

# MODULE HANDBOOK

## **Bachelor of Science**

## Bachelor AI in Business (FS-OI-EU-BAAIBE)

180 CP

**Distance Learning**

As of September 24th, 2024

Classification: Undergraduate

Classification:

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# 1. Semester

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## Business 101

Module Code: DLBBAB\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Andreas Herrmann (Business 101)

### Contributing Courses to Module

- Business 101 (DLBBAB01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam or Written Assessment: Written  
Assignment, 90 Minutes

Study Format: myStudies  
Exam or Written Assessment: Written  
Assignment, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

<p><b>Module Contents</b></p> <ul style="list-style-type: none"> <li>▪ Businesses and their environment</li> <li>▪ Types of business organizations</li> <li>▪ Management and structure of business</li> <li>▪ Production of goods and services</li> <li>▪ Marketing of products and services</li> <li>▪ Management of labor</li> <li>▪ Accounting in business</li> </ul>	
<p><b>Learning Outcomes</b></p> <p><b>Business 101</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ apply business and economic thinking and working methods.</li> <li>▪ explain economic subjects and questioning models of business administration.</li> <li>▪ classify and formulate corporate goals.</li> <li>▪ describe and apply a general business decision-making process.</li> <li>▪ recognize and design the organizational structure and process organization in the company.</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>This module is similar to other modules in the field of Business Administration &amp; Management</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programmes in the Business field</p>

# Business 101

Course Code: DLBBAB01\_E

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

## Course Description

Business 101 deals with the basics of general business administration. It provides students with an understanding of the fundamental questions of doing business. In addition, basic organizational approaches of companies are shown. With the successful completion of the course, the students have gained fundamental knowledge in general business administration. This course lays the foundation for the advanced modules in the further course of their studies.

## Course Outcomes

On successful completion, students will be able to

- apply business and economic thinking and working methods.
- explain economic subjects and questioning models of business administration.
- classify and formulate corporate goals.
- describe and apply a general business decision-making process.
- recognize and design the organizational structure and process organization in the company.

## Contents

1. Businesses and their environment
  - 1.1 Concepts of business
  - 1.2 A system of economic relationships
  - 1.3 Business environment
2. Types of business organizations
  - 2.1 Companies in production and service
  - 2.2 Divisions of companies
3. Management and structure of business
  - 3.1 Basics of Business Management
  - 3.2 Functions of organizations, managers and control
  - 3.3 The decision making process
  - 3.4 Organizational structure of business
4. Production of goods and services



- 4.1 Origin and development of the production process
- 4.2 Industrial strategy of business
5. Marketing of goods and services
  - 5.1 Goals and types of marketing
  - 5.2 Marketing mix
6. Management of labor
  - 6.1 Process of management of labor
  - 6.2 Demand in labor
  - 6.3 Human relations in organizations
7. Accounting in business
  - 7.1 Functions and goals of accounting
  - 7.2 Spheres of accounting
  - 7.3 Fundamental principles of accounting

**Literature****Compulsory Reading****Further Reading**

- Covey, S. R. (2013). *The 7 habits of highly effective people: powerful lessons in personal change* (25th anniversary edition). Simon & Schuster.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam or Written Assessment: Written Assignment, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 100 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 25 h	<b>Self Test</b> 25 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam or Written Assessment: Written Assignment, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 100 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 25 h	<b>Self Test</b> 25 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Artificial Intelligence

Module Code: DLBDSEAIS1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Kristina Schaaff (Artificial Intelligence)

## Contributing Courses to Module

- Artificial Intelligence (DLBDSEAIS01)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: Duales myStudium  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- chart the historical developments in artificial intelligence.
- understand the approach of contemporary AI systems.
- comprehend the concepts behind reinforcement learning.
- analyze natural language using basic NLP techniques.
- scrutinize images and their contents.

**Learning Outcomes****Artificial Intelligence**

On successful completion, students will be able to

- chart the historical developments in artificial intelligence.
- understand the approach of contemporary AI systems.
- comprehend the concepts behind reinforcement learning.
- analyze natural language using basic NLP techniques.
- scrutinize images and their contents.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Artificial Intelligence

Course Code: DLBDSEAIS01

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

## Course Description

The quest for artificial intelligence (AI) 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 modern approaches in the development of artificial intelligence. This course gives an introduction to reinforcement learning, a process similar to how humans and animals experience the world: exploring the environment and inferring the best course of action. This course also covers the principles of natural language processing and computer vision, both of which are key ingredients for an artificial intelligence to be able to interact with its environment.

## Course Outcomes

On successful completion, students will be able to

- chart the historical developments in artificial intelligence.
- understand the approach of contemporary AI systems.
- comprehend the concepts behind reinforcement learning.
- analyze natural language using basic NLP techniques.
- scrutinize images and their contents.

## Contents

1. History of AI
  - 1.1 Historical Developments
  - 1.2 AI Winter
  - 1.3 Expert Systems
  - 1.4 Notable Advances
2. Modern AI Systems
  - 2.1 Narrow versus General AI
  - 2.2 Application Areas
3. Reinforcement Learning
  - 3.1 What is Reinforcement Learning?
  - 3.2 Markov Chains and Value Function

### 3.3 Time-Difference and Q Learning

## 4. Natural Language Processing (NLP)

### 4.1 Introduction to NLP and Application Areas

### 4.2 Basic NLP Techniques

### 4.3 Vectorizing Data

## 5. Computer Vision

### 5.1 Introduction to Computer Vision

### 5.2 Image Representation and Geometry

### 5.3 Feature Detection

### 5.4 Semantic Segmentation

## Literature

### Compulsory Reading

### Further Reading

- Bear, F., Barry, W., & Paradiso, M. (2020). Neuroscience: Exploring the brain (4th ed.). Lippincott Williams & Wilkins.
- Chollet, F. (2018). Deep learning with Python. Manning.
- Géron, A. (2017). Hands-on machine learning with Scikit-Learn and TensorFlow. O'Reilly.
- Géron, A. (2019). Hands-on machine learning with Scikit-Learn, Keras, and TensorFlow: Concepts, tools, and techniques to build intelligent systems (2nd ed.). O'Reilly.
- Goodfellow, I., Bengio, Y., & Courville, A. (2016). Deep learning. MIT Press.
- Grus, J. (2019). Data science from scratch: First principles with Python. O'Reilly.
- Jurafsky, D., & Martin, J. H. (2022). Speech and language processing (3rd ed.). Prentice Hall.
- Russell, S. J., & Norvig, P. (2022). Artificial Intelligence: A modern approach (4th ed., global ed.). Pearson.
- Sutton, R. S., & Barto, A. G. (2018). Reinforcement learning: An introduction (2nd ed.). MIT Press. (Adaptive Computation and Machine Learning series).
- Szeliski, R. (2022). Computer vision: Algorithms and applications (2nd ed.). Springer. (Texts in Computer Science series).

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Introduction to NLP

Module Code: DLBAIINLP

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Kristina Schaaff (Introduction to NLP)

## Contributing Courses to Module

- Introduction to NLP (DLBAIINLP01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to NLP
- Important methods in NLP
- Relevant Applications in NLP
- Challenges in NLP

**Learning Outcomes****Introduction to NLP**

On successful completion, students will be able to

- get a good overview of the topic NLP.
- name important challenges in NLP.
- apply common algorithms and methods to address NLP problems.
- understand common use-case scenarios in which NLP techniques are applied.
- analyze benefits and shortcomings of various NLP algorithms.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the field of IT & Technology

# Introduction to NLP

Course Code: DLBAIINLP01

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

## Course Description

In this course, traditional and state-of-the-art approaches to Natural Language Processing will be taught. To achieve this goal, techniques, challenges, and solution approaches are presented with a comprehensive overview of related topics and techniques. Additionally, it will be shown how NLP can be used successfully in different application scenarios - both theoretically and with practical examples.

## Course Outcomes

On successful completion, students will be able to

- get a good overview of the topic NLP.
- name important challenges in NLP.
- apply common algorithms and methods to address NLP problems.
- understand common use-case scenarios in which NLP techniques are applied.
- analyze benefits and shortcomings of various NLP algorithms.

## Contents

1. Basic Terms and Concepts
  - 1.1 What is NLP?
  - 1.2 Syntax
  - 1.3 Semantics
  - 1.4 Prosodics
  - 1.5 Grammar
2. Language and Speech
  - 2.1 Human Vocal Apparatus
  - 2.2 Speech Production
  - 2.3 Phonetics
3. Challenges in NLP
  - 3.1 Data for NLP
  - 3.2 Evaluation of NLP Systems
  - 3.3 Domain Challenges

### 3.4 Multilingual Application

## 4. Techniques

- 4.1 Rules vs. Statistics
- 4.2 Regular Expressions
- 4.3 N-Grams
- 4.4 Vectorizing Data
- 4.5 NLP Models

## 5. Application Scenarios

- 5.1 Speech Recognition & Synthesis
- 5.2 Machine Translation
- 5.3 Information Extraction
- 5.4 Sentiment Analysis
- 5.5 Chatbot
- 5.6 NLP with Python

## Literature

### Compulsory Reading

### Further Reading

- Bird S., Klein, E., & Loper, E. (2009): Natural language processing with Python. O'Reilly, Sebastopol.
- Kamath , U., Liu, J., & Whitaker, J. (2019): Deep Learning for NLP and Speech Recognition: Practical NLP, Speech, and Deep Learning using Python-based Open Source Tools. Springer.
- Jurafsky, D., & Martin, J. H. (2020): Speech and language processing (3rd ed.). PrenticeHall, New Jersey. <https://web.stanford.edu/~jurafsky/slp3>

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



# Introduction to Academic Work

Module Code: DLBCSIAW

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Brigitte Huber (Introduction to Academic Work)

## Contributing Courses to Module

- Introduction to Academic Work (DLBCSIAW01)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Basic Workbook (passed / not passed)

Study Format: Distance Learning  
Basic Workbook (passed / not passed)

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Scientific Theoretical Foundations and Research Paradigms
- Application of Good Scientific Practice
- Methodology
- Librarianship: Structure, Use, and Literature Management
- Forms of Scientific Work at IU

**Learning Outcomes****Introduction to Academic Work**

On successful completion, students will be able to

- understand and apply formal criteria of a scientific work.
- distinguish basic research methods and identify criteria of good scientific practice.
- describe central scientific theoretical basics and research paradigms and their effects on scientific research results.
- use literature databases, literature administration programs, and other library structures properly; avoid plagiarism; and apply citation styles correctly.
- apply the evidence criteria to scientific texts.
- define a research topic and derive a structure for scientific texts.
- compile a list of literature, illustrations, tables, and abbreviations for scientific texts.
- understand and distinguish between the different forms of scientific work at IU.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Methods

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

# Introduction to Academic Work

Course Code: DLBCSIAW01

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

## Course Description

The application of good scientific practice is one of the basic academic qualifications that should be acquired while studying. This course deals with the distinction between everyday knowledge and science. This requires a deeper understanding of the theory of science, as well as the knowledge of basic research methods and instruments for writing scientific texts. The students therefore gain initial insight into academic research and are introduced to the basic knowledge that will help them in the future to produce scientific papers. In addition, the students receive an overview of the different IU examination forms and insight into their requirements and implementation.

## Course Outcomes

On successful completion, students will be able to

- understand and apply formal criteria of a scientific work.
- distinguish basic research methods and identify criteria of good scientific practice.
- describe central scientific theoretical basics and research paradigms and their effects on scientific research results.
- use literature databases, literature administration programs, and other library structures properly; avoid plagiarism; and apply citation styles correctly.
- apply the evidence criteria to scientific texts.
- define a research topic and derive a structure for scientific texts.
- compile a list of literature, illustrations, tables, and abbreviations for scientific texts.
- understand and distinguish between the different forms of scientific work at IU.

## Contents

1. Theory of Science
  - 1.1 Introduction to Science and Research
  - 1.2 Research Paradigms
  - 1.3 Fundamental Research Decisions
  - 1.4 Effects of Scientific Paradigms on Research Design
2. Application of Good Scientific Practice
  - 2.1 Research Ethics
  - 2.2 Evidence Teaching

- 2.3 Data Protection and Affidavit
- 2.4 Orthography and Shape
- 2.5 Identification and Delimitation of Topics
- 2.6 Research Questions and Structure
3. Research Methods
  - 3.1 Empirical Research
  - 3.2 Literature and Reviews
  - 3.3 Quantitative Data Collection
  - 3.4 Qualitative Data Collection
  - 3.5 Mix of Methods
  - 3.6 Critique of Methods and Self-Reflection
4. Librarianship: Structure, Use, and Literature Management
  - 4.1 Plagiarism Prevention
  - 4.2 Database Search
  - 4.3 Literature Administration
  - 4.4 Citation and Author Guidelines
  - 4.5 Bibliography
5. Scientific Work at the IU – Research Essay
6. Scientific Work at the IU - Project Report
7. Scientific Work at the IU - Case Study
8. Scientific Work at the IU - Bachelor Thesis
9. Scientific Work at the IU – Oral Assignment
10. Scientific Work at the IU – Oral Project Report
11. Scientific Work at the IU - Colloquium
12. Scientific Work at the IU - Portfolio
13. Scientific Work at the IU - Exam

**Literature****Compulsory Reading****Further Reading**

- Bell, J., & Waters, S. (2018). *Doing your research project: A guide for first-time researchers* (7th ed.). Open University Press McGraw-Hill Education.
- Deb, D., Dey, R., & Balas, V. E. (2019). *Engineering research methodology: A practical insight for researchers*. Springer.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students* (8th ed.). Pearson.
- Veal, A. J. (2018). *Research Methods for Leisure and Tourism* (5th ed.). Pearson.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Basic Workbook (passed / not passed)

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Basic Workbook (passed / not passed)

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Project: AI Excellence with Creative Prompting Techniques

Module Code: DLBPKIEKPT1\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Knut Linke (Project: AI Excellence with Creative Prompting Techniques)

## Contributing Courses to Module

- Project: AI Excellence with Creative Prompting Techniques (DLBPKIEKPT01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies

Oral Project Report

Study Format: Duales myStudium

Oral Project Report

Study Format: Distance Learning

Oral Project Report

### Split Exam

## Weight of Module

see curriculum

## Module Contents

In this module, the students delve into the world of generative AI applications, creating AI-generated content like text, images, and videos, while learning to use, analyze, and evaluate these systems in their respective study fields.



**Learning Outcomes****Project: AI Excellence with Creative Prompting Techniques**

On successful completion, students will be able to

- comprehend and apply basic prompting techniques in generative AI applications.
- analyze and evaluate the effectiveness of the basic prompts.
- apply ethical considerations to the design and use of AI for basic prompting techniques.
- design, implement, and refine effective prompts to real-world scenarios through hands-on exercises.
- showcase creative and innovative thinking in the application of prompting techniques to solve complex problems in their field of studies.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Project: AI Excellence with Creative Prompting Techniques

Course Code: DLBPKIEKPT01\_E

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

## Course Description

In this course, students explore the fascinating world of prompting in generative AI applications. They engage in hands-on exercises to create new AI-generated content including text, images, and videos. Through these exercises, students learn how to effectively use, analyze, and evaluate these systems within their respective fields of study.

## Course Outcomes

On successful completion, students will be able to

- comprehend and apply basic prompting techniques in generative AI applications.
- analyze and evaluate the effectiveness of the basic prompts.
- apply ethical considerations to the design and use of AI for basic prompting techniques.
- design, implement, and refine effective prompts to real-world scenarios through hands-on exercises.
- showcase creative and innovative thinking in the application of prompting techniques to solve complex problems in their field of studies.

## Contents

- In this course, students work on a basic practical implementation of a generative AI use case by choosing from a selection provided in the complementary guideline. The course provides practical examples as learning materials and exercises with basic prompting techniques for open-source text, image, and video generation use cases. The exercises are designed to inspire and guide students in completing their own generative AI use case work, which includes a use case description, chosen prompting techniques, outcomes, and critical evaluations from both technical and ethical perspectives.

**Literature****Compulsory Reading****Further Reading**

- Dang, H., Mecke, L., Lehmann, F., Goller, S., & Buschek, D. (2022). How to prompt? Opportunities and challenges of zero- and few-shot learning for human-AI interaction in creative applications of generative models. arXiv. <https://arxiv.org/pdf/2209.01390.pdf>
- Eapen, T. T., Finkenstadt, D. J., Folk, J., & Venkataswamy, L. (2023). How generative AI can augment human creativity. *Harvard Business Review*, July–August, 56–64.
- Wei, J., Wang, X., Schuurmans, D., Bosma, M., Ichter, B., Xia, F., Chi, E. H., Le., Q. V., & Zhou, D. (2023). Chain-of-thought prompting elicit reasoning in large language models. arXiv. <https://arxiv.org/pdf/2201.11903.pdf>

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Oral Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Oral Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Oral Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## 2. Semester

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# Principles of Management

Module Code: DLBBAPM\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Andreas Herrmann (Principles of Management)

## Contributing Courses to Module

- Principles of Management (DLBBAPM01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Written Assessment: Case Study  
Study Format: Distance Learning  
Written Assessment: Case Study

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Management Functions
- Managerial Decision-Making
- Planning and Goal-Setting
- Strategic Planning
- Organizing
- Leading
- Controlling



### **Learning Outcomes**

#### **Principles of Management**

On successful completion, students will be able to

- understand the functions, roles and influencing-factors of management.
- explain the decision-making process.
- discuss basic corporate und competitive strategies.
- analyze organizational structures and designs.
- transfer knowledge about basic principles of management to real-world cases.

#### **Links to other Modules within the Study Program**

This module is similar to other modules in the fields of Business Administration & Management

#### **Links to other Study Programs of the University**

All Bachelor Programmes in the Business & Management fields

# Principles of Management

Course Code: DLBBAPM01\_E

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

## Course Description

In the fast-changing and complex environment of today's business world the economic survival and success of an organization depends highly on its management. For future managers it is indispensable to be familiar with the fundamental principles of management as the basis for the development of further managerial knowledge and skills. This course introduces necessary functions, roles and skills for managers and their decision-making process. Furthermore, it discusses the basic managerial functions of planning, organizing, leading and controlling in detail.

## Course Outcomes

On successful completion, students will be able to

- understand the functions, roles and influencing-factors of management.
- explain the decision-making process.
- discuss basic corporate and competitive strategies.
- analyze organizational structures and designs.
- transfer knowledge about basic principles of management to real-world cases.

