



Modulhandbuch

Betrieb & Management

Wintersemester 2025

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Lehrveranstaltung L3247: Behavioral Science in Business: Research Methods for Organizations	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	Ausarbeitung und Präsentation in Kleingruppen, Peer Review anderer Präsentationen
Dozenten	Prof. Tim Schweisfurth, Harold Gamero Maldonado
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>Description: This course is designed to equip master students with advanced research skills and tools, tailored for the dynamic landscapes of organizational behaviour and decision sciences, in times of distributed organizations and open innovation. Relying on a research-based approach, students will have the opportunity to apply the theoretical foundations and gain expertise from a hands-on project.</p> <p>Grading: The overall grade will be based on:</p> <ul style="list-style-type: none"> • 40%: Weekly deliverables regarding the research project • 60% Final research report: <ul style="list-style-type: none"> ◦ 50% written report. ◦ 50% verbal exposition. <p>Tentative structure:</p> <ol style="list-style-type: none"> 1. Introduction to organisational behaviour and decision sciences 2. Overview of the research process 3. Multivocal literature review 4. Research designs and sampling approaches 5. Data collection 1: Inductive techniques 6. Qualitative analysis 7. Data collection 2: Deductive techniques 8. Measurement and scaling 9. Quantitative analysis 1: Descriptive statistics 10. Quantitative analysis 2: Inferential statistics 11. Research report for executives 12. Final presentation
Literatur	<p>Cooper, D. R., & Schindler, P. (2014). Business research methods. Mcgraw-hill.</p> <p>Hair Jr, J., Page, M., & Brunsveld, N. (2019). Essentials of business research methods. Routledge.</p> <p>Hine, D., & Carson, D. (Eds.). (2007). Innovative methodologies in enterprise research. Edward Elgar Publishing.</p> <p>Lee, N., & Lings, I. (2008). Doing business research: a guide to theory and practice. Sage</p>

Lehrveranstaltung L2545: Business Decisions with Machine Learning	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	folgt
Dozenten	Prof. Christoph Ihl, Joschka Schwarz
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>Business Decisions with Machine Learning is an introductory course designed to provide you with a sound understanding of the constantly growing opportunities that business analytics experiences through modern approaches in data science and machine learning. In this course you will learn methods of descriptive, predictive and prescriptive analytics in order to approach critical business decisions based on data and to derive recommendations for action. Participants learn how to collect, cleanse and transform large amounts of data using various techniques. The aim is to specifically examine, visualize and model the associated data using modern machine learning methods.</p> <p>During the course, the participants apply the tools they have learned to practical data science problems from various management areas, creating a comprehensive and multifaceted application portfolio that demonstrates their data analysis and modeling skills. The programming language used is R, whereby the integration of Python into the workflow is also practiced. Programming knowledge is not required, but is of course an advantage. Each session will involve a small amount of lecturing on R concepts, and a large amount of time for students to complete assigned coding and analysis problems.</p> <p>Learning objectives:</p> <p>After completing this module, students will be able to:</p> <ul style="list-style-type: none"> • Obtain large amounts of data via APIs or web scraping from the Internet • Clean and transform data • Explore and visualize data in a goal-oriented way • Model data using modern machine learning techniques • Communicate data and results in an actionable form of products, dashboards and applications <p>Preliminary Schedule:</p> <ol style="list-style-type: none"> 1. Fundamentals of Machine Learning (ML) 2. Supervised ML: Regression (I) 3. Supervised ML: Regression (II) 4. Automated ML with H2O 5. ML Performance Measures 6. Explainable ML with LIME 7. Deep Learning
Literatur	Lantz, B. (2019). Machine learning with R: expert techniques for predictive modeling. Packt publishing Ltd.

Lehrveranstaltung L3499: Fundamentals of Digital Innovation, Digital Transformation and Digital Entrepreneurship	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Klausur
Prüfungsdauer und -umfang	60 min
Dozenten	Dr. Johanna Lorenz
Sprachen	EN
Zeitraum	WiSe/SoSe
Inhalt	<p>This course provides a foundation in the core concepts of digital innovation, digital transformation, and digital entrepreneurship, focusing on how digital technologies are fundamentally reshaping industries, business models, and value creation in the 21st century. It explores how organizations, from startups to global corporations, strategically use digital tools and platforms to innovate, adapt, and grow in an era marked by constant technological change. Students will examine the key drivers of digital innovation, including emerging technologies like artificial intelligence and the Internet of Things, and analyze how these technologies enable the development of new products, services, and business models and disrupt established organizing logics. The course emphasizes how digital innovation supports novel forms of entrepreneurship, allowing born-digital companies like N26 or Airbnb to scale rapidly through lean experimentation, platform strategies, and data-driven design. A key focus is also on the challenges and opportunities of digital transformation within established organizations. Students will learn how companies reorganize internal processes, redesign customer experiences, build new digital capabilities, and align digital initiative with strategic goals to stay competitive in dynamic and uncertain environments.</p>
Literatur	Keine Pflichtlektüre angegeben

Lehrveranstaltung L3498: Introduction to Applied Qualitative Research	
Typ	Seminar
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Mündliche Prüfung
Prüfungsdauer und -umfang	20 min
Dozenten	Dr. Johanna Lorenz
Sprachen	EN
Zeitraum	WiSe/SoSe
Inhalt	<p>This interactive course provides an in-depth exploration of qualitative research methods, with a special focus on applications within economic research (e.g., information systems). Students will engage with methods such as case studies, interviews, grounded theories, or focus groups and explore relevant qualitative research techniques like coding of empirical data, participant observation, and in-dept interviewing. The course format is highly interactive, with students participating in practical exercises, course discussions, and real-world applied cases of qualitativ research. These sessions provide students with opportunities to develop their skills in designing and conductin qualitative research projects. Case examples from various disciplines will be used throughout to demonstrate how qualitative research methods can be applied to real-worl scenarios. By the end of the course, students will have acquired practical skills in formulating research questions, selecting suitable qualitative methods, collecting and analyzing data, and presenting their findings in both written and oral formats.</p>
Literatur	Wird im Seminar bekannt gegeben.

