Digital Era</p> <p>2.3 Change Management (Lewin, Kotter ...)</p> <p>2.4 Digital Transformation of Organizations – Maturity Models</p> <p>2.5 Chances and Risks of Digital Transformation in Organizations</p> <p><b>3. Manage the Learning – People - Agility</b></p> <p>3.1 Leadership in the Digital Age</p> <p>3.2 Entrepreneurial Mindset, Culture &amp; Ethics</p> <p>3.3 Developing Competences, People and Teams</p> <p>3.4 Change Agents &amp; Technology Stewards</p> <p><b>4. Manage the Uncertainty – Perspective - Innovation</b></p> <p>4.1 Strategy in the Digital Era - Scenario Based Strategy</p> <p>4.2 Disruption (Clayton Christensen)</p> <p>4.3 Sustainable Digital Transformation – Impact &amp; Responsibility</p> <p>4.4 Lean Startup (Eric Ries)</p> <p><b>5. Selected Topics and Specializations</b></p> <p>5.1 Change vs. Transhumanism vs. AI</p> <p>5.2 Data Ethics</p> <p>5.3 New Work based on Frithjof Bergman</p>
<p><b>4</b></p>	<p><b>Teaching and Training Methods</b></p> <p>The practical skills are trained by conducting a change project based on a real-world case study. This case study is elaborated in cooperation with companies or other partners from industry. The following case studies are foreseen:</p> <ul style="list-style-type: none"> <li>• conduct a digital transformation project in an existing company or organisation with a focus on organisational change</li> <li>• conduct a digital transformation project in an existing company or organisation with a focus on the digital transformation of a business model</li> <li>• develop a start-up project with a focus on a new, disruptive digital product or service</li> </ul> <p>As part of the practical assignment students are required to work in groups (of 3-4) which do an analysis of the as-is-situation (e.g. market analysis, maturity assessment of an organisation), develop an idea for the future to-be-situation (e.g. a new business model) and a transformation and change management plan. The learning activities can include:</p> <ul style="list-style-type: none"> <li>• to write a business plan including financial planning.</li> <li>• present a 90 second elevator pitch of the business idea</li> <li>• perform a 15 minute pitch presentation to a fictional panel of potential investors</li> </ul> <p>For the scientific component, students write a case study based on a real company of their choice to highlight how it managed its digital transformation. Students are encouraged to perform interviews or surveys with their case study company to gain detailed data for their case study. The case study will be</p>

	<p>presented at the end of the course as a Pecha Kucha presentation, meaning that they only have 20 slides which automatically change after every 20 seconds.</p> <p>Methods are: Literature review, Case study method, Semi-Structured Interviews and Survey. Deductive own research based on the literature. Scientific reflection and discussion in the teams.</p>
<b>5</b>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: -</p> <p>Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• contributions within case study project (team presentation, max 45 min) (50%)</li> <li>• written paper (literature review, report or survey, approx. 15 pages) and presentation (in class or at a student conference, 20-30 min) (50%)</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of the case study project presentation and the written paper</p>
<b>8</b>	<p><b>Module/Course Mapping</b></p> <p>Digital Transformation (MSc)</p>
<b>9</b>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>
<b>10</b>	<p><b>Module Leader / Lecturer</b></p> <p>Prof. Dr. Carsten Wolff</p>
<b>11</b>	<p><b>References</b></p> <ul style="list-style-type: none"> <li>• Csedo, Zoltan; Kovacs, Kinga; Zavarko, Máté (2017): How does Digitalization Affect Change Management: Empirical Research at an Innovative Industrial Group. European Journal of Business and Management. 9 (36), 1-5</li> <li>• Ehrhart, Mark; Schneider, Benjamin; Macey, William (2013): Organizational Climate and Culture - an Introduction to Theory, Research, and Practice. New York, Routledge</li> <li>• Verhoef, Peter C.; Broekhuizen, Thijs; Bart, Yakov; Bhattacharya, Abhi; Qi Dong, John; Fabian, Nicolai; Haenlein, Michael (2021): Digital transformation: A multidisciplinary reflection and research agenda, Journal of Business Research, Volume 122, Elsevier</li> <li>• Raskino, Mark; Waller, Graham (2016): Digital to the Core: Remastering Leadership for Your Industry, Your Enterprise, and Yourself, 1st edition, Routledge</li> <li>• Rogers, David L. (2016): The Digital Transformation Playbook - Rethink Your Business for the Digital Age, Columbia Business School Publishing</li> <li>• Barthel, Philipp; Hess, Thomas (2020): Towards a characterization of digitalization projects in the context of organizational transformation. Pacific Asia Journal of the Association for Information Systems, 12(3)</li> <li>• Ries, Eric (2011): The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, 1st edition, Currency Westermann, George; Bonnet, Didier; McAfee, Andrew (2013): Leading Digital: Turning Technology into Business Transformation, Harvard Business Review Press</li> <li>• Sow, Mouhamadou; Aborbie, Solomon (2018): Impact of Leadership on Digital Transformation, Business and Economic Research (ISSN 2162-4860), Vol. 8, No. 3</li> <li>• Saunders, Mark; Lewis, Philip; Thornhill, Adrian (2019): Research Methods for Business Students, 8<sup>th</sup> edition, Pearson.</li> <li>• Dresch, Aline; Lacerda, Daniel P.; Valle Antunes Jr., José Antonio (2015) : Design Science Research - A Method for Science and Technology Advancement, Springer</li> </ul>



