MODULE HANDBOOK

Master of Arts

Master Growth Hacking for Entrepreneurs (FS-OI-EU-MAGHE-60)

60 ECTS

Distance Learning

INTERNATIONAL
UNIVERSITY OF
APPLIED SCIENCES

Contents

2023-11-02

1. Semester

Advanced Growth Hacking

Module Code: DLMGHAGH

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	5	150 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
1. Semester	Minimaldauer: 1 Semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Georg Bouché (Advanced Growth Hacking)

Contributing Courses to Module

- Advanced Growth Hacking (DLMGHAGH01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Written Assessment: Case Study	

Weight of Module

see curriculum

Module Contents

- Introduction into Growth Hacking (Definition, Historical Background, Origin, and Requirements)
- Product-Market-Fit
- A/B Testing
- Customer Relationship Management
- Data Analysis
- Case Studies

Learning Outcomes

Advanced Growth Hacking

On successful completion, students will be able to

- develop an understanding of the idea behind and learn how to use and apply Growth Hacking.
- deepen their knowledge about the origin and history of Growth Hacking, also through case studies showing how Growth Hacking is applied in real life.
- get familiar with basic conditions like knowing when a product or service is ready for the market (product-market-fit).
- using and applying A/B testing to find out which version of a website or an application leads to the best possible success.
- increase sales turnover through customer relationship management.
- develop awareness of the importance of data analysis to constantly increase a firm's 'performance'.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Marketing & Sales.	All Master Programs in the Marketing & Communication field.

Advanced Growth Hacking

Course Code: DLMGHAGH01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The course will give an introduction into Growth Hacking, define the term, point out historical background, its origin, and focus on the requirements, tools and methods in order to roll out a Growth Hack. The students will learn when a product or service is ready to be rolled out, the so-called product-market-fit, learn why A/B Testing can be useful as well as connecting with clients, not only through Customer Relationship Management. Equally important is the constant data analysis which will also be covered in detail. A case study serves as the written assignment for this course.

Course Outcomes

On successful completion, students will be able to

- develop an understanding of the idea behind and learn how to use and apply Growth Hacking.
- deepen their knowledge about the origin and history of Growth Hacking, also through case studies showing how Growth Hacking is applied in real life.
- get familiar with basic conditions like knowing when a product or service is ready for the market (product-market-fit).
- using and applying A/B testing to find out which version of a website or an application leads to the best possible success.
- increase sales turnover through customer relationship management.
- develop awareness of the importance of data analysis to constantly increase a firm's 'performance'.

Contents

1. Introduction into Growth Hacking
   - 1.1 Definition
   - 1.2 Historical Background and the Origin of Growth Hacking
   - 1.3 Framework and Conditions

2. Generating Growth
   - 2.1 Understanding the Customer
   - 2.2 Developing a Business Model
   - 2.3 Product-Market-Fit and Positioning
   - 2.4 Sales Channels and Funnel Management
   - 2.5 User Experience

3. Growth Hacking Strategies and Workflow
   - 3.1 Setting up the Right Team
   - 3.2 Processes
   - 3.3 Developing Ideas
   - 3.4 A/B Testing
   - 3.5 SEO and SEA

4. Customer-Relationship-Management and Acquisition
   - 4.1 Building a Relationship with your Clients and Customer Experience
   - 4.2 Content Marketing and Community Management
   - 4.3 Social Media Marketing
   - 4.4 E-Mail Marketing
   - 4.5 Retention and Referrals

5. Data Analysis
   - 5.1 Marketing Controlling
   - 5.2 Monitoring
   - 5.3 Key Performance Indicators (KPIs)

6. Activation and Revenue
   - 6.1 Usability and Psychology
   - 6.2 Digital Business Models
   - 6.3 Freemium and Cross Selling

Literature
Compulsory Reading
Further Reading ▪ Agrawal, P. & Chaubey, R. (2019). The Growth Hacking Book: Most Guarded Growth Marketing Secrets the Silicon Valley Giants Don't Want You To Know. Growth Media AI. ▪ Agrawal, P., Chaubey, R. & Goval, S. (2021). The Growth Hacking Book 2: 100 Proven Hacks for Business and Startup Success in the New Decade. Growth Media AI. ▪ Carnegie, D. (2010). How to Win Friends and Influence People. Pocket Books. ▪ Ellis, S. & Brown, M. (2017). Hacking Growth, How Today's Fastest-Growing Companies Drive Breakout Success. Crown Business, New York. ▪ Fitzpatrick, R. (2013). The Mom Test: How to talk to customers and learn if your business is a good idea when everyone is lying to you. CreateSpace Independent Publishing Platform. ▪ Holiday, R. (2014). Growth Hacker Marketing: A Primer on the Future of PR, Marketing, and Advertising. Penguin Group, New York. ▪ Olsen, D. (2015). The Lean Product Playbook. The product-market-fit pyramid. John Wiley & Son. ▪ Sabry, N. (2020). Ready Set Growth Hack – A Beginner's Guide to Growth Hacking Success. Printed by Sabry, N.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Case Study

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Business Model Design

Module Code: DLMIEEBMD

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	5	150 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
1. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Mario Boßlau (Business Model Design)

Contributing Courses to Module

- Business Model Design (DLMIEEBMD01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Written Assessment: Written Assignment	

Weight of Module

see curriculum

Module Contents

- Business Models and Business Modelling
- Selected Methods aiding Business Model Design
- Essential Elements of Business Models
- Specifics of Digital Business Models
- The Business Model Canvas by Osterwalder and Pigneur

Learning Outcomes

Business Model Design

On successful completion, students will be able to

- remember the definitions and processes dealing with business modelling.
- understand and apply methods that are used for business model design.
- understand the essential elements of business models.
- remember and evaluate the specifics of digital business models.
- understand the business model canvas by Osterwalder and Pigneur and to develop and describe their “own” business model canvas in the course of their written assignment.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Business Administration & Management	All Master Programs in the Business & Management field

Business Model Design

Course Code: DLMIEEBMD01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The digital economy, encompassing topics like internet of things, business networks, digital platforms, platform-as-a-service offerings, etc. has led to the rise of new business models. Business models that were established in the past are often no longer suitable, as the way in which products are created, how customers are addressed, the sales model and cost structure and much more have changed in the course of digital transformation. This module therefore focusses on the elements of business models, and the methods how business models can be designed. The specifics of digital business models are outlined in a dedicated section as is the introduction of the business model canvas by Osterwalder and Pigneur.

Course Outcomes

On successful completion, students will be able to

- remember the definitions and processes dealing with business modelling.
- understand and apply methods that are used for business model design.
- understand the essential elements of business models.
- remember and evaluate the specifics of digital business models.
- understand the business model canvas by Osterwalder and Pigneur and to develop and describe their “own” business model canvas in the course of their written assignment.

Contents

1. Business Models and Business Modelling
   - 1.1 Definitions: Use Case, Business Case and Business Model
   - 1.2 Introduction to Business Models
   - 1.3 The Process of Business Model Development
   - 1.4 Selling Results (instead of Products)
   - 1.5 Availability instead of Ownership

2. Essential Elements of Business Models
   - 2.1 Customer Segments
   - 2.2 Value Propositions
   - 2.3 Value Architecture: Offer, Distribution and Communication Channels, Customer Relationship, Value Chain, Core Capabilities, Key Activities, Key Partnerships
   - 2.4 Revenue Model: Revenue Sources, Cost Structure

3. Specifics of Digital Business Models
   - 3.1 Success Drivers of Digital Business Models
   - 3.2 Key Components of Digital Business Models
   - 3.3 Overcoming Previous Industry Boundaries
   - 3.4 Acting as a Network in the Market
   - 3.5 Digitization of Products and Services

4. The Business Model Canvas by Osterwalder and Pigneur
   - 4.1 The Business Model Canvas
   - 4.2 Similarities in Business Models
   - 4.3 Designing Business Models
   - 4.4 Strategic Areas of Business Models
   - 4.5 The Business Model Design Process

5. Selected Methods Aiding Business Model Design
   - 5.1 Design Thinking
   - 5.2 Open Innovation
   - 5.3 Customer Journey and Customer Experience
   - 5.4 Prototyping
   - 5.5 Multidisciplinary Teams

Literature
Compulsory Reading
Further Reading ▪ Aagaard, Annabeth (Hg.) (2018): Digital Business Models. Driving Transformation and Innovation. Springer International Publishing. 1st edition 2019. Cham: Springer International Publishing; Palgrave Macmillan, Basingstoke (UK). ▪ Osterwalder, Alexander; Pigneur, Yves (2013): Business Model Generation. A Handbook for Visionaries, Game Changers, and Challengers. 1st edition. John Wiley & Sons, New York, NY. ▪ Oswald, Gerhard; Kleinemeier, Michael (Hg.) (2018): Shaping the Digital Enterprise. Trends and Use Cases in Digital Innovation and Transformation. Springer International Publishing. Softcover reprint of the original 1st edition 2017. Cham: Springer International Publishing; Springer, Basel. ▪ Wirtz, Bernd W. (2019): Digital Business Models. Concepts, Models, and the Alphabet Case Study (Progress in IS). Springer International Publishing, Basel. ▪ Wirtz, Bernd W. (2020): Business Model Management. Design - Process - Instruments. 2nd edition 2020. Cham: Springer International Publishing (Springer Texts in Business and Economics), Basel.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Written Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Lean Start Up

Module Code: DLMIEELSU

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	5	150 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
1. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Lena Bernhofer (Lean Start Up)

Contributing Courses to Module

- Lean Start Up (DLMIEELSU01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Exam, 90 Minutes	

Weight of Module

see curriculum

Module Contents

- Fundamentals of Lean Start Up
- Lean Start Up: The Core Concept
- The Build-Principles
- The Measure-Principles
- The Learn-Principles
- Lean Start-Up: Use Cases

Learning Outcomes

Lean Start Up

On successful completion, students will be able to

- define the Lean Start Up methodology, its emergence and describe its predecessors – lean management and customer development.
- analyze and describe the concept of Lean Start Up as a new entrepreneurial management method, especially the experimental design and the Build-Measure-Learn-Loop and their relevance for building a start-up in an insecure market environment.
- explain the experimental framework and role of using hypotheses and assumptions for validating a new business idea as well as the building of a Minimum Viable Product.
- explain and apply the systematically measure procedures for testing the underlying assumptions to achieve a problem-solution- and at a later stage a solution-market-fit.
- explain and apply the learning principles based on the systematically measured outcomes to pivot business models, to establish growth and design the start-up organization as an adaptive institution.
- derive typical use cases out of the start-up environment and as well as apply it as an innovation framework for already established companies.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Business Administration & Management	All Master Programs in the Business & Management field

Lean Start Up

Course Code: DLMIEELSU01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

In recent years, entrepreneurs and especially start-ups gain high attention for their work and their potential to transform the economy and society by extending the innovation and digital capabilities. Lean Start Up is developed out of the product development experiences of start-ups and is seen as a new entrepreneurial management method. Inspired by the two concepts of lean management and customer development, Lean Start Up achieves a faster and customer-centric product and business model process by adopting a combination of business-hypothesis-driven experimentation, iterative product releases, systematically testing and validated learning. At its core, every product is treated as an experiment, which is tested systematically by using a steady loop cycle of build, measure and learn until the product-market-fit is achieved. This course introduces the students to the Lean Start Up methodology, its definition and core features. The course is designed to teach the students to understand and apply the different principles of Lean Start Up. The objective is that the students are empowered to use Lean Start Up as an entrepreneurial process for future product and business model developments.

Course Outcomes

On successful completion, students will be able to

- define the Lean Start Up methodology, its emergence and describe its predecessors – lean management and customer development.
- analyze and describe the concept of Lean Start Up as a new entrepreneurial management method, especially the experimental design and the Build-Measure-Learn-Loop and their relevance for building a start-up in an insecure market environment.
- explain the experimental framework and role of using hypotheses and assumptions for validating a new business idea as well as the building of a Minimum Viable Product.
- explain and apply the systematically measure procedures for testing the underlying assumptions to achieve a problem-solution- and at a later stage a solution-market-fit.
- explain and apply the learning principles based on the systematically measured outcomes to pivot business models, to establish growth and design the start-up organization as an adaptive institution.
- derive typical use cases out of the start-up environment and as well as apply it as an innovation framework for already established companies.

Contents

Literature
Compulsory Reading
Further Reading ▪ Blank, S. G. (2007): The Four Steps to the Epiphany. Successful Strategies for Products that Win. 3rd Edition, Quad/Graphics. ▪ Ries, E. (2011): The Lean Startup. How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. 1st Edition, Currency, New York. ▪ Maurya, A. (2012): Running Lean. Iterate from Plan A to a Plan That Works. 2nd Edition, O´Reilly, Sebastopol. ▪ Croll, A./Yoskovitz (2013): Lean Analytics. Use Data to Build a Better Startup Faster. 1st Edition, O´Reilly, Sebastopol.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Project: Growth Hacking Tools

Module Code: DLMGHPGHT

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	5	150 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
1. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Thomas Bolz (Project: Growth Hacking Tools)

Contributing Courses to Module

- Project: Growth Hacking Tools (DLMGHPGHT01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Written Assessment: Project Report	

Weight of Module

see curriculum

Module Contents

The students will work on their own growth hack in order to raise brand awareness for a product, a service and/or a company and to also make it better known, thereby increasing sales turnover without having to use and rely on expensive advertising formats and conventional media.

Learning Outcomes

Project: Growth Hacking Tools

On successful completion, students will be able to

- choose their own growth hack, by comparing different methods and tools that can be used.
- realize that applying growth hacks will lead to cost reductions.
- get accustomed to significantly lower expenditures on advertising and media when applying growth hacking instead of using traditional and conventional media.
- develop an awareness of how important teamwork is since growth hacking is usually only effective when marketing and IT specialists and experts work together on a project.
- apply, use and transfer their own growth hack.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Marketing & Sales	All Master Programs in the Marketing & Communication field

Project: Growth Hacking Tools

Course Code: DLMGHPGHT01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

As part of the course, students will come up with their own project on a topic related to growth hacking and present their results. They will be able to do so, since they will get familiar with different methods and tools that are applied in Growth Hacking, combining the skills of marketing and IT experts. The course will show ideas and give insights into a world beyond classical and conventional advertising.

Course Outcomes

On successful completion, students will be able to

- choose their own growth hack, by comparing different methods and tools that can be used.
- realize that applying growth hacks will lead to cost reductions.
- get accustomed to significantly lower expenditures on advertising and media when applying growth hacking instead of using traditional and conventional media.
- develop an awareness of how important teamwork is since growth hacking is usually only effective when marketing and IT specialists and experts work together on a project.
- apply, use and transfer their own growth hack.

Contents

- The aim of the course and the idea behind it is for the students to independently learn about certain methods and techniques of Growth Hacking. It is all about creating scalable growth and showing how companies can increase their brand awareness and sales turnover without using conventional advertising channels. The students will research typical Growth Hacking tools. They get to know what product-market-fit stands for, how A/B testing is implemented, why landing pages are useful, as well as making use of e-mail marketing besides many other topics from the areas of online marketing, social media and IT. They will understand that Growth Hacking trends are based on creativity, knowledge of marketing and IT, as well as analytical thinking and the importance to deal with data on a daily basis.

Literature
Compulsory Reading
Further Reading ▪ Agrawal, P. & Chaubey, R. (2019). The Growth Hacking Book: Most Guarded Growth Marketing Secrets the Silicon Valley Giants Don't Want You To Know. Growth Media AI. ▪ Agrawal, P., Chaubey, R. & Goval, S. (2021). The Growth Hacking Book 2: 100 Proven Hacks for Business and Startup Success in the New Decade. Growth Media AI. ▪ Ellis, S. & Brown, M. (2017). Hacking Growth, How Today's Fastest-Growing Companies Drive Breakout Success. Crown Business, New York. ▪ Holiday, R. (2014) Growth Hacker Marketing: A Primer on the Future of PR, Marketing, and Advertising. Penguin Group New York. ▪ Sabry, N. (2020). Ready Set Growth Hack – A Beginner's Guide to Growth Hacking Success. Printed by Sabry, N.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Project Report

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	0 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

DLMGHPGHT01

Applied Research

Module Code: DLMAF_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	None	MA	5	150 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
1. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Josephine Zhou-Brock (Applied Research)

Contributing Courses to Module

- Applied Research (DLMAF01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Written Assessment: Written Assignment	

Weight of Module

see curriculum

Module Contents

- Fundamentals of Empirical Research
- The Empirical Research Process
- Qualitative Survey Research
- Standardized Survey Research
- Experimental Research
- Specifics of Research with Secondary and Observational Data

Learning Outcomes

Applied Research

On successful completion, students will be able to

- evaluate the type and quality of empirical research and of concrete empirical research results based on relevant criteria.
- identify appropriate data and research methods to empirically address a specific problem or research question.
- name and critically compare the process steps as well as the potentials, aims and limitations of different quantitative and qualitative research methods.
- recognize and consider basic ethical and legal aspects while conducting empirical research.
- design an empirical and theory-based study on their own to adequately address a specific applied research problem.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Methods	All Master Programs in the field of Business & Management

Applied Research

Course Code: DLMAF01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	None

Course Description

The course teaches central concepts and methods of applied empirical research. The students acquire profound knowledge to evaluate the quality as well as the limitations of different empirical research approaches. First, students learn the central theoretical foundations of empirical research and the central process steps of empirical research projects. In doing so, students are also sensitised to the ethical and legal challenges. The course deals in depth with the application of central qualitative and quantitative research methods, for each of which the central goals and decision areas, their strengths, and weaknesses, as well as practical recommendations for application are discussed. The course enables students to develop an empirical study for an applied problem in their field or professional environment and to critically evaluate the quality of empirical findings as well as their validity.

Course Outcomes

On successful completion, students will be able to

- evaluate the type and quality of empirical research and of concrete empirical research results based on relevant criteria.
- identify appropriate data and research methods to empirically address a specific problem or research question.
- name and critically compare the process steps as well as the potentials, aims and limitations of different quantitative and qualitative research methods.
- recognize and consider basic ethical and legal aspects while conducting empirical research.
- design an empirical and theory-based study on their own to adequately address a specific applied research problem.