Lehrveranstaltung L3339: Shaping Europe's Digital Economy	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Referat
Prüfungsdauer und -umfang	Ausarbeitung und 15-minütiger Vortrag
Dozenten	Prof. Timo Heinrich
Sprachen	EN
Zeitraum	WiSe/SoSe
Inhalt	The problem-based course provides insights into Europe's digital economy, focusing on regulation, the gig economy, and digital platforms. Before the course begins, participants can complete an online course on economic fundamentals. Building on that, they read relevant literature and develop their own economic research question. In small groups, participants create reports on the progress of their work and ultimately present the results to address their research question. They consult further literature and analyze publicly available data. The goal is to foster critical analytical skills and develop solutions for the economic challenges of the digital world.
Literatur	"Economics for the Common Good" By Jean Tirole, "The Economics of European Integration" 7th Edition, By Richard Baldwin, Charles Wyplosz; "Digital Empires" By Anu Bradford; "Understanding the European Union" 8th Edition, By John McCormick

Lehrveranstaltung L3488: Grand Challenges & Citizen Entrepreneurship	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	Gruppenpräsentation, 20-30 min
Dozenten	Dr. Clara Scheve
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>As the world faces growing grand challenges, such as climate change, resource scarcity, armed conflicts and many more, one approach to tackle these challenges is "active citizenship". The idea is that every citizen makes use of his or her skills and put them to work in a meaningful way to explore new ways of addressing social problems. If these citizen activists organize themselves in a business-like structure to achieve a certain goal, we speak of "citizen entrepreneurship". Using tools as online networking, private-public partnerships, corporate engagement or social entrepreneurship, these entrepreneurs strive for sustainable, systemic solutions. Rather than short-term fixes and hand-me-down charity, they aim to build empowering communities and impactful organizations rather than fostering dependency.</p> <p>In this course, you learn about citizen entrepreneurship by using examples and performing a practical assignment. Find out how much active citizenship lies within you and your environment and how to start a citizen initiative. How much potential does citizen entrepreneurship have for solving grand challenges? What are the advantages and disadvantages of the concept? Together we will find out.</p> <p>1 Grand Challenges, Citizen Entrepreneurship, Social problems</p> <p>2 Case Studies, Practical Project</p>
Literatur	<ul style="list-style-type: none"> • Callahan, K. (2007). Citizen participation: Models and methods. <i>International Journal of Public Administration</i>, 30(11), 1179-1196. • Drayton, W. (2002). The citizen sector: Becoming as entrepreneurial and competitive as business. <i>California Management Review</i>, 44(3), 120-132. • von Hippel, E. (2017). Free Innovation by Consumers—How Producers Can Benefit: Consumers' free innovations represent a potentially valuable resource for industrial innovators. <i>Research-Technology Management</i>, 60(1), 39-42. • Ferraro, F., Etzion, D., & Gehman, J. (2015). Tackling grand challenges pragmatically: Robust action revisited. <i>Organization Studies</i>, 36(3), 363-390. • Verweij, M., Douglas, M., Ellis, R., Engel, C., Hendriks, F., Lohmann, S., ... & Thompson, M. (2006). Clumsy solutions for a complex world: the case of climate change. <i>Public Administration</i>, 84(4), 817-843.

Lehrveranstaltung L3494: Hafen und Schifffahrt: datengestützte optimierte Entscheidungsfindung	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Mündliche Prüfung
Prüfungsdauer und -umfang	30 min
Dozenten	Dr. Anisa Rizvanolli
Sprachen	DE
Zeitraum	WiSe
Inhalt	Die Veranstaltung hat das Ziel, die Studierenden in die Lage zu versetzen, komplexe Zusammenhänge aus der betrieblichen Praxis in Hafen und Schifffahrt schnell zu erfassen, Optimierungsbedarfe zu erkennen und strukturiert einzuordnen. Zudem sollen sie verstehen, wie geeignete datengestützte Lösungen zur optimierten Entscheidungsfindung gestaltet und entwickelt werden. Die Veranstaltung wird sich auf folgende Themenbereiche konzentrieren: (1) Identifikation und Analyse von Optimierungsproblemen im operativen Betrieb von Hafen und Schifffahrt. (2) Herleitung und Einordnung des Bedarfs an datengestützten Lösungen durch strukturierte Anforderungsaufnahme und -analyse. (3) Spezifikation der Systemanforderungen zur Entwicklung passender Lösungen. (4) Prototypische Entwicklung ausgewählter Algorithmen und Analyse der Ergebnisse. Die Veranstaltung wird so organisiert, dass die bisher erworbenen Kenntnisse aus den Hauptstudienfächern wie Operations Research und maritime Transport in die praxisorientierten Themen dieser Vorlesung integriert und erweitert werden können. Ziel ist es, die Studierenden besser auf die Praxis vorzubereiten und ihr Bewusstsein für die Notwendigkeit interdisziplinärer Zusammenarbeit bei der erfolgreichen Umsetzung solcher Lösungen zu schärfen.
Literatur	