<b>Module J/K/L Project Finance, Procurement and Legal Aspects</b>						
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>	
940303	English	1 semester	2 <sup>nd</sup> semester	annually summer term	6	
<b>1</b>	<b>Lecture</b>	<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
				<b>Contact Hours</b>	<b>Self-Study</b>	
	a. Project Finance b. Legal Aspects in Project Management: Contracts, Procurement and further Issues	elective course	30	60	120	4
<b>2</b>	<b>Learning Outcomes</b>					
	<b>a. Project Finance</b>					
	<i>Knowledge and Understanding:</i>					
	After taking this course, students ...					
	<ul style="list-style-type: none"> <li>understand what project finance in a narrow sense is and delineate it from corporate finance,</li> <li>are able to evaluate the stakeholders in a project finance endeavor and their interests and responsibilities,</li> <li>can explain what a project company (or: Special Purpose Vehicle/Entity) is,</li> <li>can remember what relevant variables / input factors of the financial model of a project finance endeavor are,</li> <li>can explain the difference between operating cash flow and free cash flow,</li> <li>understand the concept of the time value of money,</li> <li>are able to summarize the different types of bonds.</li> </ul>					
	<i>Application and Generation of Knowledge:</i>					
	After taking this course, students ...					
	<ul style="list-style-type: none"> <li>are able to apply methods of investment appraisal to assess the viability of project business cases,</li> <li>are able to apply procedures of stock and bond valuation,</li> <li>can analyse the details and variables of a project finance endeavor to assess its viability.</li> </ul>					
	<i>Communication and Cooperation:</i>					
	After taking this course, students ...					
	<ul style="list-style-type: none"> <li>can discuss aspects of a project finance deal in a professional way,</li> <li>can discuss the funding/financing of projects in a professional environment.</li> </ul>					
	<i>Scientific Self-Understanding / Professionalism:</i>					
	After taking this course, students have a general understanding about the mechanisms and instruments that exist to finance projects.					
	<b>b. Legal Aspects in Project Management: Contracts, Procurement and further Issues</b>					
	<i>Knowledge and Understanding:</i>					
	After taking this course, students ...					

- understand that the nature of project procurement activities and the degree of involvement of project managers in these greatly differs depending on the (branch) environment and type of project,
- can explain the processes of project procurement management,
- are able to explain the difference between a requirements specification (“Lastenheft”) and a compliance matrix (“Pflichtenheft”),
- remember the elements of a Request for Quotation (RfQ),
- remember what legally relevant documents in terms of purchasing processes are, such as a Letter of Acceptance (LoA),
- remember the typical elements of a contract, and the aspects that deserve special attention in international projects,
- are able to summarize the different types of contracts, and understand the responsibilities of contract parties associated with each of them,
- remember the different types of bonds that may be issued in terms of project contracts (e.g., performance bond; down payment bond),
- can explain the difference between guarantees and warranties,
- basically understand the concept of *Partnering*.

*Application and Generation of Knowledge:*

After taking this course, students ...

- are able to compile or review a Request for Quotation/ Proposal (RfQ, RfP) for a tendering / offer project,
- take actions in terms of claims management, for instance compiling an (active) claim against a client.

*Communication and Cooperation:*

After taking this course, students ...

- are able to discuss strategies and methods/ instruments of project purchasing in a professional context,
- analyse a (project) contract as part of a team of legal, technical, and other experts.

*Scientific Self-Understanding / Professionalism:*

After taking this course, students are sensitized for legal matters in terms of procurement activities, tendering phases, and the execution of external projects.

**3 Course Description and Course Structure**

**a. Project Finance**

In a narrow sense, *Project Finance* deals with financing large infrastructure projects, where a project company is founded (also: *Special Purpose Vehicle/Entity*, SPV/SPE) and the project has to repay the loan from its operations (cf. the books by Esty; Gatti; and Yescombe, references further below). The pendant to this is *Corporate Finance*, where an organization gets access to financing instruments because investors have trust in its business model; solidity/creditworthiness; product portfolio (incl innovation capabilities); customer portfolio; assets etc.

This lecture deals with project finance both in a narrow sense (cf. above) and in a broader sense, looking at general concepts and instruments/mechanisms of financing businesses and projects, too. As regards project finance in a broader sense, the following aspects are covered in the lecture:

- time value of money
- future value; compound interest

- (project) investment appraisal techniques
  - Net present value / Discounted cash flow method
  - Internal rate of return method
  - Annuity method
  - ...
- valuation of stocks
- types of bonds and their valuation
- ...

In terms of the part of the lecture that focuses on project finance in a narrow sense, the students are taught what the distinctive features of project finance are, in contrast to corporate finance. The players/stakeholders in a project finance deal are introduced and discussed. With respect to the financial model to evaluate a project finance endeavor, both the variables that affect (future) cash flows, and the inputs to the model are extensively discussed. Emphasis is put on the distinction between operating cash flow and free cash flow.

### **b. Legal Aspects in Project Management: Contracts, Procurement and further Issues**

The course commences with an introduction of the project procurement management processes as per the PMBOK Guide®. The roles involved are discussed, accordingly.

