



MODULE HANDBOOK

STUDY PROGRAMME IEDS

Status: 01.03.2025



The SPO in its current version is legally binding.

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2.31 Development Economics

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Hochschule Neu-Ulm
University of Applied Sciences

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MODULE
RESPONSIBLES

MODUL-
VERANTWORTLICHE



List of Module Responsibles

	Module Responsibles
Entrepreneurial Trend and Technology Scouting	Prof. Schallmo
Entrepreneurial Ideation and Prototyping	Prof. Schallmo
Digital Transformation and Entrepreneurship	Prof. Schallmo
International Strategic Management	Prof. Schallmo
Entrepreneurial Funding and Finance	Prof. Steurer
Entrepreneurship and Development Management	Prof. Bayer
Innovation Project Lab (Project Work)	Prof. Bayer
Design Thinking for Social Entrepreneurship (Project Work)	Prof. Bayer
Economic and Business Ethics	Prof. Bayer
Strategic Information Management in Practice	Prof. Gewald
Strategic Growth and Sales Management	Prof. Kracklauer
Strategic Market Intelligence	Prof. Fabian
Social Entrepreneurship and Impact (Project Work)	Prof. Wild
Business Model Generation for Social Businesses (Project Work)	Prof. Bayer
Enterprise Application Engineering	Prof. Brune
Advanced NLP	Prof. Brune
Business Application Re-Engineering	Prof. Brune
Introduction to Digital Innovation	Prof. Buchwald
Digital Innovation Strategy	Prof. Buchwald
Digital Business Models and Approaches	Prof. Lang
Applied Data Digitalisation	Prof. Schallmo
Disruptive Technologies	Prof. Lang
Digital Implementation	Prof. Schallmo
Technology & Application Management	Prof. Weeger
Digital Process Management	Prof. Vogt
Digital Leadership	Prof. Weeger
Sustainable Economic Models and Responsible Management	Prof. Mayer
Communication for Sustainability	Prof. Mayer
Sustainable Projects and Social Innovation (Case Studies & Best Practices)	Prof. Mayer
Circular Economy and Resource Management	Prof. Bayer
Development Economics	Prof. Neumann
Sustainable Supply Chain Management	Prof. Prenzler
Junior Consulting Project	Prof. Schallmo
Scientific Research Lab	Prof. Schallmo
Master Seminar	Prof. Schallmo
Master Thesis	Prof. Schallmo

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MODULE DESCRIPTIONS MODUL- BESCHREIBUNGEN



Module Description/Syllabus

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Module	Entrepreneurial Trend and Technology Scouting		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning (everything online, if needed)		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional:

- English in writing and language, basic business understanding

methodical:

- analysis ability, conceptual skills, organizability, time management, problem solving ability

social:

- intercultural competence, communication skills, critical ability, team ability

personal:

- adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- are made aware of the topic of Trend Scouting
- will get an overview of Trend Scouting Techniques
- will understand and apply basic terms in trend scouting
- will analyze what models and theories explain developments of technologies, products and trends
- will apply Trend Scouting techniques within a case study
- will understand and analyze which competencies are needed for Trend Scouting
- will learn how to present Trend Scouting Results
- apply all the exercises in an entrepreneurial, simulated, context

2) the students:

- are able to organize themselves and to work in teams
- can motivate themselves and others
- can reflect on and improve their working methods and their result
- are able to give feedback and to learn from other's feedback
- will learn how to work into groups
- exchange views and network with each other

Learning Content

content:

- motivation for Trend Scouting - why dealing with trends and thinking about the long-term future?
- finding and describing a case study; framing the tasks by an entrepreneurial setting
- getting an overview of trend techniques and tools
- evaluating and visualizing trends using analytical tools
- describing trends and linking them to the business model
- developing the presentation and finding a good story around the hard facts

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Wellers, D.; Goerlich, K.; Overby, S. (2017): Why Strategie Plans Need Multiple Futures. In: Digitalist Magazine, 15.11.2017	
	Horx, M. (2014): The megatrend principle, Pantheon, 1st ed. 2014	
	Pillkahn, U. (2017): Trends and scenarios as tools for strategy development, Siemens	
	Schuh, G.; Klappert, S. (2011): Technology management-, SpringerNDI, 2nd edition	
	Rohrbeck, R. (2014). Trend scanning, scouting and foresight techniques. In Management of the fuzzy front end of innovation (pp. 59-73). Springer, Cham.	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages; 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	1.0	Document Date 08.06.2021
Document was created by	Dr. Birgit Stelzer	Valid from 01.10.2021
Updated		by

Module Description/Syllabus

Module	Entrepreneurial Ideation and Prototyping		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

professional: communicating in English using the four basic language skills (i.e., reading, writing, speaking, and listening), basic business and/or economic knowledge;
methodical: analysis ability, conceptual skills, organizability, time management, problem solving ability;
social:
intercultural competence, communication skills, critical ability, team ability;
personal:
adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

general objectives

-upon successful completion of this unit, you should be able:

- to understand the basics of Design Thinking.
- to be inspired by practical examples of Design Thinking
- to outline - roadmap for Design Thinking with activities and tools

specific objectives

- to know what Design Thinking is about
- to formulate a Challenge and to justify it
- to be empathic for the user
- to apply Design Thinking tools such as Personas and User Journey
- to develop numerous ideas: by gaining ideas, solutions are to be developed to meet the derived needs.
- to summarize relevant ideas: as not all ideas won can be implemented, they should be evaluated in order to concentrate on the relevant ideas.
- to know about how the ideation process in Design Thinking works
- to explain different types of prototypes
- to prototype an idea and to test it
- to pitch a prototype
- to build a business model for a prototype
- to give structured feedback

Learning Content

content:

- defining the user problem (design challenge)
- reviewing and revising the design challenge based on real world observations
- developing user profiles based on the observation results
- exploring numerous ideas to help solve the user-oriented design challenge
- deciding on one prototype and developing this prototype
- testing the prototype with real users
- integrating the prototype into business models
- in-depth exploration of business model dimensions

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Schallmo, D. (2017). Design Thinking erfolgreich anwenden: So entwickeln Sie in 7 Phasen kundenorientierte Produkte und Dienstleistungen (1. Auflage). Wiesbaden: Springer.	
	Plattner, H.; Meinel, Ch. & Weinberg, U. (2009). Design Thinking. Innovation lernen, Ideenwelten öffnen. München.	
	Weinberg, U. (2012). Vortrag zum Thema Design Thinking. Verfügbar unter: https://www.youtube.com/watch?v=WDCZ8u6YZ6I (22.05.2015).	
Additional (module) information	"Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages; 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%"	
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Module Description/Syllabus

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Module	Digital Transformation and Entrepreneurship		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding

methodical: analysis ability, conceptual skills, organizability, time management, problem solving ability

social: intercultural competence, communication skills, critical ability, team ability

personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- know trends in digitization and their effects on business models and entrepreneurship
- are able to apply a roadmap for the successful digital transformation of business models
- can analyze customer requirements in the context of digital transformation and in the context of entrepreneurship
- can examine best practices for digital transformation and entrepreneurship and can create ideas for developing business models
- are able to identify and evaluate potentials, enablers and applications of digitization
- can create options for digitized business models.

2) the students:

- are able to organize themselves and to work in teams
- can motivate themselves and others
- can reflect on and improve their working methods and their results.

Learning Content

content:

- trigger and motivation for the digital transformation of business models and for entrepreneurship
- examples for the digital transformation of business models and for entrepreneurship
- technologies for the digital transformation of business models and for entrepreneurship
- roadmap for the digital transformation of business models
- knowledge of the digital reality
- development of the digital ambition
- identification of the digital potential
- evaluation of the the digital fit
- digital implementation
- success factors for the digital transformation of business models and for entrepreneurship

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Collins, J. (2020) Beyond Entrepreneurship 2.0: Turning Your Business into an Enduring Great Company. Penguin. ISBN: 039-956-424 Rogers, D. (2016) Digital Transformation Playbook: Rethink Your Business for the Digital Age. Columbia Business School Publishing. ISBN 978-0-231-17544-9 Schallmo, D.; Williams, C. (2018) Digital Transformation Now!: Guiding the Successful Digitalization of Your Business Model. Springer, Cham. ISBN 978-3-319-72843-8 Schallmo, D. (ed.); Tidd, J. (ed.) (2021) Approaches, Case Studies, and Tools for Strategy, Transformation and Implementation. Management for Professionals, Special Issue . Springer Int Schallmo, D.; Williams, C.; Boardman, L. (2017) Digital Transformation of Business Models - Best Practices, Enablers and Roadmap. Fenster) International Journal of Innovation Manageme	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages; 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
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Updated		by

Module Description/Syllabus

Module	International Strategic Management		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies	ICMM (Master in International Corporate Communications and Media Management)		

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Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding

methodical: analysis ability, conceptual skills, organizational skills, time management, problem solving ability

social: intercultural competence, communication skills, critical ability, team ability

personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- are made aware of the topic of strategic management
- understand what strategic management can look like and how they themselves can become innovative leaders
- know how the approach for strategic management is applied for a real company
- know how to conduct a strategic external analysis
- know how to develop a strategic prognosis
- know how to conduct a strategic internal analysis
- know how to develop strategic guidelines
- know how to develop strategic options
- can formulate a strategy

2) the students:

- are able to organize themselves and to work in teams
- can motivate themselves and others
- can reflect on and improve their working methods and their results.

Learning Content

content:

- overview of the approach and tools for strategic management
- describing an existing company
- conducting the strategic external analysis (What external drivers from the macro- and micro environment are relevant to us?)
- developing a strategic prognosis (How will the drivers develop in future and how can we derive scenarios from there?)
- conducting the strategic internal analysis (What internal factors are relevant to us?)
- developing strategic guidelines (What is our vision? Our mission? ...)
- deriving strategic options (What strategic options do we have and how can they be evaluated?)
- formulating the strategy (How can the strategy be formulated and what are relevant projects and measures?)

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Pijl, P.; Lokitz, J.; Solomon, L. (2016) How to design a better business: new tools, skills, and mindset for strategy and innovation	
	Lynch, R. (2015) Strategie Management, Pearson Education Limited	
	Morschett, D.; Schramm-Klein, H.; Zentes, J. (2015) Strategie International Management Text and Gases, Springer Wiesbaden, 2015	
	Schallmo, D. (ed.); Tidd, J. (ed.) (2021) Approaches, Gase Studies, and Tools for Strategy, Transformation and Implementation. Management for Professionals, Special Issue . Springer Int	
	Schallmo, D., Williams, G., Lohse, J (2019): "Digital Strategy- Integrated Approach and Generic Options" November 2019; International Journal of Innovation Management	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages: 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	1.0	Document Date 08.06.2021
Document was created by	Prof. Dr. Daniel Schallmo	Valid from 01.10.2021
Updated		by

Module Description/Syllabus

Module	Entrepreneurial Funding and Finance		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Online lectures		
Responsible for the module	Prof. Dr. Elmar Steurer		
Teaching Methods	Lecture, group work, case studies, exercises		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

required competencies: Basic knowledge of finance and accounting
learning outcome knowledge: after completing the module students:
-know the risk factors resulting from operative and financial transactions, -know the financial risks including appropriate controlling and management measures, -understand legal rules influencing start-up activities, -know state-of-the-art application of modern controlling and finance concepts, methods and instruments, -capable to assess and manage company risks.
-able to prepare an integrated business plan and to value business plans, -able to understand and to prepare financial statements, -know different instruments of start-up funding incl. crowd investing instruments

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) students:

- analyze a company's footprint of financial strengths and design comprehensive funding strategies.
- find strategies for approaching complex decision making situations.
- to deal with conflicts of interests.
- understand and propose strategies to manage risks and utilize chances in the context of start-up funding
- find approaches to solve entrepreneurial cases and corresponding legal conflicts in the context of funding.

2) students are able to:

- analyze case studies independently or in teams.
- to inform others by writing analyses and memos and by giving convincing presentations.
- gain new information and to research economic information, e.g. on the internet
- solve challenging practical problems and lead task-related discussions
- lead a business team
- present their thoughts in a structured way in front of an audience.

Learning Content

The module "Entrepreneurial Funding and Finance" integrates the common perspective of corporate finance with the particular scope on start-up funding to achieve a deep understanding of all major facets of funding in an entrepreneurial context.