Contents

1. Fundamentals of Empirical Research
   - 1.1 Aims and Basic Approaches of Empirical Research
   - 1.2 Objectivity, Reliability, and Validity of Empirical Research
   - 1.3 Causality

2. The Empirical Research Process
   - 2.1 Determination of the Research Objective
   - 2.2 Choice of Research Design
   - 2.3 Data Collection and Data Analysis
   - 2.4 Interpretation and Presentation of Results
   - 2.5 Ethical and Legal Aspects of Empirical Research

3. Qualitative Survey Research
   - 3.1 Fundamentals, Goals and Process Steps
   - 3.2 Central Forms of Data Collection
   - 3.3 Methods to Analyse Qualitative Data
   - 3.4 Quality Assessment

4. Standardized Survey Research
   - 4.1 Fundamentals, Goals and Process Steps
   - 4.2 Central Forms of Data Collection
   - 4.3 Questionnaire Design, Measurement and Operationalization
   - 4.4 Sampling and Sample Evaluation
   - 4.5 Quality Assessment

5. Experimental Research
   - 5.1 Fundamentals, Goals and Process Steps
   - 5.2 Types of Experiments and Experimental Designs
   - 5.3 Measurement and Manipulation of Variables
   - 5.4 Key Implementation Challenges
   - 5.5 Quality Assessment

6. Specifics of Research with Secondary and Observational Data
   - 6.1 Fundamentals, Goals and Specifics
   - 6.2 Selected Approaches to Analyse Secondary Data
   - 6.3 Selected Approaches to Analyse Observational Data

Literature
Compulsory Reading
Further Reading ▪ Flick, U. (2018). An Introduction to Qualitative Research (6th edition). Sage. ▪ Gravetter, F. J., & Forzano, L. A. B. (2018). Research Methods for the Behavioral Sciences (6th edition. Cengage Learning. ▪ Quinlan, C., Babin, B., Carr, J. Griffin, M., & Zikmund, W. G. (2019). Business Research Methods (2nd edition). Cengage Learning. ▪ Vomberg, A., & Klarmann, M. (2021). Crafting Survey Research: A Systematic Process for Conducting Survey Research. In C. Homburg, M. Klarmann, & A. E. (Eds.), Handbook of market research (pp. 1-53). Springer.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Written Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Seminar: Current Topics of Innovation and Entrepreneurship

Module Code: DLMIEESCTIE

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	5	150 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
1. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Mirko Bendig (Seminar: Current Topics of Innovation and Entrepreneurship)

Contributing Courses to Module

- Seminar: Current Topics of Innovation and Entrepreneurship (DLMIEESCTIE01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Written Assessment: Research Essay	

Weight of Module

see curriculum

Module Contents

The course enables the students to delve into relevant, up-to-date themes related to innovation and entrepreneurship. These include innovation as a driver for a country´s and a company´s competitiveness, hot spots for entrepreneurship around the world, the set-up of an innovation culture in a company, the creation of good ideas as the foundation for innovation, and many more.

Learning Outcomes

Seminar: Current Topics of Innovation and Entrepreneurship

On successful completion, students will be able to

- examine and judge major trends and developments in the field of innovation and entrepreneurship.
- understand and explain the main characteristics, functions and drivers of innovation and entrepreneurship.
- explain the success factors for innovation and entrepreneurship to create a sustainable competitive advantage.
- assess major management practices and methods to foster an environment of innovation and entrepreneurship.
- apply practice-oriented methods and skills to create, discover and realize business opportunities.
- derive best-practice learnings from existing business models for own business ventures and innovation activities.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Business Administration & Management	All Master Programs in the Business & Management field

Seminar: Current Topics of Innovation and Entrepreneurship

Course Code: DLMIEESCTIE01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Innovation and entrepreneurship are main drivers for economic growth and prosperity. Innovation refers to the process of translating an idea or invention into a business model that creates value for which customers are willing to pay money for. Entrepreneurship can be described as the process of setting up and realizing a business venture. The creation of an environment conducive to innovation and entrepreneurship is therefore a key political and economic objective at the local, regional and state levels. The highly dynamic and interconnected nature of today's markets requires companies to be able and willing to maintain and expand their competitive advantage through continuous innovation. This can be done at the product and process level, as well as by constantly questioning and developing their own business model. The seminar enables the students to delve into relevant, up-to-date themes related to innovation and entrepreneurship. They will acquire methods and skills to create and discover business opportunities as well as realize own business ventures.

Course Outcomes

On successful completion, students will be able to

- examine and judge major trends and developments in the field of innovation and entrepreneurship.
- understand and explain the main characteristics, functions and drivers of innovation and entrepreneurship.
- explain the success factors for innovation and entrepreneurship to create a sustainable competitive advantage.
- assess major management practices and methods to foster an environment of innovation and entrepreneurship.
- apply practice-oriented methods and skills to create, discover and realize business opportunities.
- derive best-practice learnings from existing business models for own business ventures and innovation activities.

Contents

- Innovation and entrepreneurship are main drivers for economic growth and prosperity. Both are closely interrelated to one another. It is the entrepreneurial mindset that builds the foundation for the continued creation of all forms and dimensions of innovation. The course enables the students to delve into relevant, up-to-date themes related to innovation and entrepreneurship. These include innovation as a driver for a country´s and a company´s competitiveness, hot spots for entrepreneurship around the world, the set-up of an innovation culture in a company, the creation of good ideas as the foundation for innovation, and many more.

Literature

Compulsory Reading

Further Reading

- Barringer, B.R. & Ireland, R.D. (2015). Entrepreneurship: Successfully Launching New Ventures. 5th Edition, Pearson, New York.
- Bessant, J. & Tidd, J. (2015). Innovation and Entrepreneurship. 3rd Edition, John Wiley & Sons, Chichester.
- Grant, A. (2016). Originals: How Non-Conformists Move the World. Viking, New York.
- Johnson, S. (2011). Where Good Ideas Come from: The Natural History of Innovation. Riverhead Books, New York.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Research Essay

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☑ Slides
☐ Exam Template	

DLMIEESCTIE01

2. Semester

Project: Growth Hack Development

Module Code: DLMGHPGHD

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	5	150 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Thomas Bolz (Project: Growth Hack Development)

Contributing Courses to Module

- Project: Growth Hack Development (DLMGHPGHD01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Written Assessment: Project Report	

Weight of Module

see curriculum

Module Contents

Successful growth hacks are based on the specific situation and the business model of a company. This course is about the development of growth hacks based on different cases and the implementation of growth hacks from the IT perspective.

Learning Outcomes **Project: Growth Hack Development** On successful completion, students will be able to ▪ apply growth hacks to specific situations. ▪ comprehend marketing and IT perspective on growth hacking. ▪ understand technical complexity of a growth hack.	
Links to other Modules within the Study Program This module is similar to other modules in the field of Marketing & Sales	**Links to other Study Programs of the University** All Master Programs in the Marketing & Communication field

Project: Growth Hack Development

Course Code: DLMGHPGHD01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Growth hacking is an interdisciplinary field of activity and above all requires collaboration from IT, marketing, and product management. Not only the planning of a growth hack but also its technical implementation must be ensured. In this course, growth hacks are to be developed based on a given initial situation of a company and evaluated from an IT perspective.

Course Outcomes

On successful completion, students will be able to

- apply growth hacks to specific situations.
- comprehend marketing and IT perspective on growth hacking.
- understand technical complexity of a growth hack.

Contents

- As part of the project growth hack development, students demonstrate their knowledge as well as the skills and competencies to successfully develop a growth hack based on a specific situation from an IT perspective. By applying different methods for the development of the growth hack, the technical complexity as well as effort drivers are also evaluated. Against this background, students integrate their knowledge in growth hacking and ensure the implementation from the position of an IT expert.

Literature

Compulsory Reading

Further Reading

- Appelo, J. (2019). Startup, Scaleup, Screwup: 42 Tools to Accelerate Lean and Agile Business Growth. Wiley.
- Ellis, S. & Brown, M. (2017) Hacking Growth, How Today's Fastest-Growing Companies Drive Breakout Success. Crown Business New York.
- Szalek, K., & Borzemski, L. (2019). Conversion Rate Gain with Web Performance Optimization. A Case Study (Vol. 852). Springer International Publishing.
- Zimmermann, R., & Auinger, A. (2022). Developing a conversion rate optimization framework for digital retailers—case study. Journal of Marketing Analytics, 1–11.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Project Report

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

Innovation and Sales

Module Code: DLMGHEIAS

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	None	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Georg Berkel (Innovation and Entrepreneurship) / Caterina Fox (Sales and Pricing)

Contributing Courses to Module

- Innovation and Entrepreneurship (DLMBIE01-01)
- Sales and Pricing (DLMBSPBE02)

Module Exam Type

Module Exam	Split Exam
	Innovation and Entrepreneurship • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Sales and Pricing • Study Format "Distance Learning": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Innovation and Entrepreneurship

- Innovation management and entrepreneurship in a globalized world
- Basics of entrepreneurship
- Business ideas and company foundations
- Financing sources and processes
- Internet, digital business, and artificial intelligence
- Strategic alliances
- Family-owned companies

Sales and Pricing

Establishing and maintaining a competitive customer interface is one of the major challenges for every company to assure successful revenue- and profit-management. The course will allow students to understanding the optimization levers of the customer interface. This includes advanced methods of market- and customer segmentation, channel management including the design, setup and optimization of a customer oriented sales organization (e.g. key account management), practices for sales-force-effectiveness, sales optimization levers, e.g. for customer penetration, and methods for price-differentiation and -realization. The course incorporates case-studies and practice related data and for each optimization lever, students are introduced to a comprehensive tool-box approach. The tool box for each lever contains the required theory, a set of basic analyses and the application of best-practice examples and metrics.

Learning Outcomes

Innovation and Entrepreneurship

On successful completion, students will be able to

- understand the importance, fundamentals, and dimensions of entrepreneurship and its derivatives (intrapreneurship, corporate entrepreneurship, stakeholder relationships, and family businesses).
- analyze the opportunities and challenges associated with evaluating a business idea and setting up a business.
- distinguish between the different motivations behind entrepreneurial activity and develop specific objectives for new enterprises.
- develop a business model, including benchmarks for assessing desired sustainable growth.
- apply different legal forms to business start-ups and select the appropriate legal form for a specific business model.
- understand the different ways in which entrepreneurship and innovation can be financed and weigh them against each other in terms of medium- and long-term advantages and disadvantages.
- develop a rigorous business plan that can be used both as a planning and financing instrument.
- apply, in principle, an entrepreneurial mindset in a variety of different contexts of future professional development.

Sales and Pricing

On successful completion, students will be able to

- identify the key-success factors for modern sales organizations.
- describe the relationship between segmentation and the design of an appropriate sales organization.
- execute respective analyses and apply improvement levers.
- demonstrate the use of the tool-boxes for the respective optimization levers.
- identify major characteristics of a high-performance sales organization.
- conduct decisive analyses to assess the strength and weaknesses of a sales organization and identify respective optimization levers.
- implement the required organizational and process-related improvement levers.
- measure the performance of a sales-organization using established methods, KPIs and metrics.
- apply fundamental concepts of international pricing.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the fields of Business Administration & Management and Marketing & Sales	All Master Programmes in the Business & Management and Marketing & Communication fields

Innovation and Entrepreneurship

Course Code: DLMBIE01-01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	None

Course Description

In today's globalized and digital world, entrepreneurs have more opportunities to develop and market products and services than ever before. However, entrepreneurship, whether in the form of entrepreneurship or intrapreneurship, presents special challenges. In order to avoid the typical pitfalls of starting and growing a business, a sound understanding of innovation management and building a business is essential. Particular attention must be paid to the financing of entrepreneurial activity, both from the perspective of the entrepreneur and the investor. Innovation and entrepreneurial activity are the basis and driving force of our economy. Even looking at other economies, it is obvious that innovation and entrepreneurship are crucial at every stage of economic development. Small enterprises in developing countries initiate the development of economic institutions and create supply, demand, and markets. These enterprises lay the foundation for economic development and growth. In developed economies, innovation and entrepreneurship are the driving forces behind competition and competitiveness in the global context. In all parts of the world, family businesses play the most important role. The rapid technological and social change present in our societies requires the innovative use of digital technologies (internet and artificial intelligence), as well as flexibility in handling new forms of organization (e.g., strategic alliances between companies). This course introduces students to the ideas behind, motives, and drivers of entrepreneurial activity and innovation and teaches them the practical aspects of the identification, analysis, and development of innovations and business ideas. The core competence of the entrepreneur—the ability to negotiate with investors and partners—is also addressed.

Course Outcomes

On successful completion, students will be able to

- understand the importance, fundamentals, and dimensions of entrepreneurship and its derivatives (intrapreneurship, corporate entrepreneurship, stakeholder relationships, and family businesses).
- analyze the opportunities and challenges associated with evaluating a business idea and setting up a business.
- distinguish between the different motivations behind entrepreneurial activity and develop specific objectives for new enterprises.
- develop a business model, including benchmarks for assessing desired sustainable growth.
- apply different legal forms to business start-ups and select the appropriate legal form for a specific business model.
- understand the different ways in which entrepreneurship and innovation can be financed and weigh them against each other in terms of medium- and long-term advantages and disadvantages.
- develop a rigorous business plan that can be used both as a planning and financing instrument.
- apply, in principle, an entrepreneurial mindset in a variety of different contexts of future professional development.

Contents

1. Entrepreneurship
   - 1.1 Entrepreneurship and entrepreneur
   - 1.2 Enterprise related theories of entrepreneurship
   - 1.3 The economic significance of entrepreneurship
2. Company formation strategy
   - 2.1 Different contexts in which companies are founded
   - 2.2 The Entrepreneur
   - 2.3 Business models and strategies
3. Innovation and innovation management
   - 3.1 Innovation
   - 3.2 Innovation management
   - 3.3 Protection of intellectual property
   - 3.4 Case study: BMW Empathic Design
4. Legal form in international comparison
   - 4.1 Germany
   - 4.2 International comparison: USA

5. Financing entrepreneurial activity I: Sources of finance
   - 5.1 Incubators, accelerators and crowdfunding
   - 5.2 Business angels
   - 5.3 Private equity and corporate venture capital
   - 5.4 Public start-up support

6. Financing entrepreneurial activity II: Financing processes
   - 6.1 The investor view: Deal sourcing and deal screening
   - 6.2 The entrepreneurial view: Negotiations with investors
   - 6.3 The evaluation of business start-ups

7. The business plan
   - 7.1 Purpose and objectives of the business plan
   - 7.2 Expectations regarding the business plan
   - 7.3 Structure and content of the business plan
   - 7.4 Guidelines for creating a business plan

8. Digital business models and artificial intelligence
   - 8.1 e-Business
   - 8.2 Artificial intelligence
   - 8.3 The Globotics Evolution

9. Cooperative strategy: Alliances and joint ventures
   - 9.1 Cooperative strategy
   - 9.2 The right “fit”
   - 9.3 The right “form”

10. Family-owned company
    - 10.1 Definitions
    - 10.2 Economic significance
    - 10.3 Strengths and weaknesses

Literature
Compulsory Reading
Further Reading ▪ Mariotti, S., & Glackin, C. (2016). Entrepreneurship: Starting & operating a small business (4th ed.). Pearson. ▪ Parker, S. C. (2009). The economics of entrepreneurship (pp. 1–28). Cambridge University Press. ▪ Scarborough, N. M., & Cornwall, J. R. (2019). Essentials of entrepreneurship and small business management (9th ed.). Pearson.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Sales and Pricing

Course Code: DLMBSPBE02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Establishing and maintaining a competitive customer interface is one of the major challenges for every company to assure successful revenue- and profit-management.The course will allow students to understanding the optimization levers of the customer interface. This includes advanced methods of market- and customer segmentation, channel management including the design, setup and optimization of a customer oriented sales organization (e.g. key account management), practices for sales-force-effectiveness, sales optimization levers, e.g. for customer penetration, and methods for price-differentiation and -realization.The course incorporates case-studies and practice related data and for each optimization lever, students are introduced to a comprehensive tool-box approach. The tool box for each lever contains the required theory, a set of basic analyses and the application of best-practice examples and metrics.

Course Outcomes

On successful completion, students will be able to

- identify the key-success factors for modern sales organizations.
- describe the relationship between segmentation and the design of an appropriate sales organization.
- execute respective analyses and apply improvement levers.
- demonstrate the use of the tool-boxes for the respective optimization levers.
- identify major characteristics of a high-performance sales organization.
- conduct decisive analyses to assess the strength and weaknesses of a sales organization and identify respective optimization levers.
- implement the required organizational and process-related improvement levers.
- measure the performance of a sales-organization using established methods, KPIs and metrics.
- apply fundamental concepts of international pricing.

Contents

1. Segmentation
   - 1.1 Customer Segmentation
   - 1.2 Selection of Market Segments for Market Entry
   - 1.3 Development of Market Segments

2. Channel Management
   - 2.1 Distribution System as a Function of the Products Sold
   - 2.2 Selection of Distribution Partners
   - 2.3 Professionalization and Mobilization of Distribution Partners
   - 2.4 Control of Distribution Partners

3. Sales Force Effectiveness
   - 3.1 Sales Strategy
   - 3.2 Sales Process
   - 3.3 Sales Organization
   - 3.4 Sales Information and Management Systems
   - 3.5 Sales Controlling

4. Sales Optimization Levers
   - 4.1 Key Account Management
   - 4.2 Proactive Sales
   - 4.3 Value-Based Selling
   - 4.4 Online Sales Tools

5. Fundamentals of International Pricing
   - 5.1 Pricing Strategies
   - 5.2 Pricing for Market Segments
   - 5.3 Transaction Pricing and Managing the Price Waterfall
   - 5.4 Price Differentiation and Standardization in an International Context

6. Special Topics in International Pricing
   - 6.1 Gray Markets
   - 6.2 Transfer Pricing
   - 6.3 Price Wars
   - 6.4 Innovative Pricing Methods
   - 6.5 Risks in International Business

Literature
Compulsory Reading
Further Reading ▪ Dibb, S., & Simkin, L. (2010). The market segmentation workbook: Target marketing for marketing managers. Boston, MA: Cengage Learning. ▪ Kotler, P., Keller, K., Brady, M., Goodman, M., & Hansen, T. (2016). Marketing management (3rd ed.) (pp. 331–420). Harlow: Pearson Education. (Database: Myilibrary). ▪ Nagle, T. T., Zale, J., & Hogan, J. (2016). The strategy and tactics of pricing (5th ed.). Abingdon: Routledge. (Database: EBSCO). ▪ Zoltners, A. A., Sinha, P., & Zoltners, G. A. (2001). The complete guide to accelerating sales force performance: How to get more sales from your sales force. New York, NY: Amacom. (Database: EBSCO).