The nature of project procurement activities is strongly impacted by the branch environment and/or the type of project. Therefore, a framework of different “environments” of project procurement management is introduced. It comprises “Highly sophisticated supply chains” that kind be found for instance in the automotive or pharmaceutical industry, “Project-based (supplier) networks” as can be found in (plant) construction, and “One-time project partnerships”, meaning for instance merger and acquisition (M&A) projects in which the client organization heavily relies on the expertise, guidance, and workforce of a project partner (e.g., a bank / a consultancy).

In parallel to the explanation of the abovementioned “environments”, both methods and vehicles of (project) procurement management, and legal considerations are introduced and discussed.

Examples of the further include:

- Request for Information / Proposal / Quotation
- supplier rating/ranking
- supplier audits; supplier development
- Letter of Acceptance
- Memorandum of Understanding
- Letter of Intent
- Incoterms

Examples of the latter include:

- guarantees (different kinds of bonds); warranties
- contract types
  - with respect to scope/responsibility (of the contractor)
  - with respect to costs/risks (for the contractor / for the client)
  - contract for work vs. service contract

Different setups of a project’s macro-organisation are presented (single contracts; general contractor; consortium).

The course covers the basics of contracts and contract management, too. The basic requirements of a

	<p>contract are discussed, as well as the typical elements of a written contract. An emphasis is set on the peculiarities of international contracts, as for instance, the applicable law; the role of international arbitration courts; currency risks and exchange rate fluctuation clauses.</p> <p>The importance of effective claims management for the success of projects is stressed. The steps of the claims management process are introduced in detail. Finally, the topic of Project Partnering is also addressed.</p>
<b>4</b>	<p><b>Teaching and Training Methods</b></p> <p>Face to face lecturing intertwines with (assessed) group works, interactive dialogue with the audience, and the elaboration of a case study. Real-life (case) examples are used for explanations.</p>
<b>5</b>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: - Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• 50% contribution during course (homework, group work, presentation)</li> <li>• 50% written examination (60 min) at the end of the course</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of both contribution during course and written exam</p>
<b>8</b>	<p><b>Module/Course Mapping</b></p> <p>–</p>
<b>9</b>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>
<b>10</b>	<p><b>Module Leader / Lecturer</b></p> <p>Prof. Dr. Jan Christoph Albrecht</p>
<b>11</b>	<p><b>References</b></p> <p><b>a. Project Finance</b></p> <ul style="list-style-type: none"> <li>• Brigham, E., Ehrhardt, M., (2010): Financial Management Theory and Practice. 13th ed. Mason, OH: South Western Cengage Learning.</li> <li>• Brookes, N. J. (2013): Delivering European Megaprojects – A Guide for Policy Makers and Practitioners. Leeds. Available at <a href="https://netlipse.eu/media/85781/delivering-europeanmegaprojects.pdf">https://netlipse.eu/media/85781/delivering-europeanmegaprojects.pdf</a></li> <li>• Coffman, D., Kelsey, J. (2023): Organising Project Finance. In: S. Addyman, H. Smyth, “Construction Project Organising”. 1<sup>st</sup> edition. John Wiley &amp; Sons, pp. 51-67.</li> <li>• Esty, B. C. (2008): Modern Project Finance: A Casebook. Hoboken: John Wiley &amp; Sons.</li> <li>• Esty, B. C. (2004): Why study large projects? An introduction to research on project finance. European Financial Management, 10.2, pp. 213-224.</li> <li>• Finnerty, John D. (2013): Project Financing: Asset Based Financial Engineering, 3. ed. Hoboken: John Wiley &amp; Sons.</li> <li>• Gatti, S. (2023): Project Finance in Theory and Practice. 4<sup>th</sup> edition. Academic Press.</li> <li>• Khan, F.; Parra, R. (2013): Financing Large Projects: Using Project Finance Techniques and Practices. New York: Prentice Hall.</li> <li>• Miller, R. and Lessard, D. R. (2000): The Strategic Management of Large Engineering Projects. Cambridge, MA: MIT Press.</li> <li>• Moro Visconti, R. (2013): Evaluating a project finance SPV: combining operating leverage with debt service, shadow dividends and discounted cash flows. International Journal of Economics, Finance and Management Sciences, 1(1), 9-20.</li> </ul>

- Sainati, T., Locatelli, G., Smith, N., Brookes, N., & Olver, G. (2020): Types and functions of special purpose vehicles in infrastructure megaprojects. *International Journal of Project Management*, 38(5), pp. 243-255.
- Yescombe, E. (2013): *Principles of Project Finance*. Cambridge, MA: Academic Press.

Weblinks:

- International Project Finance Association: <http://www.ipfa.org>

**b. Legal Aspects in Project Management: Contracts, Procurement and further Issues**

- Baily, P., Farmer, D., Crocker, B., Jessop, D. (2015): *Procurement Principles and Management*. Hoboken, NJ: Financial Times / Prentice Hall.
- Cummins, T., David, M., Kawamoto, K. (2011): *Contract and Commercial Management – The Operational Guide*. Hertogenbosch: Van Haren Publishing.
- Guth, S. (2009): *Project Procurement Management: A Guide to Structured Procurements*. Ormond-by-the-Sea: Guth Ventures.
- McKendrick, E. (2018): *Contract Law: Text, Cases, and Materials*. 8<sup>th</sup> edition. Oxford University Press.
- Kummer, S., Grün, O., Jammermegg, W. (2019): *Grundzüge der Beschaffung, Produktion und Logistik*. London: Pearson.
- Schupp, F., Wöhner, H. (2020): *The Nature of Purchasing*. Berlin, Heidelberg: Springer.
- Seshadri, S. (2005): *Sourcing Strategy: Principles, Policy and Designs*. Berglin, Heidelberg: Springer.
- Stone, R. (2015): *Modern Law of Contract*. London, New York: Routledge.