Students are required to transform complex study contexts in order to solve the provided case studies. One example is the application of funding instruments to support investors decisionmaking in a start-up environment. Particular attention is dedicated to innovative forms of start-up funding, as crowd investing.

Further the venture capital industry is presented by:

the Venture Capital Investment Process

-measuring Venture Capital Returns

-crowd Investing

Venture Valuation

-Introduction to Venture Valuation

-DCF Analysis of Growth Companies

-comparables Analysis of growth Companies

-the Venture Capital Method

-the First Chicago Method

-empirical evidence

the module provides sufficient opportunities to apply the gained competence to corporate situations and case studies.

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Metrick, A.; Yasuda, A. (2011): Venture Capital & the Finance of Innovation. 2nd ed., Hoboken: Wiley & Sons	
	Ramsinghani, M. (2014): The Business of Venture Capital. 2nd ed., Hoboken: Wiley & Sons	
	Feld, B.; Mendelson, J. (2013): Venture Deals, 2nd ed., Hoboken: Wiley & Sons	
	Berk, J. B; DeMarzo, P. M. (2014): Corporate finance. 3rd ed. Boston: Pearson	
	Nugus, S. (2009): Financial Planning using Excel, 2nd ed., Oxford: Elsevier	
Additional (module) information	Group presentation of a case study 30% Term paper 70%; Clear allocation of own contribution in the group presentation	
Document Version	1.0	Document Date 08.06.2021
Document was created by	Prof. Dr. Elmar Steurer	Valid from 01.10.2021
Updated		by

Module Description/Syllabus

Module	Entrepreneurship and Development Management		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom / e-learning / Live online teaching		
Responsible for the module	Prof. Dr. Thomas Bayer		
Teaching Methods	Lectures Case studies Group presentations		
Work parameters	self-studies (hours) 115	contact time (hours) 35	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

No theoretical knowledge needed to start the course.

Preparation for every class in the form of weekly readings highly recommended to be able to follow the content.

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

(1) Knowledge: After completing this course, students have a deep understanding of the various roles of entrepreneurship in the context of economic development. Besides the social impact of entrepreneurship on development, the importance of innovation ecosystems for a country's economic development will be highlighted. Students will therefore not only understand the economic side of entrepreneurship in the development context, but as well about the social impact in regards of SDGs and female empowerment. Furthermore, attendees of the course will learn about the importance of entrepreneurial ecosystems as an important (policy) instrument to foster or hinder entrepreneurship, and therefore development, within the country.

(2) Skills: Besides a general lecturing style, practical teaching methods allow the students to get hands-on experience in the form of case studies to benefit from the lecturer's professional experience in the field. Real life tasks like building a pitch deck or an impact analysis foster the development of practical skills needed in Development Management.

(3) Responsibility & autonomy: The blended approach of lectures and practice projects increases the autonomy as well as responsibility of the students and leads to a more sustainable learning success than from lectures only. Furthermore, this approach allows for a less timely restricted workload and a more individual approach for the students.

Learning Content

The course „Entrepreneurship and Development Management“ sheds light on the connection between Entrepreneurship and Economic Development Management. By using a practice-oriented learning approach, skills of the International Development Management will be established.

Besides the lecturer from the field, guest speakers and case studies will contribute to a practical and sustainable learning success. Due to its characteristic as the last major growth continent and the lecturer's year long experience on the ground, the course will have a special look at Africa. As an indication of the course content, you can have a look at the AfDB White Paper “Entrepreneurship in Africa” (2021).

During the course, the following topics will arise:

1. Innovation, entrepreneurship and economic development
 - o Role of Entrepreneurship in developing countries
 - o Entrepreneurship as a more sustainable instrument than the purely aid-based development programs of the past
 - 1.1. Entrepreneurship and Sustainable Development Goals (SDGs)
 - o The role of Entrepreneurship on the road to a more sustainable future
 - o Innovation-based solutions to successfully reaching the SDGs
 - o Case Study
 - 1.2. Entrepreneurship in development projects
 - o Development projects as an accelerator for Entrepreneurship
2. Social Entrepreneurship
 - o Role of Entrepreneurship as an instrument to a more social future
 - 2.1. Entrepreneurship and empowerment
 - o Women entrepreneurship and its importance for the African continent
 - 2.2. Impact investments, entrepreneurship and development
 - o The rise of Impact Investments (in Africa)
 - o Role of Impact Investments in the entrepreneurial environment
 - o Case Study
3. Entrepreneurial ecosystems
 - o Actors & Stakeholders in the entrepreneurial ecosystem (VC, Incubators etc.)
 - o Entrepreneurial ecosystems as a policy instrument to foster innovation and growth
 - 3.1. Creation, development and support of innovation ecosystems
 - o Current developments of ecosystem creation in Africa
 - 3.2. Actors & stakeholders in innovation ecosystems
 - o Case Study
4. Limits of entrepreneurship in development cooperation
 - o Entrepreneurship is no panacea

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio exam. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	General:	
	Müller G.: Umdenken – Überlebensfragen der Menschheit, Murmann Publishers (2020) ISBN 978-3-86774-649-6 (German only)	
	AfDB: Entrepreneurship in Africa. White Paper (2021)	
	Specific for lectures: 1. AfDB (2021): Entrepreneurship in Africa. White Paper. & Galindo Miguel-Angel, MendezPicazo Maria- Teresa (2013): Innovation, entrepreneurship and economic growth. & Naudé Wim (2008): Entrepreneurship in economic development. 1.1. Apostolopoulos Nikolaos, Al-Dajani Haya, Holt Diane, Jones Paul, Newbery Robert (2018): Entrepreneurship and the Sustainable Development Goals. & Moon Chris J. (2018): Contributions to the SDGs through social and eco entrepreneurship: New Mindsets for sustainable solutions. & Deloitte: SDGs from a business perspective & McKinsey: SDG Guide 1.2. - 2. - 2.1. SivaKalyanKumar E., Setti Kattamuri Pothanna (2018): Women entrepreneurship and economic development: An International perspective. 2.2. Peredo Ana Maria, McLean Murdith (2006): Social entrepreneurship: A critical review of the concept. 2.3. Brest Paul, Born Kelly (2013): When Can Impact Investing Create Real Impact? 3. - 3.1. Preisendorfer Peter, Bitz Ansgar, Bezuidenhout Frans J. (2014): Black entrepreneurship: a case study on entrepreneurial activities and ambitions in a South African township. & Jones Paul, Ratten Vanessa (2021): Knowledge spillovers and entrepreneurial ecosystems. & Malecki Edward J. (2017): Entrepreneurship and entrepreneurial ecosystems. & McKinsey: Entrepreneurship-Zeitgeist 2030. 3.2. -	
Additional (module) information	Modul wird bei der Fakultät WW geföhrt	
Document Version	3	Document Date 05.12.2023
Document was created by	Dr. C. Lindfeld / Prof. Dr. T. Bayer	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

Module	Innovation Project Lab (Project Work)		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom / E-Learning / Innovation lab work		
Responsible for the module	Prof. Dr. Thomas Bayer		
Teaching Methods	Lecture input, discussions, group work, group presentations Guest presentations from industry and challenge stakeholders		
Work parameters	self-studies (hours) 105	contact time (hours) 45	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional skills: basic business understanding, technical understanding

methodical skills: analytical, conceptual, work organization, time management, problem solving

social skills: intercultural, communication, consensus finding, teaming

personal skills: openness, adaptability, endurance, individual responsibility, decision-making, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

The students

- will develop, document and test with real world customers an own social innovation
- will develop, document and test with real world customers for this innovation a complete business model
- will develop, document and test with real world customers for this innovation a complete impact plan
- will develop, document and test with real world stakeholders a complete implementation project plan for their social business
- will write a complete business plan for their social innovation, business model and impact plan, that suffices the official business plan criteria of German public funding organizations for (social) startup support (e.g. EXIST)
- present and defend their innovation, business & impact model and business plan at least 2 times in front of an expert jury
- will thereby learn how solid business, finance, impact and implementation plans for a startup are developed
- will thereby directly apply and integrate learnings, tools and experiences from at least 4 to 6 previous modules of this master programme
- will develop all necessary prerequisites for the implementation of a real world social business

Learning Content

1. Business plan basics - structural elements, official requirements, usage
2. Innovation challenge (understanding, ideation, prototyping, testing)
3. Business model development
4. Impact model development
5. Business plan development:
 - Executive Summary
 - Business idea and business model
 - Vision, mission and strategic goals
 - Product/service description
 - Impact description and plan
 - Market and competition description
 - Marketing and sales plan
 - Production and logistics plan
 - Finance and investment plan
6. Implementation project plan development
7. Presenting and defending innovation, business, impact and implementation plans

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio exam. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Barrow, C.J.: The Business Plan Workbook, Kogan Page (2012)	
	Sawyer, T.Y.: Financial Modeling for Business Owners and Entrepreneurs, Apress (2015)	
	Schwentje, G., Vaseghi, S.: The Business Plan, Springer (2007)	
Additional (module) information	Modul wird bei der Fakultät WW geführt	
Document Version	3	Document Date 05.12.2023
Document was created by	Prof. Dr. Thomas Bayer	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

Module	Design Thinking for Social Entrepreneurship (Project Work)		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom / E-Learning / Innovation lab work		
Responsible for the module	Prof. Dr. Thomas Bayer		
Teaching Methods	Lecture input, discussions, group work, group presentations Individual and group coaching Guest presenters on social entrepreneurship		
Work parameters	self-studies (hours) 105	contact time (hours) 45	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional skills: basic business understanding, technical understanding

methodical skills: analytical, conceptual, work organization, time management, problem solving

social skills: intercultural, communication, consensus finding, teaming

personal skills: openness, adaptability, endurance, individual responsibility, decision-making, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

The students

- understand what social innovation and social business means
- understand how societal value add can be created with social innovations and entrepreneurship
- know how to address societal problems by developing social business concepts
- understand how sustainable changes can be achieved in national and international contexts by social entrepreneurship
- understand the principles and methodologies of design thinking
- know how to apply design thinking methodologies and tools to create own social innovation and business concepts
- understand the multidimensional challenges of creating impact with social innovations in societies
- know how to address these challenges in the practice of social entrepreneurship using impact planning methodologies
- create and test own ideas for social innovations for selected target groups
- learn from and engage with existing social entrepreneurs
- know how to present and defend their social innovation in front of a public jury
- improve their intercultural competencies by working together in international groups
- know how to document their work process scientifically and to present it in a paper form

Learning Content

1. Innovation, relevance and dimensions of innovations
2. Basics of entrepreneurship
3. Social innovations
4. Process of creating social innovations
5. Social entrepreneurship
6. Design Thinking - concept and tools
7. Creating social innovations with Design Thinking
8. 24h challenge - local government challenges
9. Testing social innovations with real world beneficiaries
10. Challenges from real world social entrepreneurs
11. Learning from real world social entrepreneurs

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Social innovation report and presentation. For further details see course catalogue and study and examination regulations	
Recommended or required reading and other learning resources/tools	Lewrick, M., Link, P., Leifer, L.: The Design Thinking Playbook, John Wiley & Sons (2018)	
	Portales, L.: Social Innovation and Social Entrepreneurship, Palgrave Macmillan (2019)	
	Simon, J., Millard, J., Lauritzen, J.R.K. et al.: Doing Social Innovation, TEPSIE (2014)	
	Melles, G.B. (Ed.): Designing Social Innovation For Sustainable Livelihoods, Springer (2020)	
	Ruthemeier, A., Röder, S., Schröter, K., Plugmann, P. (Eds.): The Global Impact of Social Innovation, Springer (2022)	
	Villis, U., Strack, R., Yunus, M., Brusyten, S.: The Power Of Social Business. (2013) https://www.bcg.com/publications/2013/corporate-social-responsibility-poverty-hunger-powersocial-business McKinsey & Company, Ashoka (Eds.): From Small To Systemic (2019)	
Additional (module) information	Modul wird bei der Fakultät WWV geführt	
Document Version	3	Document Date 05.12.2023
Document was created by	Prof. Dr. Thomas Bayer	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

Module	Economic and Business Ethics		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom / E-Learning / Live Online Teaching		
Responsible for the module	Prof. Dr. Thomas Bayer		
Teaching Methods	Lecture Case-Study Analysis Group Discussion		
Work parameters	self-studies (hours) 115	contact time (hours) 35	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies	The contents of the module provide essential foundations for the effective study of later major topics in the ESD degree program and, especially for students without initial ethical education, form an essential foundation for the qualification for positions in social entrepreneurship and sustainable development surrounding.		