Lehrveranstaltung L1711: Innovation Debates	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	3 Präsentationen der schriftlichen Ausarbeitung à 20 Minutes
Dozenten	Prof. Daniel Heiner Ehls
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>Scientific knowledge grows continuously but also experiences certain alignments over time. For example, early cultures had the believe of a flat earth while latest research has a spherical earth model. Also in social science and business management, from time to time certain concepts that have even been the predominant paradigm are challenged by new observations and models. Consequently, certain controversies emerge and build the base for advancing theory and managerial practice. With this lecture, we put ourselves in the middle of heated debates for informed academics and practitioners of the day after tomorrow.</p> <p>The lecture targets several controversies in the domain of technology strategy and innovation management. By the classical academic method and the novel problem based learning format of a structured discussion, a given controversy is scrutinized. On selected topics, students will discuss a dispute and gain a thorough understanding. Specifically, based on a brief introduction of a motion, a affirmative constructive as well as a negative constructive is presented by two different student groups. Each presentation is followed by a response of the other group and questions from the class. Topics range from latest theories and concepts for value capture, to the importance of operating within a global marketplace, to cutting edge approaches for innovation stimulation and technology management. Consequently, this lecture deepens the knowledge in technology strategy and innovation management (TIM), enables a critical thinking and thought leadership.</p>
Literatur	<ol style="list-style-type: none"> 1. Course notes and materials provided before the lecture 2. Leiblein/ Ziedonis (2011): Technology Strategy and innovation management. Edward Elgar Publishing Ltd (optional)

Lehrveranstaltung L3298: Costing and Business Negotiations for Engineers	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	1 Stunde 10 Minuten
Dozenten	Asaduzzaman Kagozi
Sprachen	EN
Zeitraum	WiSe/SoSe
Inhalt	<p>1) To provide students with a comprehensive understanding of costing needs for business it's process, principles and techniques.</p> <p>2) To develop students' skills in analyzing project costs, estimating budgets, and managing project finances effectively.</p> <p>3) To equip students with negotiation strategies and techniques for successful business interactions and contract management.</p>
Literatur	

Lehrveranstaltung L0863: Marketing	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Klausur
Prüfungsdauer und -umfang	
Dozenten	Prof. Christian Lüthje
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>This course introduces engineering students to essential marketing concepts, covering strategic marketing, product design, pricing, communication, and sales distribution. Tailored for a technical audience, it combines theoretical insights with practical examples to show how marketing principles are applied in the business world.</p> <p>Why This Course is Essential:</p> <p>In today's competitive environment, understanding marketing is crucial for engineering students to ensure their innovations succeed in the marketplace. This course bridges the gap between engineering and marketing, providing the knowledge needed to align product development with market demands and contribute to commercial success.</p> <p>Content:</p> <p>The following key questions will be explored throughout the course:</p> <ul style="list-style-type: none"> • What are the basics of marketing, and why are they important? An introduction to core marketing concepts like marketing strategies, the marketing mix, or market segmentation. • How can companies approach strategic marketing? Understanding strategic marketing with a focus on how to ensure long-term success of companies in markets. • How to ensure customer orientation in the design and development process? Exploring the link between product design and market needs, ensuring alignment with consumer requirements. • How do pricing affect market success? Understanding pricing models and how to determine suitable prices. • What role does communication play in marketing? Examining marketing communication methods and their impact on brand, awareness and conversion. • How is sales managed? Understanding the processes and methods of selling products to customers. <p>What You Will Learn and Get:</p> <ul style="list-style-type: none"> • Marketing Foundations: A solid grounding in marketing principles tailored for engineering students. • Practical Applications: Apply theories to real-world scenarios with case studies and expert guest lectures. <p>By the end of this course, you will have the marketing knowledge and skills to support the success of engineering projects. Join us to enhance your ability to contribute effectively to the business side of engineering.</p>
Literatur	

Lehrveranstaltung L3140: Nachhaltige Unternehmensführung in der Praxis	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	60 Minuten
Dozenten	Stefan Klebert
Sprachen	DE
Zeitraum	WiSe/SoSe
Inhalt	<p>Die universelle Herausforderung für Studenten ist es, das im Studium erlernte Wissen in einen praktischen Kontext zu übertragen. Management ist, mehr als jedes einzelne Fach für sich, die Kunst, aus den verschiedenen Themenfeldern eine holistische Entscheidung zu formen. Grundsätzlich ist dieses Prinzip in jeder Art von Management unverändert, sei es in einem Start-up, in einem mittelständischen oder einem börsennotierten Unternehmen. Dem Management liegt also die folgende Frage zu Grunde: Welche Kombination von Handlungen führt zu einem nachhaltigen Wettbewerbsvorteil für die eigene Organisation. Um bei der Beantwortung dieser Frage behilflich zu sein, möchte dieser Kurs Einsichten in die zurückliegenden und künftig benötigten Veränderungen innerhalb der GEA geben. Um dies zu erreichen, wird eine Kombination theoretischer und praktischer Elemente mit Fallstudien, einem Managementspiel und Diskussionen angeboten. Das Ziel ist, diese Vorlesung so weit wie möglich an der Managementrealität anzulehnen. Die Vorlesung gestaltet sich über drei Tage in täglichen Blöcken á sechs Stunden, weitere Details folgen.</p>
Literatur	<p>Es wird kein Lehrbuch benötigt.</p> <p>Fallstudien (verpflichtend)</p> <ul style="list-style-type: none"> • Notwendig, um die theoretisch erlernten und praktisch veranschaulichten Konzepte in einen Anwendungsrahmen zu bringen. • Müssen gelesen und, wo erwähnt, zur gemeinsamen Besprechung vorbereitet werden. • Die vorzubereitenden Fragen werden mit den Vorbereitungsmaterialien verteilt.