<b>Module J/K/L Research Seminar</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94304	English	1 semester	2 <sup>nd</sup> semester / (3 <sup>rd</sup> semester)	summer term/(winter term)	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
	Research Seminar		elective course	-	<b>Contact Hours</b> 30	<b>Self-Study</b> 150	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>• can critically evaluate research literature and identify gaps in existing knowledge,</li> <li>• have acquired a deep understanding of various research methods and tools commonly used in management research,</li> <li>• have gain an understanding of the strengths and limitations of different research methodologies,</li> <li>• have explored strategies for writing a well-structured research proposal and conducting literature reviews.</li> </ul> <p><i>Application and Generation of Knowledge:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>• are able to formulate research questions and hypotheses,</li> <li>• can develop an appropriate research design in a certain context,</li> <li>• are able to apply methods of (qualitative and quantitative) data analysis,</li> <li>• have improved their scientific writing skills.</li> </ul> <p><i>Communication and Cooperation:</i> After taking this course, students are able to discuss research designs in a professional environment.</p> <p><i>Scientific Self-Understanding / Professionalism:</i> After taking this course, students are able to make first steps towards publishing their research and making it available to professional communities.</p>						
<b>3</b>	<b>Course Description and Course Structure</b>						
	<p>The idea of this module is to give the students a chance to practically apply what they have learned during the Research Methods and Tools-lecture, and to have in-depth discussions on this. The students will choose a research topic and – based on an initial review of research articles in the field – will formulate research questions, formulate hypotheses, and propose a research design. The latter will also include thinking about how to analyse the data that shall be collected.</p> <p>The design of a (quantitative) survey will be introduced. The design of a questionnaire and the formulation of items will be practiced.</p> <p>Another cornerstone of the seminar is the topic of data analysis that will be practiced using real data and examples. Interview transcripts will be coded using (CAQDAS) software and applying categories that</p>						

	<p>the students have described before-hand. Moreover, quantitative analyses such as regression analyses will be performed on data from large social sciences research programmes and databases.</p> <p>Further topics as for instance biases and research data management complement the seminar.</p> <p>With respect to the term paper to be produced, the students analyse and discuss the structures of research articles and propose one for the papers of their own.</p> <p>Research Seminar Report: Students will prepare a research paper on a given topic for a conference (defined during the seminar). This involves mainly literature review and deductive research on the topic. Papers will be presented during the seminar. Excellent papers will be submitted to a conference, e.g., the Dortmund International Research Conference (IRC). The seminar report offers students a chance to expand work they have previously performed in terms of writing a term paper for one of their elective courses, or to lay the ground for their project and/or Master's theses.</p>
<b>4</b>	<p><b>Teaching and Training Methods</b></p> <ul style="list-style-type: none"> <li>• seminar</li> <li>• group work; group discussion</li> <li>• homework</li> <li>• presentation</li> </ul>
<b>5</b>	<p><b>Course Admittance Prerequisites</b></p> <p>Formal: -</p> <p>Knowledge and Competencies: Knowledge and competencies comparable to the contents of “<i>Research Methods and Tools</i>” (cf. “<i>Transversal Skills</i>” module description)</p>
<b>6</b>	<p><b>Assessment of Course</b></p> <ul style="list-style-type: none"> <li>• Active participation in the seminar (25 %)</li> <li>• Term paper (50 %) 10...20 pp.</li> <li>• Oral defence/presentation (25 %) up to 45 min</li> </ul>
<b>7</b>	<p><b>Requirements For Award of Credits</b></p> <p>Successful completion of examination, presentation (individual / group)</p>
<b>8</b>	<p><b>Module/Course Mapping</b></p> <p>–</p>
<b>9</b>	<p><b>Weighting of Grade</b></p> <p>5,4 % (6/84) x 75</p>
<b>10</b>	<p><b>Module Leader / Lecturer</b></p> <p>Prof. Dr. Jan Christoph Albrecht Various lecturers</p>
<b>11</b>	<p><b>References</b></p> <ul style="list-style-type: none"> <li>• Bryman, A., Bell, E. (2022): Business research methods. Oxford University Press.</li> <li>• Creswell, J. W., Creswell, J. D. (2022): Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Thousand Oaks, CA: Sage.</li> <li>• Easterby-Smith, M., Jaspersen, L., Thorpe, R., &amp; Valizade, D. (2022): Management research. Thousand Oaks, CA: Sage.</li> <li>• Glaser, B. G., &amp; Strauss, A. L. (1967): The Discovery of Grounded Theory: Strategies for Qualitative Research. Berlin: de Gruyter.</li> <li>• Mayring, P. (2021): Qualitative content analysis. Thousand Oaks, CA: Sage.</li> <li>• Rädiker, S. &amp; Kuckartz, U. (2020): Focused Analysis of Qualitative Interviews with MAXQDA. MAXQDA Press.</li> </ul>

- Strauss, A. L., & Corbin, J. (1998): Basics of qualitative research: Techniques and Procedures for Developing Grounded Theory. Thousand Oaks, CA: Sage.
- Ritchie, J., & Lewis, J. (Eds.). (2018): Qualitative research practice: A guide for social science students and researchers. Thousand Oaks, CA: Sage.
- Saunders, M. N. K., Lewis P. (2017): Doing Research in Business & Management – an Essential Guide to Planning Your Project. London: Prentice Hall/Pearson.
- Saunders, M. N. K., Lewis, P., Thornhill, A. (2019): Research Methods for Business Students. London: Pearson.