## Contents

1. Introduction to Management
  - 1.1 Functions, Roles and Skills of Managers
  - 1.2 Influencing Factors on Managers' Tasks
  - 1.3 History of Management
2. Managerial Decision-Making
  - 2.1 Decision-Making Process
  - 2.2 Approaches to Decision Making
  - 2.3 Types of Decisions and Decision-Making Conditions
3. Planning and Goal-Setting
  - 3.1 The Role of Planning
  - 3.2 Goals and Plans
  - 3.3 Setting Goals and Developing Plans

#### 4. Strategic Planning

- 4.1 Strategic Management
- 4.2 The Strategic Management Process
- 4.3 Corporate Strategies
- 4.4 Competitive Strategies

#### 5. Organizing

- 5.1 Organizational Structures and Design
- 5.2 Organizational Change
- 5.3 Managing Change

#### 6. Leading

- 6.1 Interpersonal and Organizational Communication
- 6.2 Organizational Behavior
- 6.3 Leadership

#### 7. Controlling

- 7.1 The Control Process
- 7.2 Tools for Measuring Organizational Performance

### Literature

#### Compulsory Reading

#### Further Reading

- Bright, D. S., Cortes, A. H., Hartmann, E., Parboteeah, K. P., Pierce, J. L., Reece, M., Shah, A., Terjesen, S., Weiss, J., White, M. A., Gardner, D. G., Lambert, J., Leduc, L. M., Leopold, J., Muldoon, J., & O'Rourke, J. S. (2019). Principles of management. OpenStax.
- Robbins, S. P., & Coulter, M. (2018). Management (global ed., 14th ed.). Pearson.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Advanced NLP: Generative AI in Business Applications

Module Code: DLBAIBEANGAIBA

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBDSEAIS01 and DLBAIINLP01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Tim Schlippe (Advanced NLP: Generative AI in Business Applications)

### Contributing Courses to Module

- Advanced NLP: Generative AI in Business Applications (DLBAIBEANGAIBA01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Case Study

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Large Language Model Fundamentals
- NLP in Business Applications
- Ethical Considerations in AI
- Industry-specific NLP Challenges
- LLM Deployment and Fine-Tuning
- Cross-Disciplinary AI Integration

### Learning Outcomes

#### Advanced NLP: Generative AI in Business Applications

On successful completion, students will be able to

- grasp and articulate the intricacies of LLMs, their underlying architecture, and training methodologies.
- demonstrate a proficient understanding in harnessing the power of LLMs across various business specifications such as sentiment analysis, content summarization, language translation, and compliance mechanisms.
- tailor NLP methods to tackle industry-specific challenges particularly in sectors such as finance, HR, and law.
- critically evaluate ethical dilemmas and prioritize the execution of responsible AI in all NLP implementations.
- Enhance their practical skills through projects and case studies that bolster their problem-solving abilities.
- evaluate and optimize the performance of LLMs in a variety of applied contexts.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

# Advanced NLP: Generative AI in Business Applications

Course Code: DLBAIBEANGAIBA01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBDSEAIS01 and DLBAIINLP01

## Course Description

Students are provided with content that blends cutting-edge technology with market-relevant business applications, providing them with a substantial understanding of Large Language Models (LLMs). Unveiling the secrets behind complex models like GPT-3, BERT, and other NLP game-changers, students will discover advanced NLP methods in a business setting. Noteworthy focus lies on the challenges, limitations, and significant differences between various LLMs and other state-of-the-art generative AI models, facilitating an informed deployment process. Moreover, students are guided to employ NLP strategies addressing obstacles peculiar to diverse industries like finance, HR, and industrial applications. As we step deep into the AI-aged future, ethical and responsible practices become paramount, an area also catered to in this here.

## Course Outcomes

On successful completion, students will be able to

- grasp and articulate the intricacies of LLMs, their underlying architecture, and training methodologies.
- demonstrate a proficient understanding in harnessing the power of LLMs across various business specifications such as sentiment analysis, content summarization, language translation, and compliance mechanisms.
- tailor NLP methods to tackle industry-specific challenges particularly in sectors such as finance, HR, and law.
- critically evaluate ethical dilemmas and prioritize the execution of responsible AI in all NLP implementations.
- Enhance their practical skills through projects and case studies that bolster their problem-solving abilities.
- evaluate and optimize the performance of LLMs in a variety of applied contexts.

## Contents

1. LLM and generative AI Fundamentals
  - 1.1 Introduction to Large Language Models and other Generative Models
  - 1.2 A Deeper Look into GPT-4, Bert, and other LLMs
  - 1.3 Understanding Architecture and Training Methodologies of Generative Models
2. NLP in Business Applications



- 2.1 Basics of Sentiment Analysis, Summarization, Translation, and Chatbot Technologies
- 2.2 Hands-on Case Studies on Applying NLP
3. Ethical AI Guidelines
  - 3.1 Overview of Ethical Considerations in AI
  - 3.2 Responsible AI Practices
4. Tackling Industry-Specific Challenges
  - 4.1 NLP in Finance, HR, and Legal Sector
  - 4.2 Real-World Projects on Addressing Industry-Specific Challenges
5. Practical Aspects of LLM Deployment
  - 5.1 Differences, Limitations, and Challenges of LLMs
  - 5.2 Insights into Deployment Practices and hurdles
6. Fine-Tuning LLMs and Cross-Disciplinary Integration
  - 6.1 Evaluation and Fine-Tuning of LLMs
  - 6.2 Introduction to Interconnected Fields Needed for AI Applications

## Literature

### Compulsory Reading

### Further Reading

- Humphreys, D., Koay, A., Desmond, D., & Mealy, E. (2024). AI hype as a cyber security risk: the moral responsibility of implementing generative AI in business. *AI and Ethics*, 1–14.
- Lee, G. H., Lee, K. J., Jeong, B., & Kim, T. (2024). Developing Personalized Marketing Service Using Generative AI. *IEEE Access*, Access, IEEE, 12, 22394–22402.
- Mitsunaga, T. (2023). Heuristic Analysis for Security, Privacy and Bias of Text Generative AI: ChatGPT-3.5 case as of June 2023. *2023 IEEE International Conference on Computing (ICOCO), Computing (ICOCO), 2023 IEEE International Conference On*, 301–305.
- Nguyen, S. T., & Tulabandhula, T. (2023). Generative AI for Business Strategy: Using Foundation Models to Create Business Strategy Tools.
- Shum, H. H. (2023). Utilising Generative AI in Businesses: Risks and Best Practices. *Business Law International*, 24(3), 215–232.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Deep Learning in Business Contexts: Predictive Analytics

Module Code: DLBAIBEDLBCPA

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBDSEAIS01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Bertram Taetz (Deep Learning in Business Contexts: Predictive Analytics)

## Contributing Courses to Module

- Deep Learning in Business Contexts: Predictive Analytics (DLBAIBEDLBCPA01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Deep Learning Applications
- Time Series Forecasting
- Customer Segmentation Techniques
- Chatbots
- Automated Decision-Making Systems
- Service personalization

### Learning Outcomes

#### Deep Learning in Business Contexts: Predictive Analytics

On successful completion, students will be able to

- understand and apply deep learning techniques for enhancing predictive analytics in business-focused environments.
- exhibit proficiency in using deep learning models for complex tasks such as time series forecasting.
- demonstrate the ability to integrate deep learning strategies into customer segmentation and personalization processes.
- utilize advanced techniques, such as recurrent neural networks and transfer learning, in business analytics scenarios.
- analyze and identify anomalies in data using deep learning-based detection systems to automate decision making.
- design chatbots for personalized customer services

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

# Deep Learning in Business Contexts: Predictive Analytics

Course Code: DLBAIBEDLBCPA01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBDSEAIS01

## Course Description

With the evolution of technologies and the pressing demand for smart solutions, deep learning continues to shape the dynamics of businesses globally. Businesses, in an effort to optimize operations and improve outcomes, are promptly harnessing the potential of deep learning for improving business parameters. Students will be provided with an extensive understanding of deep learning techniques and their application across diverse business domains. The content will primarily delve into techniques such as time series forecasting, customer segmentation, fraud detection, prediction of customer behavior, personalization of services, as well as automated customer support through chatbots, using real-world scenarios that ensure practical learning. Students will possess the skills required to leverage the power of deep learning for making informed business decisions.

## Course Outcomes

On successful completion, students will be able to

- understand and apply deep learning techniques for enhancing predictive analytics in business-focused environments.
- exhibit proficiency in using deep learning models for complex tasks such as time series forecasting.
- demonstrate the ability to integrate deep learning strategies into customer segmentation and personalization processes.
- utilize advanced techniques, such as recurrent neural networks and transfer learning, in business analytics scenarios.
- analyze and identify anomalies in data using deep learning-based detection systems to automate decision making.
- design chatbots for personalized customer services

## Contents

1. Introduction to Deep Learning and Predictive Analytics
  - 1.1 Overview of Deep Learning
  - 1.2 Fundamentals of Predictive Analytics
  - 1.3 Role of Deep Learning in Predictive Analytics

2. Deep Learning Applications in Time Series Forecasting
  - 2.1 Introduction to Time Series Forecasting
  - 2.2 Deep Learning Models for Forecasting
3. Customer Segmentation with Deep Learning Techniques
  - 3.1 Basics of Customer Segmentation
  - 3.2 Role of Deep Learning in Customer Segmentation
  - 3.3 Deep Learning for Personalized Customer Services
4. Advanced Techniques: Recurrent Neural Networks and Transformers
  - 4.1 Introduction to Recurrent Neural Networks
  - 4.2 Transformer Models and their Applications
  - 4.3 Real World Implementations in Business Contexts
5. Anomaly Detection and Automated Decision Making Systems
  - 5.1 Introduction to Anomaly Detection
  - 5.2 Automated Decision Making with Deep Learning
  - 5.3 Explainability of Automated Decision Making Systems
6. Voice assistants and chatbot technologies
  - 6.1 Design of voice assistants and Chatbots
  - 6.2 Data analytics for personalized Chatbot

## Literature

### Compulsory Reading

### Further Reading

- Gholami, S., Zarafshan, E., Sheikh, R., & Sana, S. S. (2023). Using deep learning to enhance business intelligence in organizational management. *Data Science in Finance and Economics*, 3(4), 337–353.
- Lemonakis, C., & Zopounidis, C. (2023). The future of business: Artificial intelligence, machine learning and deep learning. *Handbook of Research on Artificial Intelligence, Innovation and Entrepreneurship* (pp.46-54)
- Schmitt, M. (2023). Deep learning in business analytics: A clash of expectations and reality. *International Journal of Information Management Data Insights*, 3(1).
- Zhang, C., Sjarif, N. N. A., & Ibrahim, R. (2024). Deep learning models for price forecasting of financial time series: A review of recent advancements: 2020–2022. *WIRES: Data Mining & Knowledge Discovery*, 14(1), 1–33.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Review Book <input checked="" type="checkbox"/> Online Tests

## Ethics and Legal Aspects in AI

Module Code: DLBAIBEELAAI

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Florian Allwein (Ethics and Legal Aspects in AI)

### Contributing Courses to Module

- Ethics and Legal Aspects in AI (DLBAIBEELAAI01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Ethical Considerations in AI
- AI Regulations and Compliance
- Responsible AI in Practice
- Privacy Protection in AI
- Societal Implications of AI Applications
- AI Explainability Methods



### Learning Outcomes

#### Ethics and Legal Aspects in AI

On successful completion, students will be able to

- exercise a critical understanding of ethical considerations in AI development, facilitating informed, responsible decisions in the field.
- evaluate AI regulations in various global contexts, ensuring strategic compliance within diverse business settings.
- implement responsible AI practices in authentic scenarios, aiming to minimize biases and promote fairness in AI applications.
- design and enforce effective privacy protection measures in AI systems, safeguarding individual data rights.
- analyze ethical implications of AI applications, enhancing a nuanced understanding of the AI domain.
- originate effective use of current explainability methods, acknowledging their benefits and limitations.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

## Ethics and Legal Aspects in AI

Course Code: DLBAIBEELAAI01

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

### Course Description

In the ever-evolving realm of Artificial Intelligence (AI), it has become pertinent to understand and navigate the intricate field of ethics and legality surrounding AI. Students gain knowledge about ethical considerations that are vital while developing and deploying AI. Additionally, they acquire comprehensive knowledge about AI regulations prevalent in diverse global business environments, thus ensuring compliance and knowledge on the complexity of AI implementations. Students not only learn about the significance of bias minimization, mitigation and fairness promotion in AI applications but also get hands-on experience in implementing them. They learn to design and enforce privacy protection measures, thereby securing individual data rights. Students are provided insights into the implications of various AI applications on a societal and individual level, including the data sources that are used to train AI models and how these can easily involve sensitive and private data. Moreover, a thorough overview and critical evaluations of AI's current explainability methods is provided.

### Course Outcomes

On successful completion, students will be able to

- exercise a critical understanding of ethical considerations in AI development, facilitating informed, responsible decisions in the field.
- evaluate AI regulations in various global contexts, ensuring strategic compliance within diverse business settings.
- implement responsible AI practices in authentic scenarios, aiming to minimize biases and promote fairness in AI applications.
- design and enforce effective privacy protection measures in AI systems, safeguarding individual data rights.
- analyze ethical implications of AI applications, enhancing a nuanced understanding of the AI domain.
- originate effective use of current explainability methods, acknowledging their benefits and limitations.

### Contents

1. Navigating the Ethical Landscape in AI
  - 1.1 Introduction to Ethical Considerations
  - 1.2 Exploring Ethical Dilemmas in AI
  - 1.3 Developing an Ethical Mindset

2. Decoding Regulations and Compliance in AI
  - 2.1 International AI Regulations Overview
  - 2.2 Roles and Responsibilities in Compliance
3. Responsible AI in Practice
  - 3.1 Bias Minimization and Mitigation Techniques
  - 3.2 Fairness in AI Applications
  - 3.3 Real-world Scenarios of Responsible AI
4. Safeguarding Privacy in AI Systems
  - 4.1 Privacy Protection Measures: Overview
  - 4.2 Implementing Security Controls
  - 4.3 Evolving Challenges and Advances in AI Privacy
5. The Ethical Implications of Diverse AI Applications
  - 5.1 Scrutinizing AI Applications
  - 5.2 Assessing Ethical and Socioeconomic Consequences
6. Understanding and Evaluating AI Explainability
  - 6.1 Defining AI Explainability and its Importance
  - 6.2 Understanding the Human Factor in Explainability
  - 6.3 Critical Evaluation of Current Explainability Methods

## Literature

### Compulsory Reading

#### Further Reading

- Adamyk, O., Chereshtnyuk, O., Adamyk, B., & Rylieiev, S. (2023). Trustworthy AI: A Fuzzy-Multiple Method for Evaluating Ethical Principles in AI Regulations. 2023 13th International Conference on Advanced Computer Information Technologies (ACIT), Advanced Computer Information Technologies (ACIT), 2023 13th International Conference On, 608–613.
- Heck, P., & Schouten, G. (2023). Defining Quality Requirements for a Trustworthy AI Wildflower Monitoring Platform. 2023 IEEE/ACM 2nd International Conference on AI Engineering – Software Engineering for AI (CAIN), AI Engineering – Software Engineering for AI (CAIN), 2023 IEEE/ACM 2nd International Conference on, CAIN, 119–126.
- Liu, X. M., & Murphy, D. (2022). Applying a Trustworthy AI Framework to Mitigate Bias and Increase Workforce Gender Diversity. 2022 IEEE International Symposium on Technology and Society (ISTAS), Technology and Society (ISTAS), 2022 IEEE International Symposium On, 1, 1–5.
- Valdez, A. C., Heine, M., Franke, T., Jochems, N., Jetter, H.-C., & Schrills, T. (2024). The European Commitment to Human-Centered Technology: The Integral Role of HCI in the EU AI Act’s Success.
- Vyhmeister, E., & Castane, G. G. (2024). TAI-PRM: trustworthy AI—project risk management framework towards Industry 5.0. *AI and Ethics*, 1–21
- Zanotti, G., Petrolo, M., Chiffi, D., & Schiaffonati, V. (2023). Keep trusting! A plea for the notion of Trustworthy AI. *AI & SOCIETY: Journal of Knowledge, Culture and Communication*, 1–12.
- Zicari, R. V., Brodersen, J., Brusseau, J., Dudder, B., Eichhorn, T., Ivanov, T., Kararigas, G., Kringen, P., McCullough, M., Moslein, F., Mushtaq, N., Roig, G., Sturtz, N., Tolle, K., Tithi, J. J., van Halem, I., & Westerlund, M. (2021). Z-Inspection®: A Process to Assess Trustworthy AI. *IEEE Transactions on Technology and Society, Technology and Society, IEEE Transactions on, IEEE Trans. Technol. Soc*, 2(2), 83–97.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Review Book <input checked="" type="checkbox"/> Online Tests

## Project: AI Product Commercialisation

Module Code: DLBAIBEPAIPC

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBDSEAIS01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Aditya Mushyam (Project: AI Product Commercialisation)

### Contributing Courses to Module

- Project: AI Product Commercialisation (DLBAIBEPAIPC01)

### Module Exam Type

#### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students will deepen the strategic foundations required for the use of AI in business. They will learn about market research using Python's Pandas and NumPy and will be guided through the different phases of product development. In addition, students will focus on legal and ethical issues related to AI and improve their knowledge of market entry strategies and optimizing user experience using human-centered design principles. They will also be equipped with project management skills using platforms such as Jira or Trello.

### Learning Outcomes

#### Project: AI Product Commercialisation

On successful completion, students will be able to

- understand the strategic principles essential for achieving success with AI-driven products.
- use Python's Pandas and NumPy for conducting thorough market research and validation processes.
- navigate through every stage of the product development lifecycle, from conceptualization and prototyping to testing and refinement.
- comprehend the legal landscape surrounding AI technologies and demonstrate proficiency in adhering to ethical guidelines.
- develop and evaluate robust go-to-market strategies tailored to AI-enabled products.
- apply Human-Centered Design principles to optimize user experience in products powered by AI.
- utilize project management tools like Jira, Trello, or Asana for effective coordination and execution of tasks throughout the development process.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### Links to other Study Programs of the University

All Master Programs in the IT & Technology field

## Project: AI Product Commercialisation

Course Code: DLBAIBEPAIPC01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBDSEAIS01

### Course Description

In today's landscape, where AI drives numerous commercial endeavors, understanding its integration into business strategies and product development is essential. This course delves into the strategic foundations crucial for the success of AI-driven products, guiding students through market research using advanced technology tools such as Python's Pandas and NumPy, and highlighting the regulatory requirements for commercialization. Students will explore the entire product lifecycle, from the conceptual stage of ideation to prototyping, rigorous testing, and eventual refinement. In keeping pace with the rapid evolution of AI, the course addresses critical legal and ethical considerations, ensuring students grasp the broader implications. Through hands-on exercises, students will devise and evaluate effective strategies for product launch, with a focus on prioritizing user experience through Human-Centered Design principles. Moreover, the course emphasizes the utilization of project management tools to streamline coordination and task execution, equipping students with practical skills to navigate real-world scenarios effectively.

### Course Outcomes

On successful completion, students will be able to

- understand the strategic principles essential for achieving success with AI-driven products.
- use Python's Pandas and NumPy for conducting thorough market research and validation processes.
- navigate through every stage of the product development lifecycle, from conceptualization and prototyping to testing and refinement.
- comprehend the legal landscape surrounding AI technologies and demonstrate proficiency in adhering to ethical guidelines.
- develop and evaluate robust go-to-market strategies tailored to AI-enabled products.
- apply Human-Centered Design principles to optimize user experience in products powered by AI.
- utilize project management tools like Jira, Trello, or Asana for effective coordination and execution of tasks throughout the development process.

### Contents

- Students will explore the strategic foundations critical for the success of AI-driven products, investigating their integration with business strategies and market research methodologies. Utilizing scientific programming tools like Python's Pandas and NumPy, they will gain hands-on experience in conducting comprehensive market analysis.



- The course will cover the entire product development lifecycle, guiding students through the various stages of ideation, prototyping, testing, and refining AI products. Special attention will be given to the legal and ethical considerations surrounding AI technology, promoting responsible development practices.
- An essential aspect of the course will be the exploration of effective strategies for entering the market successfully, with potential examination of key elements in this process. Additionally, students will learn about the importance of user experience and how to optimize it using Human-Centered Design principles.
- Furthermore, students will develop proficiency in popular project management platforms such as Jira, Trello, or Asana, empowering them to efficiently manage AI product development processes. By the end of the course, students will be equipped to navigate the complexities of AI commercialization pathways with confidence.