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

Students will be able to present and explain fundamental business ethical positions. They can use this knowledge to analyze decisions in the business context and are able to illustrate alternatives with regard to their ethical relevance and their social interactions. The students are able to develop their own arguments for ethical and sustainable business management and to represent them in discussions. This knowledge will help to develop own ideas on ethical and sustainable business models.

Learning Content

Students question the purpose of doing business. In this way, entrepreneurial decisions are analyzed in terms of their social consequences, thereby laying the foundation for entrepreneurial action that fosters social innovation.

By critically analyzing examples of current (e.g. publicly discussed) ethical issues, they transfer ethical reflections and standards to business practice and develop responsible recommendations for action for cases from various industries, markets and operational functional areas. These show in an exemplary manner how the students themselves, as responsible individuals in companies, can contribute to not only legally correct, but also legitimate, i.e. ethically responsible, far-sighted and sustainable entrepreneurial action.

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	Seminar paper and presentation. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Ulrich, P.: Integrative Economic Ethics: Foundations of a Civilized Market, Cambridge University Press (2006)	
	Maak T., Ulrich P.: Integre Unternehmensführung. Ethisches Orientierungswissen für die Wirtschaftspraxis, Schäffer-Poeschel (2007)	
	Hurst, A.: The Purpose Economy: How Your Desire for Impact, Personal Growth and Community Is Changing the World, Elevate (2016)	
	Laloux, F.: Reinventing Organizations: A Guide to Creating Organizations Inspired by the Next Stage in Human Consciousness, Nelson Parker (2014)	
	Mackey, J.: Conscious Capitalism, With a New Preface by the Authors: Liberating the Heroic Spirit of Business, Harvard Business Review Press (2014)	
Additional (module) information	Modul wird bei der Fakultät WW geführt	
Document Version	3	Document Date 28.11.2023
Document was created by	Marc Lunkenheimer/Prof. Dr. Thomas Bayer	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

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Module	Strategic Information Management in Practice		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Face-to-face		
Responsible for the module	Prof. Dr. Heiko Gewalt		
Teaching Methods	Lectures and seminars Literature work Case studies and presentations (self-learning)		
Work parameters	self-studies (hours) 110	contact time (hours) 40	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies	Elective for the master programs Digital Transformation and Entrepreneurship (DTE), Artificial Intelligence and Data Analytics (AIDA) and others		

Prerequisites and co-requisites (if applicable)

Thorough understanding of IT management
- theories (e.g., business-IT alignment),
- concepts (e.g., IT governance), and
- tools (e.g., COBIT)

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

In this course, the theoretical knowledge and competencies in information and IT management which have been acquired in the first semester are applied and further extended.

Students will be working on practical challenges that real-world companies face and reflecting these with current findings from IS research.

In solving the challenges, students apply their competencies in structuring problems at strategic and operational level, analyzing the status-quo and developing effective and sustainable solutions.

1) Knowledge

The students will have enhanced knowledge of specific challenges in IT management and approaches in a practical context. The students will understand the challenges of specific practical settings and how to transfer and adapt insights they learned in various modules. In addition, students will deepen their methodological knowledge regarding managerial problem resolution.

2) Skills

Students can apply and contextualize their knowledge and understanding of IT management and demonstrate problem-solving skills to analyze specificities and complexities of different contexts (e.g., industries, organizations, technological depts). Students will be able to communicate their conclusions and the underlying knowledge and reasoning clearly and unambiguously to real-world managers.

3) Responsibility and autonomy

Students can reflect on their social and ethical responsibilities and make responsible decisions with incomplete or limited information in project contexts with typically unstructured tasks, multiple stakeholders, and diverging interests. They will be able to autonomously acquire new knowledge and skills, and independently solve IT-management challenges.

Learning Content

Students will interact with CEOs and CIOs from companies in different industries and learn about their challenges. Students will evaluate the strategies and management tools used in a corporate environment and apply their knowledge from IT management theories to explain observed outcomes and develop suggestions for improving strategies and management approaches.

The topics involve contemporary IT management challenges such as

- Business-IT alignment and IT value creation
- IT operating models that balance speed, agility and reliability
- IT adoption and use (innovate-design-transform; user-focus)
- IT controlling (value of investments and performance of IT)
- IT governance
- IT sourcing
- Cyber risk management

After an intensive examination of current research findings, the course will visit multiple different companies, analyze their status quo and develop new concepts

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio exam (paper, presentation, teamwork performance). For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Contemporary reading material will be updated and distributed each term	
	The Road to a Modern IT Factory: Industrialization – Automation – Optimization. Deutschland, Springer Berlin Heidelberg, 2014.	
	Urbach, N., & Ahlemann, F. (2018). IT Management in the Digital Age: A Roadmap for the IT Department of the Future. Springer.	
	Various papers such as	
	Dibbern, J., Chin, W. W., & Heinzl, A. (2012). Systemic determinants of the information systems outsourcing decision: A comparative study of German and United States firms.	
	Melville, N., Kraemer, K., & Gurbaxani, V. (2004). Information technology and organizational performance: An integrative model of IT business value. MIS quarterly, 283-322.	
Additional (module) information		
Document Version	1.0	Document Date 03.08.2022
Document was created by	Heiko Gewalt	Valid from 01.09.2022
Updated		by

Module Description/Syllabus

Module	Strategic Growth and Sales Management		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery			
Responsible for the module	Prof. Dr. Alexander Kracklauer		
Teaching Methods	Seminar-style teaching/exercises		
Work parameters	self-studies (hours) 221	contact time (hours) 79	total (hours) 300
Number of participants min./max.	10 / 20	ECTS-Points 10	Hours per semester week 07
Use for other studies			

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

The Strategic Growth and Sales Management module provides comprehensive theoretical and applied knowledge for the development of a strategic and growth-oriented sales concept. The module aims to show students all relevant dimensions of successful sales management in an omnichannel environment and the role of new technological developments (AI, but also other technological/digital instruments). Sales is understood as market-oriented corporate management, which involves developing markets, prioritising customer segments, offering the right service portfolios and orchestrating sales channels in a customer-oriented manner. In a practically orientated case study, students learn to apply the methods and instruments of sales management to current problems relating to growth and sales strategy. The academic seminar enables students to independently deepen their knowledge of an academic topic.

The Strategic Growth and Sales Management module provides comprehensive knowledge on two core functions of sales: strategic growth and sales management. Successful growth and sales strategies increase a company's value creation in the long term and sustainably. This is why they have become a central point of discussion for strategic and operational management decisions in companies of all sectors and sizes. In addition to theoretical knowledge, students acquire the ability to apply the content they have learnt to specific practical tasks in a case study and a seminar.

The module thus challenges and promotes methodological competence (i.e. problem-solving skills and creativity), social competence (i.e. communication skills and teamwork) and self-competence (i.e. independence, self-confidence and the ability to reflect). Translated with DeepL.com (free version)

Learning Content

Strategic Growth and Sales Management:

The Strategic Growth and Sales Management course provides comprehensive theoretical and applied knowledge for the development of a strategic and growth-oriented sales concept. The lecture aims to show students all relevant dimensions of successful sales management in an omnichannel environment and the role of new technological developments (AI, but also other technological/digital instruments). Sales is understood as market-oriented corporate management, in which the aim is to develop markets, prioritise customer segments, offer the right service portfolios and orchestrate sales channels in a customer-oriented manner.

Growth and Sales Seminar: The aim of the course is to provide students with a comprehensive overview of sales management methods and tools. The importance and organisational implementation of growth and sales strategies in day-to-day business is explained using current topics from practice. Students learn how to sharpen their analytical and methodological skills for practical problems and how to solve them in group processes.

Growth and Sales Case Studies: The case study deepens the content of the "Strategic Growth and Sales Management" course. Students apply the theoretical knowledge they have acquired to current practical problems relating to growth and sales strategy. In addition to practical experience, they also gain an insight into a wide range of industries (services, retailing, consumer goods, etc.) and the specifics of other countries.

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Strategic Growth and Sales Management AND Growth and Sales Seminar: Student research project and presentation Growth and Sales Case Studies: Presentation For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Relevant literature will be announced on Moodle before the start of the course	
Additional (module) information	As part of the module, speakers from the world of practice are regularly invited to present a practical topic as part of the case studies. Here, appropriate solution concepts for sales challenges are developed for companies. Guest lectures on current sales topics are regularly offered as part of the lecture programme. are offered. Modul wird bei der Fakultät WWV geführt	
Document Version		Document Date
Document was created by		Valid from
Updated		by

Module Description/Syllabus

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Module	Strategic Market Intelligence		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery			
Responsible for the module	Prof. Dr. Sascha Fabian		
Teaching Methods	Seminar-based teaching, exercise, practical project		
Work parameters	self-studies (hours) 221	contact time (hours) 79	total (hours) 300
Number of participants min./max.	10 / 30	ECTS-Points 10	Hours per semester week 07
Use for other studies	Access for students of the SMI and MAM		

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

Data/information is the oil of the 21st century. The aim of the module is to teach students the tasks and importance of a comprehensive supply of information regarding customers and competitors in the context of entrepreneurial activity.

In this interactive course, concepts and methods for solving problems from business practice are dealt with. The focus is on teaching problem-solving skills in conjunction with problem recognition and solution expertise, critical and networked thinking as well as independent and creative application of the technical and methodological knowledge acquired.

The latter is achieved in particular through the conceptualisation seminar, in which students have to apply their knowledge and skills in a real company situation. The task of the conceptualisation seminar is set by a practice partner/company in consultation with the professor.

Due to the exclusively English-language events, the students' vocabulary and their ability to communicate and present in English is also promoted and improved. This also prepares students for working in an international environment.

Learning Content

Introduction to market research:

- What is market and marketing research
- Market research by practitioners and academics
- When should market research be conducted
- Who provides market research

The market research process:

- Introduction
- Identify and formulate the problem
- Determine the research design
- Design sample and method of data collection
- Collect data
- Analyze data
- Interpret, discuss and present the findings
- Follow up

Data:

- Introduction
- Types of data
- Unit of analysis
- Dependence of observations
- Dependent and independent variables
- Measurement scaling
- Validity and reliability
- Population and sampling
- Sample size

Getting Data:

- Introduction
- Secondary data
- Conducting secondary data research
- Conducting primary data research
- Basic qualitative research
- Collecting primary data through experimental research

Descriptive Statistics:

- Workflow of data
- Create structure
- Enter data
- Clean data
- Describe data
- Transform data
- Create a codebook
- Introduction to SPSS
- Data management in SPSS
- Example

Hypothesis Testing and ANOVA:

- Introduction
- Understanding hypothesis testing
- Testing hypothesis about one mean
- Comparing two means
- Comparing more than two means
- Example
- Regression Analysis
- Factor Analysis
- Cluster Analysis

Communicating the results:

- Introduction
- Identify the audience
- Guidelines for written reports
- Structure the written report
- Guidelines for oral presentations
- Visual aids in oral presentations
- Structure the oral presentation
- Follow up
- Ethics in research reports

Market research seminar/ Softwaretools

- SPSS
- Sawtoothsoftware – Lighthouse for online surveys MaxDiff Analysen, Conjoint as well as simulations

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Strategic Market Research Management and Market Research Tools: Written exam (45 min.) for the theory lecture Market Research Case Studies: Presentation Market Research Seminar: Written exam (45 min.) on the software Lighthouse and SPSS For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Required reading: (latest edition):	
	Sarstedt, M., Mooi, E.: A concise guide to market research, Springer (2014)	
	Recommended supplementary literature: (latest latest edition):	
	Backhaus,K., Erichson, B., Plinke, W., Weiber, R.: Multivariate Analysemethoden. Eine anwendungsorientierte Einführung, Springer	
	Manual zu Sawtooth Software	
	George, D., Mallery, P.: IBM SPSS Statistics 19 Step by Step. A Simple Guide and Reference, Pearson Janssen, J., Laatz, W.: Statistische Datenanalyse mit SPSS für Windows, Springer Cooper, D.R., Schindler, P.S.: Marketing Research, McGraw-Hill Field, A.: Discovering Statistics Using SPSS 5th ed, Sage Publications	
Additional (module) information	Concept seminars/industry projects as part of the examination. Cf. teaching methods. In this context, usually a visit to the partner companies. Modul wird bei der Fakultät VWV geführt	
Document Version		Document Date
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Module Description/Syllabus

Module	Social Entrepreneurship and Impact (Project Work)		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom teaching / E-Learning / Live Online Teaching		
Responsible for the module	Prof. Dr. Antje Wild		
Teaching Methods	Lectures, group work, case studies, blended learning, project based learning		
Work parameters	self-studies (hours) 105	contact time (hours) 45	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 04
Use for other studies	The learnings from the course can be applied to other classes on entrepreneurship. In addition, the data collection skills can be applied to other research projects.		