Lehrveranstaltung L0709: Project Management	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Klausur
Prüfungsdauer und -umfang	90 min
Dozenten	Prof. Carlos Jahn
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>The lecture “project management” aims at characterizing typical phases of projects. Important contents are: possible tasks, organization, techniques and tools for initiation, definition, planning, management and finalization of projects. This will also be deepened by exercises within the framework of the event.</p> <p>The following topics will be covered in the lecture:</p> <ul style="list-style-type: none"> • SMART, Work Breakdown Structure, Operationalization, Goals relation matrix • Metra-Potential Method (MPM), Critical-Path Method (CPM), Program evaluation and review technique (PERT) • Milestone Analysis, Earned Value Analysis (EVA) • Progress reporting, Tracing of project goals, deadlines and costs, Project Management Control Loop, Maturity Level Assurance (MLA) • Risk Management, Failure Mode and Effects Analysis (FMEA), Risk Matrix
Literatur	<p>Project Management Institute (2017): A Guide to the Project Management Body of Knowledge (PMBOK® Guide) 6. Aufl. Newtown Square, PA, USA: Project Management Institute.</p> <p>DeMarco, Tom (1997). The Deadline: A Novel About Project Management.</p> <p>DIN Deutsches Institut für Normung e.V. (2009). Projektmanagement - Projektmanagementsysteme - Teil 5: Begriffe. (DIN 69901-5)</p> <p>Frigenti, Enzo and Comminos, Dennis (2002). The Practice of Project Management.</p> <p>Haberfellner, Reinhard (2015). Systems Engineering: Grundlagen und Anwendung</p> <p>Harrison, Frederick and Lock, Dennis (2004). Advanced Project Management: A Structured Approach.</p> <p>Heyworth, Frank (2002). A Guide to Project Management.</p> <p>ISO - International Organization for Standardization (2012). Guidance on Project Management. (21500:2012(E))</p> <p>Kerzner, Harold (2013). Project Management: A Systems Approach to Planning, Scheduling, and Controlling.</p> <p>Lock, Dennis (2018). Project Management.</p> <p>Martinelli, Russ J. and Milošević, Dragan (2016). Project Management Toolbox: Tools and Techniques for the Practicing Project Manager.</p> <p>Murch, Richard (2011). Project Management: Best Practices for IT Professionals.</p> <p>Patzak, Gerold and Rattay, Günter (2009). Projektmanagement: Leitfaden zum Management von Projekten, Projektportfolios, Programmen und projektorientierten Unternehmen.</p>

Lehrveranstaltung L1385: Projektmanagement in der industriellen Praxis	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Schriftliche Ausarbeitung
Prüfungsdauer und -umfang	Gruppenarbeit: Erstellung eines Poster sowie eines Aufgabenblatts (inkl. Lösungen)
Dozenten	Wilhelm Radomsky
Sprachen	DE
Zeitraum	WiSe
Inhalt	<p>In der Veranstaltung werden aktuelles Wissen und Trends zum Projektmanagement behandelt</p> <ul style="list-style-type: none"> • Projektmanagementkultur mit Lessons Learned, Optimierung von Theorie und Prozess • Projektmanagementtheorie gespiegelt an den Erfahrungen aus der Projektmanagementpraxis • Entwicklung, Implementierung und Betrieb eines PM-Systems in kleinen und großen Firmen, z.B. Siemens • Grundlagen des Projektmanagements (Kompetenzen, Methoden, Tools) werden geübt, z.B. EVA, MTA, KTA, FMEA, PDCA, MPM <p>Ziel ist die Information über aktuelle Herausforderungen im PM</p> <ul style="list-style-type: none"> • Modernes agiles Projektmanagement in dynamischen Märkten • Herausforderungen in bewegten Zeiten bestehen, Projektmanagement im VUCA- und BANI-Umfeld • Beherrschen von Änderungen und Veränderungen • Sicherung der Zukunft durch professionelles Agieren • Sicherstellen von Gesundheit und Ergebnis in Job und Projekt <p>Mit den Themenschwerpunkten</p> <ul style="list-style-type: none"> • Projektmanagement in Industrie, KMU, Studium und privat • Project Life Cycle, Prozess und Organisation, agil oder 'agil' • Integrations-, Inhalts- und Umfangsmanagement, Umfeld- und Stakeholder Management • Vertrags-, Risiko- und Änderungsmanagement • Termin-, Kosten- und Personalmanagement • Qualitätsmanagement, Erfolgsfaktoren im Projektumfeld • Der menschliche Faktor, Unternehmenskultur • Kommunikationsmanagement, Teamentwicklung, Führungstheorien <p>Projektmanagement wird als probates Mittel zur Aufgaben- und Problemlösung in privaten und beruflichen Umfeldern präsentiert. Projektmanagement wird immer mehr als agiles zielorientiertes Führungskonzept in Firmen und Betrieben genutzt. Den TeilnehmerInnen werden Kompetenzen und Lösungswege zur besseren Bewältigung ihrer Aufgaben vorgestellt. Die Anwendung des Projektmanagements kann bereits im Studium zur Verbesserung von Struktur, Kommunikation, Ergebnis führen und auf den Berufseinstieg vorbereiten. Die Vorlesung dient als Basis für eine Projektmanagementzertifizierung bei den entsprechenden Zertifizierungsstellen wie z.B. GPM oder PMI, der Projektmanagementprozess wird gemäß den grundlegenden internationalen Projektmanagementstandards von IPMA und PMI und dem für die Praxis angepasstem Projektmanagementsystem von Siemens vorgestellt.</p>
Literatur	<ul style="list-style-type: none"> • PMI - PMBOK-Guide 7th Edition (A Guide to the Project Management Body of Knowledge) 2021 • GPM - Kompetenzbasiertes Projektmanagement (PM4) 2019 • Bea/Scheurer/Hesselmann - Projektmanagement 2019 • Kerzner, Harold - Projektmanagement 2022