## Literature

### Compulsory Reading

### Further Reading

- McKinney, W. (2011). pandas: a Foundational Python Library for Data Analysis and Statistics.
- Quan, H., Li, S., Zeng, C., Wei, H., & Hu, J. (2023). Big Data and AI-Driven Product Design: A Survey. *Applied Sciences*, 13, 9433.
- Soni, N., Sharma, E. K., Singh, N., & Kapoor, A. (2020). Artificial Intelligence in Business: From Research and Innovation to Market Deployment. *Procedia Computer Science*, 167, 2200-2210.
- Zhou, J., Chen, F., Berry, A., Reed, M., Zhang, S., & Savage, S. (2020). A Survey on Ethical Principles of AI and Implementations. In *2020 IEEE Symposium Series on Computational Intelligence* (pp. 3010-3017). IEEE.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# 3. Semester

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## Advanced Data Analysis

Module Code: DLBDSEDA1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Thomas Zöller (Advanced Data Analysis)

### Contributing Courses to Module

- Advanced Data Analysis (DLBDSEDA01)

### Module Exam Type

#### Module Exam

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Business performance analytics
- Text mining
- Web- and social media analytics
- Experimentation and testing

**Learning Outcomes****Advanced Data Analysis**

On successful completion, students will be able to

- identify important design considerations for business KPIs.
- explain various topics in business process analytics.
- utilize established techniques for web data analytics.
- understand analytical approaches to text mining and semantic analysis.
- disambiguate relevant questions in social media analytics.
- use the techniques and methods for experimentation and testing.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Advanced Data Analysis

Course Code: DLBDSEDA01

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

## Course Description

This course introduces several advanced analytics subjects of practical relevance. The subject areas covered span from business performance measurement and analytics, text mining, and web- and social media analytics to current trends in experimental design and setup. Along this journey topics such as the design of key performance indicators (KPIs), business process analytics, word frequency and semantic analysis, data science on clickstreams, social media interactions, and multi-armed bandit testing are addressed.

## Course Outcomes

On successful completion, students will be able to

- identify important design considerations for business KPIs.
- explain various topics in business process analytics.
- utilize established techniques for web data analytics.
- understand analytical approaches to text mining and semantic analysis.
- disambiguate relevant questions in social media analytics.
- use the techniques and methods for experimentation and testing.

## Contents

1. Business Performance Analytics
  - 1.1 KPI design considerations
  - 1.2 Common business performance indicators
  - 1.3 Business process mining
2. Text Analytics
  - 2.1 Word and document frequency (TF-IDF)
  - 2.2 Semantic analysis
3. Web Analytics
  - 3.1 Web metrics
  - 3.2 Clickstream analytics
  - 3.3 Recommender systems
4. Social Network Mining

- 4.1 Introduction to social media analytics
- 4.2 Mining common social media platforms
- 5. Testing and Experimentation
  - 5.1 Practical A/B testing
  - 5.2 Multivariate tests
  - 5.3 Multi-armed bandit testing

## Literature

### Compulsory Reading

### Further Reading

- Kaushik, A. (2009). *Web analytics 2.0: The art of online accountability & science of customercentricity*. Wiley.
- Lane, H., Howard, C., & Hapke, H. (2019). *Natural language processing in action: Understanding, analyzing, and generating text with Python*. Manning.
- Parmenter, D. (2019). *Key performance indicators: Developing, implementing, and using winning KPIs (4th ed.)*. Wiley.
- Russell, M. A., & Klassen, M. (2019). *Mining the social web: Data mining Facebook, Twitter, LinkedIn, Instagram, Github, and more (3rd ed.)*. O'Reilly.
- Siroker, D., & Koomen, P. (2013). *A/B testing: The most powerful way to turn clicks into customers*. Wiley.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

## Business Intelligence and Data Visualization

Module Code: DLBAIBEBIDV

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBDEDA01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Business Intelligence and Data Visualization)

### Contributing Courses to Module

- Business Intelligence and Data Visualization (DLBAIBEBIDV01)

### Module Exam Type

#### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Written Assignment

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Fundamentals of Business Intelligence
- Core Principles of Data Visualization
- Comparative Study of Business Intelligence and Data Analytics
- Application of Business Intelligence Tools & Techniques
- Business Problem Solving via Data Visualization and Analytics
- Limitations and Considerations for Different Data and Visualization Tools

### Learning Outcomes

#### Business Intelligence and Data Visualization

On successful completion, students will be able to

- grasp the key underlying principles and fundamentals of business intelligence and data visualization.
- understand and distinguish between the methodologies and applications of business intelligence and data analytics.
- leverage various business intelligence tools and techniques to generate data-driven results.
- troubleshoot and resolve typical business challenges using data visualization tools and business intelligence strategies.
- comprehend and investigate the limitations associated with different data types and visualization tools.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

# Business Intelligence and Data Visualization

Course Code: DLBAIBEBIDV01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBDEDA01

## Course Description

Students will explore the vast and fascinating realm of business intelligence and data visualization, holding particular relevance in the continually evolving landscape of Artificial Intelligence in business. They will be introduced to the core principles and applications of these potent tools, offering a comparative perspective on the interplay between business intelligence and data visualization. The coursework encompasses the study and understanding of various business intelligence strategies, tools, frameworks, and techniques, their practical applications in driving results backed by data, and solution-oriented strategies to mitigate typical business challenges. Emphasis will be put on understanding the architecture of data warehouses, ETL processes (Extract, Transform, Load), and the principles of data modeling. Students will also be educated about the consideration and limitations associated with various data types and visualization tools, thus fostering a comprehensive understanding of the domain.

## Course Outcomes

On successful completion, students will be able to

- grasp the key underlying principles and fundamentals of business intelligence and data visualization.
- understand and distinguish between the methodologies and applications of business intelligence and data analytics.
- leverage various business intelligence tools and techniques to generate data-driven results.
- troubleshoot and resolve typical business challenges using data visualization tools and business intelligence strategies.
- comprehend and investigate the limitations associated with different data types and visualization tools.

## Contents

1. Introduction to Business Intelligence and Data Visualization
  - 1.1 Understanding Business Intelligence
  - 1.2 Key Principles of Data Visualization
2. Comparative Study of Business Intelligence and Data Analytics
  - 2.1 Overview of Data Analytics
  - 2.2 Similarities and Differences between BI and DA

- 2.3 Data Mining Techniques
- 3. Business Intelligence Tools & Techniques
  - 3.1 Introduction to BI Tools & Techniques
  - 3.2 Working with Popular BI Tools.
  - 3.3 Architecture of data warehouses and data modeling
- 4. Application of BI and Data Visualization in Business Problem Solving
  - 4.1 Analyzing Business Problems
  - 4.2 Using BI and Data Visualization in Analytical Problem Solving
- 5. Investigating the limitations of different Data and Visualization Tools
  - 5.1 Understanding Various Data Types
  - 5.2 Limitations of Visualization Tools
  - 5.3 Strategies for Effective Use of Tools
- 6. Application and Innovation in Business Intelligence and Data Visualization
  - 6.1 Real-world Applications
  - 6.2 Innovative Approaches in BI and Data Visualization
  - 6.3 Future Directions

**Literature****Compulsory Reading****Further Reading**

- Charles, V. (2023). *Data analytics and business intelligence: Computational frameworks, practices, and applications*. CRC Press.
- Nuseir, M. T. (2021). Designing business intelligence (BI) for production, distribution and customer services: A case study of a UAE-based organization. *Business Process Management Journal*, 27(4), 1275-1295.
- Olszak, C. (2020). *Business intelligence and big data*. Taylor & Francis.
- Yan, M.-R., Hong, L.-Y., & Warren, K. (2022). Integrated knowledge visualization and the enterprise digital twin system for supporting strategic management decision. *Management Decision*, 60(4), 1095-1115.
- Yerpude, S. (2023). Business intelligence and its impact on decision making. In K. Sood, B. Balusamy, & S. Grima (Eds.), *Digital transformation, strategic resilience, cyber security and risk management (Contemporary Studies in Economic and Financial Analysis, Vol. 111C)* (pp. 209-223). Emerald Publishing Limited.
- Yousif, O. S., & Zakaria, R. (2022). Web-based big data integration visualisation solutions. In M. F. M. Din, N. E. Alias, N. Hussein, & N. S. Zaidi (Eds.), *Sustainability management strategies and impact in developing countries (Community, Environment and Disaster Risk Management, Vol. 26)* (pp. 103-117). Emerald Publishing Limited.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Change Management

Module Code: DLBDBCM\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. John Stanley (Change Management)

## Contributing Courses to Module

- Change Management (DLBDBCM01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to Change Management
- Understanding and shaping change
- Phase models of change management
- Phases of the change process
- Change communication
- Influencing factors and typical errors in change management
- Operational instruments in the context of change management



### **Learning Outcomes**

#### **Change Management**

On successful completion, students will be able to

- explain the management of change in its broadest sense.
- identify the characteristics and procedures by which necessary changes in companies can be identified and designed.
- grasp the basics of processes in change management and communicate them to other participants.
- identify and analyze the need for change.
- outline typical tasks of managers in initiating and accompanying change processes.
- explain essential and effective techniques and tools of change processes and apply them.
- evaluate the success of change processes and measures.
- develop meaningful ways of dealing with resistance that arises in the change process.

#### **Links to other Modules within the Study Program**

This module is similar to other modules in the fields of Business Administration & Management

#### **Links to other Study Programs of the University**

All Bachelor Programs in the Business & Management fields

# Change Management

Course Code: DLBDBCM01\_E

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

## Course Description

The pace of change in markets, technologies and customer behavior has increased significantly. These developments offer growth opportunities for companies - new business models, merging markets, changed customer behavior. To utilize future potentials, companies need to implement changes effectively and quickly. To do this, it is essential to know the meaning, structure, roles of the people involved, possible bottle neck situations and communication within the framework of change management. A great number of change programs regularly fail in the operational implementation. Therefore, knowledge of the systematic approach to the change process is necessary to successfully manage change in and of the company. People and processes play a central role in this procedure.

## Course Outcomes

On successful completion, students will be able to

- explain the management of change in its broadest sense.
- identify the characteristics and procedures by which necessary changes in companies can be identified and designed.
- grasp the basics of processes in change management and communicate them to other participants.
- identify and analyze the need for change.
- outline typical tasks of managers in initiating and accompanying change processes.
- explain essential and effective techniques and tools of change processes and apply them.
- evaluate the success of change processes and measures.
- develop meaningful ways of dealing with resistance that arises in the change process.

## Contents

1. Introduction to Change Management
  - 1.1 Terms and Definitions
  - 1.2 Limitations of Change Management
  - 1.3 Models of Change
2. Causes and Triggers of Change
  - 2.1 Change and Transformation
  - 2.2 External Triggers of Change

- 2.3 Internal Triggers for Change
- 3. The company as an Obstacle to Change
  - 3.1 Obstacles at Organizational Level
  - 3.2 Collective Obstacles
  - 3.3 Economic Obstacles
- 4. Resistance at Individual Level
  - 4.1 Manifestations of Individual Resistance
  - 4.2 Causes and Triggers of Individual Resistance
  - 4.3 Actions towards Resistance
- 5. Change as a Management Task
  - 5.1 Success Factors of Change Management
  - 5.2 Management Tasks in Change
  - 5.3 Change Management Activity Plans
- 6. Leading Change
  - 6.1 Success Factor: Leadership and Manager
  - 6.2 Leadership Roles and Functions
  - 6.3 Change Communication
- 7. Management of Change Projects
  - 7.1 Change Management Models
  - 7.2 Organization of Change Management
  - 7.3 Controlling and Evaluation of Change Projects

### Literature

#### Compulsory Reading

#### Further Reading

- Lauer, T. (2021). Change management: Fundamentals and success factors. Springer Verlag.
- Hayes, J. (2018). The theory and practice of change management [electronic resource] (Fifth edition). Palgrave Macmillan.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Augmented, Mixed and Virtual Reality

Module Code: DLBMIAMVR1\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Janki Dodiya (Augmented, Mixed and Virtual Reality)

### Contributing Courses to Module

- Augmented, Mixed and Virtual Reality (DLBMIAMVR01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Duales myStudium  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

<p><b>Module Contents</b></p> <ul style="list-style-type: none"> <li>▪ Definition and Differentiation of Terms</li> <li>▪ Fields of Application and Examples</li> <li>▪ Aspects of Human Perception</li> <li>▪ Augmented and Virtual Reality Output Devices</li> <li>▪ Input Devices</li> <li>▪ Interaction in Virtual and Augmented Realities</li> <li>▪ Aspects of XR Application Development</li> <li>▪ Future of XR Technologies</li> </ul>	
<p><b>Learning Outcomes</b></p> <p><b>Augmented, Mixed and Virtual Reality</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ name the characteristics and differences of augmented, mixed, and virtual reality techniques.</li> <li>▪ describe the importance of sensual perception in AR and VR.</li> <li>▪ explain the basic technical features of AR and VR systems.</li> <li>▪ explain the different interaction possibilities in AR and VR applications.</li> <li>▪ perform selected development processes for AR and VR applications.</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>This module is similar to other modules in the field of Computer Science &amp; Software Development</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programs in the IT &amp; Technology field</p>

## Augmented, Mixed and Virtual Reality

Course Code: DLBMIAMVR01\_E

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

### Course Description

Augmented, mixed and virtual reality (AR, MR and VR) technologies are becoming increasingly important in a wide range of application areas. In this context, novel hardware devices and forms of interaction are used. In addition to the technical foundations, this course covers aspects of human perception and approaches for developing AR/VR applications. To give the students a knowledge of the field, the terms augmented, mixed, and virtual reality will be defined and differentiated and examples of their use will be demonstrated. In order to simulate the existence of a virtual world or virtual objects to users, aspects of human perception have to be used. Based on the fundamentals of human information processing, the course highlights the phenomena, problems, and solutions that have to be considered in AR and VR applications. AR and VR systems can be implemented in different ways. This course addresses different output forms, tracking methods and interaction possibilities. In addition, other techniques that are specifically relevant in the AR field will be represented. Software development in the AR and VR field may require the application of special processes. This course teaches selected approaches that are helpful in designing, prototyping, and testing AR and VR applications. The course concludes with a view at the future applications and the research potential of augmented, mixed, and virtual reality.

### Course Outcomes

On successful completion, students will be able to

- name the characteristics and differences of augmented, mixed, and virtual reality techniques.
- describe the importance of sensual perception in AR and VR.
- explain the basic technical features of AR and VR systems.
- explain the different interaction possibilities in AR and VR applications.
- perform selected development processes for AR and VR applications.

### Contents

1. Introduction to Augmented, Mixed and Virtual Reality
  - 1.1 Definition and Differentiation of Terms
  - 1.2 Fields of Application and Examples
2. Aspects of Human Perception
  - 2.1 Human Information Processing
  - 2.2 Visual Perception



- 2.3 Multisensory Perception
  - 2.4 Phenomena, Problems and Solutions
3. Virtual Reality Output Devices
  - 3.1 Reality System: Input, Output and User
  - 3.2 Visual Displays and its Characteristics
  - 3.3 Multisensory Display Technology
4. Augmented Reality Output Devices
  - 4.1 Tracking
  - 4.2 Video See-Through vs. Optical See-Through vs. Projection
  - 4.3 General Differences between Devices
5. Input Devices
  - 5.1 Hand Input Devices
  - 5.2 Non-Hand Input Devices
6. Interaction in Virtual and Augmented Realities
  - 6.1 Fundamentals of Human-Computer Interaction
  - 6.2 Selection
  - 6.3 Manipulation of Objects
  - 6.4 Navigation
  - 6.5 Perceptual Variables
7. Aspects of Development
  - 7.1 Iterative Development Approaches for VR/AR Applications
  - 7.2 Design Techniques
  - 7.3 Prototyping
  - 7.4 Evaluation
8. The Future of Augmented, Mixed and Virtual Reality
  - 8.1 Outlook on Future Applications
  - 8.2 Focus Points for Future Research

**Literature****Compulsory Reading****Further Reading**

- Billinghamurst, M., Clark, A., & Lee, G. (n.d.). A Survey of Augmented Reality. *Foundations and Trends in Human-Computer Interaction*, 8(2-3), 73-272.
- Jerald, J. (2016). *The VR Book: Human-Centered Design for Virtual Reality*. ACM and Morgan & Claypool.
- Schmalstieg, D., & Höllerer, T. (2016). *Augmented Reality: Principles and Practice*. Addison-Wesley.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Project: NLP in Business Applications: Customer Service Automation and Sentiment Analysis

Module Code: DLBAIBEPNBACSA

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBAIINLP01 and DLBAIBEANGAIBA01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (Project: NLP in Business Applications: Customer Service Automation and Sentiment Analysis)

## Contributing Courses to Module

- Project: NLP in Business Applications: Customer Service Automation and Sentiment Analysis (DLBAIBEPNBACSA01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Written Assessment: Project Report

### Split Exam

## Weight of Module

see curriculum

**Module Contents**

Students gain expansive experience in Natural Language Processing (NLP), concentrating specifically on automation in customer service and sentiment analysis to enable improved customer insights and service. Strategic foundations of NLP for business success are merged with the intricacies of the entire NLP lifecycle, introducing students to a range of pioneering tools, including chatbots and automated support systems that can interpret and respond to customer inquiries efficiently.

**Learning Outcomes****Project: NLP in Business Applications: Customer Service Automation and Sentiment Analysis**

On successful completion, students will be able to

- implement and interpret NLP strategies and their essential role in enhancing business performance.
- demonstrate multifaceted understanding of sentiment analysis and customer service automation, discern their application in diverse business environments, and execute them in real-world contexts.
- understand and apply legal foundations associated with NLP and be adept at navigating its ethical landscapes.
- formulate effective strategies for customer service enhancement based on fine-grained and coarse-grained sentiment analysis.
- apply downstream changes in business contexts based on improved customer understanding and automation options.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Project: NLP in Business Applications: Customer Service Automation and Sentiment Analysis

Course Code: DLBAIBEPNBACSA01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAIINLP01 and DLBAIBEANGAIBA01

## Course Description

In an evolving digital landscape, harnessing the power of sophisticated tools for customer service automation and sentiment analysis can be a game changer for businesses. Students delve into the vast dynamics of Natural Language Processing (NLP), a valuable source of business growth. Beginning with the strategic foundations of NLP and then maneuvering through each phase of the NLP lifecycle, students will gain a hands-on understanding of how to apply NLP in business contexts. The course covers advanced NLP techniques for extracting insights from customer feedback, enabling businesses to understand and act on consumer opinions and preferences. By the end of the course, students will be adept at applying NLP tools and strategies to drive business innovation and customer engagement. Moreover, the cutting-edge methodologies in sentiment analysis and customer service automation will be explored, with practical implementation in diverse business settings.

## Course Outcomes

On successful completion, students will be able to

- implement and interpret NLP strategies and their essential role in enhancing business performance.
- demonstrate multifaceted understanding of sentiment analysis and customer service automation, discern their application in diverse business environments, and execute them in real-world contexts.
- understand and apply legal foundations associated with NLP and be adept at navigating its ethical landscapes.
- formulate effective strategies for customer service enhancement based on fine-grained and coarse-grained sentiment analysis.
- apply downstream changes in business contexts based on improved customer understanding and automation options.

## Contents

- Students explore the complete lifecycle of NLP in business, starting from the fundamentals of NLP, its strategic importance, to its practical applications. An emphasis is given to sentiment analysis and customer service automation – a valuable asset in any industry that values customer satisfaction. Students will discover various stages of implementing



an effective NLP strategy, starting from market surveys to legal considerations of NLP applications. They will learn the art of designing tools that enable a combination of cutting-edge technology and user-friendly interfaces. Equal importance is assigned to the study of NLP from an ethical and legal perspective. Students will continually engage in critical thinking, case studies from different business sectors, and practical projects, thus reinforcing their applied learning. By focusing and engaging with the diverse aspects of NLP in businesses, students will be well positioned to drive organizational success in their future careers.