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

Course participants are expected to have completed the module on qualitative and quantitative research methods

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

This course covers two main topics: Social entrepreneurship and impact. It aims to equip graduates with the skills and knowledge to successfully create social enterprises and evaluate the impact of their activities.

After successfully completing the course, participants will be able to:

Social Entrepreneurship

- understand social entrepreneurship and its potential to address some of the world's greatest challenges.
- develop their own entrepreneurial ideas that can address social problems, based on rigorous data collection and evaluation.
- apply concepts from the lean start-up movement to social enterprises.
- differentiate between relevant business models for social enterprises and evaluate which ones are the most appropriate ones for a specific idea.
- evaluate case studies from social enterprises and transfer the relevant knowledge to other projects.

Impact

- explain why it is important to measure the impact of a social enterprise and understand what the shortcomings of the traditional "monitoring and evaluation" mindset are.
- create a theory of change for a social enterprise.
- measure impact using a variety of different tools, including qualitative and quantitative methods.
- decide about possible steps that should be taken to collect data for an impact analysis and identify appropriate technologies to do so.
- present findings from an impact analyses and develop suitable recommendations.
- evaluate case studies from successful social enterprises that have rigorously evaluated the impact of their activities. Draw conclusions for other projects based on the results.

Learning Content

Many of us are driven by the desire to make the world (at least a little bit) better. However, in daily live, we are phased with many challenging questions, if we want to achieve this goal.

How do I know that my activities really have a positive impact?

How can I make sure that they will lead to lasting change?

How can I finance my projects without constantly being dependent on donations?

How can we constantly get better at serving our communities?

This course addresses these questions and many more, by addressing the following topics (among others):

Social Entrepreneurship

- what is a social enterprise?
- what are potential business models for social enterprises?
- what is the lean start-up approach and how can I apply it to social enterprises?
- what are typical challenges and mistakes when creating social enterprises?
- what are successful social enterprises and what can we learn from their success?

Impact

- why does measuring impact matter?
- what is a theory of change?
- how can organizations measure their impact?
- what are lean and suitable ways to collect data?
- how can data be analyzed? What are potential pitfalls and challenges?
- how can I develop recommendations based on data and develop a continuous learning cycle?
- what are case studies of organizations that are already successfully measuring their impact and acting on it?

Module Description/Syllabus

page 4 of 4

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Seminar paper and presentation. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Mac Askill, W.: Doing Good Better (2015)	
	Specific case studies and further readings will be discussed during the course	
Additional (module) information	Modul wird bei der Fakultät VWV geführt	
Document Version	3	Document Date 05.12.2023
Document was created by	Prof. Dr. Antje Wild	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

Module	Business Model Generation for Social Businesses (Project Work)		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom / E-Learning / Innovation lab work		
Responsible for the module	Prof. Dr. Thomas Bayer		
Teaching Methods	Lecture input, discussions, group work, group presentations Guest presentations from industry Individual and group coaching		
Work parameters	self-studies (hours) 105	contact time (hours) 45	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional skills: basic business understanding, technical understanding

methodical skills: analytical, conceptual, work organization, time management, problem solving

social skills: intercultural, communication, consensus finding, teaming

personal skills: openness, adaptability, endurance, individual responsibility, decision-making, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

The students

- understand what business models are
- can classify business models by applying selected categorization schemes
- understand the complexity of social business models
- can analyse real world problem situations as a prerequisite for developing social business models
- understand which major processes and tools exist for the creation of social business models
- know how to apply selected tools and processes for the development of own social business models
- test own social business models with real world customers and beneficiaries
- reflect and discuss own social business model ideas with real world social entrepreneurs
- present and defend own social business model concepts before a jury
- document own social business models in a structured business report

Learning Content

1. Business models and some examples
2. Strategic aspects of business models
3. General business model categories
4. Business models for social enterprises
5. Social enterprise business model categories
6. Approaches, processes and tools to generate business models
7. Business Model Canvas
8. Business Model Canvas for Social Enterprises
9. Value Proposition Canvas
10. Creating and evaluating own social business models

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Business model report and presentation. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Osterwalder A., Pigneur Y.: Business Model Generation. A Handbook for Visionaries, Game Changers and Challengers, Wiley (2010)	
	Portales L.: Social Innovation and Social Entrepreneurship, Palgrave Macmillan (2019)	
	Osterwalder A., Pigneur Y., Bernarda G., Smith A., Papadakos T.: Value Proposition Design. How To Create Products And Services Customers Want, Wiley (2014)	
	Sparviero S.: The Case for a Socially Oriented Business Model Canvas: The Social Enterprise Model Canvas, Journal of Social Entrepreneurship, 10:2, 232-251 (2019)	
	The Boston Consulting Group & Yunus Social Business (Hrsg.) The Power of Social Business. Lessons from Corporate Engagement with Grameen (2013)	
Additional (module) information	Modul wird bei der Fakultät VWV geführt	
Document Version	3	Document Date 05.12.2023
Document was created by	Prof. Dr. Thomas Bayer	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

page 1 of 4

Module	Enterprise Application Engineering		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Philipp Brune		
Teaching Methods	Seminar Project work (self learning, coaching)		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies			

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

- Object-orientated programming with Java
- Relational databases and SQL
- Mathematics / Statistics
- IT management or related fields
- Fundamentals of business administration

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

In accordance with the overarching qualification objectives of the degree program, students are familiarized with the planning, design and development of information systems as well as the concepts, methods and tools required for this.

1) Knowledge

Students have understood relevant application architectures, software components and technologies as well as the quality-determining factors of these systems and current quality standards. Students will also be familiar with important software development metrics. In addition, students know design principles that ensure efficient human-machine interaction for enterprise applications.

2) Skills

Students will be able to select and apply contemporary application architectures and perform quality management within a software project by evaluating and ensuring software engineering quality standards and applying the testing process. Students will master techniques of test case specification, test execution, and techniques of test-driven development (TDD). Students will be able to select and apply appropriate metrics.

3) Responsibility and autonomy

Students will be able to establish, participate in, and reflect on their role in projects to develop an enterprise application in a heterogeneous project team.

Learning Content

Realistic software development project including UX design and testing of the user interface with a project partner as project work, project teams with different procedure models (sub sequential, agile) with comparison of experiences.

Contents:

- Technical design of enterprise applications
- Quality of software technology
- Metrics of software engineering
- Quality standards
- Roles and principles of a quality manager
- Design principles for enterprise applications
- Human computer interaction and user experience

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio exam (softwar artefact, documentation, presentation). For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Ian Sommerville: Software Engineering (9th edition), Addison-Wesley (2010)	
	Axel van Lamsweerde: Requirements Engineering: From System Goals to UML Models to Software Specifications, Wiley (2011)	
	Travis Lowdermilk: User-Centered Design: A Developer&apos;s Guide to Building User Friendly Applications, O&apos;Reilly (2013)	
	Len Bass, Paul Clements, Rick Kazman: Software Architecture in Practice, Addison-Wesley (2012)	
	Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides: Design Patterns, Addison-Wesley (1994)	
Additional (module) information		
Document Version	1.0	Document Date 03.08.2022
Document was created by	Prof. Dr. Philipp Brune	Valid from 01.10.2022
Updated		by

Module Description/Syllabus

Module	Advanced NLP		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Blended learning (self-study, online, in-presence), exercises		
Responsible for the module	Prof. Dr. Philipp Brune		
Teaching Methods	Lecture, Team work, Exercises		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 03
Use for other studies	Joint module with Digital Innovation Management (DIM) and Strategic Information Management (SIM)		

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

- Object-orientated programming with Java
- Relational databases and SQL
- Mathematics / Statistics
- IT management or related fields
- Fundamentals of business administration

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

(1)

- Know and understand the fundamental concepts and challenges of Natural Language Processing (NLP)
- Know and understand the concepts of modern NLP such as word embedding's, Word2Vec, large language models, transformer architectures etc.

(2)

- Use and apply established NLP tools and frameworks to implement basic NLP processing operations by example
- Implementing LLM and GPT algorithms and example applications by using established and open tools and frameworks

(3)

- Critically reflect the outcomes of AI NLP applications and their impact on society, businesses and the individual situation of the student
- Extend self-guided learning skills
- Extend academic reading and analytical skills
- Extend professional team working and intercultural skills

Learning Content

Fundamental concepts of NLP (Tokenization, Lemmatization, POS & Morphological Tagging, Named-Entity-Recognition, Dependency Parsing)
Language Models
Word Embedding's
Word2Vec Algorithm
Encoder/Decoder-Architectures
Transformer-Architectures
Attention Mechanisms
Large Language Models (LLM) and GPT
Hybrid approaches combining LLM with symbolic AI approaches
Applications of NLP and their critical evaluation

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Project assignment, presentation, oral exam For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Liddy, E.D. 2001. Natural Language Processing. In Encyclopedia of Library and Information Science, 2nd Ed. NY. Marcel Decker, Inc.	
	Eisenstein, J. (2019). Introduction to natural language processing. MIT Press.	
	Peng Qi, Yuhao Zhang, Yuhui Zhang, Jason Bolton and Christopher D. Manning (2020). Stanza: A Python Natural Language Processing Toolkit for Many Human Languages. In Association	
Additional (module) information		
Document Version	1.0	Document Date 28.04.2023
Document was created by	Prof. Dr. Philipp Brune	Valid from 01.10.2022
Updated		by

Module Description/Syllabus

Module	Business Application Re-Engineering		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☐ summer term ☒ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Online, self-study		
Responsible for the module	Prof. Dr. Philipp Brune		
Teaching Methods	Exercises for self-study, Learning-Videos, Quizzes, Assignments Pure online course delivered by VHB		
Work parameters	self-studies (hours) 150	contact time (hours) 0	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies	Elective for SIM		

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

- Object-orientated programming with Java
- Relational databases and SQL
- Mathematics / Statistics
- IT management or related fields
- Fundamentals of business administration

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

Students will be

- able to deepen their existing expertise in computer science and information technology with regard to the requirements and relevant technologies of enterprise computing and digital transformation,
- understand, evaluate and be able to apply the issues/challenges as well as the different aspects and approaches of modernizing legacy applications in an enterprise context,
- understand, evaluate and be able to use traditional and new approaches(Blockchain, DLT) for online transaction processing (OLTP) as well as the underlying processes and technologies,
- understand and be able to apply possibilities, concepts and technologies for the implementation and operation of modern mobile or web-based front-ends (systems of engagement) for existing applications.
- understand, evaluate and be able to use virtualization and container technologies for the operation of enterprise applications, especially with regard to IT security,
- understand and be able to apply the organization and methods of traditional on-premise IT operations in the enterprise, in comparison, understand, analyze and be able to evaluate the similarities and differences as well as advantages and disadvantages of cloud-based IT infrastructures,
- understand and be able to practically use methods and tools for building and operating cloud-based IT services and migrating applications to them,
- understand and be able to apply Agile methods such as Scrum or Kanban, and the DevOps approach in the context of enterprise applications and legacy systems in particular.