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Digital Transformation

Module Code: DLMIEEEDT

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Lena Bernhofer (Disruptive Innovation) / Prof. Dr. Claudia Heß (Hybrid Project Management in Digital Transformation)

Contributing Courses to Module

- Disruptive Innovation (DLMIEEEDT01)
- Hybrid Project Management in Digital Transformation (DLMADTHPDT01_E)

Module Exam Type

Module Exam	Split Exam
	Disruptive Innovation • Study Format "Distance Learning": Exam, 90 Minutes Hybrid Project Management in Digital Transformation • Study Format "Distance Learning": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Disruptive Innovation

- Major Areas of Innovation
- Introduction to Disruptive Innovation
- The Process of Disruption
- Significance of Disruptive Innovation
- Management of Disruptive Innovation
- Examples of Disruptive Innovation

Hybrid Project Management in Digital Transformation

- Project Management and Digitalization
- Norms, Standards and Project Management Certifications
- Traditional Project Management
- Agile Project Management
- Hybrid Project Management
- Lateral Leadership in Hybrid Project Management
- Application of Hybrid Project Management in Digital Transformation

Learning Outcomes

Disruptive Innovation

On successful completion, students will be able to

- explain the definitions and basic theory dealing with disruptive innovation.
- distinguish disruptive innovation from other forms of innovation.
- assess major areas in which disruptive innovation may occur.
- understand the essential elements of the process of disruption.
- determine and evaluate the significance of disruptive innovation.
- comprehend and evaluate examples of disruptive innovation.

Hybrid Project Management in Digital Transformation

On successful completion, students will be able to

- answer the question of the relevance of new forms of project management in the context of digital transformation.
- assess the relevance of key norms, standards and certifications for hybrid project management.
- select the right principles and process models from the traditional and agile project management options for digital change projects.
- design organization-specific hybrid process models for project management.
- convey central principles of lateral leadership for hybrid project management.
- apply hybrid project management principles with a particular focus on digital transformation.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the fields of Business Administration & Management and Project Management	All Master Programs in the Business & Management field

Disruptive Innovation

Course Code: DLMIEEEDT01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The term “Disruptive Innovation” was defined by the American scholar Clayton M. Christensen. A disruptive innovation is an innovative product, service, or business model that eventually overturns the existing dominant businesses in the market. It is therefore also about the failure of incumbent companies to stay on top of their industries when they encounter disruptive types of market and technological changes. Disruptive innovations tend to be produced by small teams, outsiders, or entrepreneurs in start-ups, rather than existing market-leading companies. This module focusses on the process of disruption and the significance of disruptive innovation. It highlights approaches for its management and concludes with examples of disruptive innovations from recent years.

Course Outcomes

On successful completion, students will be able to

- explain the definitions and basic theory dealing with disruptive innovation.
- distinguish disruptive innovation from other forms of innovation.
- assess major areas in which disruptive innovation may occur.
- understand the essential elements of the process of disruption.
- determine and evaluate the significance of disruptive innovation.
- comprehend and evaluate examples of disruptive innovation.

Contents

1. Major Areas of Innovation
    - 1.1 Invention Versus Innovation
    - 1.2 Product and Service Innovation
    - 1.3 Business Model Innovation
    - 1.4 Process and Technology Innovation
    - 1.5 Social and Environmental Innovation

2. Introduction to Disruptive Innovation
   - 2.1 Theory of Disruptive Innovation
   - 2.2 Definition and Classification of Disruptive Innovation
   - 2.3 Types of Disruptive Innovation
   - 2.4 Characteristics of Disruptive Innovation

3. The Process of Disruption
   - 3.1 Modelling Theory of Disruptive Innovation
   - 3.2 Performance Oversupply
   - 3.3 Asymmetry of Motivation
   - 3.4 New-market, and low-end Disruption Process
   - 3.5 Performance Trajectories

4. Significance of Disruptive Innovation
   - 4.1 Characteristics of Disruptor Companies
   - 4.2 Implication for Incumbent Companies
   - 4.3 Possible Responses to Disruptive Innovations

5. Management of Disruptive Innovation
   - 5.1 Triggers of Disruptive Innovation
   - 5.2 “Designing” Disruptive Innovation
   - 5.3 Implementing Disruptive Innovation

6. Examples of Disruptive Innovation
   - 6.1 Retail versus Amazon
   - 6.2 Physical Media versus Music/Video Streaming Services (e.g., Netflix)
   - 6.3 Hotels versus Airbnb / Taxis versus Uber
   - 6.4 In-Classroom Teaching versus Distance Learning
   - 6.5 3D Printing

Literature
Compulsory Reading
Further Reading ▪ Christensen, C. M. (1997): The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail. Boston, MA: Harvard Business School Press. ▪ Gutsche, J., & Gladwell, M. (2020). Create the future: Tactics for disruptive thinking ; The innovation handbook. Fast Company Press. ▪ Silberzahn, P. (DL 2018). A manager's guide to disruptive innovation: Why great companies fail in the face of disruption and how to make sure your company doesn't ((B. Alger, Trans.)). Diateino. ▪ Tidd, J. (2020). Digital disruptive innovation. Series on technology management. World Scientific. ▪ Le Merle, M. C., & Davis, A (2017). Corporate innovation in the fifth era: Lessons from Alphabet/Google, Amazon, Apple, Facebook, and Microsoft.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Hybrid Project Management in Digital Transformation

Course Code: DLMADTHPDT01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Digitalization is accompanied by immense change processes in society, business and industry and it is increasingly influencing classic management approaches. Traditional project management can still be found in many industrial companies and is also affected by this digital transformation. Due to the high degree of standardization in traditional project management, there is an increasing need to integrate more flexibility and dynamics through agile approaches. However, especially in corporate practice, many project managers are unsure when to fall back on agile and when on classic project management principles. Especially in the context of digital change projects in classic industrial companies, a combination of agile and traditional tools and principles therefore proves to be advantageous, which can be summarized with the term "hybrid project management". Against this background, this course teaches important basics of traditional, agile and hybrid project management. In addition, important lateral management principles and application fields of hybrid project management will be highlighted.

Course Outcomes

On successful completion, students will be able to

- answer the question of the relevance of new forms of project management in the context of digital transformation.
- assess the relevance of key norms, standards and certifications for hybrid project management.
- select the right principles and process models from the traditional and agile project management options for digital change projects.
- design organization-specific hybrid process models for project management.
- convey central principles of lateral leadership for hybrid project management.
- apply hybrid project management principles with a particular focus on digital transformation.

Contents

7. Application of Hybrid Project Management in Digital Transformation
   - 7.1 Hybrid Project Management in Interdisciplinary Product Development
   - 7.2 Hybrid Project Management in Strategic Innovation Management
   - 7.3 Hybrid Project Management in Digital Change Projects
   - 7.4 Further Case Studies and Practical Examples

Literature

Compulsory Reading

Further Reading

- Cobb, C. G. (2015): The project manager's guide to mastering agile. Principles and practices for an adaptive approach, John Wiley & Sons.
- Martinelli, R. J./Milosevic, D. Z. (2016): Project Management ToolBox. Tools and Techniques for the Practicing Project Manager. 2. Aufl., Wiley, s.l.
- Measey, P. et al. (2015): Agile Foundations. Principles, practices and frameworks, BCS Learning & Development Limited, Swindon.
- Project Management Institute (2017): Agile Practice Guide, Project Management Institute, Inc. (PMI).
- Wysocki, R. K. (2019): Effective Project Management. Traditional, Agile, Extreme, Hybrid, Wiley, Indianapolis.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

DLMADTHPDT01_E

E-Commerce

Module Code: MWEC-01_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Thomas Bolz (E-Commerce I) / Prof. Dr. Thomas Bolz (E-Commerce II)

Contributing Courses to Module

- E-Commerce I (MWEC01-01_E)
- E-Commerce II (MWEC02-01_E)

Module Exam Type

Module Exam	Split Exam
	E-Commerce I • Study Format "Distance Learning": Exam, 90 Minutes E-Commerce II • Study Format "Distance Learning": Written Assessment: Case Study

Weight of Module

see curriculum

Module Contents

E-Commerce I

- Basics of e-business and e-commerce
- Forms of e-commerce
- Strategic options in e-commerce
- Development of e-commerce strategies
- Measurement of success and success factors in e-commerce
- Risk benefit in e-commerce
- E-commerce in selected sectors

E-Commerce II

- Basics of online marketing and e-commerce
- web usability
- Network-based payment systems
- Legal basis
- Shop systems - tools - logistics
- Social media marketing in e-commerce
- Monitoring and analysis

Learning Outcomes

E-Commerce I

On successful completion, students will be able to

- explain the basics and theory of e-commerce.
- know analysis methods for the economic management of e-commerce.
- classify the terms e-commerce and e-business.
- explain alternative strategies and instruments of e-commerce, implement them and check their influence on success.
- work with chances and possibilities of the internet in connection with e-commerce.
- know current business models and use this knowledge to find additional distribution channels.
- analyze e-commerce from a management perspective and prepare well-founded decision documents.
- know the sectoral characteristics of e-commerce, especially how e-commerce is structured in the B2B and capital goods sector and what has to be considered in the consumer goods industry (B2C).

E-Commerce II

On successful completion, students will be able to

- assess the potential of an online shop to successfully sell products and services over the Internet.
- know the conceptual, technical and legal aspects of e-commerce
- describe important prerequisites for success in e-commerce such as product range presentation, checkout and payment processes, conversion rate, etc.
- know selection criteria for shop systems and know the most important ones (Hybris, Magento etc.)
- explain current and future challenges, so that they can implement e-shop and e-commerce projects themselves.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of E-Commerce	All Master Programs in the Marketing & Communication fields

E-Commerce I

Course Code: MWEC01-01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

This course addresses the topic of e-commerce. In addition to basic technical terms, concepts, business models and players, the opportunities and risks of electronic commerce within market-related and legal frameworks are also introduced. Based on this, the possible strategic options in e-commerce are presented in detail, on the basis of which students can derive their own e-commerce strategy.

Course Outcomes

On successful completion, students will be able to

- explain the basics and theory of e-commerce.
- know analysis methods for the economic management of e-commerce.
- classify the terms e-commerce and e-business.
- explain alternative strategies and instruments of e-commerce, implement them and check their influence on success.
- work with chances and possibilities of the internet in connection with e-commerce.
- know current business models and use this knowledge to find additional distribution channels.
- analyze e-commerce from a management perspective and prepare well-founded decision documents.
- know the sectoral characteristics of e-commerce, especially how e-commerce is structured in the B2B and capital goods sector and what has to be considered in the consumer goods industry (B2C).

Contents

1. Basics of E-Business and E-Commerce 1.1 Definition of Terms, Limitations and Links to Other Units 1.2 Mobile Commerce
   - 1.1 Trends and Opportunities
   - 1.2 Economic Framework Conditions in E-Commerce
   - 1.3 Value Creation and Business Models
   - 1.4 Actors/Market Participants and Business Relations

2. Forms of E-Commerce
   - 2.1 Types of E-Commerce Operations
   - 2.2 Innovative Forms of Interactive E-Commerce

3. Strategic Options in E-Commerce
   - 3.1 Product Range Policy
   - 3.2 Pricing Policy
   - 3.3 Distribution Policy
   - 3.4 Communication Policy
   - 3.5 IT System Landscape and Internal Organization of E-Commerce
   - 3.6 Customer Loyalty, Trust and Reputation

4. Development of an E-Commerce Strategy
   - 4.1 Conceptual Framework
   - 4.2 Target Planning
   - 4.3 E-Business Analysis
   - 4.4 E-Business Strategy Formulation
   - 4.5 E-Business Strategy Implementation and Strategy Audit

5. Success Measurement and Success Factors in E-Commerce
   - 5.1 Success Measurements in E-Commerce
   - 5.2 Success Factors in E-Commerce

6. Opportunities and Risks in E-Commerce
   - 6.1 Legal Risks in E-Commerce (B2C)
   - 6.2 Opportunities and Risks for Pure Players
   - 6.3 Opportunities and Risks for Multi-Channel Players

7. E-Commerce in Selected Sectors
   - 7.1 E-Commerce in the Consumer Goods Sector (B2C) - E-Shop
   - 7.2 E-Commerce in the Capital Goods Sector (B2C) - E-Procurement

Literature
Compulsory Reading
Further Reading ▪ Turban, E., Whiteside, J., King, D., & Outland, J. (2017). Introduction to electronic commerce and social commerce. Springer. ▪ Laudon, K., & Traver, C. (2021). E-commerce 2021: Business, technology, and society (16th ed.). Pearson.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

E-Commerce II

Course Code: MWEC02-01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

This course expands and deepens the understanding of electronic commerce with elements of operational marketing, especially brand communication and interactive product/service and pricing, complemented by in-depth aspects of the growing importance of payment systems and mobile commerce systems.Based on the understanding of online customer behavior, participants discuss online advertising, pricing and communication, as well as PR activities, for example in the area of social networks. Another focus is on the technical requirements for successful e-commerce, such as usability, selection of shop and payment systems. The course program is supplemented by legal framework conditions and possibilities for customer integration.After completing this course, students will have a deeper understanding of marketing implications of e-commerce.

Course Outcomes

On successful completion, students will be able to

- assess the potential of an online shop to successfully sell products and services over the Internet.
- know the conceptual, technical and legal aspects of e-commerce
- describe important prerequisites for success in e-commerce such as product range presentation, checkout and payment processes, conversion rate, etc.
- know selection criteria for shop systems and know the most important ones (Hybris, Magento etc.)
- explain current and future challenges, so that they can implement e-shop and e-commerce projects themselves.

Contents

1. Basics of Online Marketing and E-Commerce
   - 1.1 Behavior of Online Customers
   - 1.2 Forms of Online Marketing
   - 1.3 Importance, Function and Impact of Online Marketing in E-Commerce
   - 1.4 Online Sales Channels, Mobile Marketing and Apps
   - 1.5 Implementation: Decision Criteria, Specifications and Project Management

2. Web Usability
   - 2.1 Criteria of Good Web Usability
   - 2.2 Barrier-Free Design and Responsive Design
   - 2.3 Search Engine Optimization and Content Marketing

3. Network-Based Payment Systems
   - 3.1 Criteria for Web-Based Payment Systems
   - 3.2 Prepaid Systems, Pay-Now Systems and Pay-Later Systems
   - 3.3 Mobile Payment and Scoring

4. Legal Basis
   - 4.1 Legal Aspects of Ordering and Delivery Processes
   - 4.2 General Terms and Conditions, Commercial Law and Right of Withdrawal
   - 4.3 Image Rights, Trademark Protection and Data Privacy
   - 4.4 Liability of the Shop and Website Operator

5. Shop Systems - Tools - Logistics
   - 5.1 Success Factors and Selection Criteria of a Good Online Shop
   - 5.2 Seal of Approval/Certification
   - 5.3 Range of Goods and Ordering Process
   - 5.4 Processing and Logistics
   - 5.5 Collection and Receivables Management

6. Social Media Marketing in E-Commerce
   - 6.1 Cross-Media Marketing of Online Shops
   - 6.2 Customer Retention and Achievement of Reach
   - 6.3 Conflict Management in Social Networks
   - 6.4 Social Media Advertising and Advertising Networks

7. Monitoring and Analysis
   - 7.1 Measuring Success: Goals, Methods and Funds
   - 7.2 Targeting and KPI Definitions
   - 7.3 Web Controlling
   - 7.4 Visitor Analysis

Literature
Compulsory Reading
Further Reading ▪ Wiedenhoefer, L. (2021). Digital customer experience engineering: Strategies for creating effectivedigital experiences. Apress. ▪ Lesvitt, M. O., & Shneiderman, B. (2007). Research-based web design & usability guidelines.United States Government Printing Office.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Case Study

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Case Study

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

MWEC02-01_E

SEA and Social Media Marketing

Module Code: DLMOMSSMM_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Susanne O'Gorman (SEA and Social Media Marketing) / Prof. Dr. Susanne O'Gorman (Project: Paid Media)

Contributing Courses to Module

- SEA and Social Media Marketing (DLMOMSSMM01_E)
- Project: Paid Media (DLMOMSSMM02_E)

Module Exam Type

Module Exam	Split Exam
	SEA and Social Media Marketing • Study Format "Distance Learning": Exam, 90 Minutes Project: Paid Media • Study Format "Distance Learning": Portfolio

Weight of Module

see curriculum

Module Contents

SEA and Social Media Marketing

- Introduction to paid media
- The digital marketing plan
- Search Engine Advertising (SEA)
- Social Media Marketing
- Video Marketing as a part of Google and Social Media

Project: Paid Media

This module deals with Search Engine Advertising, Social Media Marketing with its paid advertising formats and other types of paid media.

Learning Outcomes

SEA and Social Media Marketing

On successful completion, students will be able to

- understand and apply the basics of paid media
- analyze and evaluate the role of SEA and Social Media Marketing in the digital marketing planning
- understand and evaluate the potential of video ads and Influencer Marketing
- develop and apply a SEA- and/or social-media-oriented Online Marketing tactic and strategy
- create SEA and Social Media Marketing Campaigns
- monitor, control and track the performance and the success of SEA and Social Media Marketing.

Project: Paid Media

On successful completion, students will be able to

- understand and apply the different types of paid media
- understand the role of paid media in the Marketing Mix and outline the differences to organic traffic
- evaluate the potential and limitations of paid advertising
- relate paid advertising instruments to marketing goals
- specifically address target groups with paid media measures
- create, set up and evaluate paid advertising campaigns.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Marketing & Sales	All Master Programmes in the Marketing &Communication field

SEA and Social Media Marketing

Course Code: DLMOMSSMM01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Paid media is the collective term for all paid communication methods, be it Google ads, Facebook ads or an Influencer Marketing Campaign the influencer is paid for. Companies use paid media to boost their own reach through using the reach of other platforms, media or third parties. In this course the focus is on Search Engine Advertising and Social Media Marketing as two platforms for paid media campaigns. Further, Video Marketing as well as Influencer Marketing and their advertising possibilities will be discussed as they can be part of a Social Media Marketing Campaign. Since YouTube is a part of Google and the Google display network, the potential of YouTube ads will be discussed as well. In this course students will gain basic knowledge in the mentioned fields. They will be able to evaluate the potential of SEA and Social Media Marketing and to strategically and tactically integrate such campaigns in the Online Marketing Mix.

Course Outcomes

On successful completion, students will be able to

- understand and apply the basics of paid media
- analyze and evaluate the role of SEA and Social Media Marketing in the digital marketing planning
- understand and evaluate the potential of video ads and Influencer Marketing
- develop and apply a SEA- and/or social-media-oriented Online Marketing tactic and strategy
- create SEA and Social Media Marketing Campaigns
- monitor, control and track the performance and the success of SEA and Social Media Marketing.