<b>Module J/K/L Sustainability and Quality</b>							
<b>Number</b>	<b>Language</b>	<b>Duration</b>	<b>Semester</b>	<b>Frequency</b>	<b>ECTS</b>		
94309	English	1 semester	3 <sup>rd</sup> semester	annually winter term	6		
<b>1</b>	<b>Lecture</b>		<b>Type of Course</b>	<b>Planned Group Size</b>	<b>Workload</b>		<b>SWS</b>
					<b>Contact Hours</b>	<b>Self-Study</b>	
	Sustainability and Quality		elective course	30	60	120	4
<b>2</b>	<b>Learning Outcomes</b>						
	<p><i>Knowledge and Understanding:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>• have gained a comprehensive understanding of sustainability principles and their relevance in the context of product life cycle management,</li> <li>• have developed a strong grasp of life cycle thinking and its application in integrating sustainability considerations throughout product life cycles,</li> <li>• have gained insights into sustainable packaging and design strategies for reducing waste and optimizing material use,</li> <li>• understand the principles and benefits of circular economy and closed-loop systems and be able to apply them in product design and management.</li> </ul> <p><i>Application and Generation of Knowledge:</i> After taking this course, students ...</p> <ul style="list-style-type: none"> <li>• have acquired knowledge and skills in applying the Sustainable Business Model Canvas to design sustainable business models,</li> <li>• have developed proficiency in using ISO 14040 guidelines for conducting life cycle assessment (LCA) of products,</li> <li>• are proficient in utilizing sustainability maturity models, such as the EFQM Business Excellence Model, to assess and improve organizations' sustainability performance,</li> <li>• have developed expertise in conducting environmental impact assessments and quantifying environmental impacts at various stages of a product's life cycle,</li> <li>• have developed critical thinking and problem-solving skills through practical exercises, group work, and discussions in applying sustainability concepts to product life cycle management.</li> </ul> <p><i>Communication and Cooperation:</i> After taking this course, students have...</p> <ul style="list-style-type: none"> <li>• developed cross-disciplinary collaboration skills through engaging in group work and discussions with peers interested in sustainability and product life cycle management.</li> <li>• gained proficiency in communicating sustainability concepts and findings to various stakeholders effectively.</li> </ul> <p><i>Scientific Self-Understanding / Professionalism:</i> After taking this course, students have...</p> <ul style="list-style-type: none"> <li>• enhanced their ability to analyze and design sustainable product life cycles in diverse industries and organizational settings,</li> </ul>						

	<ul style="list-style-type: none"> <li>• fostered a culture of excellence and sustainability in their future endeavors, with an understanding of how sustainability can be integrated into leadership, strategy, people, partnerships, and processes,</li> <li>• acquired critical evaluation skills to assess and adapt emerging sustainability trends and best practices in the field.</li> </ul>
<p><b>3</b></p>	<p><b>Course Description and Course Structure</b></p> <p>In this seminar on sustainability and (product) quality, students will explore the principles and practices of sustainability in the context of product development and management. Through interactive lectures, discussions, and case studies, students will delve into various topics relevant to sustainable business practices and product life cycle analysis. Some of the key topics covered in this seminar include:</p> <ul style="list-style-type: none"> <li>• Introduction to sustainability: Understanding the concept of sustainability, its importance in the context of higher education, and its relevance to product life cycle management.</li> <li>• Sustainable Business Model Canvas: Exploring the Sustainable Business Model Canvas framework and its application in designing sustainable business models. Students will learn how to integrate social, environmental, and economic sustainability elements into their product development strategies.</li> <li>• ISO 14040: Introduction to the ISO 14040 standard, which provides guidelines for conducting life cycle assessment (LCA) of products. Students will gain knowledge about the LCA methodology, including goal and scope definition, inventory analysis, impact assessment, and interpretation of results.</li> <li>• Life Cycle Thinking: Understanding the concept of life cycle thinking and its relevance in integrating sustainability considerations throughout the entire life cycle of a product. Students will explore strategies for optimizing resource use, reducing environmental impacts, and enhancing social value through different stages of a product's life cycle.</li> <li>• Sustainability Maturity Models: Introduction to sustainability maturity models, which provide frameworks for assessing and improving an organization's sustainability performance. Students will explore different maturity models such as the Global Reporting Initiative (GRI), Leadership in Energy and Environmental Design (LEED), Dow Jones Sustainability Index (DJSI), and the EFQM Business Excellence Model.</li> <li>• EFQM Business Excellence Model: Examination of the EFQM Business Excellence Model, which focuses on organizational excellence through a holistic approach encompassing sustainability, leadership, strategy, people, partnerships, and processes. Students will learn how the EFQM model can be applied to enhance sustainability practices in product life cycle management.</li> <li>• Environmental Impact Assessment: Learning how to assess and quantify the environmental impacts associated with various stages of a product's life cycle, including raw material extraction, manufacturing, distribution, use, and disposal. Students will explore different impact categories such as greenhouse gas emissions, water consumption, and waste generation.</li> <li>• Circular Economy and Closed-loop Systems: Understanding the principles and benefits of a circular economy and closed-loop systems. Students will explore strategies for incorporating circularity into product design and management, including recycling, remanufacturing, and creating closed-loop supply chains.</li> </ul> <p>Sustainable Consumption and Consumer Behavior: Exploring the role of consumers in driving sustainable practices and understanding how consumer behavior influences product life cycles. Students will examine examples of successful sustainability marketing and communication strategies.</p>