Lehrveranstaltung L3194: Prototyping: Developing an Minimum Viable Product (MVP)	
Typ	Seminar
SWS	2
LP	3
Arbeitsaufwand in Stunden	Eigenstudium 62, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	Bewertung der Teamleistung anhand mehrerer Pitches und des erzielten Fortschritts
Dozenten	Prof. Christian Lüthje
Sprachen	EN
Zeitraum	WiSe/SoSe
Inhalt	<p>Building on the course Future Founder - Validation: Problem and Solution Validation, this hands-on follow-up entrepreneurship program allows students to develop initial prototypes for their validated business ideas. These prototypes are then tested with identified target groups and continuously refined to be further developed into products or services. The focus is on applying effective methods to create a Minimum Viable Product (MVP) that can be quickly and iteratively improved.</p> <p>Teams are guided by experienced prototyping experts and learn how to efficiently apply proven methodological frameworks and digital and physical tools to optimize the prototyping process. The course teaches teams how to use their prototypes as testing platforms to validate assumptions about functionality, market acceptance, and feasibility using data-driven methods and subsequently develop a business model.</p> <p>This program is designed for students with a validated early-stage business idea. Participation is determined through a selection process to ensure a high level of motivation and commitment to entrepreneurship.</p> <p>Core Topics:</p> <ul style="list-style-type: none"> • Introduction to Prototyping: Learning the basics and the central importance of rapid prototyping for a successful startup process. • Efficient and Iterative Work: Developing, testing, and continuously improving prototypes using the Lean Startup model, incorporating feedback, new insights, and limited resources. • Cross-Format Prototyping: Creating prototypes in various formats, both digital (e.g., apps, simulations) and physical (e.g., models, hardware). Using no-code/low-code tools, design software, and physical tools and frameworks for quick and effective implementation of ideas. • Business Model: Iteratively developing the business model based on prototype tests, market feedback, test results, and initial partnerships to validate scalability. • Go-to-Market Strategies and Funding: Gaining knowledge on creating strategic plans for market entry, including potential approaches to sales, marketing, and funding. • Pitch Training: Enhancing presentation skills to precisely and convincingly present business ideas to partners and potential customers. • Inspirational Insights: Keynotes from founders emphasizing the importance of prototyping and rapid iterations as keys to success in the startup process—for both digital and physical products. • Networking: Building a network of experts, investors, and founders to support the development process and create connections for potential startup formation. • Teamwork: Encouraging collaborative working methods and creative problem-solving within teams to achieve optimal results. <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Developing prototypes that serve as the basis for market and customer validation and further tests. • Mastering tools and methods to quickly and efficiently turn ideas into initial prototypes. • Adapting prototypes iteratively based on feedback and using them as key tools for communication and presentation. • Gaining initial insights into scaling and transforming prototypes into market-ready products with a focus on technical and economic feasibility. • Advancing the business model based on market feedback, test results, and potential partnerships to assess scalability and profitability. • Learning fundamental approaches to go-to-market strategies and funding opportunities. • Encouraging creativity and problem-solving skills in interdisciplinary teams. <p>Format:</p> <ul style="list-style-type: none"> • Regular evening and weekend sessions with lectures and interactive workshops, including hands-on sessions in research labs with access to 3D printers, electronics, and mechatronics labs for physical prototyping. • Independent and interdisciplinary teamwork. • Regular digital meetings within the cohort to exchange progress and experiences. • Continuous mentoring meetings with industry experts tailored to the teams' needs.
Literatur	