Contents

1. Introduction to paid media
   - 1.1 Push vs. pull communication
   - 1.2 Owned, earned and paid media
   - 1.3 Paid media types
   - 1.4 Paid media: chances and limitations

2. The digital marketing plan
   - 2.1 Introduction to digital marketing planning
   - 2.2 The SOSTAC-Model
   - 2.3 The role of SEA in the digital marketing planning
   - 2.4 The role of Social Media Marketing in the digital marketing planning
   - 2.5 The role of Video Marketing in the digital marketing planning

3. Search Engine Advertising (SEA)
   - 3.1 Keyword Advertising
   - 3.2 Display Advertising and ad extensions
   - 3.3 Market development and provider structure in Germany
   - 3.4 Google Ads
   - 3.5 Campaign evaluation and optimization

4. Social Media Marketing
   - 4.1 Facebook and Instagram ads: Facebook business manager, set-up, campaign types, targeting, formats
   - 4.2 Pinterest: set-up, campaign types, targeting, formats
   - 4.3 Twitter: set-up, campaign types, targeting, formats
   - 4.4 XING: set-up, campaign types, targeting, formats
   - 4.5 LinkedIn: set-up, campaign types, targeting, formats

5. Video Marketing and Influencer Marketing
   - 5.1 Video Marketing – definition and development
   - 5.2 Video ads in Social Media Marketing
   - 5.3 YouTube video ads as a part of the Google network
   - 5.4 Influencer Marketing – definition and development
   - 5.5 Influencer Marketing as a part of Social Media Marketing

Literature

Compulsory Reading

Further Reading

- Butow, E. et al. (2020): Ultimate Guide to Social Media Marketing. Entrepreneur Press, Irvine.
- Chaffey, D./Smith, P. (2017): Digital Marketing Excellence. Planning, Optimizing and Integrating Online Marketing. 5th edition, Routledge, New York.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Project: Paid Media

Course Code: DLMOMSSMM02_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Direct search ads, native ads, social ads or display ads – there are several forms of paid media that can be used within the Online Marketing Mix. In contrary to organic traffic - this refers to the results of unpaid measures, like Search Engine Optimization - paid advertising includes all measures of paid communication. Companies participate in Google Ads Auctions to “buy” new customers, they roll out social ads to gain attention or they pay influencers to strengthen the trust in their products or services. In this course students will learn about chances and limitations of the most common paid media forms: Which paid media types fit to which marketing goals? How to address target groups through paid advertising and which paid media type fits to which target group? How can the success of a paid advertising campaign be measured?

Course Outcomes

On successful completion, students will be able to

- understand and apply the different types of paid media
- understand the role of paid media in the Marketing Mix and outline the differences to organic traffic
- evaluate the potential and limitations of paid advertising
- relate paid advertising instruments to marketing goals
- specifically address target groups with paid media measures
- create, set up and evaluate paid advertising campaigns.

Contents

- Paid media has the advantages that you have control about the content that should be published, where it is published, at which time and in which format. However, as advertising needs to be marked as such, there is often a lack of trust in the content that is communicated. This course deals with both advantages and disadvantages. To begin with, the students learn about common paid media forms, like direct search ads, display ads, native ads or social ads and about how to integrate them in an Online Marketing Campaign. To give an example: Whereas native ads need an extensive set up, but help to gain the user’s attention and trust, display ads are often used as remarketing tools. The students learn which paid media form addresses the desired target group best so that they will be able to set up their own paid media campaign. Part of the portfolio is the development of an own product, which could be the set-up of a Social Media Campaign consisting of paid advertising forms, a Google ads campaign to gain new customers, or a mixture of paid media formats, for

instance a Google ads campaign combined with paid media on mobile platforms. Further, the students are supposed to illustrate their procedure and development steps. Besides the conception and the work-in-progress documentation, the students should reflect on and finalize the product. The result should be a paid media campaign that is specific, measurable, achievable, reasonable and time-bounded.

Literature

Compulsory Reading

Further Reading

- Burlin, J. (2020): Win Paid Advertising. The Unconventional Marketer. N. p.
- The Art of Service (2020): Paid Social Media Strategies. A Complete Guide – 2021 Edition. N. p.
- Yakob, F. (2015): Paid Attention: Innovative Advertising for a Digital World. Kogan Page, London.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Portfolio

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☑ Live Tutorium/Course Feed
☐ Audio	☑ Slides
☐ Exam Template	

Neuromarketing

Module Code: DLMDIMENM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Lisa-Charlotte Wolter (Neuromarketing) / Prof. Dr. Lisa-Charlotte Wolter (Project: Online Neuromarketing)

Contributing Courses to Module

- Neuromarketing (DLMDIMENM01)
- Project: Online Neuromarketing (DLMDIMENM02)

Module Exam Type

Module Exam	Split Exam
	Neuromarketing • Study Format "Distance Learning": Written Assessment: Written Assignment Project: Online Neuromarketing • Study Format "Distance Learning": Oral Project Report

Weight of Module

see curriculum

Module Contents

Neuromarketing

- Introduction, definition and key models in Neuromarketing
- Basics in Neuroscience – how the brain works
- Neuromarketing Tools
- Psychological mechanisms and relevance for Marketing
- Best practice examples
- Application of neuromarketing insights in the design of an online or social media campaign

Project: Online Neuromarketing

Practical application of learnings on Neuroscience. Students will set up a strategy and design an online or social media campaign based on key concepts of Neuromarketing.

Learning Outcomes

Neuromarketing

On successful completion, students will be able to

- understand the key models, theories and definition of Neuromarketing.
- remember the basics on how the brain processes information.
- evaluate the most important Neuromarketing tools .
- analyze psychological mechanisms such as attention, memory, emotion and decisions.
- apply the concepts of Neuromarketing to brand positioning and communication.

Project: Online Neuromarketing

On successful completion, students will be able to

- understand how to integrate insights and concepts from Neuromarketing into marketing campaigns.
- develop a strategy which includes principles of consumer psychology.
- apply the learnings in Neuromarketing to the development of an online or social media campaign.
- evaluate and measure the success of an online Neuromarketing campaign.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Online & Social Media Marketing	All Master Programs in the Marketing & Communication field

Neuromarketing

Course Code: DLMDIMENM01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Our knowledge about how consumers make decision has continuously evolved. We now understand that humans are not the rational decision makers we thought them to be, but that our behavior is often guided by shortcuts, emotions, by how choices (e.g. different products) are presented and how we can (subconsciously) reduce risks. Drawing on insights from Neuroscience on how our brain is processing information, consumer psychology as well as Behavioral Economics, "Neuromarketing" has emerged as an important discipline for Marketing to address key questions: How does our brain process "stimuli" (e.g. marketing communication), how do emotions shape consumer preferences? How can we better understand and potentially predict consumer behavior? What are the implications for how we design products, set prices and increase a consumer's attention in advertising? Building on the foundations of Neuroscience, this module focuses on the key concepts, theories and methodologies of Neuromarketing, and how these are applied to increase effectiveness of marketing communication.

Course Outcomes

On successful completion, students will be able to

- understand the key models, theories and definition of Neuromarketing.
- remember the basics on how the brain processes information.
- evaluate the most important Neuromarketing tools .
- analyze psychological mechanisms such as attention, memory, emotion and decisions.
- apply the concepts of Neuromarketing to brand positioning and communication.

Contents

1. Neuromarketing: Introduction, Definition, Key Models and Concepts
   - 1.1 History of Neuroscience and Models of Consumer Decision Behavior
   - 1.2 Definition of Neuromarketing and Related Concepts (Consumer Neuroscience, Consumer Psychology, Behavioral Economics)
   - 1.3 Limitations and Ethics of Neuromarketing
2. Basics of Neuroscience – How the Brain Works
   - 2.1 Structural: Anatomy of the Brain
   - 2.2 Functional: How the Brain Processes Information
   - 2.3 Key Models and Theories in Neuroscience

3. Neuromarketing Tools
   - 3.1 Self-Reports
   - 3.2 Behavioral Measurement
   - 3.3 Physiological Measurement
   - 3.4 Neuroimaging

4. Psychological Mechanisms and Relevance for Marketing
   - 4.1 Attention
   - 4.2 Memory
   - 4.3 Emotion
   - 4.4 Decisions

5. Key Concepts and their Application in Marketing
   - 5.1 Nudges
   - 5.2 Framing
   - 5.3 Anchoring
   - 5.4 Endowment

6. Measuring Emotions
   - 6.1 Limbic Map
   - 6.2 Limbic Types
   - 6.3 Application for Brand Positioning and Marketing Communication

7. Best Practice Examples
   - 7.1 Product and Pricing
   - 7.2 Brand Building
   - 7.3 Advertising

Literature

Compulsory Reading

Further Reading

- Cerf, M. & M. Garcia-Garcia (2017). Consumer Neuroscience. MIT Press.
- Hsu, M. (2017). Neuromarketing: Inside the mind of the consumer. California Management Review 59 (4), 5-22.
- Kahneman, D. (2012). Thinking, fast and slow. Penguin Books.
- Ramsøy, T. Z. (2015). An Introduction to Consumer Neuroscience & Neuromarketing. Neurons Inc.
- Thaler, R. H. & C. Sunstein (2008). Nudge. Yale University Press

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Written Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Project: Online Neuromarketing

Course Code: DLMDIMENM02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Neuromarketing has emerged as a key area for Marketing, building on insights from different disciplines such as Neuroscience and Consumer Psychology. It sheds light on how humans make decisions (often based on emotions or heuristics) and thus offers marketers the opportunity to improve the success of their marketing efforts. In this project students will apply the learnings and design an online marketing campaign that integrates the key concepts of Neuromarketing and consumer psychology.

Course Outcomes

On successful completion, students will be able to

- understand how to integrate insights and concepts from Neuromarketing into marketing campaigns.
- develop a strategy which includes principles of consumer psychology.
- apply the learnings in Neuromarketing to the development of an online or social media campaign.
- evaluate and measure the success of an online Neuromarketing campaign.

Contents

- Neuroscience offers plenty of opportunities for brands to “tap into the brains” of consumers. In this course, students will apply the practical learnings. As a first step, students will set up a strategy for an online campaign (e.g. what are the objectives of the campaign, who is my target group and how do I measure success?) In a second step, students will design an online or social media campaign utilizing insights from Neuromarketing (e.g. include nudges or frame elements of the campaign in a way that it positively impacts decision making). Finally, students will evaluate the success of the campaign to understand whether the overall campaign objectives have been met.

Literature
Compulsory Reading
Further Reading ▪ Cerf, M. & M. Garcia-Garcia (2017). Consumer Neuroscience. MIT Press. ▪ Dooley, R. (2011). Brainfluence. John Wiley & Sons Inc. ▪ Lindstrom, M. (2010). Buyology: Truth and Lies About Why We Buy. CrownBusiness.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Oral Project Report

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

Product Development and Design Thinking

Module Code: DLMBPDDT

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Dorian Mora (Product Development) / Prof. Dr. Dorian Mora (Design Thinking)

Contributing Courses to Module

- Product Development (DLMBPDDT01)
- Design Thinking (DLMBPDDT02)

Module Exam Type

Module Exam	Split Exam
	Product Development • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Design Thinking • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Product Development

- Production planning techniques
- Design tasks
- Product development approaches
- Digital product development and organizational aspects

Design Thinking

This course will put students in the mindset of Design Thinking. Students will be introduced to phases and distinct methods for inspiration, as well as the ideation and implementation of products. A current list of topics is located in the Learning Management System.

Learning Outcomes

Product Development

On successful completion, students will be able to

- know the basic definitions and principles of (new) product development.
- understand the key skills in product development.
- discuss, differentiate, and select appropriate product development approaches with respect to a given scenario.
- work with digital product development tools and techniques like CAD, PDM and PLM at a basic level.
- develop own solutions and approaches to academic and practical questions.
- discuss, evaluate, and adapt different digital product development techniques and tools.

Design Thinking

On successful completion, students will be able to

- comprehend, critically reflect on, and adopt the Design Thinking mindset.
- understand the inspiration, ideation, and implementation phases.
- evaluate and identify appropriate methods from the toolbox of human-centered design for given design tasks and challenges.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Design	All Master Programs in the Design, Architecture & Construction fields

Product Development

Course Code: DLMBPDDT01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

This course aims to provide basic work and problem-solving methods for the successful development of products. It introduces the definition of key design tasks and various alternative product development approaches such as flow-based, lean product development, and design thinking. Finally, the students will become familiar with the use of computer-aided design (CAD) tools and how they integrate into modern product development approaches.

Course Outcomes

On successful completion, students will be able to

- know the basic definitions and principles of (new) product development.
- understand the key skills in product development.
- discuss, differentiate, and select appropriate product development approaches with respect to a given scenario.
- work with digital product development tools and techniques like CAD, PDM and PLM at a basic level.
- develop own solutions and approaches to academic and practical questions.
- discuss, evaluate, and adapt different digital product development techniques and tools.

Contents

1. Introduction
   - 1.1 Basic Definitions
   - 1.2 The Product Development Process
   - 1.3 Indicators and Metrics
   - 1.4 Product Development Models
   - 1.5 Current Trends in Product Development
2. The Product Development Process
   - 2.1 Planning
   - 2.2 Concept Development
   - 2.3 Design
   - 2.4 Testing and Refinement
   - 2.5 Production and Ramp-up

3. Product Development Approaches
   - 3.1 Lean Product Development
   - 3.2 Design Thinking
   - 3.3 Human-Centered Design
   - 3.4 User Experience Strategy
   - 3.5 Open Innovation

4. Digital Tools
   - 4.1 Computer-Aided Design
   - 4.2 Computer-Aided Quality
   - 4.3 Product Data Management
   - 4.4 Product Lifecycle Management

5. Organizational Perspective
   - 5.1 Incremental, Platform, and Breakthrough Development
   - 5.2 Building Teams
   - 5.3 Political Issues in Organizations
   - 5.4 Distributed New Product Development

Literature

Compulsory Reading

Further Reading

- Kahn, K. B., Kay, S. E., Slotegraaf, R. J., & Uban, S. (Eds.). (2012). The PDMA handbook of new productdevelopment (3rd ed.). Hoboken, NJ: John Wiley & Sons. (Database: ProQuest).
- Ottosson, S. (2018). Developing and managing innovation in a fast changing and complex world:Benefiting from dynamic principles. Cham: Springer. (Database: ProQuest).
- Ulrich, K. T., & Eppinger, S. D. (2016). Product design and development (6th ed.). New York, NY:McGraw Hill.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☑ Vodcast	☐ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☑ Vodcast	☐ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Design Thinking

Course Code: DLMBPDDT02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

In this course, students will receive a hands-on introduction to human-centered design via the Design Thinking method. Beyond conveying the individual basic principles, the procedures in Design Thinking are examined in detail. In order to fully understand Design Thinking in terms of important aspects in practice, selected methods for the individual process steps are presented in theory and application. Students will learn to improve their design process by reflecting on and adapting their activities.

Course Outcomes

On successful completion, students will be able to

- comprehend, critically reflect on, and adopt the Design Thinking mindset.
- understand the inspiration, ideation, and implementation phases.
- evaluate and identify appropriate methods from the toolbox of human-centered design for given design tasks and challenges.

Contents

- The course covers current topics and trends in Design Thinking, illustrating some methods and techniques as well as case studies. Each participant must create a project report on a chosen project, where he/she describes the application of the Design Thinking approach to a real product development scenario.

Literature
Compulsory Reading
Further Reading ▪ IDEO.org. (2015). The Field Guide to Human-Centered Design. A step-by-step guide that will get you solving prob-lems like a designer. Retrieved from http://www.designkit.org/resources/1 ▪ Pressman, Andy (2019): Design Thinking. A Guide to Creative Problem Solving for Everyone, New York : Routledge. ▪ Lockwood, T., & Papke, E. (n.d.). Innovation by design : how any organization can leverage design thinking to pro-duce change, drive new ideas, and deliver meaningful solutions. ▪ Lewrick, M., Link, P., Leifer, L. J., & Langensand, N. (2018). The design thinking playbook : mindful digital transfor-mation of teams, products, services, businesses and ecosystems. John Wiley & Sons.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Project Report

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☑ Slides
☐ Exam Template	

DLMBPDDT02

Performance Marketing

Modulcode: DLMGHEPM

Modultyp	Zugangsvoraussetzungen	Niveau	ECTS	Zeitaufwand Studierende
s. Curriculum	none	MA	10	300 h

Semester	Dauer	Regulär angeboten im	Kurs- und Prüfungssprache
2. Semester	Minimum 1 semester	WiSe/SoSe	Deutsch

Modulverantwortliche(r)

Prof. Dr. Anne-Kristin Langner (Performance Marketing: Search and Social) / Prof. Dr. Anne-Kristin Langner (Performance Marketing: Affiliate and Mail)

Kurse im Modul

- Performance Marketing: Search and Social (DLMOMPMSS01_E)
- Performance Marketing: Affiliate and Mail (DLMOMPMAM01_E)

Art der Prüfung(en)

Modulprüfung	Teilmodulprüfung
	Performance Marketing: Search and Social • Study Format "Distance Learning": Written Assessment: Written Assignment Performance Marketing: Affiliate and Mail • Study Format "Distance Learning": Oral Assignment

Anteil der Modulnote an der Gesamtnote

s. Curriculum

Lehrinhalt des Moduls

Performance Marketing: Search and Social

- Performance marketing basics
- Conversion optimization
- Search engine optimization (SEO)
- Search engine advertising (SEA)
- Social media marketing
- Mobile marketing

Performance Marketing: Affiliate and Mail

- Affiliate marketing
- E-mail marketing
- Content marketing
- Native advertising
- Display advertising
- Programmatic advertising
- Marketing cooperation

Qualifikationsziele des Moduls

Performance Marketing: Search and Social

Nach erfolgreichem Abschluss sind die Studierenden in der Lage,

- understand and apply the basics of performance marketing.
- understand, analyze and evaluate the characteristics of each marketing discipline discussed.
- develop and apply a conversion-oriented online marketing tactic and strategy.
- understand and create performance-oriented marketing measures in the areas of search, social and mobile.
- monitor, control and track performance-oriented marketing activities in the areas of search, social and mobile.

Performance Marketing: Affiliate and Mail

Nach erfolgreichem Abschluss sind die Studierenden in der Lage,

- understand, analyze and evaluate the characteristics of each marketing discipline discussed.
- integrate the discussed marketing instruments in the marketing mix by evaluating potentials and limitations.
- understand and evaluate each marketing instrument with regard to its benefits for performance marketing.
- create marketing campaigns related to the fields discussed.
- monitor and measure marketing activities related to the corresponding discipline.