## Literature

### Compulsory Reading

#### Further Reading

- Chen, D., Zhengwei, H., Yiting, T., Jintao, M., & Khanal, R. (2023). Emotion and sentiment analysis for intelligent customer service conversation using a multi-task ensemble framework. *Cluster Computing: The Journal of Networks, Software Tools and Applications*, 1–17.
- Ermakova, T., Fabian, B., Golimblevskaia, E., & Henke, M. (2023). A Comparison of Commercial Sentiment Analysis Services. *SN Computer Science*, 4(5)
- Nguyen, B., Nguyen, V.-H., & Ho, T. (2021). Sentiment Analysis of Customer Feedback in Online Food Ordering Services. *Business Systems Research Journal*, 12(2), 46–59.
- Rana, M. R. R., Nawaz, A., Ali, T., & Mustafa, G. (2023). Enhancing healthcare services recommendation through sentiment analysis. *Acta Universitatis Sapientiae, Informatica*, 15(2), 330–344.
- Zulkarnain, Z., Surjandari, I., & Wayasti, R. A. (2018). Sentiment Analysis for Mining Customer Opinion on Twitter: A Case Study of Ride-Hailing Service Provider. 2018 5th International Conference on Information Science and Control Engineering (ICISCE), Information Science and Control Engineering (ICISCE), 2018 5th International Conference on, ICISCE, 512–516.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## 4. Semester

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# AI Talent Development

Module Code: DLBAIBEAITD

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (AI Talent Development)

## Contributing Courses to Module

- AI Talent Development (DLBAIBEAITD01)

## Module Exam Type

### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Written Assignment

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Foundations of AI Teams
- Team Dynamics for AI Innovation
- Leadership Skills for AI Team Leads
- AI Ethics and Regulations
- AI Talent Acquisition
- Human-Centered Design and Bias-Aware Practices in AI Teams

### **Learning Outcomes**

#### **AI Talent Development**

On successful completion, students will be able to

- strategically grasp and implement the fundamentals for assembling and leading high-performing AI teams in the corporate environment.
- craft and evaluate an inclusive, synergistic, and innovative environment within AI teams.
- utilize appropriate tools and protocols to establish teams with complementary skills and roles that enhance overall productivity.
- understand and enhance group dynamics to facilitate a conducive environment for innovation within AI teams.
- identify and administer the distinct leadership skills that meet the unique demands of managing AI teams.
- apply advanced methodologies to ensure bias-conscious and inclusive AI talent acquisition, fostering diversity and innovation within the team.

#### **Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### **Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# AI Talent Development

Course Code: DLBAIBEAITD01

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

## Course Description

The knowledge provided focuses on skill-building and leadership strategies within the field of Artificial Intelligence. It unravels the complex process of assembling and leading high-performing AI teams from a premier league company's perspective. Students will delve into the various strategic methodologies required for the success of AI teams, thereby providing detailed insights into unique skills, roles, and collaboration dynamics. A special focus will be put on the complex infrastructures that are needed to implement AI technologies and tools, and the professions that are required to navigate and set-up such infrastructures. They will learn how to apply principles of AI Ethics and Regulations to ensure responsible and compliant AI practices. An immersive study of market research processes specific to AI talent acquisition will help identify crucial players for the team. Further, the significance of creating a cooperative, innovative, and inclusive environment adopting human-centered design principles and bias-aware practices is taught. Students will be equipped with the strategic acumen and practical skills needed to build, lead, and optimize effective AI teams, invariably fostering a company's innovation and success.

## Course Outcomes

On successful completion, students will be able to

- strategically grasp and implement the fundamentals for assembling and leading high-performing AI teams in the corporate environment.
- craft and evaluate an inclusive, synergistic, and innovative environment within AI teams.
- utilize appropriate tools and protocols to establish teams with complementary skills and roles that enhance overall productivity.
- understand and enhance group dynamics to facilitate a conducive environment for innovation within AI teams.
- identify and administer the distinct leadership skills that meet the unique demands of managing AI teams.
- apply advanced methodologies to ensure bias-conscious and inclusive AI talent acquisition, fostering diversity and innovation within the team.

## Contents

1. Strategic Foundations for AI Teams
  - 1.1 Understanding the AI Landscape
  - 1.2 Key Elements for AI Team Success
  - 1.3 Identifying Unique Skills and Roles within AI Teams

- 1.4 Understanding Collaboration Dynamics in AI Teams
- 1.5 Understanding the Diverse Skills Needed to Enable AI-Innovations
2. AI Ethics and Regulations
  - 2.1 Overview of Legal Landscapes for AI
  - 2.2 Applying Principles From "AI Ethics and Regulations"
  - 2.3 Managing Compliant AI Practices
  - 2.4 Ensuring that AI Models are Trustworthy and Safe
3. AI Talent Acquisition
  - 3.1 Introduction to Innovative Advertisement for Recruiting AI Talents
  - 3.2 Key Player Identification for Team Success
  - 3.3 Knowledge on Infrastructures that Attract Talent.
  - 3.4 Implementing Effective Acquisition Strategies
  - 3.5 the Role of AI in Talent Acquisiton
4. Leadership Skills for AI Team Leads
  - 4.1 Distinguishing AI-Specific Leadership Skills
  - 4.2 Strategies for Effective AI Team Leadership
  - 4.3 Addressing Challenges in Managing AI Teams
  - 4.4 Understanding Communication Principles Needed to Manage Teams
5. Human-Centered Design in AI Teams
  - 5.1 Introduction to Human-Centered Design Principles
  - 5.2 Application within AI Teams
  - 5.3 Promoting Inclusive and Innovative AI Team Culture
6. Bias-Aware Practices for AI Talent Acquisition
  - 6.1 Understanding Bias and its Implications
  - 6.2 Techniques for Bias-Aware Recruitment
  - 6.3 Using Safe AI Technologies for Talent Acquisition
  - 6.4 Adopting Inclusive Practices in AI Talent Acquisition

**Literature****Compulsory Reading****Further Reading**

- Piorkowski, D., Park, S., Wang, A. Y., Wang, D., Muller, M., & Portnoy, F. (2021). How AI Developers Overcome Communication Challenges in a Multidisciplinary Team: A Case Study. *Proceedings of the ACM on Human-Computer Interaction - CSCW*, 5(CSCW1), 1–25.
- Saltz, J. (2022). Nine Questions to Evaluate a Data Science Team’s Process: Exploring a Big Data Science Team Process Evaluation Framework Via a Delphi Study. *2022 IEEE International Conference on Big Data (Big Data)*, 2667–2672.
- Saltz, J. S., & Grady, N. W. (2017). The ambiguity of data science team roles and the need for a data science workforce framework. *2017 IEEE International Conference on Big Data (Big Data)*, 2355–2361.
- Shellshear, E. (2023). The Future Of Talent Acquisition: What’s Next? How people, data, AI and automation will impact TA. *Talent Acquisition Excellence*, 11(9), 7–9.
- Vari, G. (2023). How AI Can Revolutionize Lead Generation In Talent Acquisition: Why HR professionals can’t afford to use AI for lead generation in talent acquisition. *Talent Acquisition Excellence*, 11(9), 66–68.



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Process Automation

Module Code: DLBAIBEPA

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBDSEAIS01 and DLBAIBEELAAI01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. ( Process Automation)

### Contributing Courses to Module

- Process Automation (DLBAIBEPA01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Case Study

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Fundamentals of Robotics Process Automation (RPA)
- Comparative Analysis of Attended and Unattended RPA
- RPA's Implications in Business: Benefits and Challenges
- RPA Vs Traditional Automation
- The RPA Vendor Selection, Bot Development, and Deployment Process
- Sector-wise Analysis of RPA Use Cases (Finance, Banking, HR, IT, Healthcare, Retail, Supply Chain)

### Learning Outcomes

#### Process Automation

On successful completion, students will be able to

- distinguish between attended and unattended Robotics Process Automation (RPA)
- enumerate various benefits of RPA such as cost-saving, faster processing, improved customer service and compliance.
- draw clear comparisons between RPA and traditional automation, furthering interdisciplinary studies between AI and traditional business methodologies.
- navigate through the technicalities of RPA vendor selection process, Bot development, deployment, and monitoring.
- demonstrate potential RPA use cases across different segments of business such as finance, banking, accounting, HR, IT management, healthcare, retail and supply chain management.
- understand advanced RPA concepts, incl. cognitive automation with AI and machine learning, integrating RPA with OCR and NLP to process unstructured data.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

# Process Automation

Course Code: DLBAIBEPA01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBDSEAIS01 and DLBAIBEELAAI01

## Course Description

Students are offered a nuanced understanding of Robotics Process Automation (RPA) in the context of contemporary business environments. They will be equipped with a well-rounded knowledge of both attended and unattended RPA and its myriad benefits. Covering areas such as cost reduction, improved processing speed, enhanced customer service, and compliance, the course helps students in understanding RPA's transformative potential. RPA will be juxtaposed against traditional automation to explore their distinctive characteristics. Students will also explore vendor selection, bot development, deployment, monitoring, and data preparation to acquire a comprehensive understanding of the RPA lifecycle. There will be a sector-wise dissection of RPA use-cases, covering finance, banking, accounting, human resources, IT management, healthcare, retail, and supply chain management, emphasizing the multi-disciplinary applications and differential challenges of RPA.

## Course Outcomes

On successful completion, students will be able to

- distinguish between attended and unattended Robotics Process Automation (RPA)
- enumerate various benefits of RPA such as cost-saving, faster processing, improved customer service and compliance.
- draw clear comparisons between RPA and traditional automation, furthering interdisciplinary studies between AI and traditional business methodologies.
- navigate through the technicalities of RPA vendor selection process, Bot development, deployment, and monitoring.
- demonstrate potential RPA use cases across different segments of business such as finance, banking, accounting, HR, IT management, healthcare, retail and supply chain management.
- understand advanced RPA concepts, incl. cognitive automation with AI and machine learning, integrating RPA with OCR and NLP to process unstructured data.

## Contents

1. Introduction to RPA
  - 1.1 What is RPA?
  - 1.2 Attended vs Unattended RPA
  - 1.3 RPA Tools and Technologies
  - 1.4 RPA Implementation Lifecycle

2. Benefits and Challenges of RPA in Business
  - 2.1 Cost Reduction and Faster Processing
  - 2.2 Enhanced Customer Service and Compliance
  - 2.3 Challenges in Implementing RPA
3. RPA Vs Traditional Automation
  - 3.1 Differences in Functionality
  - 3.2 Comparative Analysis
4. Vendor Selection, Bot Development, and Deployment Process
  - 4.1 Evaluating Vendors
  - 4.2 Bot Development Process
  - 4.3 RPA Deployment and Monitoring
5. Data Preparation for RPA
  - 5.1 Importance of Data Preparation
  - 5.2 Steps in Data Preparation
  - 5.3 Process analysis for RPA
6. Sector-wise Analysis of RPA Use Cases
  - 6.1 Use Cases in Finance, Banking, and Accounting
  - 6.2 Use Cases in HR and IT Management
  - 6.3 Use Cases in Healthcare, Retail, and Supply Chain Management

**Literature****Compulsory Reading****Further Reading**

- Crisan, E. L., Chis, D. M., Bodea, E. E., & Buchmann, R. (2023). Mechanisms for robotic process automation implementation in organizations: A systematic literature review. *Journal of Advances in Management Research*, 20(5), 920-946.
- Maček, A., Murg, M., & Čič, Ž. V. (2020). How robotic process automation is revolutionizing the banking sector. In T. Dirsehan (Ed.), *Managing customer experiences in an omnichannel world: Melody of online and offline environments in the customer journey* (pp. 271-286). Emerald Publishing Limited.
- Moderno, O. B. d. S., Braz, A. C., & Nascimento, P. T. d. S. (2024). Robotic process automation and artificial intelligence capabilities driving digital strategy: A resource-based view. *Business Process Management Journal*, 30(1), 105-134.
- Moffitt, K. C., Rozario, A. M., & Vasarhelyi, M. A. (2018). Robotic process automation for auditing. *Journal of Emerging Technologies in Accounting*, 15(1), 1-10.
- Ribeiro, J., Lima, R., Eckhardt, T., & Pavia, S. (2021). Robotic process automation and artificial intelligence in industry 4.0 – A literature review. *Procedia Computer Science*, 181, 51-58.
- Taulli, T. (2020). *The robotic process automation handbook: A guide to implementing RPA systems*. Apress.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Data Analytics and Big Data

Module Code: DLBINGDABD\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Gereon Wellmann (Data Analytics and Big Data)

## Contributing Courses to Module

- Data Analytics and Big Data (DLBINGDABD01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Written Assessment: Case Study  
Study Format: Distance Learning  
Written Assessment: Case Study

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to Data Analysis
- Statistical Basics
- Data Mining
- Big Data Methods and Technologies
- Legal Aspects of Data Analysis
- Solution Scenarios
- Application of Big Data in the Industry



### Learning Outcomes

#### Data Analytics and Big Data

On successful completion, students will be able to

- distinguish between information and data and know the meaning of these terms for decision-making.
- derive the Big Data issue, especially in connection with Internet of Things, and describe it using examples.
- identify basics from statistics, which are necessary for the analysis of large data sets.
- identify the process of data mining and classify different methods in it.
- identify selected methods and technologies that are used in the Big Data context and apply them to simple examples.
- recognize the legal framework for the application of data analysis in Germany and internationally.
- identify the specific prospects and challenges of applying Big Data analyses in industry.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Data Science & Artificial Intelligence

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

# Data Analytics and Big Data

Course Code: DLBINGDABD01\_E

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

## Course Description

The aim of the course is to familiarize students with selected methods and techniques of data analysis in the context of continuously increasing, heterogeneous data sets. To this end, the fundamental relevance of Big Data methods is presented by drawing on the historical development of stored data. One decisive factor here is the continuous transmission Internet of Things sensor data to other systems. This is followed by a short introduction to the essential statistical fundamentals before the individual steps of the data mining process are discussed. In distinction to these classical procedures, selected methods are presented with which stored data in the Big Data context can be made analyzable. As data analysis is subject to certain legal frameworks, this course also covers legal aspects such as data protection. The course concludes with an overview of the practical application of Big Data methods and tools. In particular, fields of application in the industrial context are examined.

## Course Outcomes

On successful completion, students will be able to

- distinguish between information and data and know the meaning of these terms for decision-making.
- derive the Big Data issue, especially in connection with Internet of Things, and describe it using examples.
- identify basics from statistics, which are necessary for the analysis of large data sets.
- identify the process of data mining and classify different methods in it.
- identify selected methods and technologies that are used in the Big Data context and apply them to simple examples.
- recognize the legal framework for the application of data analysis in Germany and internationally.
- identify the specific prospects and challenges of applying Big Data analyses in industry.

## Contents

1. Introduction to Data Analysis
  - 1.1 Decisions, Information, Data
  - 1.2 Historical Development of Data Storage and Evaluation
  - 1.3 Big Data: Features and Examples
  - 1.4 Data Analysis

- 1.5 Internet of Things as Driver for Big Data
2. Statistical Basics
  - 2.1 Descriptive Data Analysis
  - 2.2 Inferential Data Analysis
  - 2.3 Explorative Data Analysis
  - 2.4 Multivariate Data Analysis
3. Data Mining
  - 3.1 Knowledge Discovery in Databases
  - 3.2 Association Analysis
  - 3.3 Correlation Analysis
  - 3.4 Forecast
  - 3.5 Cluster Analysis
  - 3.6 Classification
4. Big Data Methods and Technologies
  - 4.1 Technology Building Blocks
  - 4.2 MapReduce
  - 4.3 Text- and Semantic Analysis
  - 4.4 Audio and Video Analysis
  - 4.5 BASE and NoSQL
  - 4.6 In-Memory Databases
  - 4.7 Big Data Success Factors
5. Legal Aspects of Data Analysis
  - 5.1 Data Protection Principles in Germany
  - 5.2 Anonymization and Pseudonymization
  - 5.3 International Data Analysis
  - 5.4 Performance and Integrity Protection
6. Solution Scenarios
7. Application of Big Data in the Industry
  - 7.1 Production and Logistics
  - 7.2 Increased Efficiency in the Supply Chain
  - 7.3 Key-Factor Data
  - 7.4 Examples and Conclusion

**Literature****Compulsory Reading****Further Reading**

- Akerkar, R., & Srinivas Sajja, P. (2016). *Intelligent Techniques for Data Science*. Springer.
- Curry, E., Auer, S., Berre, A., J., Metzger, A., Perez, M., S., & Zillner, S. (2022). *Technologies and Applications for big data value*. Springer. Pages 1–15 & 321–344.
- Hoeren, T., & Kolany-Raiser, B., (Eds.). (2018). *Big data in context – Legal, social and technological insights*. Springer Nature.
- Illowsky, B., & Dean, S. (2018). *Introductory statistics*. OpenStax CNX. Chapters 2 & 8.
- Jurafsky, D., & Martin, J. H. (2013). *Speech and language processing: an introduction to natural language processing, computational linguistics, and speech recognition* (2. ed.). Pearson Prentice Hall.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Seminar: Ethical Innovation

Module Code: DLBAIBESEI

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Seminar: Ethical Innovation)

### Contributing Courses to Module

- Seminar: Ethical Innovation (DLBAIBESEI01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Research Essay

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students will achieve a deep understanding of the ethical innovation and societal implications of novel technological advancements, and the responsibilities inherent in their deployment for business innovation. They will gain a deeper understanding of ethical innovation and its application in the business world. This includes learning about ways of creating value-sensitive solutions while considering challenges like privacy concerns, transparency, fair access to information, and stakeholder collaboration.

**Learning Outcomes****Seminar: Ethical Innovation**

On successful completion, students will be able to

- comprehend the intersections and implications of ethics, responsible innovation, and digital advancements.
- recognize and evaluate the ethical considerations inherent in innovative business solutions and novel technology utilizations.
- facilitate stakeholder engagement, upholding ethical innovation norms to inspire collaborative initiatives across the organization and within the industry.
- conceive strategies and adaptations of tools like Value Sensitive Design (VSD) and Open Innovation for ethical innovation.
- apply ethical models to analyze and resolve local and international business dilemmas.
- appreciate the role of ethical innovation in risk management, trust building, ensuring fair information access, and tackling issues related to privacy and transparency for societal prosperity.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field



## Seminar: Ethical Innovation

Course Code: DLBAIBESEI01

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

### Course Description

At a time when the power of technology in shaping economic models and societal frameworks is undeniably evident, we increasingly recognize the need to guide these novel advancements in a manner that accounts for broader societal impact. Students will focus on identifying key ethical issues present in business solutions and emerging tech developments and how to mitigate them. This essential knowledge serves as the bedrock for effective stakeholder engagement, centered on maintaining alignment with ethical innovation principles while fostering systemic collaboration. This includes the devising of strategies and tools such as Value Sensitive Design and Open Innovation to drive ethical innovation. Students will establish their practical aptitude in applying these principles and tools to solve complex business challenges at scale, both domestically and internationally. A strong focus will be put on detecting discriminatory practices and understanding foundational ethical theories and principles such as utilitarianism, deontology, virtue ethics, and care ethics, which can guide moral reasoning in innovation. Ultimately, the concepts of risk management, trust-building, privacy maintenance, information transparency, and fair access of information within the society will be holistically addressed, strengthening the students' understanding and strategic implementation of ethical innovation that can create positive change for our societies and environment.