Lehrveranstaltung L3489: Quality Management System - A Strategic and Organizational Approach	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	Ausarbeitung und Präsentation in Kleingruppen, Peer Feedback, 25 min
Dozenten	Tim Linde
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>The course "Quality Management System" provides a broad perspective on the concept of quality and the application of quality management. Students will get to know the strategic meaning of quality management for a company. Further, they will experience the implementation of a quality management system within simulations in groups work.</p> <p>Starting with an introduction to the idea of quality and to the development of quality management over time, the course will take a look at the role of a quality management department in a company. Student groups then take over the roles of different departments (e.g. procurement, engineering, production, sales), who get the task of jointly setting up a quality management system. In interactive sessions, the students will go through the process of assessment, development, implementation and documentation. In order to be able to perform the different tasks, core quality management tools and models will be introduced and then put into practice by the participants.</p> <p>In sum, the course will provide solid theoretical knowledge about quality management theory and qm tools as well as enable students to contribute to the quality management activities in a company. Analytical thinking and communication skills of the participants will be challenged and developed.</p>
Literatur	<p>Griffey, L. (2024): Understanding Quality Management</p> <p>Tricker, R (2019): Quality Management Systems, London</p>

Lehrveranstaltung L2349: Rechnungswesen und Jahresabschluss	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Klausur
Prüfungsdauer und -umfang	60 min
Dozenten	Prof. Matthias Meyer
Sprachen	DE
Zeitraum	WiSe/SoSe
Inhalt	<p>Inhalte:</p> <ol style="list-style-type: none"> 1. Bedeutung des externen Rechnungswesens und erster Überblick 2. Systematik und Technik der doppelten Buchführung 3. Von der Inventur zur Bilanz 4. Bilanzierungsgrundsätze und -regelungen: Allgemeine Ansatzvorschriften, Bewertungs- und Ausweisvorschriften HGB/ IFRS 5. Bilanzpolitik
Literatur	<p>Unterlagen:</p> <p>Die Inhalte werden hauptsächlich über entsprechend zur Verfügung gestellte Lernvideos vermittelt.</p> <p>Ergänzende Literatur:</p> <p>Ausgewählte Bücher:</p> <ul style="list-style-type: none"> • Weber, J./Weißenberger, B. (2015): Einführung in das Rechnungswesen, 9. Aufl., Stuttgart • Eilenberger, G./ Toebe, M./ Scherer, F. (2014): Betriebliches Rechnungswesen, 8. Auflage, München • Coenenberg, A./Haller, A./Mattner, G./Schultze, W. (2009): Einführung in das Rechnungswesen, 3. Aufl., Stuttgart. • Döring,U./Buchholz, R. (2009): Buchhaltung und Jahresabschluss, 11. Aufl., Berlin.

Lehrveranstaltung L1133: Recht für Ingenieure	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Klausur
Prüfungsdauer und -umfang	90 Minuten
Dozenten	Markus A. Meyer-Chory
Sprachen	DE
Zeitraum	WiSe
Inhalt	<ul style="list-style-type: none"> • Auffrischung: Grundlagen des Rechts • Fälle rechtlich relevanten Ingenieurshandeln: Vertragsrecht, Haftungsrecht - auch Produkthaftung, Arbeitsrecht, Patentrecht, Gesellschaftsrecht
Literatur	<p>Notwendiger Gesetzestext (in Klausur erlaubt):</p> <p>Bürgerliches Gesetzbuch 72. Auflage , 2013 , dtv Beck-Texte 5001, ISBN 978-3-406-65707-8</p> <p>Empfohlene Gesetzestexte:Arbeitsgesetze 83. Auflage, 2013 dtv Beck-Texte 5006 ISBN 978-3-406-65689-7</p> <p>Handelsgesetzbuch 54. Auflage, 2013 dtv Beck Texte 5002 ISBN 978-3-406-65083-3</p> <p>Gesellschaftsrecht, 13. Auflage , 2013 dtv Beck Texte 5585 ISBN 978-3-406-64502-0</p> <p>Wettbewerbsrecht, Markenrecht und Kartellrecht , 33. Auflage, 2013 dtv Beck Texte ISBN 978-3-406-65212-7</p> <p>Empfohlene Literatur:</p> <p>Vock, Willi, Recht der Ingenieure, 1. Auflage 2012, Boorberg Verlag , ISBN-10:3-415-04535-8 --- EAN:9783415045354</p> <p>Meurer Rechtshandbuch für Architekten und Ingenieure 1...Auflage -- erscheint Anfg 2014 Werner Verlag ISBN 978-3-8041-4342-5</p> <p>Eisenberg / Gildeggen / Reuter / Willburger Produkthaftung 2. Auflage - erscheint Anfg 2014 Oldenbourg Verlag - ISBN 978-3-486-71324-4</p> <p>ENDERS/HETGER, Grundzüge der betrieblichen Rechtsfragen, 4. Auflage, 2008 Richard Boorberg Verlag - ISBN 978-3-415-04005-2</p> <p>Müssig, Peter, Wirtschaftsprivatrecht, 15. Auflage, 2012 , C.F. Müller UTB - ISBN 978-3-81149476-3</p> <p>Schade, Friedrich, Wirtschaftsprivatrecht, 2. Auflage 2009, Kohlhammer - ISBN 978-3-17-021087-5</p>