Bezüge zu anderen Modulen im Studiengang	Bezüge zu anderen Studiengängen der Hochschule
This module is similar to other modules in the field of Marketing & Sales	All Master Programmes in the Marketing & Communication fields

Performance Marketing: Search and Social

Course Code: DLMOMPMSS01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Within the field of performance marketing, online marketing instruments are used to gain measurable reactions from the users, for instance, downloads, app installs or transactions. In this course the most common fields of online marketing are introduced – with the focus on their possible performance marketing applications. In today's online marketing landscape search engine optimization, search engine advertising, social media and/or mobile marketing can be found in almost every online marketing mix. In this course students will gain basic knowledge in the fields mentioned, on their specifications and their use as performance marketing instruments. Further students will be able to strategically integrate them in the marketing mix with a special focus on how to enhance conversion and on how to monitor, measure and control.

Course Outcomes

Nach erfolgreichem Abschluss sind die Studierenden in der Lage,

- understand and apply the basics of performance marketing.
- understand, analyze and evaluate the characteristics of each marketing discipline discussed.
- develop and apply a conversion-oriented online marketing tactic and strategy.
- understand and create performance-oriented marketing measures in the areas of search, social and mobile.
- monitor, control and track performance-oriented marketing activities in the areas of search, social and mobile.

Contents

1. Performance marketing basics
   - 1.1 Performance marketing as a part of the marketing mix
   - 1.2 Features
   - 1.3 Instruments
2. Conversion optimization
   - 2.1 Conversion optimization as a part of performance marketing
   - 2.2 Shopping cart
   - 2.3 Usability
   - 2.4 Content
   - 2.5 Layout

3. Search engine optimization (SEO)
   - 3.1 Search engine optimization as a part of performance marketing
   - 3.2 Keywords – research and analysis
   - 3.3 Onpage optimization
   - 3.4 Offpage optimization
   - 3.5 Monitoring, controlling and tracking

4. Search engine advertising (SEA)
   - 4.1 Search engine advertising as a part of performance marketing
   - 4.2 Google Adwords
   - 4.3 Campaign and conversion optimization
   - 4.4 Ad extensions
   - 4.5 Monitoring, controlling and tracking

5. Social media marketing
   - 5.1 Social media marketing as a part of performance marketing
   - 5.2 Social networks and platforms
   - 5.3 Influencer and viral marketing
   - 5.4 Social ads
   - 5.5 Monitoring, controlling and tracking

6. Mobile marketing
   - 6.1 Mobile marketing as a part of performance marketing
   - 6.2 Mobile web, apps and messenger
   - 6.3 Mobile advertising
   - 6.4 Proximity marketing
   - 6.5 Monitoring, controlling and tracking

Literature

Compulsory Reading

Further Reading

- Butow, E. et al. (2020): Ultimate Guide to Social Media Marketing. Entrepreneur Press, Irvine.
- Chaffey, D./Smith, P. (2017): Digital Marketing Excellence. Planning, Optimizing and Integrating Online Marketing. 5th edition, Routledge, New York.
- Grabs, A. et Al. (2018): Follow Me! Erfolgreiches Social Media Marketing mit Facebook, Instagram, Pinterest und Co. 5. Auflage, Rheinwerk, Bonn.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Written Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Performance Marketing: Affiliate and Mail

Course Code: DLMOMPMAM01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Almost every online marketing instrument can be part of a performance marketing approach, depending on the way these instruments are implemented in the marketing mix. This course deals with online marketing instruments that are often said to be a more voluntary than compulsory part of today's marketing mix. The reasons are various. E-mails are more and more replaced by messengers, websites with affiliate links got punished by a Google's update and display advertising is critically discussed because of the banner blindness phenomenon. However, strategically planned and tactically implemented, these instruments can have a huge impact on performance and conversion. Display advertising, for instance, is an ideal solution when it comes to remarketing efforts. Used by influencers, affiliate links are seen as trustworthy and as an ideal shopping source. In this course students explore the potentials of marketing disciplines that are more voluntary than compulsory, including the strategic and tactic planning and implementation with the focus on performance marketing as well as monitoring and controlling.

Course Outcomes

Nach erfolgreichem Abschluss sind die Studierenden in der Lage,

- understand, analyze and evaluate the characteristics of each marketing discipline discussed.
- integrate the discussed marketing instruments in the marketing mix by evaluating potentials and limitations.
- understand and evaluate each marketing instrument with regard to its benefits for performance marketing.
- create marketing campaigns related to the fields discussed.
- monitor and measure marketing activities related to the corresponding discipline.

Contents

1. Affiliate marketing
   - 1.1 Affiliate marketing as a part of performance marketing
   - 1.2 Participants
   - 1.3 Process
   - 1.4 Commission models
   - 1.5 Monitoring, controlling and tracking

2. E-mail marketing
   - 2.1 E-mail marketing as a part of performance marketing
   - 2.2 Types of e-mail marketing
   - 2.3 Permission marketing
   - 2.4 Monitoring, controlling and tracking

3. Content marketing
   - 3.1 Content marketing as a part of performance marketing
   - 3.2 Types of content
   - 3.3 Content creation – approaches and aims
   - 3.4 Monitoring, controlling and tracking

4. Native advertising
   - 4.1 Native advertising as a part of performance marketing
   - 4.2 Forms of native advertising
   - 4.3 Platforms
   - 4.4 Monitoring, controlling and tracking

5. Display advertising
   - 5.1 Display advertising as a part of performance marketing
   - 5.2 Banner and graphic advertising media
   - 5.3 Potentials and limitations
   - 5.4 Monitoring, controlling and tracking

6. Programmatic advertising
   - 6.1 Programmatic advertising as a part of performance marketing
   - 6.2 Programmatic advertising vs. real time bidding
   - 6.3 Types of programmatic transactions
   - 6.4 Monitoring, controlling and tracking

7. Marketing cooperation
   - 7.1 Marketing cooperation as a part of performance marketing
   - 7.2 Types of cooperation
   - 7.3 Aims of cooperation
   - 7.4 Monitoring, controlling and tracking

Literature
Compulsory Reading
Further Reading ▪ Charlesworth, A. (2018): Digital Marketing. A Practical Approach. Routledge, New York. ▪ Kingnorth, S. (2019): Digital Marketing Strategy. An integrated approach to online marketing. 2nd edition, KoganPage, New York.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Oral Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Marketing Project and Agile Project Management

Module Code: DLMGHEMPAPM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Carolin Egger (Marketing Project) / Prof. Dr. Thomas Winkle (Agile Project Management)

Contributing Courses to Module

- Marketing Project (DLMMFS01_E)
- Agile Project Management (DLMIEEAPM01)

Module Exam Type

Module Exam	Split Exam
	Marketing Project • Study Format "myStudies": Written Assessment: Project Report • Study Format "Distance Learning": Written Assessment: Project Report Agile Project Management • Study Format "Distance Learning": Written Assessment: Case Study

Weight of Module

see curriculum

Module Contents

Marketing Project

- Independent work on a realistic marketing project
- Familiarity with research, methodology and analysis
- Writing a project report
- Providing a cohesive business project

Agile Project Management

- Fundamentals of Agile Methods in Project Management
- Traditional and Agile Approaches to Project Management
- Agile Project Management with Scrum
- Agile Project Management with Kanban
- Implementing Agile within the Organization
- Expanding Agile across the Organization

Learning Outcomes

Marketing Project

On successful completion, students will be able to

- transfer their knowledge of marketing to a practical example.
- know how to develop a marketing plan.
- create and develop a marketing plan independently using available data.

Agile Project Management

On successful completion, students will be able to

- understand the significance of agile methods to efficiently and effectively manage projects within and across organizations.
- compare the major characteristics of traditional and agile approaches to project management.
- apply the Scrum methodology as a main framework of agile project management.
- apply the Kanban methodology as a main framework of agile project management.
- implement agile value-driven strategies and effective agile product roadmaps into the organization.
- judge the scaling of agile practices across the entire organization.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the fields of Marketing & Sales and Project Management	All Master Programs in the Marketing & Communication and Business & Management fields

Marketing Project

Course Code: DLMMFS01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The module "Marketing Project" focuses on topics of operative marketing. In this seminar, students are familiarized with the methodology of developing a marketing project. Areas dealt with are research, methodology and analysis. Students learn how to introduce a product or service to the market by researching and defining all areas of the classic marketing mix. They define a target group, research the market, describe the product or service, develop a pricing strategy, create a communication and a distribution plan. Students are required to perform both primary and secondary research. In this seminar, students acquire basic practical knowledge by applying the theoretical approaches of the marketing mix to a real project. They collect data on the market and the target group and, based on this, work out a marketing plan including a rough business plan.

Course Outcomes

On successful completion, students will be able to

- transfer their knowledge of marketing to a practical example.
- know how to develop a marketing plan.
- create and develop a marketing plan independently using available data.

Contents

1. Choice of topics: Development of creative product or service ideas
2. Target group definition: Who is your client? How large is this market segment?
3. Market research: How big is the market for this product or service? What is the market trend?
4. Product definition: What is the core product or service you offer? What additional elements are part of this offer?
5. Pricing: How much will you sell the product or service for? What does the competition charge? What are your approximate costs? What is your target group willing to pay?
6. Communication: How do you communicate your offer to the target group? Through which communication channels?
7. Distribution: Which distribution channels are available?

Literature

Compulsory Reading

Further Reading

- Bughin, J./Doogan, J./Vetvik, O. J. (2010): A new way to measure word-of-mouth marketing. In: McKinsey Quarterly, no 2, S. 113–116.
- Dinner, I./ Heerde, H. J. v./Neslin, S. A. (2014): Driving Online and Offline Sales. The Cross-Channel Effects of Traditional, Online Display, and Paid Search. In: Journal of Marketing Research (JMR), 51. Jg., no 5, S. 527–545.
- Kotler, P. et al. (2012): Marketing Management. 2. Auflage, Pearson, Harlow et al.
- McWilliams, G. (2004): Analyzing Customers, Best Buy Decides Not All Are Welcome. In: The Wall Street Journal, 08 November 2004.
- o. V. (2010): Selling becomes sociable. In: The Economist, Heft 8699, S. 76–78. (URL: http://www.economist.com/node/16994870 [Retrieved on: 01.03.2017]).
- Rust, R./Moorman, C./Bhalla G. (2010): Rethinking Marketing. In: Harvard Business Review, 88. Jg., no 1/2, S. 94–101.

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Project Report

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Project Report

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

Agile Project Management

Course Code: DLMIEEAPM01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Agile methods accelerate the development and delivery of a product or service by the division of tasks into short phases of work and frequent reassessment and adaptation of plans. While originally used for software programming, the agile methodology has become a widely used approach in many areas of business. When applied to project management situations, agile contributes to a more flexible planning, a faster determining of the requirements and a more effective executing of a project. The concept of agile is based on the Agile Manifesto which includes four key values and twelve main principles to guide an iterative and people-centric managing of projects. In this course, students are introduced to the agile project management framework with an emphasis on the product owner's role. They learn how to develop the product vision and the product roadmap, organize the project team, identify user roles, write user stories and establish an operant project risk management. This way, students shall also develop a mindset for the agile methodology. The course puts a special emphasis on the Scrum and Kanban framework as two main pillars to agilely manage projects within and across organizations.

Course Outcomes

On successful completion, students will be able to

- understand the significance of agile methods to efficiently and effectively manage projects within and across organizations.
- compare the major characteristics of traditional and agile approaches to project management.
- apply the Scrum methodology as a main framework of agile project management.
- apply the Kanban methodology as a main framework of agile project management.
- implement agile value-driven strategies and effective agile product roadmaps into the organization.
- judge the scaling of agile practices across the entire organization.

Contents

1. Fundamentals of Agile Methods in Project Management
   - 1.1 Definition and Significance of Agile Methods in Project Management
   - 1.2 The Agile Manifesto
   - 1.3 The Agile Values and Principles

2. Traditional and Agile Approaches to Project Management
   - 2.1 Traditional Approaches to Project Management
   - 2.2 Agile Approaches to Project Management
   - 2.3 Comparison of Traditional versus Agile Project Management

3. Agile Project Management with Scrum
   - 3.1 Scrum Values and Principles
   - 3.2 Scrum Roles, Events and Artifacts
   - 3.3 Application Areas of Scrum

4. Agile Project Management with Kanban
   - 4.1 Kanban Values and Principles
   - 4.2 Kanban Boards and Cards
   - 4.3 Application Areas of Kanban

5. Implementing Agile within the Organization
   - 5.1 Implementing Agile Value-driven Delivery Strategies
   - 5.2 Creating an Effective Agile Product Roadmap
   - 5.3 Coaching an Agile Team

6. Expanding Agile across the Organization
   - 6.1 Agile at Scale Practices across the Organization
   - 6.2 Agile Portfolio Management
   - 6.3 Scaled Agile Framework (SAFe)

Literature
Compulsory Reading
Further Reading ▪ Campell, A. (2021). Agile Guide: Perfect Guide to Agile Project Management for Successful Leader. Independently published. ▪ Goodpasture, J. (2015). Project Management the Agile Way: Making it Work in the Enterprise. 2nd edition, J. Ross Publishing, Plantation (Florida/USA). ▪ Hill, T. (2019). Agile Project Management: How to Skillfully Implement Scrum, Run Effective Teams, and Cultivate High-Performance Leadership. Independently published. ▪ Rigby, D.K., Sutherland, J. & Noble, A. (2018). Agile at Scale: How to go from a few teams to hundreds. Harvard Business Review. (URL: https://hbr.org/2018/05/agile-at-scale [last access: 15.03.2021]). ▪ Wysocki, R. K (2019). Effective Project Management: Traditional, Agile, Extreme. 7th edition, Wiley Publ., Indianapolis.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Case Study

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Case Study

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Data and Conversion Rate

Module Code: DLMGHEDCR

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Georg Bouché (Data Driven Marketing) / Prof. Dr. Anne-Kristin Langner (Project: Conversion Rate Optimization)

Contributing Courses to Module

- Data Driven Marketing (DLMOMDDMC01_E)
- Project: Conversion Rate Optimization (DLMGHPCRO01)

Module Exam Type

Module Exam	Split Exam
	Data Driven Marketing • Study Format "Distance Learning": Exam, 90 Minutes Project: Conversion Rate Optimization • Study Format "Distance Learning": Oral Project Report

Weight of Module

see curriculum

Module Contents

Data Driven Marketing

- Introduction: Data Driven Marketing
- Big data
- Conversion optimizing with automation and personalization
- Customer experience
- Attribution

Project: Conversion Rate Optimization

The conversion rate is one of the most important key figures today, especially for digital business models. That is why special attention must be paid to it. This module deals with goals and methods of conversion rate optimization (CRO).

Learning Outcomes

Data Driven Marketing

On successful completion, students will be able to

- use methods and concepts for decision making in marketing
- managing big data in marketing based on tools and methods
- optimize conversion with automation and personalization
- analyze customer experience based on various methods
- apply static and dynamic attribution models.

Project: Conversion Rate Optimization

On successful completion, students will be able to

- create a CRO strategy.
- define main objectives for CRO campaigns.
- select and apply relevant methods for measuring CRO campaigns.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Marketing & Sales	All Master Programs in the Marketing & Communication field

Data Driven Marketing

Course Code: DLMOMDDMC01_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

This course facilitates key aspects of Data Driven Marketing and provides students with the skills of operating marketing efficiently and successfully. Therefore, this course is contributing to students' capacity to use methods and concepts for decision making. Students will learn to handle data. The issue of automation and personalization will be prominently addressed. In addition, this course provides students with the skills to analyse and optimize customer experience. Students will learn how to use attribution to be more efficient in marketing.

Course Outcomes

On successful completion, students will be able to

- use methods and concepts for decision making in marketing
- managing big data in marketing based on tools and methods
- optimize conversion with automation and personalization
- analyze customer experience based on various methods
- apply static and dynamic attribution models.

Contents

1. Introduction: Data Driven Marketing
   - 1.1 Transformation in marketing
   - 1.2 Added value through customer intelligence
   - 1.3 Automation and personalization
   - 1.4 VUCA
2. Big data
   - 2.1 Data management
   - 2.2 Relevance and features of big data
   - 2.3 Analysis tools
   - 2.4 Smart data science methods (AI, deep learning, machine learning)

3. Conversion optimizing with automation and personalization
   - 3.1 Data driven e-mail and messenger marketing
   - 3.2 Targeting for data driven online campaigns
   - 3.3 Programmatic advertising
   - 3.4 On-site personalization: website, online shop, landing page

4. Customer Experience
   - 4.1 Sales funnel
   - 4.2 Customer journey
   - 4.3 A/B-testing
   - 4.4 Multivariate testing
   - 4.5 Pattern recognition

5. Attribution
   - 5.1 Static attribution models
   - 5.2 Dynamic attribution models
   - 5.3 Data-based budget allocation

Literature

Compulsory Reading

Further Reading

- Grigsby, M. (2018): Marketing Analytics. A Practical Guide to Improving Consumer Insights Using Data Techniques. 2nd edition, Kogan Page, London.
- Luengo, J./García-Gil, D./Ramírez-Gallego, S./García López, S./Herrera, F. (2020): Big Data Preprocessing. Enabling Smart Data. Springer, Cham.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Project: Conversion Rate Optimization

Course Code: DLMGHPCRO01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

CRO deals with measures that serve to increase sales or closing goals of a website. Increasing the conversion rate leads to more inquiries and/or sales and thus more customers and revenue. This course is about how to increase the conversion rate, especially by implementing a CRO strategy, defining different CRO goals as well as applying different methods to measure CRO campaigns.

Course Outcomes

On successful completion, students will be able to

- create a CRO strategy.
- define main objectives for CRO campaigns.
- select and apply relevant methods for measuring CRO campaigns.

Contents

- CRO not only targets to increase leads or sales, but also other metrics aimed at efficiency, such as registering for the newsletter or a community, or consuming provided videos or information. Optimization thus contributes positively to the user experience of visitors, which is visibly reflected in rankings and related click prices, and ultimately leads and sales. This course therefore focuses on various CRO measures, in particular landing page optimization, mobile optimization, content optimization, layout and shopping cart.