### Course Outcomes

On successful completion, students will be able to

- comprehend the intersections and implications of ethics, responsible innovation, and digital advancements.
- recognize and evaluate the ethical considerations inherent in innovative business solutions and novel technology utilizations.
- facilitate stakeholder engagement, upholding ethical innovation norms to inspire collaborative initiatives across the organization and within the industry.
- conceive strategies and adaptations of tools like Value Sensitive Design (VSD) and Open Innovation for ethical innovation.
- apply ethical models to analyze and resolve local and international business dilemmas.
- appreciate the role of ethical innovation in risk management, trust building, ensuring fair information access, and tackling issues related to privacy and transparency for societal prosperity.

### Contents

- Students will engage with content that spans from foundational principles to sophisticated applications of ethical innovation in the digital era. Central topics to be explored include the identification and understanding of ethical issues in innovative business solutions and emerging technologies. Through the careful analysis of these concepts, students will pinpoint key areas for value integration, facilitating ethical organizational alignment and comprehensive stakeholder collaboration. Strategizing ethical innovation with tools such as Value Sensitive Design and Open Innovation will be a primary area of focus. Furthermore, students will dive into real-world application scenarios, deploying ethical frameworks and methodologies to analyze and solve multifaceted business problems within both local and international contexts. The content underscores the necessity for employing ethical innovation in assisting risk reduction, enhancing trust, addressing privacy and transparency matters, and promoting fair information access, ultimately serving societal interests. Also, an understanding of relevant laws, regulations, and industry standards that govern ethical innovation and ensuring compliance will be fostered. Students are expected to actively engage in the challenge and excitement of shaping the future of responsible digital innovation, thus exploring their potential to contribute positively to their organization, society, and industry at large.

### Literature

#### Compulsory Reading

#### Further Reading

- Alfonsi, A., & Berliri, M. (2021). Science, ethics, and responsible research – The case of surveillance. In R. Iphofen & D. O'Mathúna (Eds.), *Ethical issues in covert, security, and surveillance research (Advances in Research Ethics and Integrity, Vol. 8)* (pp. 17-28). Emerald Publishing Limited.
- Baah, C., Agyabeng-Mensah, Y., Afum, E., & Lascano Armas, J. A. (2024). Exploring corporate environmental ethics and green creativity as antecedents of green competitive advantage, sustainable production, and financial performance: Empirical evidence from manufacturing firms. *Benchmarking: An International Journal*, 31(3), 990-1008.
- Bormida, M. D. (2021). The big data world: Benefits, threats and ethical challenges. In R. Iphofen & D. O'Mathúna (Eds.), *Ethical issues in covert, security, and surveillance research (Advances in Research Ethics and Integrity, Vol. 8)* (pp. 71-91). Emerald Publishing Limited.
- Marino, D., & Monaca, M. A. (2023). *Innovations and economics and social changes due to artificial intelligence: The state of the art*. Springer.
- Mazzi, F., & Floridi, L. (2023). *The ethics of artificial intelligence for the sustainable development goals*. Springer.
- Schlossberger, E. (2023). *Ethical engineering: A practical guide with case studies*. Routledge.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Project: AI Change Management

Module Code: DLBAIBEPAICM

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBDBCM01_E	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: AI Change Management)

### Contributing Courses to Module

- Project: AI Change Management (DLBAIBEPAICM01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Portfolio

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students will cover the strategic integration and organizational implementations of artificial intelligence (AI) technology. As we delve into the complexities of change leadership and cultural adaptations, we ensure to unravel all features necessary for successful AI adoption.

**Learning Outcomes****Project: AI Change Management**

On successful completion, students will be able to

- strategically leverage AI solutions, transforming organizational structures to meet business objectives effectively.
- promote an inclusive, diverse, and fair culture through understanding and addressing the cultural dynamics that arise during AI incorporation, fostering innovation and adaptation.
- identify potential risks and develop mitigation strategies for seamless AI transitions, reducing disruptions and boosting security.
- effectively engage and align different stakeholders, instilling a collaborative approach towards AI-driven transformations.
- strategize and optimize post-implementation AI operations to ensure alignment with dynamic business needs and maintain efficiency.
- cultivate commendable leadership qualities, guiding teams through the AI transformation process; thereby promoting a positive, adaptable organizational culture.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

## Project: AI Change Management

Course Code: DLBAIBEPAICM01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBDBCM01_E

### Course Description

Navigating the waves of technological progress without getting lost in its expanses is no easy feat. Especially when observing the advancements in AI, it's crucial that we understand their implications within the broader business spectrum. Students will internalize this understanding by exploring the strategic implications of AI and its integration within the existing organizational structures. Through study, contemplation, and practical application, students dive into the complexities of change leadership, as hands-on management is vital in implementing AI technologies that align with business objectives. The cultural dynamics at play during AI adoption are discussed, emphasizing an atmosphere conducive to innovation, diversity, and support. We prioritize ensuring a robust understanding of the associated risks, their mitigation, and the integration of trusted and supported AI-tools for a smooth transition towards AI-driven operations. Moreover, the required changes in resources and infrastructure will be highlighted to ensure students obtain the knowledge to recognize the efforts needed to transform a company, i.e. with data management facilities, cloud infrastructures and IT-support. Lastly, we emphasize the importance of effective communication with stakeholders and the strategies to optimize AI solutions in the post-implementation phase.

### Course Outcomes

On successful completion, students will be able to

- strategically leverage AI solutions, transforming organizational structures to meet business objectives effectively.
- promote an inclusive, diverse, and fair culture through understanding and addressing the cultural dynamics that arise during AI incorporation, fostering innovation and adaptation.
- identify potential risks and develop mitigation strategies for seamless AI transitions, reducing disruptions and boosting security.
- effectively engage and align different stakeholders, instilling a collaborative approach towards AI-driven transformations.
- strategize and optimize post-implementation AI operations to ensure alignment with dynamic business needs and maintain efficiency.
- cultivate commendable leadership qualities, guiding teams through the AI transformation process; thereby promoting a positive, adaptable organizational culture.

### Contents

- Every organizational leader requires a roadmap when implementing radical changes like AI transformations to ensure a safe and sustainable transition. Through an in-depth studying approach, students will lay the groundwork for understanding these roadmaps by contemplating AI integration strategies and highlighting the implications of these. Balancing that out, students will steer towards the human aspect, understanding cultural shifts related to AI-driven change within organizations. This will incorporate the challenge of identifying and mitigating risks convening a secure and smooth transition towards AI-centric operations. The importance of pursuing experimental initiatives (such as proof-of-concept projects) and fostering continuous learning, alongside an emphasis on developing skills and progressively implementing organizational and governance measures to enable a collaborative and employee-supported change, will be highlighted. As we proceed, students will engage in discussions around stakeholder communication strategies, promoting an understanding of their mandates, and fostering collaboration in the face of AI-driven changes. Strategies for monitoring and optimizing post-implementation AI operations will be addressed with a focus on ensuring continued alignment with evolving business objectives and cultural values. The final takeaway will be honing leadership skills for guiding teams through the transformative journey of adopting AI technologies, nurturing a positive and adapting organizational culture.

### Literature

#### Compulsory Reading

#### Further Reading

- Ångström, R. C., Björn, M., Dahlander, L., Mähring, M., & Wallin, M. W. (2023). Getting AI Implementation Right: Insights from a Global Survey. *California Management Review*, 66(1), 5–22.
- Moore, B. (2024). What competencies will be needed to manage Artificial Intelligence in the workplace? (An AI perspective). *Assessment & Development Matters*, 16(1), 4–8.
- Sanders, N. R., & Wood, J. D. (2023). The Skills Your Employees Need to Work Effectively with AI. *Harvard Business Review Digital Articles*, 1–7.
- Stowasser, S., Suchy, O., Terstegen, S., & Mihatsch, A. (2023). Change Management Process and People's Involvement when Introducing AI Systems in Companies (Vol. 14039). Springer Nature Switzerland. [https://doi.org/10.1007/978-3-031-36049-7\\_16](https://doi.org/10.1007/978-3-031-36049-7_16)
- Tamayo, J., Doumi, L., Goel, S., Kovacs-Onarejkovic, O., & Saaun, R. (2023). Reskilling in the Age of AI. (cover story). *Harvard Business Review*, 101(5), 56–65.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Portfolio

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline



# 5. Semester

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# Corporate Finance and Investment

Module Code: DLBCFIE

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Muhammad Ashfaq (Corporate Finance and Investment)

## Contributing Courses to Module

- Corporate Finance and Investment (DLBCFIE01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Written Assessment: Written Assignment

Study Format: myStudies  
Written Assessment: Written Assignment

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to Corporate Finance
- Ownership and Corporate Governance
- Understanding Financial Statements and Key Performance Indicators
- Basic Concepts of Financial Theory
- Types of Capital and Financing
- Short-term Financing Decisions
- Capital Budgeting and Decision-Making Methods in Investment

### Learning Outcomes

#### Corporate Finance and Investment

On successful completion, students will be able to

- recognize the targets and scope of corporate finance and the role of financial markets .
- understand agency-problems in corporations and how incentives and institutional and market mechanisms are used to mitigate agency costs .
- interpret financial statements and key performance indicators and draw conclusions about financing alternatives and potentials of a corporation.
- consider the time value of money and calculate the cost of capital used to optimize future project cash flow streams.
- implement a long-term financing strategy and structure for corporations based on an appropriate mix of equity, debt, leasing, and hybrid financial instruments.
- effectively utilize cash management and working capital management to reduce short-term financing needs and costs.
- prepare investment decisions, estimate expected project cash flows and incorporate cash flow related risks into the decision process.
- apply investment decision methodologies to evaluate and select favorable corporate investment projects.

#### Links to other Modules within the Study Program

This module is similar to other modules in the fields of Finance & Tax Accounting

#### Links to other Study Programs of the University

All Bachelor Programmes in the Business & Management fields

# Corporate Finance and Investment

Course Code: DLBCFIE01

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

## Course Description

This course introduces students to the targets and scope of corporate finance and the role of financial markets. The separation of ownership and control is a constituent feature of corporations; students explore the resulting agency problems and the mechanisms available to mitigate the costs of agency relationships. Students will be introduced to fundamentals of theory and practice regarding principles of modern corporate finance. They will learn to read and analyze financial statements from a financing point of view and develop a detailed understanding of concepts such as the time value of money, interest rates, and cost of capital. After introducing basic concepts, equity and debt financing will be discussed at length. The financial leverage effect on rates of return will be explored and leasing and hybrid financial instruments as an alternative to pure equity and debt financing are presented. Students will study how corporations apply short-term measures of financing and how effective cash and working capital management is used to reduce short-term financing needs and costs. This course will conclude with a discussion on the investment processes of corporations with a particular focus on the challenge of estimating expected cash flows. Students will learn how to include risk as a factor in the decision process and be able to analyse applied investment rules and methodologies.

## Course Outcomes

On successful completion, students will be able to

- recognize the targets and scope of corporate finance and the role of financial markets .
- understand agency-problems in corporations and how incentives and institutional and market mechanisms are used to mitigate agency costs .
- interpret financial statements and key performance indicators and draw conclusions about financing alternatives and potentials of a corporation.
- consider the time value of money and calculate the cost of capital used to optimize future project cash flow streams.
- implement a long-term financing strategy and structure for corporations based on an appropriate mix of equity, debt, leasing, and hybrid financial instruments.
- effectively utilize cash management and working capital management to reduce short-term financing needs and costs.
- prepare investment decisions, estimate expected project cash flows and incorporate cash flow related risks into the decision process.
- apply investment decision methodologies to evaluate and select favorable corporate investment projects.

**Contents**

1. Introduction to Corporate Finance
  - 1.1 The Targets and Scope of Corporate Finance
  - 1.2 The Role of a Financial Manager
  - 1.3 The Financial Market Environment
2. Ownership and Corporate Governance
  - 2.1 Legal Types of Firms
  - 2.2 Agency Relations and Agency Problems in Corporations
  - 2.3 Institutional Investors, Incentives, and Market Control Mechanisms
3. Understanding Financial Statements and Key Performance Indicators
  - 3.1 Balance Sheets
  - 3.2 Income Statements
  - 3.3 Cash Flow Statements
  - 3.4 Measuring Performance: Key Performance Indicators
4. Basic Concepts of Financial Theory
  - 4.1 Time Value of Money and Cash Flow Streams
  - 4.2 Interest Rates: Determinants and Quotes
  - 4.3 Estimating the Cost of Capital
5. Types of Capital and Financing
  - 5.1 Equity Capital
  - 5.2 Debt Financing
  - 5.3 Leasing
  - 5.4 Financial Leverage and Capital Structure
6. Short-Term Financing Decisions
  - 6.1 Cash Budgets and Short-Term Financial Plans
  - 6.2 Treasury and Cash Management
  - 6.3 Working Capital Management
7. Capital Budgeting and Decision-Making Methods in Investment
  - 7.1 Capital Budgeting and Investments
  - 7.2 Incorporating Risk in Capital Budgeting Decisions
  - 7.3 Investment Rules and Decision-Making Methods

**Literature****Compulsory Reading****Further Reading**

- Brigham, E. F., & Houston, J. F. (2019). Fundamentals of financial management (15th ed.). Southwestern-Cengage.
- Zutter, C. J., & Smart, S. B. (2019). Principles of managerial finance (15th ed.). Pearson .

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline



# Digital Finance and Controlling

Module Code: DLBFMDFC\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (Digital Finance and Controlling)

## Contributing Courses to Module

- Digital Finance and Controlling (DLBFMDFC01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Written Assessment: Written Assignment

Study Format: myStudies  
Written Assessment: Written Assignment

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Fundamentals and Basic Concepts of Digitization
- Digitization of Processes in Finance & Controlling
- Requirements of Digitization for IT Systems in Controlling
- Effects of Digitization on Organization, Roles and Competence Profiles in Controlling
- Conceptual Principles for the Development of Digitization Measures
- Controlling of Digital Business Models

**Learning Outcomes****Digital Finance and Controlling**

On successful completion, students will be able to

- identify opportunities and potentials of digitization in finance & controlling.
- understand relevant digitization technologies and their possible applications.
- assess efficiency potentials through digitization of core processes.
- understand essential requirements of digitization on IT systems.
- identify the effects of digital transformation on the organization, tasks, and competence profiles in finance & controlling.
- determine the degree of digitization in controlling in order to develop a digitization strategy.
- understand the special features of controlling digital business models.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Finance & Tax Accounting

**Links to other Study Programs of the University**

All Bachelor Programs in the Business & Management field

# Digital Finance and Controlling

Course Code: DLBFMDFC01\_E

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

## Course Description

Digitization is currently leading to disruptive changes in industries, sectors and companies. Traditional business models (e.g., in retail banking or hotel bookings) are increasingly being replaced by digital business models (i.e., fintechs or platforms such as booking.com). Companies with traditional business models are digitizing their operational processes (e.g., in production or sales) in order to remain competitive. Support functions such as HR or controlling are also taking advantage of the opportunities offered by digital transformation in order to optimize the efficiency of their respective core processes. In this respect, controlling is not only dealing with the management of digitization initiatives in the operational areas of the company, it must also evaluate what opportunities and efficiency potential digitization offers in finance & controlling itself. This course provides students with an overview of the conceptual principles and current developments of digitization in finance & controlling. Students are introduced to the relevant digitization technologies and will understand how digitization affects processes, systems, organizations and the necessary competence profiles of a company's employees. Various practical examples will be used to show how companies successfully use tools and technologies to improve the efficiency of controlling processes. Moreover, students will learn how the company's current level of digitization is determined by using a maturity model in order to develop a digitization strategy. Finally, this course presents the special features of controlling in digital business models.

## Course Outcomes

On successful completion, students will be able to

- identify opportunities and potentials of digitization in finance & controlling.
- understand relevant digitization technologies and their possible applications.
- assess efficiency potentials through digitization of core processes.
- understand essential requirements of digitization on IT systems.
- identify the effects of digital transformation on the organization, tasks, and competence profiles in finance & controlling.
- determine the degree of digitization in controlling in order to develop a digitization strategy.
- understand the special features of controlling digital business models.

## Contents

1. Fundamentals and Basic Concepts of Digitization
  - 1.1 Context of Digitization in Controlling: VUCA and Industry 4.0
  - 1.2 Relevant Digitization Technologies at a Glance

- 1.3 Effects of Digitization on Controlling
  - 1.4 Status Quo of Digitization in Finance & Controlling in Practice
2. Digitization of Processes in Finance & Controlling
  - 2.1 Effects, Instruments and Potential Benefits of Digitization
  - 2.2 Finance RPA as an Approach to Process Optimization in Reporting and Financial Processes
  - 2.3 Predictive Analytics in the Context of Planning and Forecasting
3. Requirements of Digitization for IT Systems in Controlling
  - 3.1 IT and Data Management as the Basis for Digitization
  - 3.2 ERP Systems and Their Importance for Digitization
  - 3.3 Business Intelligence Solutions for Controlling
4. Effects of Digitization on Organization, Roles and Competence Profiles in Controlling
  - 4.1 Developments in the Controlling Organization in the Context of Digitization
  - 4.2 Impact of Digitization on Roles and Tasks in Controlling
  - 4.3 Changes in the Competence Profile: Digital and Data Literacy as Key Competencies
5. Conceptual Principles for the Development of Digitization Measures
  - 5.1 Determining the Degree of Digitization by Using Maturity Models
  - 5.2 Process Models for Implementing Digital Transformation
  - 5.3 Approaches for the Evaluating Digitalized Finance & Controlling Processes
6. Controlling of Digital Business Models
  - 6.1 Special Features of Controlling Digital Business Models
  - 6.2 Practical Examples: Successful Digital Business Models

**Literature****Compulsory Reading****Further Reading**

- Chong, S. & Rahman, A. & Narayan A. K. (2022). Guest Editorial: Accounting in Transition: Influence of Technology, Sustainability and Diversity. *Pacific Accounting Review* 34(4), 517–525.
- de Bruin T. & Rosemann M. & Freeze R. & Kulkarni U. (2005). Understanding the Main Phases of Developing a Maturity Assessment Model. In *ACIS 2005 Proceedings Sydney, Australia*.
- Drury, C. (2022). *Management Accounting for Business* (8th ed.). Cengage. Chapter 16.
- Hofmann, P. & Samp, C. & Urbach, N. (2019). Robotic Process Automation. *Electronic Markets* 30, 99 –106.
- Möller, K. & Schäffer, U. & Verbeeten, F. (2020). Digitalization in Management Accounting and Control: An Editorial. *Journal of Management Control* 31, 1–8.
- Rummel, F. & Hüsig, S & Steinhauser, S. (2021). Two Archetypes of Business Model Innovation Processes for Manufacturing Firms in the Context of Digital Transformation. *R&D Management* 52(4), 685–703.
- Wirtz, B. W. (2019). *Digital Business Models*. Springer Nature.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Guideline
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

# Supply Chain Management I

Module Code: DLBDESCM1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Alex Leberling (Supply Chain Management I)

## Contributing Courses to Module

- Supply Chain Management I (DLBDESCM01)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Historical and terminological aspects of the SCM concept
- Motives for the creation of cross-company value creation networks
- Design principles and effects of value creation networks
- Logistical core processes and SCM
- Information technology aspects of the SCM concept
- Coordination and collaboration of the network partners
- Industry-specific solutions of the SCM



### Learning Outcomes

#### Supply Chain Management I

On successful completion, students will be able to

- explain the importance of cross-company value creation processes.
- understand common concepts for modeling cross-company value creation processes.
- understand dynamic effects in supply chains and can systematize their causes and effects.
- explain important theoretical concepts for describing the characteristics and challenges of cross-company value creation processes.
- explain the approaches and problem categories commonly used in the context of supply chain management.
- understand important reference and/or management models for the concretization of supply chain systems.
- name and detail important roles and tasks in the SCM network.
- deal with the coordination problem of SCM and describe the common solution approaches.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Transportation & Logistics

#### Links to other Study Programs of the University

All Bachelor Programs in the Transport & Logistics field

# Supply Chain Management I

Course Code: DLBDESESCM01

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

## Course Description

SCM proves to be an extremely multi-faceted construct from both a theoretical and a practical point of view. An adequate understanding of the problem dimensions and modes of action of (global) cross-company value creation networks requires a multidimensional approach. It starts by considering logistical processes, with modern process, flow, and network standards forming an important basis for SCM. On the basis of such an approach, students should gain a fundamental understanding of SCM. From the point of view of a holistic approach, it also makes sense to also examine a number of other typical problem areas in addition to the logistical challenges of this concept. This includes IT aspects of SCM (e.g., APS systems), and questions to do with the collaboration and coordination of network partners. This course also considers selected industry specific SCM solutions (ECR or VMI).