Lehrveranstaltung L3497: Strategic Marketing for Complex Industrial Plants (Shipbuilding)	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Klausur
Prüfungsdauer und -umfang	120 min
Dozenten	Dr. Henning Waschk
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>Knowledge: Understand the key mechanism of the international B2G market for shipbuilding and the related key drivers for decision makers for the procurement of of high complexity and financial value.</p> <p>Exhibit a conceptual understanding of the principal functional areas of industrial marketing in shipbuilding for the governmental sector (research, customs, and coast guard, navy).</p> <p>Understand all elements of the global business environment, relating particularly to the political, economic, cultural and ethical challenges facing the defence community</p> <p>Skills: Develop and analyse business and defence-related planning, strategy, cross-functional working and core business processes</p> <p>Display the capabilities to identify, explain, analyse and implement appropriate conclusions and follow-on policy conclusions for complex problems in the context of uncertainty and change.</p>
Literatur	<p>Kambrod, Matthew R., Lobbying for Defense: An Insider's View, Book News, Inc., Portland, OR (booknews.com), 2007</p> <p>Todd, Danile & Lindberg, Michael, Navies and Shipbuilding Industries, Praeger Publishers, 88 Post Road West, Westport, CT 06881, 1996</p> <p>Pommerin, Reiner & Potgieter, Thean, Maritime Security in Southern African Waters. SUN MeDIS Stellenbosch, Ryneveld Street, Stellenbosch 7600, 2009Mc</p> <p>Nicholas, Michael, Maritime Security - An Introduction, Butterworth-Heinemann, 2008</p> <p>Backhaus, Klaus, Industriegütermarketing, 7. Auflage, Verlag Vahlen, 2007Till,</p> <p>Geoffrey, Seapower: A Guide for the Twenty-First Century, Routledge, 2013Spreen,</p> <p>Wesley E., Marketing in the International Aerospace Industry, Ashgate Publishing Company, 2007</p> <p>Peter F. DRUCKER, THE PRACTICE OF MANAGEMENT, Peter Drucker's five most important questions (Copyright © 2015 by the Frances Hesselbein Leadership Institute</p>

Lehrveranstaltung L3493: Total Quality Management	
Typ	Seminar
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Schriftliche Ausarbeitung
Prüfungsdauer und -umfang	Gruppenarbeit mit schriftlicher Ausarbeitung (je Student 8 Seiten) und Präsentation der Ergebnisse (je Student ca 6 Minuten)
Dozenten	Prof. Jürgen Rothlauf
Sprachen	EN
Zeitraum	WiSe/SoSe
Inhalt	The subject of this course is a comprehensive approach to all aspects of TQM. Employees, suppliers, distributors and customers are included in this business process and a precise quality orientation of all internal and external participants is mandatory.
Literatur	<p>Oakland, J.S., Turner, M.A.: TQM and Operational Excellence. 5th ed. 2020</p> <p>Rothlauf, Jürgen: Total Quality Management in Theorie und Praxis. Zum ganzheitlichen Unternehmensverständnis. 4 Aufl. 2014</p>

Lehrveranstaltung L3193: Validation: Problem and Solution Validation	
Typ	Seminar
SWS	2
LP	3
Arbeitsaufwand in Stunden	Eigenstudium 62, Präsenzstudium 28
Prüfungsart	Schriftliche Ausarbeitung
Prüfungsdauer und -umfang	Abgabe eines Portfolios am Semesterende
Dozenten	Prof. Christian Lüthje
Sprachen	EN
Zeitraum	WiSe/SoSe
Inhalt	<p>This entrepreneurship program teaches participants how to test and refine early-stage business ideas through systematic validation processes. The focus is on identifying core customer and user problems that form the basis of a business idea. Building on this, teams develop suitable solutions based on a solid understanding of their target audience. Additionally, the market viability of the developed solutions is analyzed.</p> <p>Participants collaborate closely as a cohort and benefit from regular feedback from an interdisciplinary team of professors, led by TUHH and supported by professors from University of Hamburg, FH Wedel, HAW Hamburg, and Leuphana University. The course management also assigns team-specific mentors and industry experts who guide the validation and development process and support teams in making key decisions.</p> <p>The program is specifically designed for students interested in entrepreneurship. Applicants should already have an initial business idea and identified potential co-founders. Participation is determined through a selection process to ensure all participants exhibit a high level of motivation and commitment to entrepreneurship.</p> <p>Core Topics:</p> <ul style="list-style-type: none"> • Problem Validation: Analyzing the fundamental challenges and needs that a business idea addresses and that represent real problems for target users and customers. This includes defining relevant problems worth solving and formulating and testing hypotheses to validate the business idea. • Customer Needs and Market Research: Learning strategies for applying qualitative and quantitative methods to gain customer insights and expert knowledge, as well as to test hypotheses—e.g., through interviews and surveys with potential users to identify key needs. • Solution Validation: Developing potential solutions to address validated problems, followed by iterative and rapid testing to efficiently evaluate the effectiveness and benefits of proposed solutions. • Market Potential: Analyzing target audiences, market segments, and growth opportunities to outline the scalability and competitiveness of the business idea. • Feedback Integration: Learning methods for structured collection and effective integration of feedback into the development process. • Networking: Building a network of like-minded students, industry experts, investors, and founders to create valuable connections for developing the business idea and future entrepreneurial ventures, with a focus on the Hamburg ecosystem. • Team Development: Optimizing team composition, structure, processes, and role distribution, including implementing psychology workshops or group and self-reflection exercises to improve collaboration and mindfulness. • Inspirational Talks: Engaging lectures and practical insights from experienced founders in the Hamburg startup scene and validation experts from leading consultancies. <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Refining and iteratively improving concrete business ideas aligned with real market needs and user problems. • Confident application of proven methods for problem and solution validation in an entrepreneurial context. • Achieving a problem-solution fit and designing and testing solutions as potential products or services. • Embracing an open feedback culture through regular feedback sessions with professors, mentors, and peer-learning experiences with students. • Conducting structured customer interviews and validation tests to make data-driven decisions. • Developing an entrepreneurial mindset focused on quick and effective validation processes with a hands-on approach. • Building awareness of when and why an idea should be adapted or abandoned. • Establishing effective team structures with clear role distribution and optimal use of individual strengths. <p>Format:</p> <ul style="list-style-type: none"> • Regular evening and weekend sessions with lectures and interactive workshops. • Independent and interdisciplinary teamwork. • Regular digital meetings within the cohort to exchange progress and experiences. • Continuous mentoring meetings with industry experts tailored to the needs of the teams.
Literatur	