Literature

Compulsory Reading

Further Reading

- Appelo, J. (2019). Startup, Scaleup, Screwup : 42 Tools to Accelerate Lean and Agile Business Growth. Wiley.
- Szalek, K., & Borzemski, L. (2019). Conversion Rate Gain with Web Performance Optimization. A Case Study (Vol. 852). Springer International Publishing.
- Zimmermann, R., & Auinger, A. (2022). Developing a conversion rate optimization framework for digital retailers—case study. Journal of Marketing Analytics, 1–11.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Oral Project Report

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

DLMGHPCRO01

Consumer Behavior and Growth Hacks

Module Code: DLGHECBGH

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Caterina Fox (International Consumer Behavior) / Prof. Dr. Georg Bouché (Seminar: Previous and Current Growth Hacks)

Contributing Courses to Module

- International Consumer Behavior (DLMBCBR01)
- Seminar: Previous and Current Growth Hacks (DLMGHSPCGH01)

Module Exam Type

Module Exam	Split Exam
	International Consumer Behavior • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Seminar: Previous and Current Growth Hacks • Study Format "Distance Learning": Written Assessment: Research Essay

Weight of Module

see curriculum

Module Contents

International Consumer Behavior

- Consumer Behavior
- The Consumer Decision-Making Process
- Internal Influences on Consumer Behavior
- External Influences on Consumer Behavior
- International Consumer Behavior
- International Marketing Strategy and Consumer Behavior

Seminar: Previous and Current Growth Hacks

Companies like Dropbox, Hotmail, Tinder, Square and many more serve as examples of how Growth Hacking has been successfully put into practice. Global players like Amazon or LinkedIn continuously develop Growth Hacking techniques to outperform the market. Their tricks and hacks are useful for future growth hackers.

Learning Outcomes

International Consumer Behavior

On successful completion, students will be able to

- outline the purchase decision-making process undertaken by the consumer.
- describe the internal and external influences on the consumer decision-making processes.
- identify the different research methods available to companies to collect relevant data regarding their consumers and their behavior
- develop a plan to generate required market research data regarding consumer behavior and decision-making.
- be able to generate, analyze, interpret and report relevant data regarding consumers.
- present the key concepts characterizing international consumer behavior and discuss their impact on global marketing strategies.

Seminar: Previous and Current Growth Hacks

On successful completion, students will be able to

- broaden their knowledge about the origins of the first Growth Hacks applied.
- get to know current trends and methods of Growth Hacking.
- get deep insights into the following companies which serve as excellent examples: Dropbox, Hotmail, Tinder, Square, Airbnb, LinkedIn, Amazon etc.
- comprehend marketing and IT perspective on Growth Hacking.
- used and transfer growth hacks due to case studies that perfectly serve as a great basis.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the fields of Marketing & Sales and Online & Social Media Marketing.	All Master Programs in the Marketing & Communication field.

International Consumer Behavior

Course Code: DLMBCBR01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

In a global economy characterized by greater competition, companies operating internationally need comprehensive market-driven strategies to survive in the market place. The course provides students with the relevant concepts for understanding the international environment of the company with focus on the demand side/the consumer. Students learn how differences in culture, economic systems, and political environments impact consumers' behavior in terms of decision-making in the fields of acquisition, consumption, and disposal of products, services, experiences, and ideas.

Course Outcomes

On successful completion, students will be able to

- outline the purchase decision-making process undertaken by the consumer.
- describe the internal and external influences on the consumer decision-making processes.
- identify the different research methods available to companies to collect relevant data regarding their consumers and their behavior
- develop a plan to generate required market research data regarding consumer behavior and decision-making.
- be able to generate, analyze, interpret and report relevant data regarding consumers.
- present the key concepts characterizing international consumer behavior and discuss their impact on global marketing strategies.

Contents

1. Consumer Behavior
   - 1.1 Consumer Behavior and International Marketing
   - 1.2 Consumer Decision-Making in the Marketplace
2. The Consumer Decision-Making Process
   - 2.1 The Pre-Purchase Stage
   - 2.2 The Purchase Stage
   - 2.3 The Post-Purchase Stage

3. Internal Influences on Consumer Behavior
   - 3.1 Motives and Motivation
   - 3.2 Perception
   - 3.3 Attitude

4. External Influences on Consumer Behavior
   - 4.1 Culture
   - 4.2 Subculture
   - 4.3 Groups and Families

5. International Consumer Behavior
   - 5.1 Cultural Dimensions
   - 5.2 The Influence of Social Media on Consumer Decision-Making

6. International Marketing Strategy and Consumer Behavior
   - 6.1 International Market Segmentation and Product Positioning
   - 6.2 Consumer Behavior and Product Strategy
   - 6.3 Consumer Behavior and Communication Strategy
   - 6.4 Consumer Behavior and Pricing Strategy
   - 6.5 Consumer Behavior and Distribution Strategy

Literature

Compulsory Reading

Further Reading

- Schiffman, L. G., & Kanuk, L. L. (2014). Consumer behavior. Frenchs Forest.: Pearson Education Australia.
- Solomon, M. (2016). Consumer behavior: Buying, having, and being (12th ed.). New York City, NY: Pearson.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Seminar: Previous and Current Growth Hacks

Course Code: DLMGHSPCGH01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Companies like Dropbox, Hotmail, Tinder, Square and many more serve as examples of how Growth hacking has been successfully used and carried out. This course shows how these companies used growth hacking many years ago and how companies such as Amazon or LinkedIn are successfully using Growth Hacking techniques even today.

Course Outcomes

On successful completion, students will be able to

- broaden their knowledge about the origins of the first Growth Hacks applied.
- get to know current trends and methods of Growth Hacking.
- get deep insights into the following companies which serve as excellent examples: Dropbox, Hotmail, Tinder, Square, Airbnb, LinkedIn, Amazon etc.
- comprehend marketing and IT perspective on Growth Hacking.
- used and transfer growth hacks due to case studies that perfectly serve as a great basis.

Contents

- The aim of the course is to learn Growth Hacking from well-known companies, such as global players but also startups. The methods and techniques of Growth Hacking which have been applied by companies like Dropbox, Tinder, Hotmail, but also One-Dollar-Shave or the airline JetBlue serve as perfect examples of previous Growth Hacks. What do these companies do to increase their brand awareness and their sales turnover without having to rely on conventional advertising? LinkedIn and Amazon help to understand, how some growth hacks can be quite simple and also sophisticated at the same time. The students will research typical Growth Hacks.

Literature
Compulsory Reading
Further Reading ▪ Agrawal, P. & Chaubey, R. (2019). The Growth Hacking Book: Most Guarded Growth Marketing Secrets the Silicon Valley Giants Don't Want You To Know. Growth Media AI. ▪ Agrawal, P., Chaubey, R. & Goval, S. (2021). The Growth Hacking Book 2: 100 Proven Hacks for Business and Startup Success in the New Decade. Growth Media AI. ▪ Ellis, S. & Brown, M. (2017). Hacking Growth, How Today's Fastest-Growing Companies Drive Breakout Success. Crown Business, New York. ▪ Holiday, R. (2014). Growth Hacker Marketing: A Primer on the Future of PR, Marketing, and Advertising. Penguin Group, New York. ▪ Sabry, N. (2020) Ready Set Growth Hack – A Beginner's Guide to Growth Hacking Success. Printed by Sabry, N.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Research Essay

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

Data Science and Analytics

Module Code: DLMBDSA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Ulrich Kerzel (Data Science) / Prof. Dr. Jöran Pieper (Analytical Software and Frameworks)

Contributing Courses to Module

- Data Science (DLMBDSA01)
- Analytical Software and Frameworks (DLMBDSA02)

Module Exam Type

Module Exam	Split Exam
	Data Science • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Analytical Software and Frameworks • Study Format "Distance Learning": Written Assessment: Written Assignment

Weight of Module

see curriculum

Module Contents

Data Science

- Introduction to data science
- Use cases and performance evaluation
- Pre-processing of data
- Processing of data
- Selected mathematical techniques
- Selected artificial intelligence techniques

Analytical Software and Frameworks

- Introduction to analytical software and frameworks
- Data storage
- Statistical modeling
- Machine learning
- Cloud computing platforms
- Distributed computing
- Database technologies

Learning Outcomes

Data Science

On successful completion, students will be able to

- identify use cases and evaluate the performance of data-driven approaches.
- understand how domain specific knowledge for a particular application context is required to identify objectives and value propositions for data science use cases.
- appreciate the role and necessity for business-centric model evaluation apposite to the respective area of application.
- comprehend how data are pre-processed in preparation for analysis.
- develop typologies for data and ontologies for knowledge representation.
- decide for appropriate mathematical algorithms to utilize data analysis for a given task.
- understand the value, applicability, and limitations of artificial intelligence for data analysis.

Analytical Software and Frameworks

On successful completion, students will be able to

- comprehend how cloud computing and distributed computing support the field of data analytics.
- understand in-memory database technologies for real-time analytics.
- apply advanced statistics and machine learning solutions to solve data analysis problems.
- compare the capabilities and limitations of the presented software solutions.
- understand how to identify the right technological solution for a specific application domain.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field(s) of Data Science & Artificial Intelligence	All Master Programmes in the IT & Technology field(s)

Data Science

Course Code: DLMBDSA01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The course provides the framework to create value from data. After an introduction the course covers how to identify suitable use cases and evaluate the performance of data-driven methods. In an interdisciplinary approach, the requirements from a specific application domain need to be understood and transferred to the technological understanding to identify the objectives and value proposition of a Data Science project. The course covers techniques for the technical processing of data and then introduces advanced mathematical techniques and selected methods from artificial intelligence that are used to analyze data and make predictions.

Course Outcomes

On successful completion, students will be able to

- identify use cases and evaluate the performance of data-driven approaches.
- understand how domain specific knowledge for a particular application context is required to identify objectives and value propositions for data science use cases.
- appreciate the role and necessity for business-centric model evaluation apposite to the respective area of application.
- comprehend how data are pre-processed in preparation for analysis.
- develop typologies for data and ontologies for knowledge representation.
- decide for appropriate mathematical algorithms to utilize data analysis for a given task.
- understand the value, applicability, and limitations of artificial intelligence for data analysis.

Contents

5. Selected Mathematical Techniques
   - 5.1 Linear Regression
   - 5.2 Principal Component Analysis
   - 5.3 Clustering
   - 5.4 Time-series Forecasting
   - 5.5 Overview of Further Approaches

6. Selected Artificial Intelligence Techniques
   - 6.1 Support Vector Machines
   - 6.2 Neural Networks and Deep Learning
   - 6.3 Feed-forward Networks
   - 6.4 Recurrent Networks and Memory Cells
   - 6.5 Convolutional Networks
   - 6.6 Reinforcement Learning
   - 6.7 Overview of Further Approaches

Literature

Compulsory Reading

Further Reading

- Akerar, R., & Sajja, P.S. (2016). Intelligent techniques for data science. Cham: Springer.
- Bruce, A., & Bruce, P. (2017). Practical statistics for data scientists: 50 essential concepts. Newton, MA: O'Reilly Publishers.
- Fawcett, T. & Provost, F. (2013). Data science for business: What you need to know about data mining and data-analytic thinking. Newton, MA: O'Reilly Media.
- Hodeghatta, U. R., & Nayak, U. (2017). Business analytics using R – A practical approach. Berkeley, CA: Apress Publishing. (Database: ProQuest).
- Liebowitz, J. (2014). Business analytics: An introduction. Boca Raton, FL: Auerbach Publications. (Available online).
- Runkler, T. A. (2012). Data analytics: Models and algorithms for intelligent data analysis. Wiesbaden: Springer Vieweg.
- Skiena, S. S. (2017). The data science design manual. Cham: Springer.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Analytical Software and Frameworks

Course Code: DLMBDSA02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	DLMBDSA01

Course Description

Analytical Software and Frameworks provides insight into contemporary software and platforms solutions for data analytics in business. The course introduces relevant frameworks and software used in modern data science projects. Commercial and open-source for cloud computing, distributed computing and machine learning, as well as a commercial development platform for in-memory database analytics, are covered. Additional software solutions may be covered by the lecturer as convenient. In particular in the written assignment, students are required to apply their technological knowledge to a specific scenario which requires interdisciplinary thinking of how to merge the particularities of a given application domain with the technological options.

Course Outcomes

On successful completion, students will be able to

- comprehend how cloud computing and distributed computing support the field of data analytics.
- understand in-memory database technologies for real-time analytics.
- apply advanced statistics and machine learning solutions to solve data analysis problems.
- compare the capabilities and limitations of the presented software solutions.
- understand how to identify the right technological solution for a specific application domain.

Contents

1. Introduction
   - 1.1 Software Systems
   - 1.2 Frameworks
   - 1.3 Distributed Computing
   - 1.4 Databases and Data Warehousing
2. Data Storage
   - 2.1 Data Clustering
   - 2.2 Data Replication
   - 2.3 Data Indexing
   - 2.4 Data Warehousing

3. Statistical Modeling Frameworks
   - 3.1 The R Project for Statistical Computing
   - 3.2 The Python Ecosystem

4. Machine Learning & Artificial Intelligence
   - 4.1 Overview of Modern Machine Learning Frameworks
   - 4.2 Introduction to TensorFlow & Keras

5. Cloud Computing Platforms & On-Premise Solutions
   - 5.1 Advantages and Disadvantages of Cloud, On-premise, and Edge Solutions
   - 5.2 Overview of Cloud Computing Solutions

6. Distributed Computing
   - 6.1 Overview of Distributed Computing Approaches
   - 6.2 Overview of Streaming Approaches
   - 6.3 Other Solutions

7. Database Technologies
   - 7.1 Overview of Database Approaches
     - 7.1.1 Row-based versus Column-based
     - 7.1.2 In Memory DB
     - 7.1.3 Relational DB versus noSQL
     - 7.1.4 Timeseries DB
   - 7.2 Overview of Database Implementations

Literature
Compulsory Reading
Further Reading

- Elmasri, R., & Navathe, S. (2010). Fundamentals of database systems. Boston, MA: Addison-WesleyPublishing Co.
- EMC Education Services (Ed.). (2012). Information storage and management: Storing, managing,and protecting digital information in classic, virtualized, and cloud environments (2nd ed.).Indianapolis, IN: Wiley.
- Fayad, M., Schmidt, D., & Johnson, R. (1999). Building application frameworks: Object-orientedfoundations of framework design (1st ed., Ch. 1 & 2). New York, NY: Wiley.
- Haslwanter, T. (2016). An introduction to statistics with Python. (pp. 5–42, 237–14). Switzerland:Springer.
- Hugos, M. H., & Hulitzky, D. (2010). Business in the cloud: What every business needs to knowabout cloud computing. Hoboken, NJ: John Wiley & Sons.
- Jackson, J. C., Vijayakumar, V., Quadir, M. A., & Bharathi, C. (2015). Survey on programming modelsand environments for cluster, cloud, and grid computing that defends big data. ProcediaComputer Science, 50, 517–523.
- Jukic, N., Vrbsky, S., & Nestorov, S. (2016). Database systems: Introduction to databases and datawarehouses. Burlington, VT: Prospect Press.
- Lander, J. P. (2017). R for everyone: Advanced analytics and graphics. 2nd ed. Boston, MA: Addison-Wesley Professional.
- Loo, A. W. (Ed.). (2012). Distributed computing innovations for business, engineering, and science.Hershey, PA: IGI Global.
- Özsu, M. T., & Valduriez, P. (2011). Principles of distributed database systems. New York, NY:Springer Science & Business Media.
- Poulton, N. (2015). Data storage networking: Real world skills for the CompTIA storage +certification and beyond (1st ed.). Indianapolis, IN: Wiley.
- Rehman, T. B. (2018). Cloud computing basics. Sterling, VA: Stylus Publishing, LLC.
- Unpingco, J. (2016). Python for probability, statistics, and machine learning. (Ch. 4). Cham:Springer.
- Walkowiak, S. (2016). Big data analytics with R: Utilize R to uncover hidden patterns in your bigdata. Birmingham: Packt Publishing.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Written Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Big Data Applications

Module Code: DLMITEBDA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Max Pumperla (Big Data Technologies) / Dr. Hamzeh Alavirad (Data Utilization)

Contributing Courses to Module

- Big Data Technologies (DLMDSBDT01)
- Data Utilization (DLMBBD01)

Module Exam Type

Module Exam	Split Exam
	Big Data Technologies • Study Format "myStudies": Oral Assignment • Study Format "Distance Learning": Oral Assignment Data Utilization • Study Format "Distance Learning": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Big Data Technologies

- Data types and data sources
- Databases
- Modern storage frameworks
- Data formats
- Distributed computing

Data Utilization

- Pattern recognition
- Natural language processing
- Image recognition
- Detection and sensing
- Problem-solving
- Decision-making

Learning Outcomes

Big Data Technologies

On successful completion, students will be able to

- identify different types and sources of data.
- understand different database concepts.
- learn to build new database structures.
- evaluate various data storage frameworks w.r.t. project requirements.
- analyze which data format to use for a given project.
- understand what roles you could take in such projects.
- create a distributed computing environment for a given project.
- understand the ethical impact of big data technology choices.

Data Utilization

On successful completion, students will be able to

- understand how identity, similarity, and diversity of data can be utilized in problem-solving approaches.
- differentiate between complicated and complex systems of investigation.
- identify the variability of a problem under investigation.
- distinguish between invariant and dynamic features of an investigated system.
- synthesize gained insights to propose a reliable data analytics solution.
- apply different approaches for acquiring and using a knowledge management system.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Data Science & Artificial Intelligence	All Master Programmes in the IT & Technology field

Big Data Technologies

Course Code: DLMDSBDT01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

Data are often considered the “new oil”, the raw material from which value is created. To harness the power of data, the data need to be stored and processed on a technical level. This course introduces the four “Vs” of data, as well as typical data sources and types. This course then discusses how data are stored in databases. Particular focus is given to database structures and different types of databases, e.g., relational, noSQL, NewSQL, and time-series.Beyond classical and modern databases, this course covers a wide range of storage frameworks such as distributed filesystems, streaming, and query frameworks. This is complemented by a detailed discussion of data storage formats ranging from classical approaches such as CSV and HDF5 to more modern approaches like Apache Arrow and Parquet.Finally, this course gives an overview of distributed computing environments based on local clusters, cloud computing facilities, and container-based approaches.

Course Outcomes

On successful completion, students will be able to

- identify different types and sources of data.
- understand different database concepts.
- learn to build new database structures.
- evaluate various data storage frameworks w.r.t. project requirements.
- analyze which data format to use for a given project.
- understand what roles you could take in such projects.
- create a distributed computing environment for a given project.
- understand the ethical impact of big data technology choices.