Learning Content

Legacy Problems and Application Modernization
Legacy Systems
Re-Hosting vs. Modernization
Application Understanding and Asset Analysis
Application Modernization by Migration
Mainframes
Code Conversion
Refactoring
Binary Evaluation
Testing
Transaction Processing and Application Modernization
Distributed Transactions and CICS
Distributed Ledger Technology (DLT) and Blockchains
System of Record vs. Systems of Engagement
Web and Mobile Frontends
Web Services
Containers and Microservices
Containers vs. virtual Machines
Docker
Kubernetes
OpenShift
Microservices
Kata Container
gVisor
Firecracker
Mainframe Anetsto Webservices
Architecture Patterns
IT Application Operations
Cloud Computing
Cloud Management
Security and Data Protection
Encryption of Cloud Services
Agility and Scrum
DevOps

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Written Examination of approx. 90 minutes if more than 20 students register for the Examination otherwise, oral of approx. 30 minutes. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Craig S Mullins. 2020.The Mainframe Is a Modern Platform, Database Trends and Applications, 2020-02-01,Inc ISSN: 1547-9897	
	Paul Bobak. 2017. "Digital Transformation Economy": Modernizing Core Technology Architectures is Critical. Database Trends and Applications, 2017-14-08,ISSN: 1547-9897	
	Sastry KVS N and Ambadas Choudhari. 2013. Legacy mainframe back-ends supporting new age enterprise applications: can the elephant run with deer's? In Proceedings of the 6th India Software Engineering Conference (ISEC '13). Association for Computing Machinery, New York, N	
Additional (module) information		
Document Version	1.0	Document Date 19.04.2023
Document was created by	Prof. Dr. Philipp Brune	Valid from 01.10.2022
Updated		by

Module Description/Syllabus

Module	Introduction to Digital Innovation		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Face-to-Face, eLearning, Blended learning		
Responsible for the module	Prof. Dr. Arne Buchwald		
Teaching Methods	Lecture, excercises, group presentations, case studies, article interpretation		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 10
Use for other studies			

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

Considering the program's objective to qualify students for coordinating and cross-functional functions and positions such as business analyst and developer, this module conveys basic information how to categorize and evaluate digital innovation, and how to develop, apply, and adapt structures (e.g. for processes) by tapping into diverse sources of information, reflecting consequences for different groups of stakeholders, and acting under uncertainty, namely with incomplete and changing information.

1) Knowledge

Students will have demonstrated knowledge and understanding in the following areas of the field of Digital Innovation Management:

- Concept and taxonomies of innovation, and particular, digital innovation
- Concept of the digital object
- Determinants of digital innovation
- Effects of digital innovation
- Approaches to discover customer needs
- The ideation process

2) Skills

Students will be able to apply their knowledge and understanding of digital innovation management to different managerial and organizational contexts. Students will be able to integrate disparate knowledge and complex information about the diverse field of digital innovation, e.g., about its diverse conceptualization.

3) Responsibility and autonomy

Students will be able to formulate judgements with incomplete or limited information and to reflect on the social and ethical implications of applications of their knowledge and judgements. They will also be able to autonomously acquire new knowledge and skills, and independently perform research-oriented or application-oriented innovation projects.

Learning Content

In accordance with the program's qualification goals regarding organizing, managing and communicating digital innovation, this module, provides the basis to understanding the nature of digital innovation and its consequences for organizational design, the management of tensions, and the communication of value.

Core Concepts of Digital Innovation Management

- Key aspects of innovation
- Digital vs. non-digital innovation
- The innovation journey
- Sources of innovation
- Classic paradigms (funnelling, stage-gate)
- Generating and developing ideas
- Capturing value from innovation
- Creating social value

Learning and exercising the contents of this module will be coupled with the application of:

- Creativity techniques
- Innovation games

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Tidd, Joe and Bessant, John: Managing Innovation. Integrating Technological, Market and Organizational Change - Wiley, 2018, 978-1119379454	
	Newell, Sue; Morton, Josh; Marabelli, Marco, and Galliers, Robert: Managing Digital Innovation: A Knowledge Perspective - Red Globe Press, 2020, 978-1137434296	
	Nambisan, Satish; Lyytinen, Kalle, and Yoo, Youngjin (Herausgeber): Handbook of Digital Innovation, Edward Elgar Publishing, 2020, 978-1788119979	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team and individual): 8-10 pages per team member: 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	2.1	Document Date 27.05.2022
Document was created by	Prof. Dr. Heinz-Theo Wagner	Valid from
Updated		by

Module Description/Syllabus

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Module	Digital Innovation Strategy		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Face-to-Face, eLearning, Blended learning		
Responsible for the module	Prof. Dr. Arne Buchwald		
Teaching Methods	Lecture, excercises, group presentations, case studies, practice project, article interpretation and practice transfer		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 10
Use for other studies			

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

Considering the program's objective to qualify students for coordinating and cross-functional functions and positions such as business analyst and developer, this module deals with strategizing, e.g., in classic top-down mode (e.g., deriving innovations fields) as well as bottom-up approach, governing innovation, and understanding the difference between management and leading innovation. Students learn to orchestrate and balance views of different stakeholders, prepare and make decisions, and control their implementation in an adaptive way that considers emergent new trends.

1) Knowledge

Students will have demonstrated knowledge and understanding in the following areas of the field of Digital Innovation Management:

- Developing digital innovation strategy linked with business strategy
- Controlling the innovation arena
- Managing and leading innovation

2) Skills

Students will be able to recognize key problem areas, and apply their knowledge and understanding of models and theories of digital innovation strategy to different managerial and organizational contexts. Students will be able to integrate disparate knowledge and complex information about various strategic perspectives as well as scope of actions, and their ability to work as part of a team.

3) Responsibility and autonomy

Students will be able to formulate judgements with incomplete or limited information and to reflect on the social and ethical implications of applications of their knowledge and judgements. They will also be able to autonomously acquire new knowledge and skills, and independently perform research-oriented or application-oriented innovation projects.

Learning Content

In accordance with the program's qualification goals regarding organizing, managing and communicating digital innovation, this module, provides the basic concepts and tools necessary to develop and implement digital innovation strategy, which includes organization and management of the strategy process as well as communicating strategic objectives horizontally across different units and vertically across different levels of hierarchy.

Core Concepts of Digital Innovation

- Framing the business
- Developing digital innovation strategy
- Building strategic capabilities
- Promoting Intra- and entrepreneurship
- Developing corporate ventures
- Planning growth and scalability
- Controlling the innovation arena
- Managing and leading innovation

Learning and exercising the contents of this module will be coupled with the application of:

- Creativity techniques
- Innovation games

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Seminar Paper (12-15 pages) For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Tidd, Joe and Bessant, John: Managing Innovation. Integrating Technological, Market and Organizational Change - Wiley, 2018, 978-1119379454	
	Newell, Sue; Morton, Josh; Marabelli, Marco, and Galliers, Robert: Managing Digital Innovation: A Knowledge Perspective - Red Globe Press, 2020, 978-1137434296	
	Weill, Peter and Woerner, Stephanie: What's Your Digital Business Model?: Six Questions to Help You Build the Next-Generation Enterprise - Ingram Publisher Services, 2018, 978-1633692	
	Westerman, George, Sonnet, Didier, and McAfee, Andrew: Leading Digital - Harvard Business Review Press, 2014, 978-1625272478	
Additional (module) information		
Document Version	2.0	Document Date 04.09.2021
Document was created by	Prof. Dr. Heinz-Theo Wagner	Valid from
Updated		by

Module Description/Syllabus

Module	Digital Business Models and Approaches		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Klaus Lang		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 02
Use for other studies	DIM (Digital Innovation Management)		

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding

methodical: analysis ability, conceptual skills, organizability, time management, problem solving ability

social: intercultural competence, communication skills, critical ability, team ability

personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) knowledge

students will have demonstrated knowledge and understanding in the following areas:

-the age of business model innovations

-approaches for business models

-patterns for business models:

a) general business models; b)

IOT Business Models; c) data driven business models

-methods for identifying, defining and implementing business models

2) skills

students will be able:

-to describe,

-to develop and

-to implement business models

Learning Content

- the age of business model innovations
- approaches for describing business models
- patterns for business models: a) general business models; b) IOT business models; c) data driven business models
- methods for identifying, defining and implementing business models

Module Description/Syllabus

page 4 of 4

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Gassmann, O. (2020), Business Model Navigator: The strategies behind the most successful companies, Wiley, 2020	
	Osterwald er, A., Pigneur, Y. (2010), Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers (Strategyzer), FT Publishing International, 2010	
	Schallmo, D.; Williams, C. (2018) Digital Transformation Now!: Guiding the Successful Digitalization of Your Business Model. Springer, Cham. ISBN 978-3-319-72843-8	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages; 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	1.0	Document Date 08.06.2021
Document was created by	Prof. Dr. Klaus Lang	Valid from 01.10.2021
Updated		by

Module Description/Syllabus

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Module	Applied Data Digitalisation		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, practical projects		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding, technical understanding
methodical: analysis ability, conceptual skills, organizability, time management, problem solving ability
social: intercultural competence, communication skills, critical ability, team ability
personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- understand trends in digitization
- are able to understand maturity of digital trends
- are able to understand concepts behind digital trends
- can apply / customize current digitalisation technologies
- can evaluate digital technologies and different vendor products
- are able to participate / manage digitalisation implementation projects in companies

2) the students:

- are able to organize themselves and to work in teams
- can lead digitalisation implementation projects
- can motivate themselves and others
- can reflect on and improve their working methods and their results

Learning Content

- overview of digital trends that have reached a market maturity to be applied in companies
- introduction of live cycle from data generation, transformation and analysis
- structured vs. unstructured data sets
- business intelligence vs. artificial intelligence: differences and synergies
- evaluation and application of big data analysis technologies (e.g., neural networks, reinforcement learning)
- automated decision making systems
- knowledge on business analytics platforms
- applying technologies for various use cases

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Will be announced in first lecture	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages; 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	1.0	Document Date 08.06.2021
Document was created by	Prof. Dr. Jens Kolb	Valid from 01.10.2021
Updated		by

Module Description/Syllabus

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Module	Disruptive Technologies		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Klaus Lang		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding, basic technology understanding
methodical: analysis ability, conceptual skills, organizability, use of knowledge and information, problem solving ability
social: communication skills, critical ability, team ability, readiness to cooperate
personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- know what disruptive technologies are about
- can identify / develop disruptive technologies
- can use evaluation methods for disruptive technologies
- have an overview of existing disruptive technologies
- get to know examples of disruptive technologies in different industries (e.g. APIs, process mining and robotic automation process)
- can evaluate disruptive technologies with regard to different use cases in various industries (e.g. production planning with regard to inefficient processes)

2) the students:

- are able to manage disruptive technologies
- are able to organize themselves and to work in teams
- can motivate themselves and others
- can reflect on and improve their working methods and their results.

Learning Content

- overview of digital trends that have reached a market maturity to be applied in companies
- introduction of live cycle from data generation, transformation and analysis
- structured vs. unstructured data sets
- business intelligence vs. artificial intelligence: differences and synergies
- evaluation and application of big data analysis technologies (e.g., neural networks, reinforcement learning)
- automated decision making systems
- knowledge on business analytics platforms
- applying technologies for various use casescontent:
- classification of the term disruptive technologies
- identification / development of disruptive technologies
- evaluation methods for disruptive technologies
- overview of existing disruptive technologies
- possible uses of disruptive technologies in production planning (including REST APIs, process mining and robotic automation process)
- evaluation of disruptive technologies for different use cases(e.g. with regard to inefficient processes)
- success factors for manageing dis. techn.

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Christensen, C. (2016) The Innovator's Dilemma. Harvard Business Review Press. ISBN: 0875845851	
	O'Reilly, C.; Tushman, M. (2016) Lead and Disrupt: How to Solve the Innovator's Dilemma. Stanford University Press. ISBN 978-0804798655	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages; 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	1.0	Document Date 08.06.2021
Document was created by	Carlo Budtke	Valid from 01.10.2021
Updated		by

Module Description/Syllabus

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Module	Digital Implementation		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding

methodical: analysis ability, conceptual skills, organizability, time management, problem solving ability

social: intercultural competence, communication skills, critical ability, team ability

personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- know how to analyze the digital maturity of a company
- are able to identify the relevant areas of a company for improvement
- know the TOSC-model
- know how to implement technologies
- know how to implement new organization forms
- know how to develop skills
- know how to create culture
- are able to apply the DPSEC-Circle

2) the students:

- are able to organize themselves and to work in teams
- can motivate themselves and others
- can reflect on and improve their working methods and their results.

Learning Content

content:

- overview of the TOSC-Model with the most relevant dimensions of the digital implementation
- technology: e.g., use of sensors, creation of databases, networking of components
- organization: e.g., definition of structures and responsibilities, establishment of departments, definition of processes
- skills: e.g., IT know-how (hardware, software application/development, etc.), use of collaboration tools, development of leadership and collaboration skills, acquisition of methods
- culture: e.g., cultural anchoring in the company, sensitization of employees, communication within the company.
- overview of the DPSEC-Circle
- derive digital initiatives
- prioritize digital initiatives
- set up a digital agenda
- execute a digital agenda
- check/review digital results.