<b>4</b>	<b>Teaching and Training Methods</b> <ul style="list-style-type: none"> <li>• Seminar</li> <li>• Cases / case examples</li> <li>• Exercises</li> </ul>
<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: -
<b>6</b>	<b>Assessment of Course</b> <ul style="list-style-type: none"> <li>• Assessed homework and assignments (70 %)</li> <li>• Presentation / oral examination (30 %) up to 45 min</li> </ul>
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of examination, presentation (individual / group)
<b>8</b>	<b>Module/Course Mapping</b> -
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Module leader: Prof. Dr. Jan Christoph Albrecht Lecturer: tba./various lecturers
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• Martens, M. L., &amp; Carvalho, M. M. (2017). Key factors of sustainability in project management context: A survey exploring the project managers' perspective. <i>International Journal of Project Management</i>, 35(6), 1084-1102.</li> <li>• Minguez, R., Lizundia, E., Iturrondobeitia, M., Akizu-Gardoki, O. &amp; Saez-de-Camara, E. (2021). Fostering Education for Circular Economy through Life Cycle Thinking. In A. Petrillo &amp; F. de Felice (Hrsg.), <i>Product Life Cycle - Opportunities for Digital and Sustainable Transformation</i>. IntechOpen. <a href="https://doi.org/10.5772/intechopen.98606">https://doi.org/10.5772/intechopen.98606</a></li> <li>• Silvius, G. (2017). Sustainability as a new school of thought in project management. <i>Journal of Cleaner Production</i>, 166, 1479-1493.</li> </ul>

Module J/K/L Trends in Project Management						
Number	Language	Duration	Semester	Frequency	ECTS	
94310	English	1 semester	2 <sup>nd</sup> / 3 <sup>rd</sup> semester	takes place irregularly	6	
1	Lecture	Type of Course	Planned Group Size	Workload		SWS
				Contact Hours	Self-Study	
	Trends in Project Management	elective course	-	60	120	4
2	Learning Outcomes					
	<p><i>Knowledge and Understanding:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>understand the diverse nature of projects and project management, and how PM has been influenced by other professional disciplines in the past,</li> <li>know current trends within the discipline of project management.</li> </ul> <p><i>Application and Generation of Knowledge:</i> After taking this course, students...</p> <ul style="list-style-type: none"> <li>have made first steps towards exploring a certain area scientifically,</li> <li>can generate research ideas and research questions from the material and topic(s) that have been studied.</li> </ul> <p><i>Communication and Cooperation:</i> After taking this course, students are able to analyze a trend within project management from various viewpoints and having exchanged opinions on this in terms of group-discussions and presentations.</p> <p><i>Scientific Self-Understanding / Professionalism:</i> After taking this course, students can discuss latest trends and development within the project management discipline in a professional environment.</p>					
3	Course Description and Course Structure					
	<p>As a professional discipline project management emerged in the middle of the last century in branches like aerospace, defence, and construction. The process of establishing itself as an academic or research discipline is still ongoing. By the course of time, project management has received various influences from other fields, such as business studies; engineering; operations research; or psychology. Furthermore, the discipline has seen several “trends” in the last decades, one of them being the emergence of agile and hybrid project management for instance.</p> <p>The idea behind this module is to have a platform for the introduction and discussion of these kinds of trends in practice and academia. It shall provide insights about the state of the art of the discipline and is intended to highlight issues that students can transform into research (questions) to address in their final theses.</p>					
4	Teaching and Training Methods					
	<p>The module will use presentations by lecturers and evtl. by practitioners to introduce topics. Literature work including structured literature reviews and discussion of relevant research papers will further enhance the practical knowledge. The module can introduce several different areas or topics, or it can</p>					

	dive deep into one topic. This can involve own research work of students, e.g. to develop a research paper for a conference. The module can also include practical labs or experiments. Individual project work or group work in small project teams can be used to develop new results. Presentations can be used to discuss the results.
<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: To be specified by the lecturers.
<b>6</b>	<b>Assessment of Course</b> Depending on the lectures/projects actually selected for the particular semester. Will be announced in due time before the beginning of the term.
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of examination, presentation (individual / group)
<b>8</b>	<b>Module/Course Mapping</b> -
<b>9</b>	<b>Weighting of Grade</b> 5,4 % (6/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Module leader: Prof. Dr. Jan Christoph Albrecht Tba./various lecturers
<b>11</b>	<b>References</b> Specific for the recent research topic. <ul style="list-style-type: none"> <li>• Geraldi, J., &amp; Söderlund, J. (2018). Project studies: What it is, where it is going. International Journal of Project Management, 36(1), 55-70.</li> <li>• Turner, J. R., Anbari, F., &amp; Bredillet, C. (2013). Perspectives on research in project management: the nine schools. Global Business Perspectives, 1, 3-28.</li> <li>• ...</li> </ul>