Contents

1. Data Types and Data Sources
   - 1.1 The 4Vs of data: volume, velocity, variety, veracity
   - 1.2 Data sources
   - 1.3 Data types

2. Databases
   - 2.1 Database structures
   - 2.2 Introduction to SQL
   - 2.3 Relational databases
   - 2.4 nonSQL, NewSQL databases
   - 2.5 Timeseries DB

3. Modern data storage frameworks
   - 3.1 Distributed Filesystems
   - 3.2 Streaming frameworks
   - 3.3 Query frameworks

4. Data formats
   - 4.1 Traditional data exchange formats
   - 4.2 Apache Arrow
   - 4.3 Apache Parquet

5. Distributed Computing
   - 5.1 Cluster-based approaches
   - 5.2 Containers
   - 5.3 Cloud-based approaches

Literature

Compulsory Reading

Further Reading

- Date, C. J. (2003). An introduction to database systems. Pearson.
- Kleppmann, M. (2017). Designing data-intensive applications. O'Reilly.
- Wiese, L. (2015). Advanced data management. De Gruyter.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Oral Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Oral Assignment

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Data Utilization

Course Code: DLMBBD01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The course Data Utilization introduces case-based applications that take advantage of regularities and patterns found within continuously generated texts, images, or sensor data. The cases solve issues of pattern recognition, natural language processing, image recognition, detection and sensing, problem-solving, and decision support. The cases are related to the application fields of cybersecurity, linguistics, augmented reality, intelligent transportation, problem-solving, and decision support.

Course Outcomes

On successful completion, students will be able to

- understand how identity, similarity, and diversity of data can be utilized in problem-solving approaches.
- differentiate between complicated and complex systems of investigation.
- identify the variability of a problem under investigation.
- distinguish between invariant and dynamic features of an investigated system.
- synthesize gained insights to propose a reliable data analytics solution.
- apply different approaches for acquiring and using a knowledge management system.

Contents

1. Introduction
   - 1.1 The Meaning of Identity, Similarity, and Diversity
   - 1.2 Data Patterns and Ontologies
2. Pattern Recognition
   - 2.1 Analysis of User Interaction, Attitude, and Behavior
   - 2.2 Predictive Analytics
   - 2.3 Preventing the Unknown: User Behavior Analytics in Cybersecurity
3. Natural Language Processing
   - 3.1 Concepts of Natural Language
   - 3.2 Speech Recognition and Acoustic Modeling
   - 3.3 Discerning the Meaning: Linguistics and Social Media

4. Image Recognition
   - 4.1 Basics of Image Representation
   - 4.2 Integral Transforms and Compression
   - 4.3 Exploiting the Visual: Image Recognition for Augmented Reality

5. Detection and Sensing
   - 5.1 Sensor Construction and Techniques
   - 5.2 Intelligent Agents and Surveillance
   - 5.3 Managing the Complex: Sensor Networks in Intelligent Transportation Systems

6. Problem-solving
   - 6.1 Knowledge Sharing and the Cloud
   - 6.2 Rule-based Systems
   - 6.3 Learning from Nature: Expert Systems in Business

7. Decision Support
   - 7.1 Invariants, Determinants, and Alternatives in Decision-making
   - 7.2 Correlation and Causality in Strategic Decision-making
   - 7.3 Approaching the Crossroads: Dashboards and Visualization

8. Data Security and Data Protection
   - 8.1 Securing Data Storage and Processing Infrastructure Against Unauthorized Access
   - 8.2 Compliance and Regulations, GPDR

Literature

Compulsory Reading

Further Reading

- Bajcsy, P., Chalfoun, J., & Simon, M. (2017). Web microanalysis of big image data. Berlin:Springer. (Database: ProQuest).
- Delen, D. (2015). Real-world data mining: Applied business analytics and decision making. NewYork, NY: Pearson.
- Farzindar, A., Inkpen, D., & Hirst, G. (2017). Natural language processing for social media (2nd ed.).San Rafael, CA: Morgan & Claypool Publishers. (Database: ProQuest).
- Hsu, H., Chang, C., & Hsu, C. (Eds.). (2017). Big data analytics for sensor-network collectedintelligence. Cambridge, MA: Academic Press. (Database: ProQuest).
- Pearl, J., & Mackenzie, D. (2018). The book of why: The new science of cause and effect. New York,NY: Basic Books.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

IT Project and Architecture Management

Module Code: DLMBITPAM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Carsten Skerra (IT Project Management) / Prof. Dr. Carsten Skerra (IT Architecture Management)

Contributing Courses to Module

- IT Project Management (DLMBITPAM01)
- IT Architecture Management (DLMBITPAM02)

Module Exam Type

Module Exam	Split Exam
	IT Project Management • Study Format "Distance Learning": Exam, 90 Minutes IT Architecture Management • Study Format "Distance Learning": Written Assessment: Case Study

Weight of Module

see curriculum

Module Contents

IT Project Management

- Organizing the work
- Cost estimation and controlling
- The human factor
- Organizing small and medium projects
- Organizing large projects

IT Architecture Management

- Architecture documentation
- Architecture governance
- Enterprise architecture management (EAM)
- IT application portfolio management
- Enterprise architecture patterns
- Architecture framework: TOGAF

Learning Outcomes

IT Project Management

On successful completion, students will be able to

- critically reflect the status of knowledge on IT project management.
- set up different IT project management formats (small, medium and large projects) and know the methods for managing these different IT projects professionally.
- develop an IT management proposal as the fundament of a professional IT project management concept.
- understand and integrate different IT management project plans (e.g., time plan, cost plan, resources plan, risk plan) and use those plans in an integrative IT project planning and controlling scheme.
- organize and to lead an IT project team and its core and/or extended team members.

IT Architecture Management

On successful completion, students will be able to

- understand that having a well-defined IT architecture blueprint in place is key to success for IT organizations.
- analyze the constraints of existing application, infrastructure and information/ data architectures.
- know different types of IT application portfolio management.
- manage enterprise architecture patterns proactively.
- understand how to initiate change requests in order to modify or extend the IT architecture if the introduction or modification of a service is not possible within a given framework.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field(s) of Computer Science & Software Development	All Master Programmes in the IT & Technology field(s)

IT Project Management

Course Code: DLMBITPAM01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The purpose of this course is to introduce students to the concepts involved in IT project management. This is achieved through the development of an understanding of the fundamental tenets of project management enhancing the students' ability to apply their knowledge, skills and competencies in analyzing and solving IT project management problems. A special focus is put on the specifics of IT project organization, cost management and the human factor within IT projects.

Course Outcomes

On successful completion, students will be able to

- critically reflect the status of knowledge on IT project management.
- set up different IT project management formats (small, medium and large projects) and know the methods for managing these different IT projects professionally.
- develop an IT management proposal as the fundament of a professional IT project management concept.
- understand and integrate different IT management project plans (e.g., time plan, cost plan, resources plan, risk plan) and use those plans in an integrative IT project planning and controlling scheme.
- organize and to lead an IT project team and its core and/or extended team members.

Contents

1. Introduction: Characteristics of IT Projects
   - 1.1 Defining IT Projects
   - 1.2 Overview on Typical Roles and Phases of IT Projects
   - 1.3 Risks and Challenges of IT Projects
   - 1.4 Role of an IT Project Manager
2. Organizing the Work
   - 2.1 Project Breakdown Structure, Work Packages
   - 2.2 Prioritization
   - 2.3 Time Planning, Milestones, Gantt-Diagram
   - 2.4 Definition of Done

3. Cost Estimation and Controlling
   - 3.1 Challenges of Cost Estimation in IT Projects
   - 3.2 Estimation Techniques: 3-Point Estimation, Double Blind Expert Estimation, Function Points
   - 3.3 Cost Controlling Using Earned Value Analysis
   - 3.4 Risk Management

4. The Human Factor
   - 4.1 Vision Keeping
   - 4.2 Stakeholder Management
   - 4.3 Conflict Management

5. Organizing Small and Medium Projects
   - 5.1 Rational Unified Process (RUP)
   - 5.2 Agile Software Processes
   - 5.3 Scrum
   - 5.4 Plan-driven Project Management in Small Projects

6. Organizing Large Projects
   - 6.1 PMBOK Guide
   - 6.2 Prince2
   - 6.3 Multi Project Management
   - 6.4 Agile Software Processes in Large Projects
   - 6.5 Selection of the Appropriate Project Management Method

Literature

Compulsory Reading

Further Reading

- Stephens, R. (2015). Beginning software engineering. Chichester: John Wiley & Sons. (Database: ProQuest).
- Hans, R. T. (2013). Work breakdown structure: A tool for software project scope verification. Pretoria: Tshwane University of Technology.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

IT Architecture Management

Course Code: DLMBITPAM02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The course IT Architecture Management aims to enable students to define a blueprint for the future development of a particular IT landscape, taking into account service strategies and available technologies given to an IT service provider.

Course Outcomes

On successful completion, students will be able to

- understand that having a well-defined IT architecture blueprint in place is key to success for IT organizations.
- analyze the constraints of existing application, infrastructure and information/ data architectures.
- know different types of IT application portfolio management.
- manage enterprise architecture patterns proactively.
- understand how to initiate change requests in order to modify or extend the IT architecture if the introduction or modification of a service is not possible within a given framework.

Contents

1. Introduction to IT Architectures
   - 1.1 The Term “Architecture” in the Context of IT
   - 1.2 Use Cases and Levels of IT Architectures
   - 1.3 Overview on IT Architecture Management
2. Enterprise Architecture Management (EAM)
   - 2.1 IT-Strategy
   - 2.2 Enterprise Architecture
   - 2.3 Roles and Activities in EAM
3. IT Application Portfolio Management
   - 3.1 Application Handbook
   - 3.2 Portfolio Analyses
   - 3.3 Planning the Application Landscape

4. Architecture Framework: TOGAF
   - 4.1 Purpose and Overview on TOGAF
   - 4.2 Architecture Development Method (ADM)
   - 4.3 Guidelines & Techniques
   - 4.4 Architecture Content Framework
   - 4.5 Architecture Capability Framework

5. Architecture Documentation
   - 5.1 Structures, Components, and Interfaces
   - 5.2 Processes and Applications
   - 5.3 Domain Architecture

6. Architecture Governance
   - 6.1 Roles and Committees
   - 6.2 Processes and Decisions
   - 6.3 Management of Architectural Policies

7. Enterprise Architecture Patterns
   - 7.1 Structures, Components, and Interfaces
   - 7.2 Processes and Applications
   - 7.3 Domain Architecture

Literature

Compulsory Reading

Further Reading

- Hanschke, I. (2009). Strategic IT management: A toolkit for enterprise architecture management. Berlin, Heidelberg: Springer. (Database: ProQuest).
- Perroud, T., & Inversini, R. (2013). Enterprise architecture patterns: Practical solutions for recurring IT-architecture problems (Chs. 1-5). Berlin: Springer Berlin Heidelberg. (Database: ProQuest).
- The Open Group Architecture Framework. (2018). TOGAF 9.2 (Chs. 2, 4, 17, 29, 35, scan Chs. 5–16, scan Ch. 18–28, scan Chs. 36–38). (Available on the internet).

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Case Study

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Case Study

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Leadership and Change

Module Code: DLMMGELC

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA MBA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Georg Berkel (Leadership) / Prof. Dr. Magdalena Bathen-Gabriel (Change Management)

Contributing Courses to Module

- Leadership (DLMBLSE01)
- Change Management (DLMBCM01)

Module Exam Type

Module Exam	Split Exam
	Leadership • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Change Management • Study Format "Distance Learning": Written Assessment: Case Study

Weight of Module

see curriculum

Module Contents

Leadership

- Foundations of professional leadership
- Leadership and motivation in the corporation
- Leadership and corporate culture
- Leadership and change management

Change Management

- The context and meaning of change
- The change process
- Perspectives for understanding change
- Implementing change

Learning Outcomes

Leadership

On successful completion, students will be able to

- recognize underlying beliefs and attitudes towards leadership and compare the influence of various theories of leadership on the identification and development of leaders.
- recognize the impact of cultural environments on leadership, and understand the challenges and opportunities of cross-cultural management.
- outline the influence of social roles on leaders and employees, and assess the influence of roles types on the interactions between leaders and those they are leading.
- ,as a leader, support employees by drawing on empirical evidence to effectively meet the expectations of employees.
- recognize the roles and conflicting interests inherent to leadership positions and develop strategies to address locomotion and cohesion.
- discriminate between effective and non-effective methods for managing staff and organizational activities, and apply those techniques and tools in practice to maximize the satisfaction and effectiveness of staff.
- perform the various responsibilities delegated to a leader such as communicate with employees, lead planning activities, delegate tasks, and plan and lead controlling activities.
- create a plan to support employees through the process of change within an organization.
- assess personal leadership style using a variety of measures and evaluate leadership activities relative to transactional and transformational leadership styles.

Change Management

On successful completion, students will be able to

- recognize common features of organizational change and anticipate some of the standard difficulties encountered when an organization engages in change processes.
- explain the importance of organizational change.
- develop a conceptual framework for planned and improvised organizational change, and differentiate between anticipated, emergent, and opportunity-based change.
- utilize and redesign formal organizational structures to facilitate change processes.
- recognize the role of informal organizational structures and identify key stakeholders to promote change processes.
- analyze the social networks that exist within an organization, map independencies and motives/interests, and plan how to distribute information and redesign work flows.
- differentiate between groups of stakeholders and identify the most suitable strategy to adopt with each group.
- recognize the role of the change leader as a political broker and build social capital through informal methods.
- utilize stories and symbols when communicating with others in an organization to maximize leverage as a cultural change leader.
- draw on empirical evidence to plan and implement change processes in an organization.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the fields of Business Administration & Management	All Master Programmes in the fields of Business & Management

Leadership

Course Code: DLMBLSE01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MBA	English		5	None

Course Description

In today's knowledge-based society, employees are a firm's most valuable resource. A key responsibility of leadership is to develop the knowledge, expertise, and skills of employees. Good leadership is crucial for the continued success of a firm in the face of increasingly competitive markets. This course presents the necessary competencies of the leader in a modern, knowledge-based organization. Central questions raised by modern leadership theory are presented and discussed. In doing so, the course focuses on requirements and instruments of professional leadership, aspects of situational leadership, and leadership communication and interactions, both in the context of strategic management and change processes. The methodological and conceptual foundations of leadership are presented to students, along with empirical examples and best-practice principles, with the intent for students to master the challenges of enhancing the firm's most valuable asset—its employees—via professional and contemporary leadership practices.

Course Outcomes

On successful completion, students will be able to

- recognize underlying beliefs and attitudes towards leadership and compare the influence of various theories of leadership on the identification and development of leaders.
- recognize the impact of cultural environments on leadership, and understand the challenges and opportunities of cross-cultural management.
- outline the influence of social roles on leaders and employees, and assess the influence of roles types on the interactions between leaders and those they are leading.
- ,as a leader, support employees by drawing on empirical evidence to effectively meet the expectations of employees.
- recognize the roles and conflicting interests inherent to leadership positions and develop strategies to address locomotion and cohesion.
- discriminate between effective and non-effective methods for managing staff and organizational activities, and apply those techniques and tools in practice to maximize the satisfaction and effectiveness of staff.
- perform the various responsibilities delegated to a leader such as communicate with employees, lead planning activities, delegate tasks, and plan and lead controlling activities.
- create a plan to support employees through the process of change within an organization.
- assess personal leadership style using a variety of measures and evaluate leadership activities relative to transactional and transformational leadership styles.

Contents

4. Leadership from the Manager's Perspective
   - 4.1 Self-Concept as a Manager
   - 4.2 Locomotion and Cohesion
   - 4.3 Individual Problems and Learning Dimensions of Management Behavior
   - 4.4 The Concept of Human Nature and Its Influence on Management Behavior: Theories from Maslow, McGregor, and Herzberg
   - 4.5 Ambiguity Tolerance

5. Management Tools
   - 5.1 Management Tools - Definition
   - 5.2 Organizational Management Tools
   - 5.3 Personnel Management Tools

6. Managerial Functions
   - 6.1 Responsibilities of a Manager
   - 6.2 Communication
   - 6.3 Foundations of Interpersonal Communication
   - 6.4 Planning
   - 6.5 Setting Objectives
   - 6.6 Delegating
   - 6.7 Controlling
   - 6.8 Creating a Feedback Culture

7. Organizational Change
   - 7.1 Knowledge
   - 7.2 Cultural Value Change and Subjectification
   - 7.3 Globalization
   - 7.4 Technological Progress
   - 7.5 Change Management – Leadership in Times of Change

8. Successful Employee Management
   - 8.1 Measuring Leadership Style and Leadership Behavior
   - 8.2 Measuring Transactional and Transformational Leadership with the Multifactor Leadership Questionnaire (MLQ)
   - 8.3 Correlation of Leadership Behavior with Subjective and Objective Success Criteria
   - 8.4 Validation of Leadership Success Using Situational Factors
   - 8.5 Leadership Principles Guiding Leadership Behavior

Literature

Compulsory Reading

Further Reading

- Gneezy, U., & Rustichini, A. (2000). Pay enough or don't pay at all. The Quarterly Journal of Economics,115(3), 791–810. (Database: EBSCO).
- Goleman, D., Boyatzis, R., & McKee, A. (2004). Primal leadership: Learning to lead with emotionalintelligence. Boston, MA: Harvard Business School Press.
- Hechter, M., & Opp, K.-D. (2001). Social norms. New York, NY: Russell Sage Foundation.
- Herzberg, F., Mausner, B., & Bloch Synderman, B. (1993). The motivation to work. New Brunswick:Transaction Publishers. (Database: EBSCO).
- Kouzes, J. M., & Posner, B. Z. (1999). Encouraging the heart: A leader's guide to rewarding and recognizingothers. San Francisco, CA: Jossey-Bass. (Database: CIANDO).
- Maslow, A. (1954). Motivation and personality. New York, NY: Harper & Row.
- Norton, R. W. (1975). Measurement of ambiguity tolerance. Journal of Personality Assessment, 39(6), 607–619. (Database: EBSCO).
- Trilling, L. (1972). Sincerity and authenticity. Cambridge, MA: Harvard University Press. (Database: EBSCO).

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☑ Vodcast	☐ Guideline
☐ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☑ Slides
☑ Exam Template	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☑ Vodcast	☐ Guideline
☐ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☑ Slides
☑ Exam Template	

Change Management

Course Code: DLMBCM01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

We live in a world characterized by constant change. This affects not only individuals but also organizations. Even successful organizations need to constantly reinvent themselves in order to remain successful. This course presents a discussion of change in relation to the complexities of organizational life, with an emphasis on applying theory to actual practice. Organizational change is an international phenomenon and the course includes many international case examples. With a focus on organizational change as opposed to personal change and/or entrepreneurship, this course has a distinctly different focus from the related modules "Leadership" and "Innovation and Entrepreneurship." The first part of the course considers the nature of change and different change models. The second part focuses on how different perspectives complement one another and can be used to better understand, analyze, and diagnose change processes. The course deals with issues of structure, culture, and politics. In the later part of the course, the implementation of change is considered in detail. Given that many change processes fail, this part is an important learning component to complement an in-depth understanding of change.