## Course Outcomes

On successful completion, students will be able to

- explain the importance of cross-company value creation processes.
- understand common concepts for modeling cross-company value creation processes.
- understand dynamic effects in supply chains and can systematize their causes and effects.
- explain important theoretical concepts for describing the characteristics and challenges of cross-company value creation processes.
- explain the approaches and problem categories commonly used in the context of supply chain management.
- understand important reference and/or management models for the concretization of supply chain systems.
- name and detail important roles and tasks in the SCM network.
- deal with the coordination problem of SCM and describe the common solution approaches.

## Contents

1. Fundamentals of the Supply Chain Concept
  - 1.1 Terminological and Conceptual Fundamentals
  - 1.2 Supply Chain Typology According to Otto
  - 1.3 Supply Chain Typology According to Bechtel/Jayaram
  - 1.4 Dynamic Aspects of Supply Chains

2. Selected Theoretical Concepts for the Supply Chain Concept
  - 2.1 New Institutional Economics
  - 2.2 Game Theory
  - 2.3 Network Approach
  - 2.4 Other Theoretical Additions
3. Supply Chain Management
  - 3.1 Basic Information on the Goals and Scope of SCM
  - 3.2 Popular Problem Areas of the SCM
  - 3.3 Supply Chain Management as an Evolutionary Step in Logistics
  - 3.4 Supply Chain Management as Cooperation Management
4. SCM Model
  - 4.1 Basic Information on the Term SCM Models
  - 4.2 SCOR Model
  - 4.3 SCM Task Model
5. SCM as a Coordination Problem
  - 5.1 Basic Information on the Concept of Coordination
  - 5.2 Coordination Concepts, Context, and Perspectives of SCM
  - 5.3 Coordination Instruments

## Literature

### Compulsory Reading

### Further Reading

- Bowersox, J., Closs, D., & Cooper, M. B. (2020). Supply chain logistics management (5th ed.). McGraw Hill Education.
- Chopra, S., & Meindl, P. (2019). Supply chain management: Strategy, planning, and operation (7th ed., Global ed.). Pearson Education.
- Es-Satty, Asmaa; Lemghari, Radouane; Okar, Chafik. (2020). Supply Chain Digitalization Overview SCOR model implication. In: 2020 IEEE 13th International Colloquium of Logistics and Supply Chain Management (LOGISTIQUA) Logistics and Supply Chain Management (LOGISTIQUA), 2020 IEEE 13th International Colloquium of. :1-7 Dec, 2020; IEEE Language: English, Datenbank: IEEE Xplore Digital Library.
- Tarigan, Z. J. H., Siagian, H., & Jie, F. (2021). Impact of enhanced enterprise resource planning (ERP) on firm performance through green supply chain management. Sustainability, 13(8), article 4358.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Supply Chain Management II

Module Code: DLBDESCM2

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Supply Chain Management II)

### Contributing Courses to Module

- Supply Chain Management II (DLBDESCM02)

### Module Exam Type

#### Module Exam

Study Format: myStudies  
Exam or Advanced Workbook, 90 Minutes

Study Format: Distance Learning  
Exam or Advanced Workbook, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Strategic aspects of SCM
- SCM Practice: Tasks and Activities in the Core Planning Process
- SCM Practice: Tasks and Activities in the Core Process of Procurement
- SCM Practice: Tasks and Activities in the Core Process Production
- SCM Practice: Tasks and Activities in the Core Distribution Process

### Learning Outcomes

#### Supply Chain Management II

On successful completion, students will be able to

- systematically explain the strategic relevance of enterprise-wide value creation processes.
- understand the most important tasks and problems in the SCM core process planning.
- systematize the elements and interrelationships in the CPFR model in a differentiated way.
- be familiar with the characteristics and peculiarities of contract logistics.
- understand the most important tasks and problems in the SCM core process procurement.
- explain central elements and characteristics of a procurement strategy.
- understand the most important tasks and problems in the SCM core process production.
- explain central elements and characteristics of a modern production strategy.
- understand the most important tasks and problems in the SCM core process distribution.
- explain central elements and characteristics of the so-called ECR concept.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Transportation & Logistics

#### Links to other Study Programs of the University

All Bachelor Programs in the Transport & Logistics field

# Supply Chain Management II

Course Code: DLBDESESCM02

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

## Course Description

From the perspective of strategic management research and practice, the activities covered by the term SCM are closely related to efforts to build and/or maintain a stable operational competitive advantage. A fundamental discussion of this relationship forms the starting point for the course. On this basis, a differentiated analysis of strategy-relevant activities and instruments in the Plan, Source, Make, Deliver, and Return process categories is then carried out using the SCOR model. Special attention is given to the practice-relevant areas of SCM, e.g., order-promising (plan), supplier-relation-management (source), postponement (make), and the ECR-concept (deliver).

## Course Outcomes

On successful completion, students will be able to

- systematically explain the strategic relevance of enterprise-wide value creation processes.
- understand the most important tasks and problems in the SCM core process planning.
- systematize the elements and interrelationships in the CPFR model in a differentiated way.
- be familiar with the characteristics and peculiarities of contract logistics.
- understand the most important tasks and problems in the SCM core process procurement.
- explain central elements and characteristics of a procurement strategy.
- understand the most important tasks and problems in the SCM core process production.
- explain central elements and characteristics of a modern production strategy.
- understand the most important tasks and problems in the SCM core process distribution.
- explain central elements and characteristics of the so-called ECR concept.

## Contents

1. Strategic Aspects of SCM
  - 1.1 Strategic Thinking and Action: General Information
  - 1.2 Competition Focus and SCM
  - 1.3 Competition Location and SCM
  - 1.4 Competition Rules and SCM
2. SCM Practice: Core Process Planning
  - 2.1 General Preliminary Considerations
  - 2.2 Collaborative Planning, Forecasting, and Replenishment
  - 2.3 Order Promoting



- 2.4 Kanban
- 2.5 Integration of X-PL Logistics Service Providers
3. SCM Practice: Core Process Procurement
  - 3.1 General Preliminary Considerations
  - 3.2 Production Synchronous Procurement
  - 3.3 Sourcing Concepts
  - 3.4 Supplier Relations Management
4. SCM Practice: Core Process Production
  - 4.1 Selected Aspects of the Problem Background
  - 4.2 Collaborative Engineering
  - 4.3 Postponement Strategies
  - 4.4 Value Added Partnership
5. SCM Practice: Core Process Distribution
  - 5.1 Basic Information on the Distribution Problem
  - 5.2 Efficient Consumer Response (ECR)
  - 5.3 Consignment Warehouse

### Literature

### Compulsory Reading

### Further Reading

- Chopra, S. (2019). Supply chain management: Strategy, planning and operation (Global ed., 7th ed.). Pearson.
- Hill, A., & Hill, T. (2018). Essential operations management (2nd ed.). Palgrave.
- Hugos, M. (2011). Essentials of supply chain management (3rd ed.). John Wiley & Sons.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam or Advanced Workbook, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 100 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 25 h	<b>Self Test</b> 25 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam or Advanced Workbook, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 100 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 25 h	<b>Self Test</b> 25 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## International HR Management

Module Code: DLBINTIHR\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Katharina Rehfeld (International HR Management)

### Contributing Courses to Module

- International HR Management (DLBINTIHR01\_E)

### Module Exam Type

#### Module Exam

Study Format: myStudies  
Written Assessment: Case Study  
Study Format: Distance Learning  
Written Assessment: Case Study

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Cultural Concept and Approaches Towards Cultural Understanding
- Comparative Human Resources
- International Personnel Deployment
- International Assignments and Host Country Essentials
- Development of International Managers
- Application of International HRM Models to Selected Regions of the World

**Learning Outcomes****International HR Management**

On successful completion, students will be able to

- understand and identify the challenges of human resource management in multinational companies.
- take into account cultural particularities in personnel management in different countries and to apply these to transnational mergers and acquisitions.
- name opportunities and risks as well as factors for success in the assignment of expatriates and to identify optimization factors.
- identify elements for developing transnationally qualified managers.
- identify specific risks and opportunities in international personnel deployment with regard to selected regions.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Human Resources

**Links to other Study Programs of the University**

All Bachelor Programmes in the Human Resources field

# International HR Management

Course Code: DLBINTIHR01\_E

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

## Course Description

The aim is to provide a bird's eye view of special features, opportunities, risks and challenges in both country-specific and cross-national human resources management. To this end, the concept of culture will be discussed and different ways of looking at culture will be debated. On this basis, the course tackles country-specific personnel management with its respective peculiarities. This is followed by a discussion on the transnational personnel management of Multinational Corporations (MNCs). Building on this, the topics of international staff deployment, secondments and the influence of host countries on the management process of MNCs and their foreign subsidiaries will be addressed. A discussion on special features of human resources management in cross-border mergers and acquisitions rounds up this part of the course. In a second thematic approach, the course looks at the requirements for the development of transnational managers in MNCs and discusses measures such as secondment and ongoing training. Finally, the introduced models and concepts will be applied to two example regions in Asia (Japan/Taiwan and China/Vietnam) and the USA.

## Course Outcomes

On successful completion, students will be able to

- understand and identify the challenges of human resource management in multinational companies.
- take into account cultural particularities in personnel management in different countries and to apply these to transnational mergers and acquisitions.
- name opportunities and risks as well as factors for success in the assignment of expatriates and to identify optimization factors.
- identify elements for developing transnationally qualified managers.
- identify specific risks and opportunities in international personnel deployment with regard to selected regions.

## Contents

1. Culture and Intercultural Perspectives
  - 1.1 Positivist View
  - 1.2 Interpretative View
  - 1.3 Critical View
2. Comparative Human Resources

- 2.1 Globalisation and its Effects on Human Resources Management
- 2.2 Contextual Effects
- 2.3 Requirements
3. Multinational Companies and International HR Models
  - 3.1 Challenges in Multinational Corporations
  - 3.2 Resolution Methods
  - 3.3 International HR Models
4. International Personnel Deployment
  - 4.1 International Personnel Planning
  - 4.2 Reasons for Deployments and Job Rotation
  - 4.3 Selection of Expatriates
  - 4.4 Success Determinants
5. International Missions and Host Countries
  - 5.1 Variance in Environmental Variables
  - 5.2 Host Country Effects for Multinational Corporations
  - 5.3 HRM in Cross-Border Mergers and Acquisitions
  - 5.4 Integration
6. Development of International Managers
  - 6.1 Personnel Development in an International Context
  - 6.2 Preparation, Support and Reintegration of Expatriates
7. Application in Sample Markets
  - 7.1 Asia: Japan and Taiwan
  - 7.2 Asia: China and Vietnam
  - 7.3 USA
  - 7.4 European Countries

## Literature

### Compulsory Reading

### Further Reading

- Brewster, C., Mayrhofer, W., & Farndale, E. (2017). Handbook of research on comparative human resource management (2nd ed.). Edward Elgar Publishing.
- Dowling, P. J., Festing, M., & Engle, A. D. (2017). International human resource management (7th ed.). Cengage Learning.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Digital HR

Module Code: DLBPEDHR\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Michaela Moser (Digital HR)

### Contributing Courses to Module

- Digital HR (DLBPEDHR01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

**Module Contents**

- Basics of Digitalization
- Digital Technologies
- Potentials of Digitalization in Personnel Management
- Digitalization and Workforce Planning and Recruitment
- Approaches to Digital Learning in Personnel Development
- Digital Leadership
- Digital Transformation
- Framework Conditions for Successful Digitalization
- New Professions as a Result of Digitization

**Learning Outcomes****Digital HR**

On successful completion, students will be able to

- understand the influences and consequences of the digitalization on the world of work and human resource management as well as the potential of digitization.
- describe digital technologies that have an impact on human resource management.
- identify specifics of digitalization for recruiting, HR development, and leadership as HR functions which are highly impacted by this megatrend.
- understand the role of HR in the digital transformation.
- capture important framework conditions for the success of digitalization in the HR sector.
- deal with new professions that are emerging in the context of digitalization.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Human Resources

**Links to other Study Programs of the University**

All Bachelor Programs in the Human Resources field

## Digital HR

Course Code: DLBPEDHR01\_E

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

### Course Description

The aim of the course is to address the impact of the megatrend "digitalization " on HR management and the world of work. This trend offers HR departments the opportunity to redefine themselves. As a result of digitalization, HR departments are in a position to leave the classic role as "administrators" of personnel and turn to the value creation potential of HR departments. Therefore, the potential of the latest technological developments (such as artificial intelligence) for individual steps of HR management will be considered. A brief, overview-like description of the technologies for HR is fundamental. Although HR professionals do not need to understand these technologies in detail, it is necessary for them to know their core aspects regarding HR business processes. The course also discusses important framework conditions that cannot be ignored for successful digitalization. In addition, it focuses on the emergence of new professions and requirements as a result of digitalization. The dual digitization challenges of HR by contributing to the digital transformation and the transformation of the HR function are addressed as well.

### Course Outcomes

On successful completion, students will be able to

- understand the influences and consequences of the digitalization on the world of work and human resource management as well as the potential of digitization.
- describe digital technologies that have an impact on human resource management.
- identify specifics of digitalization for recruiting, HR development, and leadership as HR functions which are highly impacted by this megatrend.
- understand the role of HR in the digital transformation.
- capture important framework conditions for the success of digitalization in the HR sector.
- deal with new professions that are emerging in the context of digitalization.

### Contents

1. Basics of Digitalization
  - 1.1 Introduction to the Problem
  - 1.2 Concept of Digitalization and Scenarios
  - 1.3 Consequences for the World of Work and Personnel Management
2. Digital Technologies
  - 2.1 Introduction

- 2.2 Term Digital Technologies
  - 2.3 Overview of New Digital Technologies
3. Potentials of Digitization in Personnel Management
  - 3.1 Introduction
  - 3.2 Changing Work through Digitalization
4. Digitalization and Workforce Planning and Recruitment
  - 4.1 Term Personnel Planning and Recruitment
  - 4.2 Digital Personnel Planning
  - 4.3 Digital Recruiting
5. Approaches to Digital Learning in Personnel Development
  - 5.1 Concept of Personnel Development and Digital Learning
  - 5.2 Informal Learning in the Workplace
  - 5.3 Role of HR and Managers
  - 5.4 Digital Learning Technologies
6. Digital Leadership
  - 6.1 Term Digital Leadership
  - 6.2 Paradigm Shift in Leadership
  - 6.3 Mission Statement of the Digital Leader
  - 6.4 Tolerance of Contradiction as Key Competence
7. Digital Transformation
  - 7.1 Term Digital Transformation
  - 7.2 Four Categories of Digital Maturity
  - 7.3 Actors and Stakeholders
  - 7.4 Drivers of Digital Transformation
  - 7.5 Digitalization and Corporate Culture
  - 7.6 Change in Organizational Structures
  - 7.7 Management and Responsibilities in the Transformation Process
8. Framework Conditions for Successful Digitalization
  - 8.1 Legal Framework
  - 8.2 Ethical Framework
  - 8.3 Digital Workplace
  - 8.4 Meaningful IT Systems
  - 8.5 Digital Mindset and Competence Profile of Employees

## 8.6 Digital Health Management

### 9. New Professions as a Result of Digitalization

#### 9.1 Introduction

#### 9.2 Digital Professions

#### 9.3 Conclusion and Outlook

## Literature

### Compulsory Reading

### Further Reading

- Ashmarina, S. I. et al. (2021): Digital Economy and the New Labor Market: Jobs, Competences and Innovative HR Technologies. Springer Nature, Cham.
- Cantoni, F. et al. (2018): Human Resource Management and Digitalization. G. Giappichelli Editore, Torino.
- Guldenberg, S./Ernst, E./North, K. (2021): Managing Work in the Digital Economy: Challenges, Strategies and Practices for the Next Decade. Springer Nature, Cham.
- Trost, A. (2020): Human Resources Strategies [electronic resource] : Balancing Stability and Agility in Times of Digitization. Springer Nature, Cham.
- Urbach, N./Röglinger, M. (2018): Digitalization Cases: How Organizations Rethink Their Business for the Digital Age. Springer Nature, Cham.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



# International Marketing

Module Code: DLBDSEIMB1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Josephine Zhou-Brock (International Marketing )

## Contributing Courses to Module

- International Marketing (DLBDSEIMB01)

## Module Exam Type

### Module Exam

Study Format: myStudies

Exam, 90 Minutes

Study Format: Distance Learning

Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- International marketing strategy
- Cultural differences and their significance for marketing
- International marketing mix (product, price, promotion, and distribution decisions in an international environment)
- International market research and consumer behavior
- Ethical aspects in international marketing
- International marketing controlling and six sigma

**Learning Outcomes****International Marketing**

On successful completion, students will be able to

- understand basic aspects of international strategic marketing.
- analyze cultural differences and their impact on international marketing.
- apply selected concepts of the international marketing mix.
- describe the possibilities of international market research and its influence on consumer behavior.
- recognize the necessity of international brand controlling and quality management.
- reproduce theoretical knowledge using case studies.

**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 Bachelor Programs in the Marketing & Communication field

# International Marketing

Course Code: DLBDSEIMB01

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

## Course Description

Students are taught the necessity for strategic marketing in an international context. They will learn about essential cultural differences and their influences on international marketing management. The basic decisions, standardizations, and adaptations in international marketing are experienced by the students on the basis of different concepts in the international marketing mix. The necessity of international market research, strategic planning, and control are taught to the students, along with the ethical aspects in international marketing. The students analyze current topics in international marketing management and reflect on them in connection with the concepts they have learned in this course.

## Course Outcomes

On successful completion, students will be able to

- understand basic aspects of international strategic marketing.
- analyze cultural differences and their impact on international marketing.
- apply selected concepts of the international marketing mix.
- describe the possibilities of international market research and its influence on consumer behavior.
- recognize the necessity of international brand controlling and quality management.
- reproduce theoretical knowledge using case studies.