Module M Project Thesis						
Number	Language	Duration	Semester	Frequency	ECTS	
94251	English	1 semester	3 <sup>rd</sup> semester	annually winter term	18	
1	Lecture	Type of Course	Planned Group Size	Workload		SWS
				Contact Hours	Self-Study	
	Project Thesis	mandatory course	-	-	540	-
2	Learning Outcomes					
	<p><i>Knowledge and Understanding:</i> The students know</p> <ul style="list-style-type: none"> <li>• state of the art in a certain scientific field</li> <li>• open research questions in this field</li> <li>• relevant literature</li> <li>• methodology and tools to execute project</li> </ul> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• work in a scientific way</li> <li>• define and plan an own research project</li> <li>• apply appropriate research methodology</li> <li>• create own research findings</li> <li>• describe project execution, methodology and findings in a scientific report</li> <li>• reflect on expertise and draw conclusions</li> </ul> <p><i>Communication and Cooperation:</i> After writing a project thesis, students are able to present and discuss a scientific work in a scientific environment.</p> <p><i>Scientific Self-Understanding / Professionalism:</i> After writing a project thesis, students understand the concepts of scientific working and writing. They can run an own more complex scientific research project and manage uncertainty and unknown topics in a scientific way.</p>					
3	Course Description and Course Structure					
	<p>The project thesis is intended to introduce students into scientific research work in a bigger context and to apply gained knowledge of the first and second semester in a scientific way. Students will participate in one of the ongoing research projects, do an internship project or conduct an own research project. The starting point is the definition of the research questions they want to answer and the selection of the appropriate methodology. The students will plan and execute their project independently with regular review and consulting. They will summarize their finding in a project thesis (project report). The project thesis can be a preparation for further work on the master thesis. The intention of the project thesis is to familiarize with the research methodology in a certain scientific field and to formulate the scientific state of the art and the research questions. The student proves the ability to execute own and independent</p>					

	research on master level and with a certain complexity. Students will present the results in a colloquium.
<b>4</b>	<b>Teaching and Training Methods</b> <ul style="list-style-type: none"> <li>• Project Work</li> <li>• Writing of a scientific report</li> <li>• Presentations to communicate and discuss the findings</li> <li>• E-learning course on scientific work and scientific writing</li> <li>• Individual review and feedback on papers and presentations</li> </ul>
<b>5</b>	<b>Course Admittance Prerequisites</b> Formal: - Knowledge and Competencies: Research Methods and Tools
<b>6</b>	<b>Assessment of Course</b> Assessment of the course: project thesis about own research in an ongoing project as individual homework + presentation in colloquium (100%)
<b>7</b>	<b>Requirements For Award of Credits</b> Successful completion of project thesis and colloquium
<b>8</b>	<b>Module/Course Mapping</b> -
<b>9</b>	<b>Weighting of Grade</b> 16,1 % (18/84) x 75
<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. André Dechange Various professors
<b>11</b>	<b>References</b> <ul style="list-style-type: none"> <li>• Bailey, Stephen (2018): Academic Writing – A Handbook for International Students (5th ed.). Routledge, New York</li> <li>• Bryman, A., Bell, E. (2022): Business research methods. 3rd + Edition, Oxford University Press</li> <li>• Creswell, J. M. (2009): Research design, Sage</li> <li>• Easterby-Smith, M., Thorpe, R., &amp; Jackson, P. R. (2008). Management research, 3rd Edition, Thousand Oaks (CA), USA, Sage</li> <li>• Mayring, P. (2014). Qualitative content analysis, Sage</li> <li>• Pasian, Beverley (2015): Design, Methods, and Practices for Research of Project Management, Gower, Farnham</li> <li>• Ritchie, J., &amp; Lewis, J. (Eds.). (2014): Qualitative research practice: A guide for social science students and researchers (2nd ed.), London: Sage</li> <li>• Saunders, Mark, Lewis, Philip, &amp; Thornhill, Adrian (2023): Research Methods for Business Students (9th ed.). Upper Saddle River: Prentice Hall.</li> <li>• Saunders, M. N. K., Lewis P. (2012): Doing Research in Business &amp; Management – an Essential Guide to Planning Your Project. Harlow: Prentice Hall/Pearson</li> <li>• Saunders, M. N. K., Lewis, P., Thornhill, A. (2012): Research Methods for Business Students, Pearson</li> </ul>