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Schallmo, D. (ed.); Tidd, J. (ed.) (2021) Approaches, Case Studies, and Tools for Strategy, Transformation and Implementation. Management for Professionals, Special Issue . Springer Int	
	Schallmo, D.; Williams, C. (2020) An Integrated Approach to Digital Implementation : TOSC Model and DPSEC-Circle. In: (Proceedings of the) XXXI ISPIM Innovation Conference - "Innova	
	Schallmo, D.; Williams, C. (2021) Integrated Approach for Digital Maturity: Levels, Procedure, and In-Depth Analysis. In: (Proceedings of the) ISPIM Innovation Conference - Innovating Our	
	additional literature will be announced in first lecture	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages; 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	1.0	Document Date 08.06.2021
Document was created by	Prof. Dr. Daniel Schallmo	Valid from 01.10.2021
Updated		by

Module Description/Syllabus

Module	Technology & Application Management		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Face-to-face and blended learning		
Responsible for the module	Prof. Dr. Andy Weeger		
Teaching Methods	Lecture Coaching (project work) Presentations		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies	Elective for the master programs Artificial Intelligence and Data Analytics (AIDA) and Digital Transformation and Entrepreneurship (DTE) as well as other master programs.		

Prerequisites and co-requisites (if applicable)

Solid understanding of IT management theories (e.g., business-IT alignment), concepts (e.g., IT governance) and tools (e.g., COBIT)

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

IT management today is challenged by fast technological change, new digital opportunities, growing cost pressure, and increasing need to comply with business and regulatory requirements. State-of-the-art IT management needs to ensure that organizations are capable of managing technologies and applications more agile, flexible and efficient than ever before.

Being able to achieve this requires not only a good understanding of the opportunities the digital age and new technologies offer, but also a good understanding of the core business of the company and sound IT cost management capabilities.

In line with the overall qualification goals of the program, this module provides solid know-how and skills regarding theories, methods and tools to ensure strategic technology decision-making (e.g., business IT-alignment, technology investments), technology-enabled enterprise architectures (e.g., enterprise architecture management and data governance), efficient technology and application delivery (e.g., lean IT processes, cybersecurity risk management, scaled agility), and effective IT-business value realization (e.g., IT controlling, organization and workforce management)

1) Knowledge

The students have understood the significance of technology and application management in the digital age. They have demonstrated understanding and knowledge of the disciplines of IT value creation within the modern enterprise and the related challenges of technology and application management as well as the main frameworks for managing technology and applications in organizations.

2) Skills

The students are able to identify key IT management challenges in an organization and to design and document end-to-end management approaches that tackle these challenges by selecting and adapting available approaches, methods and tools. The students can convincingly present and defend their approach at different management levels and thus lay the foundation for its implementation.

3) Responsibility and autonomy

Students are able to meet the challenge of making responsible decisions in the field of IT management with incomplete or limited information. They show that they are able to evaluate new information, challenge existing assumptions, and integrate new knowledge into their thinking models. They also demonstrate the ability to work in a team that uses agile working methods to develop and improve independent solutions based on practical and theoretical discourse.

Learning Content

Challenges for technology and application management in the digital age

Theories, frameworks and specific methods for

- selecting the right technologies and applications (e.g., business-IT alignment, technology foresight and evaluation, program management)
- creating and managing efficient sociotechnical solutions (e.g., enterprise architecture management)
- delivering technologies and applications efficiently (e.g., scaled agility, demand and service management, cybersecurity risk management)
- ensuring IT-business value realization (e.g., cost accounting, data governance management)

Overview of relevant IT management frameworks and their areas of application

Agile management methods (for working on the assignment)

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Seminar paper (individual and teamwork components) For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Urbach, N., & Ahlemann, F. (2018). IT Management in the Digital Age: A Roadmap for the IT Department of the Future. Springer.	
	Madhukar, Irvathraya, et al. Application Management: Challenges - Service Creation - Strategies. Deutschland, Gabler Verlag, 2011.	
	The Road to a Modern IT Factory: Industrialization – Automation – Optimization. Deutschland, Springer Berlin Heidelberg, 2014.	
	Various papers such as	
	Dibbern, J., Chin, W. W., & Heinzl, A. (2012). Systemic determinants of the information systems outsourcing decision: A comparative study of German and United States firms.	
	Melville, N., Kraemer, K., & Gurbaxani, V. (2004). Information technology and organizational performance: An integrative model of IT business value. MIS quarterly, 283-322.	
Additional (module) information		
Document Version	1.0	Document Date 03.08.2022
Document was created by	Andy Weeger	Valid from 01.09.2022
Updated		by

Module Description/Syllabus

Module	Digital Process Management		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Face-to-face and blended learning		
Responsible for the module	Prof. Dr. Joerg-Oliver Vogt		
Teaching Methods	Lecture, excercises, case studies, group presentations		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies	Usable for students of information systems and business administration programs		

Prerequisites and co-requisites (if applicable)

Basic knowledge on the subject of process management, fundamental knowledge on the subject of business administration and management.

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

Considering the program's objective to qualify students for enabling enterprises to exploit potentials of existing information system and realize new ways of using information and information technology strategically, this module provides the fundamental knowledge to understand why active process management is necessary and digitalization is a lever to improve business processes. It is shown how processes can be digitalized and managed digitally. As to that, the course also provides methods of process management like process modelling techniques and performance analysis. The focus, however, is on conveying insights into theories and state-of-the-art methods related to streamline and digitalize business processes and manage them across the lifecycle using state-of-the-art tools.

1) Knowledge outcomes

Students will have a broad and deep understanding of the scientific foundations, methodologies and fields of application of different approaches to digital process management. Students will gain knowledge on how to model and analyze complex process structures using established modelling and analysis techniques, will learn about their strengths and weaknesses as well as how process models can be translated into IT architectures.

Technical-methodical competences

- understand the challenges of digitalisation for companies and the related effects on the design of business processes.
- explain the influences of digitalisation on business processes in general and the concrete effects on functional areas such as marketing, human resources, logistics and production and on different industries.
- Understand business process management as a central management task.
- identify, record, describe and represent or model business processes.
- Analyse business processes with suitable methods and make suggestions for improvement.
- Assess business processes and recognise which activities are necessary for the digitalisation of the process.
- to explain advantages and disadvantages of different methods of business process modelling.
- to apply selected methods and approaches of business process management (especially EPK and BPMN) and information modelling to concrete case studies from practice.
- recognise the appropriate method for problem solving and decision making in the field of business process management and select suitable tools.

2) Skills

Students will be able to explain, apply and examine the basics, success factors, principles and methods of effective digital process management in different contexts and industries, particularly enhanced business process modelling (BPMN), analysis (BPMN, process mining) and optimization supported by digital technologies (process execution management, robotic process automation, workflow management systems) and monitoring/controlling (process mining). Students can model, analyse and question business processes in different contexts and levels (operational, strategic) using the methods, instruments and information systems they have learned. They can evaluate opportunities and challenges of digitalization for process performance using the tools and methods listed above.

3) Responsibility and autonomy

Students can discuss interpersonal issues to be dealt with in smaller project groups, especially in the exercise units. The students recognize the challenges and interdependencies of business process management and can reflect on their responsibilities related to making decisions in uncertain and ambiguous contexts with incomplete or limited information. They have developed the ability to evaluate new information, to question existing assumptions, to integrate new knowledge into their models of thinking and to develop independent contributions to practical and theoretical discourse and related solutions.

Learning Content

Theories, methodologies and fields of application of different approaches to digital process management as well as related information systems, particularly

- Process identification
- Enhanced process modelling (BPMN)
- Process discovery and analysis (qualitative approaches, process mining)
- Process redesign and digitalization (workflow systems, RPA, workflow management systems)
- Translating process models into IT architectures
- Process monitoring (execution management systems)
- Process lifecycle management
- Challenges related to digital process management

Theoretical knowledge is being applied in case studies and other (hands-on) exercises

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio exam For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Main Source: Marlon Dumas, Marcello La Rosa, Jan Mendling, Hajo A. Reijers: Fundamentals of Business Process Management, Springer 2018	
	Recommended: Wil van der Aalst, Process Mining - Data Science in Action Second Edition, Springer 2016	
	Other papers and cases will be provided in the course sessions	
Additional (module) information		
Document Version	1.0	Document Date 29.08.2022
Document was created by	Joerg-Oliver Vogt	Valid from 01.09.2022
Updated		by

Module Description/Syllabus

Module	Digital Leadership		
Course Title (if applicable)	Elective: Digitalization	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Face-to-face and blended learning		
Responsible for the module	Prof. Dr. Andy Weeger		
Teaching Methods	Lecture Exercises (individually and team-based) Presentations		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies			

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

This module builds on and extends the knowledge and skills acquired in the previous modules, particularly "Interpersonal Skills" related to the challenges of digital transformation for leadership. It deepens the students' understanding of the requirements of leadership in the digital age — from leading oneself, to leading employees and leading systems. Students will be able to identify and reflect on challenges and opportunities in their own leadership role so that they can consciously use, reflect on and further develop leadership competencies in their everyday work.

1) Knowledge

Students understand the leadership requirements in the context of digital transformation and can identify, reflect on challenges and opportunities in their own leadership role and understand how sustainable organizational systems can be designed.

2) Skills

The students show that they can use digital leadership tools to lead employees and design efficient organizational systems for the digital age.

3) Responsibility and autonomy

Students can consciously use, reflect on and further develop leadership competencies in their everyday work, understand the facets of different personality types and the effects on leadership tasks and are able to use digital tools for leadership.

Learning Content

Basics of leadership (e.g., motivation, leadership archetypes, empathy, etc.)

Challenges of leading in the digital age

Theories (e.g., resources and demand theory, identities at work, trust, psychological safety, etc.)

Digital leadership tools (workshop tactics, storytelling, leading meetings, leading agile, etc.)

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Presentation For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	A detailed list of relevant literature can be found in the teaching materials per unit, including, but not limited to:	
	Pullan, Penny. Virtual Leadership: Practical Strategies for Getting the Best Out of Virtual Work and Virtual Teams. Vereinigtes Königreich, Kogan Page, 2016.	
	Coyle, Daniel. The Culture Code: The Secrets of Highly Successful Groups. Vereinigtes Königreich, Random House, 2018.	
	Edmondson, Amy C.. The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth. Vereinigtes Königreich, Wiley, 2018.	
Additional (module) information		
Document Version	1.0	Document Date 27.08.2022
Document was created by	Andy Weeger	Valid from 01.09.2022
Updated		by

Module Description/Syllabus

Module	Sustainable Economic Models and Responsible Management		
Course Title (if applicable)	Elective: Sustainability	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar-based teaching, case studies / simulation, e-learning / blended learning		
Responsible for the module	Prof. Dr. Judith Mayer		
Teaching Methods	Case Studies, Groupwork and Group Presentations, Self-learning		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 02
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

(1) Professional-methodical competences (incl. digital competences)

After participating in the module course, students are able to,

- think systemically and holistically (also in terms of the circular economy)
- apply holistic management approaches practically and conceptually
- to think strategic CSR in terms of sustainable value creation
- analyse the sustainability transformation of individual sectors
- discuss different types of impact investments
- apply concepts for the management of relationships with relevant target groups in the sense of the stakeholder economy.