## Contents

1. Strategic International Marketing
  - 1.1 Internationalization
  - 1.2 Theoretical Foundations of International Market Entry Strategies
  - 1.3 Forms of International Market Entry
2. Cultural Differences as an Aspect of International Marketing
  - 2.1 Overview of Culture
  - 2.2 Cultural Model Based on Hofstede
  - 2.3 Cultural Model Based on Trompenaars
3. Case Studies in International Market Entry and Marketing Strategies
  - 3.1 Case Study: Nivea in South Korea

- 3.2 Case Study: Bosch and Siemens Hausgeräte GmbH in China
  - 3.3 Case Study: Siemens Mobile in China
  - 3.4 Case Study: Siemens in China
4. International Product Management and Product Development
  - 4.1 Goals of International Product Management
  - 4.2 Framework Conditions for International Product Management
  - 4.3 International Product Decisions
  - 4.4 International Product Development
5. Exchange Rate Fluctuations and International Price Calculation
  - 5.1 Tasks and Objectives of International Price Management
  - 5.2 Factors Influencing International Price Management
  - 5.3 Instruments of International Price Management
6. International Communication and International Sales Policy
  - 6.1 International Communication Management
  - 6.2 International Sales Management
7. International Marketing and Ethics
  - 7.1 Overview of International Marketing and Ethics
  - 7.2 Business Ethics in International Companies
  - 7.3 Case Study: Nestlé
8. Applied Market Research and Its Influence on Consumer Behavior
  - 8.1 Scope of International Market Research
  - 8.2 Requirements for International Market Research Information
  - 8.3 International Secondary Research
  - 8.4 International Primary Research
9. Monitoring and Control in International Marketing
  - 9.1 Controlling in International Management
10. Six Sigma, Brand Management, and Rebranding
  - 10.1 Six Sigma: Basics, Definitions, and Processes
  - 10.2 Brand Management
  - 10.3 Rebranding

**Literature****Compulsory Reading****Further Reading**

- Armstrong, G., Kotler, P., & Opresnik, M. O. (2019). *Marketing: An introduction* (14th ed.). Pearson.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations—Software of the mind: Intercultural cooperation and its importance for survival*. McGraw-Hill.
- Hollensen, S. (2020). *Global marketing* (8th ed.). Pearson.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Online Marketing

Module Code: DLBMSM1-01\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Anne-Kristin Langner (Online Marketing)

### Contributing Courses to Module

- Online Marketing (DLBMSM01-01\_E)

### Module Exam Type

#### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Written Assignment

Study Format: [myStudies](#)  
Written Assessment: Written Assignment

#### Split Exam

### Weight of Module

see curriculum



**Module Contents**

- Online Marketing Basics
- Online Marketing Forms and Channels
- Online Marketing Strategy
- Online Media Planning
- The Online Presence
- Mobile Marketing and Mobile Commerce
- Online law
- Online Customer Loyalty and Service
- Web Analytics

**Learning Outcomes****Online Marketing**

On successful completion, students will be able to

- classify and strategically consider the basics relevant for Online Marketing (online communication process, electronic value creation, ...)
- know the different Online Marketing channels and to evaluate digital advertising measures strategically and operationally on this basis.
- conceive an Online Marketing strategy and make strategic and operational decisions.
- attract and retain customers through Online Marketing measures.
- measure and evaluate Online Marketing programs.
- fundamentally assess the marketing chances of a company in the World Wide Web.
- consider the importance of mobile in the Online Marketing Mix.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Online & Social Media Marketing

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field

## Online Marketing

Course Code: DLBMSM01-01\_E

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

### Course Description

This course uses interdisciplinary fundamentals that enable students to deal with the topic of Online Marketing in an operative and strategic way. This includes business and economic principles as well as communicative multimedia basics or the consideration of the basic tonality of Online Marketing channels. This holistic view is essential for strategic planning: In addition to considering the positioning of companies in the World Wide Web, the course will also work out how Online Marketing appearances can be optimized. The measurement of success and evaluation of relevant key figures complete the comprehensive basis for the whole module. The Online Marketing course teaches basic technical terms and concepts. These include the online communication process, added value of Online Marketing as well as electronic value creation and business models. Based on this knowledge, the course discusses aspects of product suitability, pricing policy, distribution policy, the various forms of marketing and distribution on the Internet. The course expands the understanding of the strategic and especially operational Online Marketing elements such as the planning and realization of advertising campaigns through various sales channels. In addition, the increasing development of mobile communication is taken into account and Mobile Marketing is considered as part of the Online Marketing Mix. To understand the behavior of online customers the course deals with the specific effects of advertising in regards to Online Marketing. Based on the principles of customer acquisition, the course discusses customer retention and loyalty in Online Marketing, strategies and tactics for increasing customer numbers, online campaigns and the importance of online relationships. Students learn the ropes of legal aspects and the principles of the General Data Protection Regulation (GDPR) relevant to Online Marketing to legally substantiate advertising campaigns and customer approaches. This course offers students the opportunity to get to know and implement the various aspects of Online Marketing Management in practice. They learn how to assess Online Media Planning through Web Analytics and targeted monitoring. For this, students learn the relevant Key Performance Indicators (KPIs) of Online Marketing, which are an essential condition for optimizing online strategies.

**Course Outcomes**

On successful completion, students will be able to

- classify and strategically consider the basics relevant for Online Marketing (online communication process, electronic value creation, ...)
- know the different Online Marketing channels and to evaluate digital advertising measures strategically and operationally on this basis.
- conceive an Online Marketing strategy and make strategic and operational decisions.
- attract and retain customers through Online Marketing measures.
- measure and evaluate Online Marketing programs.
- fundamentally assess the marketing chances of a company in the World Wide Web.
- consider the importance of mobile in the Online Marketing Mix.

**Contents**

1. Online Marketing Basics
  - 1.1 Development and Concept of Online Marketing
  - 1.2 The Online Communication Process
  - 1.3 Electronic Added Value
  - 1.4 The Role of Online Marketing in the Marketing Mix
  - 1.5 Electronic Business Concepts and Platforms
  - 1.6 Current Developments and Trends
2. Online Marketing Forms and Channels
  - 2.1 Overview of Online Marketing Forms
  - 2.2 Affiliate and Search Engine Marketing
  - 2.3 Display Advertising and Email Marketing
  - 2.4 Social Media and Influencer Marketing
  - 2.5 Content Marketing and Storytelling
  - 2.6 Viral Marketing and Word-of-Mouth Marketing
  - 2.7 Native Advertising and Mobile Marketing
  - 2.8 Real Time Bidding and Programmatic Advertising
  - 2.9 Online PR
3. Online Marketing Strategy
  - 3.1 Set Goals and Creating a Base
  - 3.2 The Customer Journey
  - 3.3 The Right Channel Mix
  - 3.4 Defining and Analyzing KPIs
4. Online Media Planning

- 4.1 Principles of Successful Media Planning
  - 4.2 Create and Structure Media Budgets in a Targeted Manner
  - 4.3 Integrated Campaigns and Cross-Media Marketing
  - 4.4 Successful Media Mix through Campaign Management
5. The Online Presence
    - 5.1 Website and Web Design
    - 5.2 Corporate Website
    - 5.3 Landing Page
    - 5.4 Blog
    - 5.5 Online Shop
    - 5.6 Online Presentation and Distribution of Products and Services – Advantages and Disadvantages
6. Mobile Marketing and Mobile Commerce
    - 6.1 Basics and Classification of Mobile Marketing
    - 6.2 Mobile Web Versus Apps
    - 6.3 QR Code Marketing and Location-Based Services
    - 6.4 Mobile Commerce and Mobile Payment
    - 6.5 Success Factors of Mobile Campaigns
7. Online Law
    - 7.1 Legal Aspects of Online Marketing
    - 7.2 Copyright and Handling User-Generated Content
    - 7.3 The Right to One’s Own Image
    - 7.4 General Data Protection Regulation (GDPR)
8. Online Customer Loyalty and Service
    - 8.1 The AIDA Model - Expansions for Online Marketing
    - 8.2 Customer Acquisition and Loyalty in Online Marketing
    - 8.3 Online Customer Service
    - 8.4 Excursus: Mass Customization
9. Web Analytics
    - 9.1 Key Figures in Online Marketing
    - 9.2 Web Monitoring
    - 9.3 Big Data

**Literature****Compulsory Reading****Further Reading**

- Chaffey, D., & Ellis-Chadwick, F. (2022). Digital marketing (8th ed.). Pearson.
- Kingsnorth, S. (2022). The Digital Marketing Handbook. KoganPage.
- Martínez-López, F. J., & López López, D. (Eds.). (2021). Advances in Digital Marketing and eCommerce. Springer Nature.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Written Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Social Commerce

Module Code: DLBOMSC\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Social Commerce)

### Contributing Courses to Module

- Social Commerce (DLBOMSC01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Basics of social commerce
- Platforms and tools in social commerce
- Concepts, benefits, and models
- Measurement and monitoring of social commerce
- Social customer service and CRM
- Strategy and implementation of social commerce in the company



**Learning Outcomes****Social Commerce**

On successful completion, students will be able to

- understand the dimensions or approaches of social commerce and use them within the context of online marketing.
- evaluate relevant platforms and social media tools as well as their significance for social commerce.
- measure and evaluate entrepreneurial activities in the field of social commerce using appropriate metrics and KPIs.
- apply well-known models, concepts, and benefits of social commerce in business practice as well as develop suitable social commerce strategies, implement them structurally and personally in online marketing and carry out them operationally.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of E-Commerce

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field

# Social Commerce

Course Code: DLBOMSC01\_E

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

## Course Description

E-commerce has established itself as an integral part of consumers' everyday lives. In this regard, social networks are increasingly shaping the purchasing behavior of many consumers on the internet. Social commerce (also known as recommendation commerce or social shopping) refers to a specific form of electronic commerce where active customer participation, personal relationships, and communication among customers are at the forefront. Customer involvement in design, sales, and/or marketing, for example through purchase recommendations or comments from other customers, can be seen as central. Another area is social commerce portals, where merchants and products can be reviewed. This provides assistance to other users in searching for products and services. A third area of social commerce involves the customization of products and distributing them through shop systems on personal websites. The provider takes care of nearly all necessary functions (such as inventory management, production, shipping, payment processing, etc.), while users only determine the design and type of merchandising items themselves. This is a form of mass customization.

## Course Outcomes

On successful completion, students will be able to

- understand the dimensions or approaches of social commerce and use them within the context of online marketing.
- evaluate relevant platforms and social media tools as well as their significance for social commerce.
- measure and evaluate entrepreneurial activities in the field of social commerce using appropriate metrics and KPIs.
- apply well-known models, concepts, and benefits of social commerce in business practice as well as develop suitable social commerce strategies, implement them structurally and personally in online marketing and carry out them operationally.

## Contents

1. Introduction: e-commerce, social media and social commerce
  - 1.1 Definition and delimitation: social commerce, social computing, social web, web 2.0 and social media
  - 1.2 Development of social commerce
  - 1.3 Dimensions of social commerce: customer ratings, recommendations, social shopping, social ads, forums and communities

- 1.4 Consumer and psychological factors in social commerce
- 1.5 Social media marketing and Enterprise 2.0
- 1.6 Opportunities and risks of social commerce
2. Platforms and tools in social commerce
  - 2.1 Social media tools and their significance for social commerce
  - 2.2 Mobile social commerce
  - 2.3 Crowdsourcing
  - 2.4 Virtual shopping worlds
3. Social commerce: concepts, benefits and models
  - 3.1 Social commerce: drivers, participants, models
  - 3.2 Group buying and flash sales
  - 3.3 Shopping communities and shopping clubs
  - 3.4 Recommendation marketing, marketplaces, etc.
  - 3.5 Innovative shopping models
  - 3.6 Virtual goods
4. Measurement and monitoring in social commerce
  - 4.1 Five types of social media engagement
  - 4.2 Methods of engagement in social commerce
  - 4.3 Importance of trust in social commerce
  - 4.4 Collaborative content creation by customers
  - 4.5 Building, maintaining and measuring reputation and brand on social media channels
  - 4.6 Performance management: metrics and KPIs for measuring social commerce
5. Social Customer Service and CRM
  - 5.1 Definition and differentiation of CRM, e-CRM and Social CRM (SCRM)
  - 5.2 Evolution of CRM into SCRM
  - 5.3 Social media customers and their needs
  - 5.4 Examples of unique and innovative applications in SCRM
6. Strategy and implementation in the company
  - 6.1 Strategic and operational measures of SCRM
  - 6.2 Organizational aspects of implementing social commerce in the enterprise

**Literature****Compulsory Reading****Further Reading**

- Boardman, R., Blazquez, M., Henninger, C. E., & Ryding, D. (Eds.). (2019). *Social commerce: Consumer behaviour in online environments*. Palgrave Macmillan.
- Martínez-López, F. J., & López López, D. (2021). *Advances in digital marketing and eCommerce: Second International Conference, 2021* [Ereader version]. Springer.
- Pingyu, J. (2019). *Social manufacturing: Fundamentals and applications* (Springer Series in Advanced Manufacturing). Springer.
- Smart Insights (Marketing Intelligence) Ltd. (2023). *Social commerce 2023 trends and tactics: Grow your e-commerce strategy through social media*. <https://www.smartinsights.com/ecommerce/ecommerce-strategy/social-commerce-trends/>
- Turban, E., Strauss, J., & Lai, L. (2016). *Social commerce: Marketing, technology and management*. Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Project: Campaigns in Social Media

Module Code: DLBOMPSMK\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Project: Campaigns in Social Media)

### Contributing Courses to Module

- Project: Campaigns in Social Media (DLBOMPSMK01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Portfolio

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

In this course, students transfer their knowledge of social media marketing into practice. To this end, they will carry out projects independently and document their (interim) results in the portfolio. An up-to-date list of topics can be found in the Learning Management System.

**Learning Outcomes****Project: Campaigns in Social Media**

On successful completion, students will be able to

- explain the different instruments of social media marketing and their specific advantages and disadvantages.
- apply the instruments for setting up social media marketing campaigns.
- name relevant use cases and best practice examples for social media marketing.
- demonstrate a use case practically, so that they can independently work on a project through all its phases, document it, and present it in their portfolio.

**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 Bachelor Programs in the Marketing & Communication field

## Project: Campaigns in Social Media

Course Code: DLBOMPSMK01\_E

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

### Course Description

In this course, students will receive a hands-on introduction to social media marketing. For this purpose, the theoretical content will be practiced on an example project and a social media campaign, including its strategic planning and operational implementation.

### Course Outcomes

On successful completion, students will be able to

- explain the different instruments of social media marketing and their specific advantages and disadvantages.
- apply the instruments for setting up social media marketing campaigns.
- name relevant use cases and best practice examples for social media marketing.
- demonstrate a use case practically, so that they can independently work on a project through all its phases, document it, and present it in their portfolio.

### Contents

- In this course, students will receive a practical introduction to social media marketing. To this end, the theoretical content will be practiced on an example project and the students will design a social media campaign with strategic planning and operational implementation.
- Possible course and project contents are: basics of social media marketing, social media marketing goals and strategies, methods/instruments of social media marketing, use cases and best practice examples, social media marketing controlling .



**Literature****Compulsory Reading****Further Reading**

- Butow, E., Herman, J., Liu, S., Robinson, A., & Allton, M. (2020). *Ultimate Guide to Social Media Marketing*. Entrepreneur Press.
- de P. Matos, J., Rodrigues, M. B., Vandevijvere, S., Claro, R. M., & Horta, P. M. (2022). Global case study of digital marketing on social media by a top soda brand. *Health Promotion International*, 37(5), 1–14. <https://doi.org/10.1093/heapro/daac133>
- HubSpot, Inc. (2023). *Social Media Marketing: The ultimate guide*. Retrieved from <https://blog.hubspot.com/marketing/social-media-marketing>
- Safitri, C., & Alvin, S. (2023). Unveiling the efficacy of social media marketing tactics to amplify brand awareness: A case study of @Shipper.Id on Instagram. *Cerdika: Jurnal Ilmiah Indonesia*, 3(9), 857–866. <https://doi.org/10.59141/cerdika.v3i09.671>
- Sprinklr, Inc. (2023). *8 best practices to ace your social media marketing*. Retrieved from <https://www.sprinklr.com/blog/social-media-marketing-best-practices/>

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Portfolio

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Product Development in Industry 4.0

Module Code: DLBINGPE\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Dorian Mora (Product Development in Industry 4.0 )

## Contributing Courses to Module

- Product Development in Industry 4.0 (DLBINGPE01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to modern product development
- Fundamentals of product development
- Methods in the product development process
- Alternative design approaches
- Digitalization of product design
- Customized mass production
- Outlook: Digital engineering and operation

**Learning Outcomes****Product Development in Industry 4.0**

On successful completion, students will be able to

- recall the historical development of industrial production.
- name current trends in the context of the "fourth industrial revolution" and their impact on product development.
- know the basic methods in product development.
- know the traditional product development process from design theory.
- differentiate alternative approaches to product development.
- name selected tools in the context of digital and virtual product design.
- explain the lot size problem and determine lot sizes for traditional production types.
- distinguish traditional production types from modern strategies such as customized mass production and rapid manufacturing.
- name current approaches to the complete digitalization of product creation and production processes in terms of digital engineering.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Engineering

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology fields

# Product Development in Industry 4.0

Course Code: DLBINGPE01\_E

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

## Course Description

The aim of the course is to give students an overview of current approaches to modern product development in the context of Industry 4.0. Based on traditional methods and tools of product development, relevant alternative design approaches are described, which put the consumer in the center of the design. In addition, modern tools to support product design are presented with which an engineer can digitally capture and simulate both the static/geometric and dynamic properties of a product. In addition, aspects of customized mass production will be discussed and compared with traditional production types. As an outlook on future developments, current research approaches for consistently digitalized product development are presented.

## Course Outcomes

On successful completion, students will be able to

- recall the historical development of industrial production.
- name current trends in the context of the "fourth industrial revolution" and their impact on product development.
- know the basic methods in product development.
- know the traditional product development process from design theory.
- differentiate alternative approaches to product development.
- name selected tools in the context of digital and virtual product design.
- explain the lot size problem and determine lot sizes for traditional production types.
- distinguish traditional production types from modern strategies such as customized mass production and rapid manufacturing.
- name current approaches to the complete digitalization of product creation and production processes in terms of digital engineering.

## Contents

1. Introduction to Modern Product Development
  - 1.1 Terms of Industrial Production
  - 1.2 The Fourth Industrial Revolution
  - 1.3 Turnaround in the Factors of Production
  - 1.4 Trends in Product Development
2. Fundamentals of Product Development

- 2.1 Methods of Product Planning
- 2.2 Methods of the Solution Search
- 2.3 Selection and Evaluation of Alternatives
3. Methods in the Product Development Process
  - 3.1 Clarify Requirements
  - 3.2 Concept
  - 3.3 Draft
  - 3.4 Development
4. Alternative Design Approaches
  - 4.1 Design Thinking
  - 4.2 Personas
  - 4.3 Human-Centered Design According to ISO 9241-210
  - 4.4 Participatory Design
  - 4.5 Open Innovation
  - 4.6 Empathic Design
5. Digitalization of Product Design
  - 5.1 From Drawing Board to Digital Functional Model
  - 5.2 Computer-Aided Engineering
  - 5.3 Computer-Aided Quality
  - 5.4 Engineering and Product Data Management
  - 5.5 Simulation Data Management
6. Customized Mass Production
  - 6.1 Traditional Types of Production
  - 6.2 Lot Size Problem and Planning
  - 6.3 Mass Customization
  - 6.4 Rapid Manufacturing
7. Outlook: Digital Engineering and Operation
  - 7.1 Definition
  - 7.2 Fields of Application
  - 7.3 Data Mining
  - 7.4 Modeling of Dynamic Product Properties
  - 7.5 Provision of Information

**Literature****Compulsory Reading****Further Reading**

- Kull, H. (2015): Mass Customization. Opportunities, Methods, and Challenges for Manufacturers. Apress, Berkeley/New York.
- Olsen, D. (2015): The Lean product playbook: How to innovate with minimum viable products and rapid customer feedback. Wiley, Hoboken, NJ.
- Stark, J. (2022): Product Lifecycle Management (Volume 1): 21st Century Paradigm for Product Realisation (Decision Engineering) (English Edition). Fifth Edition. Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Production Engineering Industry 4.0

Module Code: DLBDSEAR1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Hans Kerwat (Production Engineering Industry 4.0)

## Contributing Courses to Module

- Production Engineering Industry 4.0 (DLBDSEAR01)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to Manufacturing Technology
- Main Production Groups According to DIN 8580
- Additive Manufacturing Processes
- Rapid Prototyping
- Rapid Tooling
- Direct/Rapid Manufacturing
- Cyber-Physical Production Plants

### Learning Outcomes

#### Production Engineering Industry 4.0

On successful completion, students will be able to

- understand the basic concepts and interrelationships of production engineering.
- understand current changes in manufacturing technology due to technologies such as additive manufacturing and megatrends such as cyber physical systems.
- assign different manufacturing processes to the main manufacturing groups according to DIN 8580.
- understand the basic principle of additive manufacturing processes.
- distinguish between different additive manufacturing processes.
- understand the terms Rapid Prototyping, Rapid Tooling, and Direct Manufacturing and name individual processes and application examples.
- understand the elements and properties of cyber-physical production plants.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Computer Science & Software Development

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

# Production Engineering Industry 4.0

Course Code: DLBDSEAR01

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

## Course Description

The aim of the course is to provide students with an overview of the processes that have influenced and still influence production processes through technological developments under the generic term Industry 4.0, based on traditional, standardized manufacturing techniques. These include, in particular, technological advances in additive manufacturing processes that enable applications such as rapid prototyping, rapid tooling, and direct manufacturing. Finally, the course deals with the consequences of the digitalization and networking of production facilities and their elements in the sense of a cyber-physical system.