Master Thesis and Colloquium						
Number	Language	Duration	Semester	Frequency	ECTS	
103	agreed with supervisor	1 semester	4 <sup>th</sup> semester	annually summer term	30	
1	Lecture	Type of Course	Planned Group Size	Workload		SWS
				Contact Hours	Self-Study	
	a. Thesis b. Colloquium	mandatory	-	-	900	-
2	Learning Outcomes					
	<p><i>Knowledge and Understanding:</i> The thesis is a written work of scholarship that should document that a candidate is independently capable of applying scientific and practical techniques to the processing of challenging tasks taken from specified subject areas, including not only specific individual technical details but also the wider implications.</p> <p><i>Application and Generation of Knowledge:</i> The students are able to</p> <ul style="list-style-type: none"> <li>• work in a scientific way</li> <li>• apply concepts, methods, and tools used in project</li> <li>• manage a research project</li> <li>• apply research designs and strategies</li> <li>• apply various data collection techniques</li> <li>• reflect on expertise and draw conclusions</li> <li>• defend the results in a scientific and business-oriented environment</li> <li>• generate new knowledge and contribute to the PM community.</li> </ul> <p><i>Communication and Cooperation:</i> After writing a master thesis, students are able to present and discuss a scientific work in a scientific environment.</p> <p><i>Scientific Self-Understanding / Professionalism:</i> After writing a master thesis, students understand the concepts of scientific working and writing. The student can handle the formal requirements associated to a research paper: investigating the research context, collecting material from the scientific literature, performing and processing bibliographical inquiries, presenting own ideas in the scientific environment of the given topic.</p>					
3	Course Description and Course Structure					
	<p>The 4th semester of the European Master in Project Management is totally focused on the master thesis.</p> <p>The thesis must be developed under the conditions of the European Qualification Framework - level 7.</p> <p>Lecturers make proposals for a thesis based on their research activities or based upon current projects. Students can also make proposals on their favourite topics.</p>					



	<p>A thesis can be developed in a company or any other organization or within the university. In any case there must be a supervisor of the thesis selected among the lecturers of the university or partner universities.</p> <p>The thesis can also be worked up in the form a group work if the contribution of individual candidates, based on the section, pages or some other objective criteria can be applied such that it allows clear distinction of individuals separate contributions and their meaningful evaluation.</p> <p>The master thesis must be registered at the faculty when the students start with their thesis. When students register the thesis the 1<sup>st</sup> supervisor must be fixed.</p> <p>The work-up or processing time (time from registration to submission) is 26 weeks. The topic and constellation of tasks must be structured in a way that it is possible to submit the completed thesis within the time allocated.</p> <p>After the submission of the thesis, a colloquium on the thesis is arranged where students and examiners discuss the concepts and results.</p> <p>The project is coached and assessed by a professor.</p> <p>The thesis encompasses, but not limited to the following activities.</p> <ul style="list-style-type: none"> <li>• Find thesis Supervisor</li> <li>• Identify research topic (with supervisor)</li> <li>• Write research sketch</li> <li>• Select literature</li> <li>• Read &amp; understand the literature</li> <li>• Write literature review</li> <li>• Pinpoint the key theories to apply</li> <li>• Explain research techniques</li> <li>• Define sample &amp; collect data</li> <li>• Display findings</li> <li>• Discuss findings</li> <li>• Show limitations &amp; new research strands</li> <li>• Conclude &amp; Reflect</li> </ul>
<b>4</b>	<p><b>Teaching and Training Methods</b> Independent scientific work under the guidance of a supervisor</p>
<b>5</b>	<p><b>Course Admittance Prerequisites</b> Formal: Admission to the thesis will be granted to those who</p> <ol style="list-style-type: none"> <li>1. fulfill the admittance prerequisites for module examinations in accordance with § 20 (1) examination regulations (StgPO);</li> <li>2. have passed 84 ECTS in the Master's course European Master in Project Management (EuroMPM) in accordance with Appendix 1 of examination regulations (StgPO).</li> </ol> <p>See VI. Thesis und Kolloquium of examination regulations (StgPO). Knowledge and Competencies: -</p>
<b>6</b>	<p><b>Assessment of Course</b> Thesis and associated colloquium</p>
<b>7</b>	<p><b>Requirements For Award of Credits</b> Passing of the thesis and the colloquium (see VI. Thesis und Kolloquium of examination regulations (StgPO).</p>

<b>8</b>	<b>Module/Course Mapping</b> —
<b>9</b>	<b>Weighting of Grade</b> 25 %

<b>10</b>	<b>Module Leader / Lecturer</b> Prof. Dr. André Dechange
<b>11</b>	<b>References</b> <ul style="list-style-type: none"><li>• Bailey, Stephen (2018): Academic Writing – A Handbook for International Students (5th ed.). London, New York: Routledge.</li><li>• Bryman, A., Bell, E. (2022): Business research methods. 3rd + Edition, Oxford University Press</li><li>• Creswell, J. M. (2009): Research design, Sage</li><li>• Easterby-Smith, M., Thorpe, R., &amp; Jackson, P. R. (2008). Management research, 3rd Edition, Thousand Oaks (CA), USA, Sage</li><li>• Mayring, P. (2014). Qualitative content analysis, Sage</li><li>• Pasian, Beverley (2015): Design, Methods, and Practices for Research of Project Management, Gower, Farnham</li><li>• Ritchie, J., &amp; Lewis, J. (Eds.). (2014): Qualitative research practice: A guide for social science students and researchers (2nd ed.), London: Sage</li><li>• Saunders, Mark, Lewis, Philip, &amp; Thornhill, Adrian (2023): Research Methods for Business Students (9th ed.). Upper Saddle River: Prentice Hall.</li><li>• Saunders, M. N. K., Lewis P. (2012): Doing Research in Business &amp; Management – an Essential Guide to Planning Your Project. Harlow: Prentice Hall/Pearson</li><li>• Saunders, M. N. K., Lewis, P., Thornhill, A. (2012): Research Methods for Business Students, Pearson</li></ul>