(2) Personal competences (incl. social competences)

- multidimensional and holistic thinking (economic, social, environmental dimension)
- critical reflection on existing economic practices, management approaches and key figures
- constructive handling of criticism and conflicts in the context of group work / presentation
- independent implementation of project work

Learning Content

- Doughnut Economics
- Circular Economy
- History of management concepts (focus on stakeholder management)
- Business ethics (corporate citizenship)
- Impact Investing / ESG Investing
- Sustainable / Social Entrepreneurship

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio examination For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Connock, Alex. 2023. Media Management and Artificial Intelligence. London: Routledge	
	Gitner, Seth. 2022. Multimedia Storytelling for Digital Communicators in a Multiplatform World. London: Routledge	
	Robertson, Margaret. 2019. Communicating Sustainability. London: Routledge	
	Getto, Guiseppe; Labriola, Jack & Sheryl Ruskiewicz. 2023. Content Strategy. A How-to Guide. London: Routledge	
	Owens, Jim. 2023. Video Production Handbock. London: Routledge	
Additional (module) information		
Document Version	2.0	Document Date 08.11.2022
Document was created by	JM	Valid from September 2023
Updated	11.07.2023	by MC

Module Description/Syllabus

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Module	Communication for Sustainability		
Course Title (if applicable)	Elective: Sustainability	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar Teaching, E-Learning, Blended Learning		
Responsible for the module	Prof. Dr. Judith Mayer		
Teaching Methods	Group Work, Case Studies, Self-Learning		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 02
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

(1) Professional-methodical competences (incl. digital competences)

After participating in the module course, students are able to,

- think about strategic CSR in terms of sustainable value creation
- to explain reduction of emissions / climate neutrality as a central topic of sustainability communication
- manage budgets as a CREO (Corporate Responsibility and Ethics Officer) and implement holistic stakeholder management.

(2) Personal competencies (incl. social competencies)

- multidimensional and holistic thinking (economic, social, environmental dimension)
- dealing constructively with criticism and conflicts in the context of group work, simulation and presentation
- independent implementation of project work

Learning Content

- Stakeholder Management
- CSR and Sustainability Communication, Materiality assessment, Sustainability Frameworks, Signature Programs
- ESG / Sustainability Topics
- Corporate Governance

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Chandler, David (2022): Strategie Corporate Social Responsibility - Sustainable Value Creation	
	Crane, Andrew, Matten, Dirk, Glozer, Sarah, Spence, Laura (2019): Business Ethics: Managing Corporate Citizenship and Sustainability in the Age of Globalization	
Additional (module) information		
Document Version	2.0	Document Date 14.11.2022
Document was created by	JM	Valid from September 2023
Updated	11.07.2023	by MC

Module Description/Syllabus

Module	Sustainable Projects and Social Innovation (Case Studies & Best Practices)		
Course Title (if applicable)	Elective: Sustainability	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☒ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar Teaching, E-Learning, Blended Learning		
Responsible for the module	Prof. Dr. Judith Mayer		
Teaching Methods	Case Studies, Simulations, Group Work, Self-Assessment		
Work parameters	self-studies (hours) 120	contact time (hours) 30	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 02
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

(1) Professional-methodical competences (incl. digital competences)

After participating in the module course, students are able to answer the following questions

- What do social innovations have to do with a sustainable society?
- How do social innovations contribute to achieving our climate, environmental and sustainability goals in the best possible way? page 2 of 4
- What are the challenges in terms of (A) funding and promotion, (B) impact measurement, (C) political and legal framework, (D) scaling and expansion for social innovations and how can they be solved? (exemplified by case studies)

(2) Personal competences (incl. social competences)

- Understanding of the systemic perspective for the full development of the transformation potential of social innovations
- Entrepreneurial thinking
- Critical reflection on the transformation potential of social enterprises
- Constructive handling of criticism and conflicts in the context of group work / presentation
- Independent implementation of project work

Learning Content

- Social / Sustainable Entrepreneurship and Social Business: History, Definition, Examples
- Financing social innovations
- Governance of social innovations
- Scaling social innovations
- Business models for social innovations
- Measuring success in the context of social innovation
- Legal framework for social innovation

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Volkman, Christine K., Tokarski, Kirn Oliver, Ernst, Kati (2012): Social Entrepreneurship and Social Business -An Introduction and Discussion with Case Studies	
	Krlev, G., Sauer, S., Scharpe, K., Mildemberger, G., Elsemann, K. & Sauerhammer, M. (2021). Finanzierung von Sozialen Innovationen - Internationale Vergleichsstudie. Centrum für soziale Investitionen und Innovationen (CSI), Universität Heidelberg & Social Entrepreneurship Network	
	Bundesministerium für Bildung und Forschung (2018): Foresight und Roadmapping: Zukunft strategisch gestalten.	
Additional (module) information		
Document Version	2.0	Document Date 14.11.2023
Document was created by	JM	Valid from September 2023
Updated	12.07.2023	by MC

Module Description/Syllabus

Module	Circular Economy and Resource Management		
Course Title (if applicable)	Elective: Sustainability	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom teaching / E-Learning / Live Online Teaching		
Responsible for the module	Prof. Dr. Thomas Bayer		
Teaching Methods	Lectures with seminar-style discussions, instructions and exercises Individual and group coaching Research, group-based and collaborative learning, presentations and results' discussions		
Work parameters	self-studies (hours) 105	contact time (hours) 45	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 04
Use for other studies	Master of Advanced Management (MAM)		

Module Description/Syllabus

Prerequisites and co-requisites (if applicable)

- Fluency in spoken and written English

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) Knowledge: Students at the end of this module should be able to:

- define CE
- list and explain the CE concepts
- detect the difference between a linear and circular economy approach
- state the principles of a circular economy
- know the advantages of a CE and a digital CE
- list some of the industries practising circularity and mention the benefits of transitioning to a circular business model
- mention at least five resource planning methodologies and tools
- list the resources in different industries and businesses
- state the goals, partners and action agendas of PACE

2) Skills: Students at the end of this module should be able to:

- have an in-depth understanding of CE and sustainability enablers
- have the ability to question, justify, designate and communicate mechanisms in a circular business model
- have the ability to reflect on the liaison between circularity and the management of natural resources as well as between CE and environmental resource management (ERM)
- have an in-depth understanding of SDGs and be able to relate the transition toward a CE's contribution to SDGs
- compare the linear economy to the circular economy
- use methodologies and tools for a resource plan template for a given industry
- describe and communicate any given agenda of PACE

3) Responsibility and autonomy: students at the end of this module should be able to perform the following tasks:

- to forecast and allocate available resources in any given industry using any given resource management planning tool and methodology
- fill out the stages in CE template of any given industry or business
- draw or design a circularity plan/scheme for given industries
- classify measures used by governments in the management of natural resources
- manage a circular project in any given industry or company with little or no supervision

Learning Content

- * Definition and History of Circular Economy Concepts
- * Principles of CE:
 - Designing out/ Eliminating waste and pollution
 - Keeping products and materials in use
 - Regenerating natural systems
- * Circular Economy and Sustainability
 - Introduction to sustainability - the three dimensions
 - Framework for measuring sustainability goals
 - Analysis of sustainability initiatives being employed by some recognisable companies
 - Analysis of how circularity enables sustainability
- * Circular Economy Standards
 - Definition, benefits and examples of standardisation bodies (DIN, ISO, BIS, BSI, etc)
 - Feedback from companies that used standard CE guidelines/approaches
- * Circular Business Models:
 - Enabling factors (internal and external) and strategies
 - Examples, categories and benefits of transitioning to a circular business model
- * Digital Circular Economy: - meaning, innovation framework, tools and platforms
 - systematic analysis of steps and benefits
- * Circularity in Selected Industries (like Construction and Demolition, food production)
- * Circularity and Management of Natural Resources: Use of fiscal and non-fiscal measures by governments
- * Environmental Resource Management: Insight to ERM organisations, institutes and foundation
- * Resource Management Methodologies and tools:
 - definition of resource management
 - Methodologies: resource forecasting & planning, allocation, leveling & smoothing & scheduling
 - Tools: (softwares) Wrike, Float, Forecast, Smart, Smartsheet, Mavenlink, Harvest, Gantt, etc
- * Platform for accelerating CE (PACE):
 - establishment
 - goals
 - partners
 - projects and action agendas

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Portfolio exam. For further details see course catalogue and study and examination regulations	
Recommended or required reading and other learning resources/tools	Berg, H. et al: Digital Circular Economy - a cornerstone of a sustainable European industry transformation, ECERA (2020)	
	Lehmann, M., Leeuw, B., Fehr, E. & Wong, A.: Circular Economy. Improving the management of natural resources, SATW (2014)	
	Stahel, W. R.: The Circular Economy. A User's Guide, Routledge (2019)	
	Kowszyk, Z. & Maher, R.: Case studies on CE models and integration of SDGs in business strategies in the EU and LAC, EU-LAC Foundation (2018)	
	Recommended internet sites for current information on the CE and its acceleration: https://pacecircular.org/, https://www.oecd-ilibrary.org/oecd/about	
Additional (module) information	Modul wird bei der Fakultät WW geföhrt	
Document Version	3	Document Date 28.11.2023
Document was created by	Dr. Patience N. Ache / Prof. Dr. T. Bayer	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

Module	Development Economics		
Course Title (if applicable)	Elective: Sustainability	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Classroom teaching / E-Learning / Live Online Teaching		
Responsible for the module	Prof. Dr. Thorsten Neumann		
Teaching Methods	Flipped classroom with basic instructional videos accompanied by interactive classroom sessions with a strong focus on controversial discussions and own work case studies		
Work parameters	self-studies (hours) 115	contact time (hours) 35	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

Basic knowledge of economics gained from introductory courses covering foundations of microeconomics and macroeconomics

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

Students gain basic knowledge on the foundations of development economics.

After taking the course students are familiar with

- economic theories on economic development
- economic policies to foster sustainable development and to fight poverty.

By means of case studies students strengthen their skills in the application of their newly gained know how to country analyses.

Learning Content

Economic Development: Causes, Challenges and Policies

- Status Quo
- Uneven growth
- Inequality
- Poverty
- Undernutrition
- Population growth
- Rural and urban aspects
- Economic institutions

Economic Growth

- Exogenous growth
- Endogenous growth
- Growth policies
- Challenges of LMCs

International Trade

- Theories
- Trade policies
- Globalization
- Institutions

Environment and Development

- Sustainable development

Case studies

- Analysis of selected countries

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Written exam. For further details see course catalogue and study and examination regulations	
Recommended or required reading and other learning resources/tools	Raj, D.: Development Economics, Princeton University Press (1999)	
	Todaro, M. P.; Smith S. C.: Economic Development, Pearson Education Limited (2017)	
	Acemoglu, D.; Robinson J.: Why Nations Fail: The Origins of Power, Prosperity and Poverty, Profile Books (2012)	
	Barro, R. J.; Sala-i-Martin, X.: Economic Growth, The MIT Press (1995)	
	Ghatak, S.: Introduction to Development Economics, Routledge (2004)	
	Instruction videos, lecture notes and selected readings	
Additional (module) information	Modul wird bei der Fakultät VWV geführt	
Document Version	4	Document Date 28.11.2023
Document was created by	Prof. Dr. Thorsten Neumann	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

Module	Sustainable Supply Chain Management		
Course Title (if applicable)	Elective: Entrepreneurship	Overall grade weighting (in %) 4,5%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☒ winter term ☐ summer term ☐ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Lecture		
Responsible for the module	Prof. Dr. Carsten Prenzler		
Teaching Methods	Lectures and Tutorials Students Presentations		
Work parameters	self-studies (hours) 115	contact time (hours) 35	total (hours) 150
Number of participants min./max.	10 / 30	ECTS-Points 05	Hours per semester week 03
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

none

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

After participating in this module, participants will have gained knowledge about different concepts in sustainable supply chains and received the knowledge to apply decision support in this field. Furthermore, this course will shape students' opinion on sustainability issues and provide them with the bigger picture on causes and effects of global supply chain management. Through the presentations, students further improve their presentation skills.