Course Outcomes

On successful completion, students will be able to

- recognize common features of organizational change and anticipate some of the standard difficulties encountered when an organization engages in change processes.
- explain the importance of organizational change.
- develop a conceptual framework for planned and improvised organizational change, and differentiate between anticipated, emergent, and opportunity-based change.
- utilize and redesign formal organizational structures to facilitate change processes.
- recognize the role of informal organizational structures and identify key stakeholders to promote change processes.
- analyze the social networks that exist within an organization, map independencies and motives/interests, and plan how to distribute information and redesign work flows.
- differentiate between groups of stakeholders and identify the most suitable strategy to adopt with each group.
- recognize the role of the change leader as a political broker and build social capital through informal methods.
- utilize stories and symbols when communicating with others in an organization to maximize leverage as a cultural change leader.
- draw on empirical evidence to plan and implement change processes in an organization.

Contents

Literature
Compulsory Reading
Further Reading ▪ Bolman, L. G., & Deal, T. E. (2013). Reframing organizations: Artistry, choice, and leadership (5th ed.). San Francisco, CA: Jossey-Bass. ▪ Cameron, K. S., & Quinn, R. E. (2011). Diagnosing and changing organizational culture: Based on the competing values framework (3rd ed.). San Francisco, CA: Jossey-Bass. ▪ Pentland, A. (2014). Social physics: How good ideas spread – The lessons from a new science. New York, NY: Penguin Press. ▪ McChrystal, S., Collins, T., Silverman, D., & Fussell, C. (2015). Team of teams: New rules of engagement for a complex world. New York, NY: Penguin Press. ▪ Worren, N. A. M. (2012). Organisation design: Re-defining complex systems. Harlow: Pearson.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Case Study

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Written Assessment: Case Study

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☑ Shortcast	☐ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☐ Exam Template	☑ Slides

Artificial Intelligence

Module Code: DLMIMWKI

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimaldauer: 1 Semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Claudia Heß (Artificial Intelligence) / Prof. Dr. Tim Schlippe (Seminar: AI and Society)

Contributing Courses to Module

- Artificial Intelligence (DLMAIAI01)
- Seminar: AI and Society (DLMAISAIS01)

Module Exam Type

Module Exam	Split Exam
	Artificial Intelligence • Study Format "Distance Learning": Exam, 90 Minutes • Study Format "myStudies": Exam, 90 Minutes Seminar: AI and Society • Study Format "myStudies": Written Assessment: Research Essay • Study Format "Distance Learning": Written Assessment: Research Essay

Weight of Module

see curriculum

Module Contents

Artificial Intelligence

- History of AI
- AI application areas
- Expert systems
- Neuroscience
- Modern AI systems

Seminar: AI and Society

In this module, students will reflect on current societal and political implications of artificial intelligence. To this end, pertinent topics will be introduced via articles that are then critically evaluated by the students in the form of a written essay.

Learning Outcomes

Artificial Intelligence

On successful completion, students will be able to

- remember the historical developments in the field of artificial intelligence.
- analyze the different application areas of artificial intelligence.
- comprehend expert systems.
- apply Prolog to simple expert systems.
- comprehend the brain and cognitive processes from a neuro-scientific point of view.
- understand modern developments in artificial intelligence.

Seminar: AI and Society

On successful completion, students will be able to

- name selected current societal topics and issues in artificial intelligence.
- explain the influence and impact of artificial intelligence on societal, economic, and polital topics.
- transfer theoretically-acquired knowledge to real-world cases.
- treat in a scientific manner a select topic in the form of a written essay.
- critically question and discuss current societal and political issues arising from the recent advances in artificial intelligence methodology.
- develop own problem-solving skills and processes through reflection on the possible impact of their future occupation in the sector of artificial intelligence.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Data Science & Artificial Intelligence.	All Master Programmes in the IT & Technology field.

Artificial Intelligence

Course Code: DLMAIAI01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

The quest for artificial intelligence has captured humanity's interest for many decades and has been an active research area since the 1960s. This course will give a detailed overview of the historical developments, successes, and set-backs in AI, as well as the development and use of expert systems in early AI systems.In order to understand cognitive processes, the course will give a brief overview of the biological brain and (human) cognitive processes and then focus on the development of modern AI systems fueled by recent developments in hard- and software. Particular focus will be given to discussion of the development of "narrow AI" systems for specific use cases vs. the creation of general artificial intelligence.The course will give an overview of a wide range of potential application areas in artificial intelligence, including industry sectors such as autonomous driving and mobility, medicine, finance, retail, and manufacturing.

Course Outcomes

On successful completion, students will be able to

- remember the historical developments in the field of artificial intelligence.
- analyze the different application areas of artificial intelligence.
- comprehend expert systems.
- apply Prolog to simple expert systems.
- comprehend the brain and cognitive processes from a neuro-scientific point of view.
- understand modern developments in artificial intelligence.

Contents

1. History of AI
   - 1.1 Historical Developments
   - 1.2 AI Winter
   - 1.3 Notable Advances in AI
2. Expert Systems
   - 2.1 Overview Over Expert Systems
   - 2.2 Introduction to Prolog

3. Neuroscience
   - 3.1 The (Human) Brain
   - 3.2 Cognitive Processes

4. Modern AI Systems
   - 4.1 Recent Developments in Hard- and Software
   - 4.2 Narrow vs General AI
   - 4.3 NLP and Computer Vision

5. AI Application Areas
   - 5.1 Autonomous Vehicles & Mobility
   - 5.2 Personalized Medicine
   - 5.3 FinTech
   - 5.4 Retail & Industry

Literature

Compulsory Reading

Further Reading

- Russell, S. & Norvig, P. (2010). Artificial intelligence: a modern approach (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- Lucas, P.J.F & Van der Gaag, L. (1991). Principles of expert systems. Amsterdam: Addison Wesley (copyright returned to author).
- Clocksin, W.F. & Mellish, C.S. (2003). Programming in Prolog (4th ed.). Berlin: Springer-Verlag.
- Ward, J. (2015). The student's guide to cognitive neuroscience. (3rd ed.). New York, NY: Psychology Press.
- Frankish, K & Ramsey, W.M. (Eds.) (2012). The Cambridge handbook of cognitive science. Cambridge: Cambridge University Press.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☑ Course Book	☐ Creative Lab
☐ Vodcast	☐ Guideline
☑ Shortcast	☑ Live Tutorium/Course Feed
☑ Audio	☐ Reader
☑ Exam Template	☑ Slides

Seminar: AI and Society

Course Code: DLMAISAIS01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		5	none

Course Description

In the current decade, impressive advances have been achieved in the field of artificial intelligence. Several cognitive tasks like object recognition in images and video, natural language processing, game strategy, and autonomous driving and robotics are now being performed by machines at unprecedented levels of ability. This course will examine some of societal, economic, and political implications of these developments.

Course Outcomes

On successful completion, students will be able to

- name selected current societal topics and issues in artificial intelligence.
- explain the influence and impact of artificial intelligence on societal, economic, and polital topics.
- transfer theoretically-acquired knowledge to real-world cases.
- treat in a scientific manner a select topic in the form of a written essay.
- critically question and discuss current societal and political issues arising from the recent advances in artificial intelligence methodology.
- develop own problem-solving skills and processes through reflection on the possible impact of their future occupation in the sector of artificial intelligence.

Contents

- The seminar covers current topics concerning the societal impact of artificial intelligence. Each participant must create a seminar paper on a topic assigned to him/her. A current list of topics is given in the Learning Management System.

Literature
Compulsory Reading
Further Reading ▪ Turabian, K. L. (2013). A manual for writers of research papers, theses, and dissertations. Chicago: University of Chicago Press. ▪ Swales, J. M., & Feak, C. R. (2012). Academic writing for graduate students, essential tasks and skills. Michigan: University of Michigan Press. ▪ Bailey, S. (2011). Academic writing for international students of business. New York, NY: Routledge

Study Format myStudies

Study Format	Course Type
myStudies	Seminar

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Research Essay

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☐ Reader
☐ Exam Template	☑ Slides

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Research Essay

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☑ Slides
☐ Exam Template	

Start Up Lab

Module Code: DLMIEESUL

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	MA	10	300 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Lena Bernhofer (Start Up Lab)

Contributing Courses to Module

- Start Up Lab (DLMIEESUL01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Portfolio	

Weight of Module

see curriculum

Module Contents

Becoming one´s own boss might be the dream of many people. Having an own business idea and bring it to market realization has been the starting point of many successful businesses. The Start Up Lab supports ambitious entrepreneurs and founders in identifying market opportunities as the basis for innovative business ideas and business models. The writing of a business plan allows the students to systematically describe and structure the business idea along the various criteria to be covered in the business plan. This way, the students can experience and expand their own start up skills.

Learning Outcomes

Start Up Lab

On successful completion, students will be able to

- develop an own business idea and design a business model as the foundation for writing a business plan.
- describe the reasons for creating a business plan for different business projects as well as explain the structure, form and content of a business plan.
- formulate the vision, the strategic goals and the value proposition for their business project on the basis of a comprehensive business analysis.
- prepare a detailed financial and capital requirement plan for their business project and assess the medium- and long-term advantages and disadvantages of the selected financing.
- evaluate the main risks for their business project and assess them with regard to implementation.
- identify the different types of growth and growth strategies for the development of a business project.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Business Administration & Management	All Master Programs in the Business & Management field

Start Up Lab

Course Code: DLMIEESUL01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		10	none

Course Description

In this course, students learn how to present and realize a business idea systematically and in a structured manner with a business plan. A business plan is usually created when a company is founded, but is also used for other business projects such as succession planning in a company, the new development of a product, the takeover of a company or expansion abroad. In this module, the focus is on starting an own business to implement the business idea as well as possible growth strategies to expand the business. The preparation of a business plan allows students to apply business management knowledge in a systematic, integrated and practice-oriented manner. This way, the students can experience and expand their own start up skills. They are systematically guided to address all elements of a business plan in order to increase the success for the realization of a business idea. Special emphasis is placed on identifying potential risks for later implementation.

Course Outcomes

On successful completion, students will be able to

- develop an own business idea and design a business model as the foundation for writing a business plan.
- describe the reasons for creating a business plan for different business projects as well as explain the structure, form and content of a business plan.
- formulate the vision, the strategic goals and the value proposition for their business project on the basis of a comprehensive business analysis.
- prepare a detailed financial and capital requirement plan for their business project and assess the medium- and long-term advantages and disadvantages of the selected financing.
- evaluate the main risks for their business project and assess them with regard to implementation.
- identify the different types of growth and growth strategies for the development of a business project.

Contents

- Becoming one´s own boss might be the dream of many people. Having an own business idea and bring it to market realization has been the starting point of many successful companies. It is however not self-evident that a business idea reaches the level of implementation and growth. It requires goal-setting, planning, persistence, commitment, determination and calculated risk-taking to bring an idea to success. The Start Up Lab supports ambitious

entrepreneurs and founders in identifying market opportunities as the basis for innovative business ideas and business models. The writing of a business plan allows the students to systematically describe and structure the business idea along the various criteria to be covered in the business plan such as strategy, market, product/service, value proposition, target customers, marketing, production, finances and risk evaluation. By doing so, the students can experience and expand their own start up skills.

Literature

Compulsory Reading

Further Reading

- Bessant, J. & Tidd, J. (2015). Innovation and Entrepreneurship. 3rd edition, John Wiley & Sons, Hoboken.
- Grant, A. (2016). Originals: How Non-Conformists Move the World. Viking, New York.
- Grant, W. (2020). How to Write a Winning Business Plan: A Step-by-Step Guide to Build a Solid Foundation, Attract Investors & Achieve Success. Walter Grant, Grand Rapids.
- Hoffman, S. (2021). Surviving a Startup: Practical Strategies for Starting a Business, Overcoming Obstacles, and Coming Out on Top. Harper Collins, New York.
- Osterwalder, A., Pigneur, Y., Bernarda, G. & Smith, A. (2010). Value Proposition Design: How to Create Products and Services Customers Want. John Wiley & Sons, Hoboken.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Portfolio

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
240 h	0 h	60 h	0 h	0 h	300 h

Instructional Methods		
☐ Learning Sprints®	☐ Review Book	☐ Sprint
☐ Course Book	☐ Creative Lab	☐ Interactive Online Lecture
☐ Vodcast	☑ Guideline	
☐ Shortcast	☑ Live Tutorium/Course Feed	
☐ Audio	☐ Reader	
☐ Exam Template	☑ Slides	

DLMIEESUL01

Master Thesis

Module Code: DLMMTHES

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	See current study and exam regulations (SPO)	MA	15	450 h

Semester / Term	Duration	Regularly offered in	Language of Instruction and Examination
2. Semester	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Degree Program Advisor (SGL) (Master Thesis) / Degree Program Advisor (SGL) (Colloquium)

Contributing Courses to Module

- Master Thesis (DLMMTHES01)
- Colloquium (DLMMTHES02)

Module Exam Type

Module Exam	Split Exam
	Master Thesis • Study Format "Distance Learning": Written Assessment: Master Thesis (90) • Study Format "myStudies": Written Assessment: Master Thesis (90) Colloquium • Study Format "myStudies": Presentation: Colloquium (10) • Study Format "Distance Learning": Presentation: Colloquium (10)

Weight of Module

see curriculum

Module Contents

Master Thesis

- Written Master Thesis

Colloquium

- Thesis Defense

Learning Outcomes

Master Thesis

On successful completion, students will be able to

- work on a problem from their major field of study by applying the specialist and methodological skills they have acquired during their studies.
- analyse selected tasks with scientific methods, critically evaluate them and develop appropriate solutions under the guidance of an academic supervisor.
- record and analyse existing (research) literature appropriate to the topic of the Master's thesis.
- prepare a detailed written elaboration in compliance with scientific methods.

Colloquium

On successful completion, students will be able to

- present a problem from their field of study under consideration of academic presentation and communication techniques.
- reflect on the scientific and methodological approach chosen in the Master's thesis.
- actively answer subject-related questions from subject experts (experts of the Master's thesis).

Links to other Modules within the Study Program	Links to other Study Programs of the University
All modules in the master program	All Master Programmes

Master Thesis

Course Code: DLMMTHES01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		13.5	See current study and exam regulations (SPO)

Course Description

The aim and purpose of the Master's thesis is to successfully apply the subject-specific and methodological competencies acquired during the course of study in the form of an academic dissertation with a thematic reference to the major field of study. The content of the Master's thesis can be a practical-empirical or theoretical-scientific problem. Students should prove that they can independently analyse a selected problem with scientific methods, critically evaluate it and work out proposed solutions under the subject-methodological guidance of an academic supervisor. The topic to be chosen by the student from the respective field of study should not only prove the acquired scientific competences, but should also deepen and round off the academic knowledge of the student in order to optimally align his professional abilities and skills with the needs of the future field of activity.

Course Outcomes

On successful completion, students will be able to

- work on a problem from their major field of study by applying the specialist and methodological skills they have acquired during their studies.
- analyse selected tasks with scientific methods, critically evaluate them and develop appropriate solutions under the guidance of an academic supervisor.
- record and analyse existing (research) literature appropriate to the topic of the Master's thesis.
- prepare a detailed written elaboration in compliance with scientific methods.

Contents

- Within the framework of the Master's thesis, the problem as well as the scientific research goal must be clearly emphasized. The work must reflect the current state of knowledge of the topic to be examined by means of an appropriate literature analysis. The student must prove his ability to use the acquired knowledge theoretically and/or empirically in the form of an independent and problem-solution-oriented application.

Literature
Compulsory Reading
Further Reading ▪ Bui, Y. N. (2013). How to Write a Master's Thesis (2nd ed.). SAGE Publications, Incorporated. ▪ Turabian, K. L. (2013). A Manual for Writers of Research Papers, theses, and dissertations (8th ed.). University of Chicago Press. ▪ Further subject specific literature

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Thesis

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Master Thesis

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
405 h	0 h	0 h	0 h	0 h	405 h

Instructional Methods

- ☐ Learning Sprints®
- ☐ Course Book
- ☐ Vodcast
- ☐ Shortcast
- ☐ Audio
- ☐ Exam Template
- ☐ Review Book
- ☐ Creative Lab
- ☑ Guideline
- ☐ Live Tutorium/Course Feed
- ☑ Slides

Study Format myStudies

Study Format	Course Type
myStudies	Thesis

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Written Assessment: Master Thesis

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
405 h	0 h	0 h	0 h	0 h	405 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☑ Slides
☐ Exam Template	

Colloquium

Course Code: DLMMTHES02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
MA	English		1.5	See current study and exam regulations (SPO)

Course Description

The colloquium will take place after submission of the Master's thesis. This is done at the invitation of the experts. During the colloquium, the students must prove that they have fully independently produced the content and results of the written work. The content of the colloquium is a presentation of the most important work contents and research results by the student, and the answering of questions by the experts.

Course Outcomes

On successful completion, students will be able to

- present a problem from their field of study under consideration of academic presentation and communication techniques.
- reflect on the scientific and methodological approach chosen in the Master's thesis.
- actively answer subject-related questions from subject experts (experts of the Master's thesis).

Contents

- The colloquium includes a presentation of the most important results of the Master's thesis, followed by the student answering the reviewers' technical questions.

Literature

Compulsory Reading

Further Reading

- Renz, K.-C. (2016): The 1 x 1 of the presentation. For school, study and work. 2nd edition, Springer Gabler, Wiesbaden.

Study Format myStudies

Study Format	Course Type
myStudies	Thesis Defense

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Presentation: Colloquium

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
45 h	0 h	0 h	0 h	0 h	45 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☑ Slides
☐ Exam Template	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Thesis Defense

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Presentation: Colloquium

Student Workload					
Self Study	**Contact Hours**	**Tutorial**	**Self Test**	**Independent Study**	**Hours Total**
45 h	0 h	0 h	0 h	0 h	45 h

Instructional Methods	
☐ Learning Sprints®	☐ Review Book
☐ Course Book	☐ Creative Lab
☐ Vodcast	☑ Guideline
☐ Shortcast	☐ Live Tutorium/Course Feed
☐ Audio	☑ Slides
☐ Exam Template	