Lehrveranstaltung L2669: Negotiation Management	
Typ	Projekt-/problembasierte Lehrveranstaltung
SWS	3
LP	3
Arbeitsaufwand in Stunden	Eigenstudium 48, Präsenzstudium 42
Prüfungsart	Fachtheoretisch-fachpraktische Arbeit
Prüfungsdauer und -umfang	Vorbereitung, Durchführung und Selbstreflektion zu einer simulierten Verhandlungssituation. Die fiktive Verhandlung hat einen Umfang von 4 ½ Präsenzstunden und erfordert ausführliche Vor- und Nachbereitung im Umfang von ca. 3 x 2 Stunden. Zum Abschluss ist ein Reflektionsbericht einzureichen. Weitere Prüfungsleistungen werden im Rahmen von Lernfortschrittsabfragen entlang der Vorlesung erbracht.
Dozenten	Prof. Christian Lüthje
Sprachen	EN
Zeitraum	WiSe
Inhalt	<p>This course offers to develop knowledge and skills in negotiation. This course offers an in-depth exploration of negotiation-related theories and their applications in diverse settings such as industrial marketing relations (e.g., sales and procurement negotiations) and internal corporate negotiations (e.g., budget negotiations).</p> <p>Why This Course is Essential:</p> <p>In today's dynamic business environment, the ability to negotiate effectively is crucial for achieving optimal solutions and ensuring their acceptance and implementation. Despite frequent opportunities to negotiate, many individuals lack the strategic and tactical knowledge necessary for success. This course is designed to bridge that gap, providing you with the knowledge and the tools needed to excel in different negotiation situations.</p> <p>Content:</p> <p>The following key questions will be explored throughout the course:</p> <ul style="list-style-type: none"> • What are the key characteristics of negotiations? Understanding the fundamental elements that define a negotiation (e.g., negotiation objectives, negotiation parties) and become familiar with different types of negotiations. • What are the stages of negotiation processes? Exploring the typical phases of negotiation, from preparation to the implementation of a deal. • What theoretical approaches contribute to a theory of negotiation? Analyzing various theoretical frameworks that underpin negotiation practices, including but not limited to game theory and psychological theories. • What are the characteristics, strategies and tactics related distributive and integrative negotiation settings? Comparing and contrasting the distributive (win-lose) and integrative (win-win) negotiation strategies, identifying their key characteristics, advantages, and appropriate contexts for their application. <p>What You Will Learn and Get:</p> <p>Theoretical Foundations: Gain a solid understanding of key negotiation-related theories such as game theory or behavioral theories.</p> <p>Practical Applications: Learn how theoretical knowledge can be applied in different real-world settings via several practical examples and short groups exercises. Particularly, you will learn to adapt your behavior to more integrative or distributive negotiation settings.</p> <p>Expert Insights: Benefit from presentations by external negotiation experts, including procurement and sales professionals, who bring real-world experience and insights to the classroom.</p> <p>Experiential learning and self-analysis (PBL session): Engage in negotiation exercises, allowing you to experiment with various strategies and tactics in a controlled, supportive environment. Develop the ability to critically analyze your own negotiation behaviors, enhancing your self-awareness and effectiveness in future negotiations.</p> <p>By the end of this course, you will have a robust toolkit of negotiation strategies and tactics, enhanced analytical skills, and the confidence to navigate and succeed in complex negotiation scenarios. Join us to transform your negotiation abilities and take a decisive step towards becoming a more reflected and influential negotiator.</p>
Literatur	

Lehrveranstaltung L1381: Öffentliches- und Verfassungsrecht	
Typ	Vorlesung
SWS	2
LP	2
Arbeitsaufwand in Stunden	Eigenstudium 32, Präsenzstudium 28
Prüfungsart	Klausur
Prüfungsdauer und -umfang	90 min
Dozenten	Klaus-Ulrich Tempke
Sprachen	DE
Zeitraum	WiSe/SoSe
Inhalt	<p>Die Materien des öffentlichen Rechts sowie Verfahrensgang, Instanzenzug und Gerichtsbesetzung der Verwaltungsgerichtsbarkeit. Unterschiedliche Gewalten, Organe und Handlungsformen der Gewalten</p> <p>Grundbegriffe und Grundstrukturen der Grundrechte, grundrechtsgleiche Rechte</p> <p>Grundrechtsfähigkeit, objektive Funktionen und subjektiver Gewährleistungsgehalt von Grundrechten</p> <p>Die Menschenwürde als Leitprinzip der Verfassung</p> <p>Das allgemeine Persönlichkeitsrecht</p> <p>Die allgemeine Handlungsfreiheit</p> <p>Vorrausgesetzt: Eigene Ausgabe des Grundgesetzes (kostenlos bei der Landeszentrale für politische Bildung erhältlich)</p>
Literatur	Grundgesetz