Learning Content

1. The need for Sustainable Supply Chain Management
2. Understanding and Definition of Logistics and Supply Chain Management
3. Bullwhip-effect and principles in Supply Chain Management
4. The "triple-bottom-line" of Sustainability in Supply Chains
 - 3.1 Environmental impact: Carbon Footprinting of Supply Chains
 - 3.2 Social impact: Supply Chain Regulation Acts
 - 3.3 Economic impact: Resource Efficiency and Circular Economy
5. Strategy Formulation and Organization of Sustainable Supply Chains
6. Upstream Supply Chain: Sustainable Sourcing Concepts
 - 5.1 Sustainable Sourcing Strategies
 - 5.2 Sustainable Supplier Management
 - 5.3 Sustainable Transportation Modes
7. Downstream Supply Chain: Sustainable Logistics & Distribution Concepts
 - 6.1 Sustainable Warehousing & Packaging
 - 6.2 Sustainable Distribution Network Design
 - 6.3 Sustainable Last-Mile Deliveries
8. Closed-loop Supply Chains Concepts
9. Students Presentation: "Best practices" in Sustainable Supply Chain Management

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Written exam. For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Christopher, M.: Logistics & Supply Chain Management, 4th edition, Prentice Hill (2011)	
	Cachon, G., Terwiesch, C.: Matching Supply with Demand, 3rd edition, McGraw-Hill (2011)	
	Grant, D.B., Trautrim, A., Wong, C.Y. (Eds.): Sustainable Logistics and Supply Chain Management: Principles and Practices for Sustainable Operations and Management, 2nd edition	
	Piecyk, M., Browne, M., Whiteing, A., & McKinnon, A. (Eds.): Green logistics: Improving the environmental sustainability of logistics, Kogan Page (2015)	
	Detailed literature for every lecture will then be provided in the syllabus.	
Additional (module) information	Modul wird bei der Fakultät VWV geführt	
Document Version	3	Document Date 05.12.2023
Document was created by	Prof. Dr. Carsten Prenzler	Valid from 01.09.2024
Updated		by

Module Description/Syllabus

Module	Junior Consulting Project		
Course Title		Overall grade weighting (in %) 30%	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☐ summer term ☒ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration	1 semester
Lecturer/s	See Course Catalogue		
Typ of course	☐ compulsory ☒ optional	☐ in the ☒ from the	1st semester
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Practical experience Subject-related training and coaching Adaption and self-reflection		
Work parameters	self-studies (hours) 894	contact time (hours) 6	total (hours) 900
Number of participants min./max.	10 / 35	ECTS-Points 30	Hours per semester week 40
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: communicating in English using the four basic language skills (i.e., reading, writing, speaking, and listening), basic business and/or economic knowledge;
methodical: analysis ability, conceptual skills, organizability, time management, problem solving ability;
social: intercultural competence, communication skills, critical ability, team ability;
personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

- Deepened understanding of the relationship between theory and practice
- Ability to apply the theoretical knowledge in practice and to reflect it critically
- Ability to actively deal with practical situations and challenges and to assess them
- Ability to derive, implement and evaluate appropriate measures
- Ability to base practical decisions on scientific findings
- Ability to effectively identify challenges for pro-active communication activities
- Critical self-reflection and identification of personal strengths and weaknesses in a practical environment

Learning Content

- Training on the job
- Coachings with regard to individual needs, e.g. personal strengths and weaknesses etc.

Module Description/Syllabus

Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	1st semester Poortfolio exam normally consisting of: - Project study papers to critically reflect the tasks and their implementation - Learning diary to document and reflect the individual learning path - Final presentation For further details see course catalogue and study and examination regulations.	
Recommended or required reading and other learning resources/tools	Depending on the topics of the Junior Consulting Project	
Additional (module) information	The student must look for a suitable company independently. Whether the company is suitable is decided by the responsible professor and must be coordinated by the student at an early stage	
Document Version	1	Document Date 25.03.2024
Document was created by	Prof. Dr. Daniel Schallmo	Valid from 01.10.2024
Updated		by

Module Description/Syllabus

Module	Scientific Research Lab		
Course Title		Overall grade weighting (in %) 4,5 %	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☐ summer term ☒ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration 1 semester	
Lecturer/s	See Course Catalogue		
Typ of course	☒ compulsory ☐ optional	☐ in the ☒ from the 3rd semester	
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, case studies, practical projects, group work, group presentation, discussion, exercises		
Work parameters	self-studies (hours) 90	contact time (hours) 60	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 04
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: communicating in English using the four basic language skills (i.e., reading, writing, speaking, and listening), basic business and/or economic knowledge;
methodical: analysis ability, conceptual skills, organizability, time management, problem solving ability;
social: intercultural competence, communication skills, critical ability, team ability;
personal: adaptability, endurance, individual responsibility, decision-making skills, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

general objectives

upon successful completion of this unit, students are able to:

- understand the basics of principles of the scientific method
- discuss the general philosophical approaches and types of knowledge science
- explore various quantitative research methods To develop an academic research article based on quatitative research results
- examine empirical cycle, causality and the criteria for methodological quality
- consider the most frequently used research designs (e.g. experimental, quasi-experimental and correlational designs)
- choose a particular research design and decide on the ways to measure the variable of interests
- to reflect the basics of principles of the scientific method
- conduct a rigorous literature review
- identify the research gaps
- develop research questions based on the research gaps
- develop a research design based on the research questions
- analyze the quantiative research results
- report the results in written form

Learning Content

content:

- what is science?
- exploring the philosophy of science and approaches
- discussing the empirical cycle
- what does a good research study look like?
- exploring research criteria
- discussing validity and reliability
- what variables are you interested in?
- exploring quantitative research designs (e . . g, sampling, designs, sample size, validity and reliability)
- discussing research integrity Reviewing essential components of quantitative and qualitative research methods
- exploring the 6 steps of a research project
- conducting a literature review based on the book "The literature review: Six steps to success".
- developing quantitative and qualitative research questions
- developing a quantitative and qualitative research strategy
- developing Pitch 1-2-3
- presenting your research article idea
- developing an initial table of content
- analyzing quantitative and qualitative data
- developing the research article

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	3rd semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Creswell, J. W.; Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.	
	Buchanan, D.; Bryman, A. (Eds.). (2009). Organizational Research Methods. SAGE.	
	Hancock, G.; Stapleton, L.; Mueller, R. O. (Eds.). (2018). The reviewer's guide to quantitative methods in the social sciences. Routledge.	
	Field, A. (2013). Discovering statistics using IBM SPSS statistics. sage.	
	Adams, R.; Bessant, J.; Phelps, R. (2006). Innovation management measurement: A review. International Journal of Management Reviews, 8(1), 21-47.	
	Ball, R. (2018) An introduction to bibliometrics: new development and trends, Cambridge; Kidlington: Elsevier, Chandos Publishing, 2018 Wieringa, R.J. (2014) Design science methodology for information systems and software engineering, Springer. Ranjbar-Sahraei, B.; Negenborn, R. (2017). Research positioning & trend identification: a dataanalyticstoolbox. (Version 2.2 ed.), DELFT University http://aida.tudelft.nl/toolbox/aida-booklet	
Additional (module) information	Usually the following proof of performance is available for the event: 1. Final presentation (team and individual): 15-20 minutes; 40% 2. Project report (team): 30-40 pages: 40% 3. Personal review on a weekly basis (individual): 3-5 pages; 20%	
Document Version	1.0	Document Date 27.02.2024
Document was created by	Prof. Dr. Daniel Schallmo	Valid from 01.10.2024
Updated		by

Module Description/Syllabus

Module	Master Seminar		
Course Title (if applicable)		Overall grade weighting (in %) 4,5	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☐ summer term ☒ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration 1 semester	
Lecturer/s	See Course Catalogue		
Typ of course	☒ compulsory ☐ optional	☐ in the ☒ from the 3rd semester	
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, discussions, research		
Work parameters	self-studies (hours) 140	contact time (hours) 10	total (hours) 150
Number of participants min./max.	15 / 35	ECTS-Points 05	Hours per semester week 02
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding
methodical: analysis ability, conceptual skills, organizability, tool skills
social: intercultural competence, communication skills, critical ability, team ability
personal: adaptability, endurance, individual responsibility, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- combine several research methods they have learned and applied in the previous research seminars (basics and literature review, quantitative research, qualitative research)
- will know how to describe a research field and define their own research strategy
- are able to define their research design, including the research methodology, research methods, approaches and quality criteria
- will present their thesis in an academic way

2) the students:

- are able to organize themselves
- are able to learn digital skills using state-of-the-art software tools
- can motivate themselves and others
- can reflect on and improve their working methods and their results
- are able to give feedback and to learn from other's feedback
- will learn how to organize a paper writing process
- exchange views and experiences and network with each other

Learning Content

theory:

- introduction into good scientific practice and theories
- approaches on how to describe a research field and define a research strategy
- repetition on previous research seminars
- possible search strategies for scientific topics
- introduction into good scientific presentation
- examples on how to conduct scientific presentations
- golden rules for scientific presentations
- how to receive and give feedback

practice (doing research):

- define a research field (from Entrepreneurship, Digitalization or Sustainability)
- define the research topic and state of the art
- define the research gap and the research objective
- define the research questions
- define the research methodology and research methods
- define the quality criteria
- conducting the research
- creating the research results
- define and understand the target audience
- know the general information (time, place, format ...)
- setup the agenda, content and presentation, incl. backup
- test and refine presentation
- present presentation and receive feedback

thesis/paper presentation:

- presenting thesis/paper in a professional and academic way

feedback/sparring rounds:

- there will be individual and group sparring workshops
- there will be give written feedback applying an evaluation form
- there will be individual and group sparring workshops

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	3rd semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Recommended reading will be updated and agreed on per topic chosen	
Additional (module) information	The examination is the final presentation of the Master Thesis (15-20 minutes) + questions	
Document Version	1.0	Document Date 08.05.2024
Document was created by	Prof. Dr. Daniel Schallmo	Valid from 01.10.2024
Updated		by

Module Description/Syllabus

Module	Master Thesis		
Course Title (if applicable)		Overall grade weighting (in %) 18	
Course of Studies	International Entrepreneurship, Digitalization and Sustainability		
Examination No. (SuP)	valid SER		
Mode of Study	☒ full-time ☐ part-time		
Study Cycle	☐ Bachelor ☒ Master		
Frequency	☐ winter term ☐ summer term ☒ each semester		
Language Competence Level and Course code SAP ☐			
Language of instruction	☒ English ☐ German	Duration 1 semester	
Lecturer/s	See Course Catalogue		
Typ of course	☒ compulsory ☐ optional	☐ in the ☒ from the 3rd semester	
Mode of delivery	Seminar classes, face-to-face events, e-learning		
Responsible for the module	Prof. Dr. Daniel Schallmo		
Teaching Methods	Lecture, discussions, research		
Work parameters	self-studies (hours) 570	contact time (hours) 30	total (hours) 600
Number of participants min./max.	15 / 35	ECTS-Points 20	Hours per semester week 02
Use for other studies			

Module Description/Syllabus

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Prerequisites and co-requisites (if applicable)

professional: English in writing and language, basic business understanding
methodical: analysis ability, conceptual skills, organizability, tool skills
social: intercultural competence, communication skills, critical ability, team ability
personal: adaptability, endurance, individual responsibility, creativity, goal orientation

Learning Outcome (1) Knowledge, (2) Skills, (3) Responsibility and autonomy

1) the students:

- combine several research methods they have learned and applied in the previous research seminars (basics and literature review, quantitative research, qualitative research)
- will know how to describe a research field and define their own research strategy
- are able to define their research design, including the research methodology, research methods, approaches and quality criteria
- will write their thesis in a publishable way

2) the students:

- are able to organize themselves
- are able to learn digital skills using state-of-the-art software tools
- can motivate themselves and others
- can reflect on and improve their working methods and their results
- are able to give feedback and to learn from other's feedback
- will learn how to organize a paper writing process
- exchange views and experiences and network with each other

Learning Content

theory:

- introduction into good scientific practice and theories
- approaches on how to describe a research field and define a research strategy
- repetition on previous research seminars
- possible search strategies for scientific topics
- introduction into good scientific presentation
- examples on how to conduct scientific presentations
- golden rules for scientific presentations
- how to receive and give feedback

practice (doing research):

- define a research field (from Entrepreneurship, Digitalization or Sustainability)
- define the research topic and state of the art
- define the research gap and the research objective
- define the research questions
- define the research methodology and research methods
- define the quality criteria
- conducting the research
- creating the research results
- define and understand the target audience
- know the general information (time, place, format ...)
- setup the agenda, content and presentation, incl. backup
- test and refine presentation
- present presentation and receive feedback

thesis/paper writing:

- writing a thesis/paper along a strict outline

feedback/sparring rounds:

- there will be individual and group sparring workshops
- there will be give written feedback applying an evaluation form
- there will be individual and group sparring workshops

Module Description/Syllabus

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Semester, in which the student has to be mandatorily registered for the first attempt of examination Assessment method(s)	3rd semester The examination is a portfolio examination (PF) and is communicated at the beginning of the semester (please also see add. information).	
Recommended or required reading and other learning resources/tools	Recommended reading will be updated and agreed on per topic chosen	
Additional (module) information	The examination is the Master Thesis (80-120 pages)	
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Updated		by

3.

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