## Course Outcomes

On successful completion, students will be able to

- understand the basic concepts and interrelationships of production engineering.
- understand current changes in manufacturing technology due to technologies such as additive manufacturing and megatrends such as cyber physical systems.
- assign different manufacturing processes to the main manufacturing groups according to DIN 8580.
- understand the basic principle of additive manufacturing processes.
- distinguish between different additive manufacturing processes.
- understand the terms Rapid Prototyping, Rapid Tooling, and Direct Manufacturing and name individual processes and application examples.
- understand the elements and properties of cyber-physical production plants.

## Contents

1. Introduction to Manufacturing Technology
  - 1.1 Basic Terms and Contexts in Manufacturing Theory
  - 1.2 Historical Development of Production
  - 1.3 The Discussion About the Long Tail
2. Classification Of Manufacturing Processes
  - 2.1 Casting and Molding
  - 2.2 Forming
  - 2.3 Machining
  - 2.4 Joining

- 2.5 Coating
- 2.6 Changing the Properties of Substances
- 3. Additive Manufacturing Processes
  - 3.1 Basic Principles and Legal Aspects
  - 3.2 Stereolithography (STL)
  - 3.3 Selective Laser Sintering and Selective Beam Melting With Laser or Electron Beam
  - 3.4 Fused Deposition Modeling (FDM)
  - 3.5 Multi-Jet Modeling (MJM) and Poly-Jet Process (PJM)
  - 3.6 3D Printing Process (3DP)
  - 3.7 Laminating Processes
  - 3.8 Mask Sintering
- 4. Rapid Prototyping
  - 4.1 Definition
  - 4.2 Strategic and Operational Aspects
  - 4.3 Application Areas and Examples
- 5. Rapid Tooling
  - 5.1 Definition, Strategic, and Operational Aspects
  - 5.2 Indirect and Direct Procedures
- 6. Direct/Rapid Manufacturing
  - 6.1 Potentials and Requirements for Procedures
  - 6.2 Implementation, Application Areas, and Examples
- 7. Cyber-Physical Production Plants
  - 7.1 Derivation of the Terms Industry 4.0 and Cyber-Physical Systems
  - 7.2 Megatrend Cyber Physical Systems (CPS)
  - 7.3 Definition Cyber-Physical Production Plant
  - 7.4 Effects on Planning and Operation of Production Facilities
  - 7.5 Dynamic Reconfiguration and Migration of Production Facilities

**Literature****Compulsory Reading****Further Reading**

- Anderson, C. (2012). *Makers: The new industrial revolution*. Crown Business.
- Gebhardt, A., Kessler, J. & Thurn, L. (2019). *3D printing: Understanding additive manufacturing* (2nd ed). Hanser.
- Groover, M. P. (2012). *Fundamentals of modern manufacturing: Materials, processes, and systems* (5th ed.). Wiley.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



# Applied Sales I

Module Code: DLBDSEAS1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Tanja Moehler (Applied Sales I)

## Contributing Courses to Module

- Applied Sales I (DLBDSEAS01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Fundamentals of Applied Sales
- The Distribution System
- Personal Sales
- Sales Plans
- New Customer Acquisition
- A Sales Visit
- Conversational Tactics
- Conducting Negotiations
- Other Sales Channels

**Learning Outcomes****Applied Sales I**

On successful completion, students will be able to

- understand the fundamentals of applied sales and place them in the context of the company.
- understand the interaction of the individual facets of applied sales.
- differentiate between and evaluate individual sales systems.
- describe current sales types and sales characteristics.
- oversee and classify the entire sales process from customer acquisition to customer retention.
- understand the basics of sales and negotiation management and apply them.
- name the usual sales instruments, recognize their advantages and disadvantages, and reflect on essential fields of application and possibilities.

**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 Bachelor Programs in the Marketing & Communication field

# Applied Sales I

Course Code: DLBDSEAS01

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

## Course Description

The demands on sales thinking are growing every day. Globalized demand combined with high competition is making it increasingly difficult for companies to compete for customers. At the same time, customers are becoming better informed, while traditional supply markets are saturated and at overcapacity. In order to be successful in such an environment, sales thinking and action are required along with a new type of salesperson. Within the course Applied Sales I (Introduction), the participants are familiarized with the basic concepts of applied sales. You will learn about sales organization, dealing with alternative sales channels, and get to know the dedicated sales planning process. The contents of the module are complemented by the successful acquisition of new customers, whereby particular attention is paid to the organization and implementation of customer visits and the conduct of discussions and negotiations.

## Course Outcomes

On successful completion, students will be able to

- understand the fundamentals of applied sales and place them in the context of the company.
- understand the interaction of the individual facets of applied sales.
- differentiate between and evaluate individual sales systems.
- describe current sales types and sales characteristics.
- oversee and classify the entire sales process from customer acquisition to customer retention.
- understand the basics of sales and negotiation management and apply them.
- name the usual sales instruments, recognize their advantages and disadvantages, and reflect on essential fields of application and possibilities.

## Contents

1. Fundamentals of Applied Sales and Distribution
  - 1.1 Tasks and Forms of Applied Distribution
  - 1.2 Marketing as the Basis of Sales
  - 1.3 Distribution, Sales, and Other Terms
  - 1.4 Sales in Different Economic Sectors
2. The Distribution System

- 2.1 Forms of Sales
  - 2.2 Sales Organisation
  - 2.3 Key Account Management
  - 2.4 Multi-Channel Distribution
3. Personal Sales
    - 3.1 The "New Sellers"
    - 3.2 Requirements for Sales Personalities
    - 3.3 The Key Account Manager
    - 3.4 Task of Sales Managers
4. Sales Plan
    - 4.1 Tasks and Objectives of Sales Management
    - 4.2 Observation of Competition in the Context of Sales Management
    - 4.3 Potential Analyses and Sales Planning
    - 4.4 Sales Control and Visit Strategies
5. New Customer Acquisition
    - 5.1 Identification of New Customer Potential
    - 5.2 Customer Relationship Management and Customer Acquisition
    - 5.3 Trade Fairs and Events
    - 5.4 Networking
6. The Sales Visit
    - 6.1 Frequency and Preparation of Visits
    - 6.2 Conduct of a Visit
    - 6.3 Visit Reports and Follow-Up
    - 6.4 Aftercare and Follow-Up
7. Conversational Tactics
    - 7.1 Structured Conversation Preparation
    - 7.2 Goal-Oriented Conversation: The D.A.L.A.S Model
    - 7.3 Questioning Techniques
8. Conducting Negotiations
    - 8.1 Psychology of Negotiation
    - 8.2 Negotiation Structure
    - 8.3 Objection Handling
    - 8.4 Price Negotiations

## 9. Other Sales Channels

- 9.1 Telemarketing
- 9.2 Catalogue and Brochure Sales
- 9.3 Internet and E-Commerce

## Literature

### Compulsory Reading

### Further Reading

- Bloomfield, J. (2020). NeuroSelling: Mastering the customer conversation using the surprising science of decision making. Axon Publishing.
- Jobber, D., Lancaster, G., & Le Meunier-FitzHugh, K. (2019). Selling and sales management (10th ed.). Pearson.
- Peppers, D., & Rogers, M. (2016). Managing customer experience and relationships: A strategic framework (3rd ed.). Wiley.
- Pink, D. H. (2012). To sell is human: The surprising truth about moving others. Riverhead Books.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Applied Sales II

Module Code: DLBDSEAS2

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Tanja Moehler (Applied Sales II)

### Contributing Courses to Module

- Applied Sales II (DLBDSEAS02)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam or Advanced Workbook, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Marketing and Sales
- Customer Satisfaction as a Success Factor
- Personalities in Sales
- Customer-Oriented Communication
- Presentation and Rhetoric
- Customer Loyalty
- Networking
- Case Study

**Learning Outcomes****Applied Sales II**

On successful completion, students will be able to

- understand the interaction and the respective areas of responsibility of marketing and sales.
- reflect on and classify the goals and measures within the framework of the applied sales system.
- assess the relevance of customer satisfaction and retention. In addition, the students will be familiar with the central design elements of CRM.
- reflect on and assess alternative approaches to customer loyalty and relationship management and apply them in business practice.
- understand the meaning of the terms customer life cycle and customer value, and develop approaches to manage them in the sense of the respective sales targets.
- use descriptive presentation techniques in order to convince customers and other sales partners.
- understand the relevance of networking and develop strategies to broaden the contact base.
- develop and evaluate their own market analyses and sales concepts on the basis of practical experience within the framework of the case study.

**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 Bachelor Programs in the Marketing & Communication field



# Applied Sales II

Course Code: DLBDSEAS02

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

## Course Description

The course Applied Sales II builds on the basics taught in the course "Applied Sales I" and broadens and deepens them. First, the tension between marketing and sales is examined in more detail. Based on this, essential backgrounds and central target figures for successful sales management (e.g., customer satisfaction and loyalty as well as the customer life cycle) are derived and operationalized in order to create the basis for efficient and effective customer relationship management. As the process progresses, attention will also be paid to mental processes and consumer behavior in general. In addition, strategies and paths to successful negotiation are deepened and supplemented by convincing communication techniques. The course concludes with a case study in the course of which the students have the opportunity to apply what they have learned in a practice-oriented manner.

## Course Outcomes

On successful completion, students will be able to

- understand the interaction and the respective areas of responsibility of marketing and sales.
- reflect on and classify the goals and measures within the framework of the applied sales system.
- assess the relevance of customer satisfaction and retention. In addition, the students will be familiar with the central design elements of CRM.
- reflect on and assess alternative approaches to customer loyalty and relationship management and apply them in business practice.
- understand the meaning of the terms customer life cycle and customer value, and develop approaches to manage them in the sense of the respective sales targets.
- use descriptive presentation techniques in order to convince customers and other sales partners.
- understand the relevance of networking and develop strategies to broaden the contact base.
- develop and evaluate their own market analyses and sales concepts on the basis of practical experience within the framework of the case study.

## Contents

1. Marketing and Sales
  - 1.1 Marketing and Business Philosophy
  - 1.2 Sales Marketing in Different Economic Sectors
  - 1.3 Relationship Marketing

- 1.4 (International) Marketing and Sales Integration
2. Customer Satisfaction as a Success Factor
  - 2.1 Customer Relationship Management (CRM)
  - 2.2 Customer Orientation Success Chain
  - 2.3 Customer Relationship Strategies
3. Customer Retention
  - 3.1 Customer Retention Management
  - 3.2 Customer Retention Tools
  - 3.3 Complaints Management
4. Customer-Oriented Communications
  - 4.1 Communication and Sales Promotion by Sales Staff
  - 4.2 Sales Promotion by Sales Team
  - 4.3 Sales Promotion by the Company
5. Personalities in Sales
  - 5.1 Sales Personalities
  - 5.2 Selling in Teams
  - 5.3 Negotiating with Committees
6. Presentation and Rhetoric
  - 6.1 Rhetoric in Sales
  - 6.2 Presentation Techniques
  - 6.3 Nonverbal Communication
7. Networking
  - 7.1 Organizational Networks and Networking
  - 7.2 Building and Shaping Relationships
  - 7.3 Networking via Social Media
8. Case Study—Multi-Vendor Customer Loyalty Programs
  - 8.1 German Consumer Goods Market & Drugstore Industry Situation
  - 8.2 PAYBACK—A German Synonym for Loyalty Cards

**Literature****Compulsory Reading****Further Reading**

- Homburg, C., Schäfer, H., & Schneider, J. (2012). Sales excellence: Systematic sales management. Springer Science & Business Media.
- Ingram, T. N., Schwepker, C. H., Williams, M. R., Avila, R. A., & LaForge, R. W. (2020). Salesmanagement: Analysis and decision making (10th ed.). Routledge, Taylor & Francis Group.
- Kotler, P., & Keller, K. L. (2021). Marketing management (16th, global ed.). Pearson Education.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam or Advanced Workbook, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 100 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 25 h	<b>Self Test</b> 25 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Healthcare Management

Module Code: DLBIHMHM

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> None	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Gerardo Fernandez (Healthcare Management)

## Contributing Courses to Module

- Healthcare Management (DLBIHMHM01)

## Module Exam Type

### Module Exam

Study Format: myStudies

Exam, 90 Minutes

Study Format: Distance Learning

Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- The Health Economy (Setting the Scene)
- What is the Healthcare Sector?
- Key Players in Healthcare
- International Healthcare Industry
- Management in Health and Healthcare
- Decision-Making and Problem-Solving in Care Settings
- Cross-Border Healthcare and Health Tourism

**Learning Outcomes****Healthcare Management**

On successful completion, students will be able to

- understand specific objectives and contextual challenges of healthcare management.
- identify the characteristics of the health economy and international healthcare markets.
- define healthcare management and the role of the healthcare manager.
- compare and contrast the key competencies of managers in different areas of healthcare.
- differentiate roles and challenges of healthcare managers in light of the international health architecture.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Healthcare Management

**Links to other Study Programs of the University**

All Bachelor Programs in the field of Health Affairs

# Healthcare Management

Course Code: DLBIHMHM01

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

## Course Description

This course provides an overview introduction to the international environment, the different market sectors, possible roles for health managers and the main challenges. The course offers an insight into individual areas of the health industry and also into individual roles that healthcare managers fill. First, there is an introduction to the special characteristics of health and healthcare against the background of medical-ethical and social-ethical principles. This is followed by a discussion of the relevant areas in which healthcare managers are employed, before their particular roles are presented. A separate section is devoted to health information systems in the light of the particular importance of health data in the management processes of the sector. Finally, the core themes are once again explicitly considered in the context of the international health architecture, which, in addition to the respective national regulatory framework, defines the scope of action of international healthcare management.

## Course Outcomes

On successful completion, students will be able to

- understand specific objectives and contextual challenges of healthcare management.
- identify the characteristics of the health economy and international healthcare markets.
- define healthcare management and the role of the healthcare manager.
- compare and contrast the key competencies of managers in different areas of healthcare.
- differentiate roles and challenges of healthcare managers in light of the international health architecture.

## Contents

1. The Health Economy
  - 1.1 Understanding Health
  - 1.2 The Nature of Healthcare
  - 1.3 Health Commodities and Services
  - 1.4 Market Failure and the Need for Regulation
  - 1.5 The Importance of Ethical Conduct
2. Outlining the Healthcare Sector
  - 2.1 Health Care Providers
  - 2.2 Healthcare HR and Professional Training

- 2.3 Pharmaceuticals and Medical Devices
- 2.4 Nonprofit Stakeholders in Healthcare
- 2.5 Health Insurance Markets
- 3. Roles in Healthcare Management – an Overview
  - 3.1 Managing Customers and Patients
  - 3.2 Managing Finances
  - 3.3 Managing Performance
  - 3.4 Managing Health Care Professionals
- 4. Health Information Systems and Technologies
  - 4.1 Managing Health Information
  - 4.2 E-Health
  - 4.3 Evolution of the Electronic Medical Record (EMR)
  - 4.4 Management of Health Data
- 5. Health and Healthcare Internationally
  - 5.1 The International Health Architecture
  - 5.2 International Management and Health Sector Change
  - 5.3 Healthcare Services – an International Perspective
  - 5.4 Pharmaceutical Innovation and International Market Access
  - 5.5 Medical Devices and More: Managing Products Internationally
- 6. Cross-Border Healthcare and Health Tourism
  - 6.1 Drivers of Cross-Border Healthcare
  - 6.2 Inbound and Outbound Health Tourism
  - 6.3 Health Tourism Case Studies

### Literature

#### Compulsory Reading

#### Further Reading

- Buchbinder, S., Shanks, N., & Kite, B. (2021). Introduction to health care management (4th ed.). Jones & Bartlett.
- Walshe, K., & Smith, J. (2017). Healthcare management (3rd ed.). Open University Press.



**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# International Health Systems

Module Code: DLBIHMIHS

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> None	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Sophie Brenner (International Health Systems)

## Contributing Courses to Module

- International Health Systems (DLBIHMIHS01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Regulation and the Role of the State
- Health System Building Blocks
- Quantifying and Addressing Health Needs
- Typology of Health Systems
- Country Case Studies

**Learning Outcomes****International Health Systems**

On successful completion, students will be able to

- negotiate the rationale of health systems, considering their respective context.
- structure their analysis of health systems according to meaningful health system building blocks.
- understand people's health needs and the mechanisms to address these within the health system.
- analyze health systems based on a broader health system typology.
- understand different countries' health systems and use them as a reference.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Healthcare Management

**Links to other Study Programs of the University**

All Bachelor Programs in the field of Health Affairs

# International Health Systems

Course Code: DLBIHMIHS01

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

## Course Description

This course focuses on the role of health care systems as organizations of people, institutions, and resources that deliver health care services to meet the health needs of populations. It is structured along the health system building blocks, an analytical framework used by the World Health Organization to describe health systems, using the core components leadership and governance, service delivery, health system financing, health workforce, medical products and technologies, and health information systems. The evolution and dynamics of specific health systems are discussed on the basis of a typology of systems. Students gain a broad overview of different health systems within their respective contexts.

## Course Outcomes

On successful completion, students will be able to

- negotiate the rationale of health systems, considering their respective context.
- structure their analysis of health systems according to meaningful health system building blocks.
- understand people's health needs and the mechanisms to address these within the health system.
- analyze health systems based on a broader health system typology.
- understand different countries' health systems and use them as a reference.

## Contents

1. Regulation and the Role of the State
  - 1.1 A Rationale of Health Systems
  - 1.2 Properties of Systems
  - 1.3 The Impact of Context
2. Health System Building Blocks
  - 2.1 Leadership and Governance
  - 2.2 Service Delivery
  - 2.3 Health System Financing
  - 2.4 Health Workforce
  - 2.5 Medical Products and Technologies

- 2.6 Health Information Systems
- 3. Health Needs
  - 3.1 Quantifying Needs
  - 3.2 Addressing Needs
- 4. Typology of Health Systems
  - 4.1 National Health Service-Type Systems
  - 4.2 Social Health Insurance
  - 4.3 Supply- and Performance-Oriented Private Type
  - 4.4 Mixed Systems
- 5. Provision of sServices
  - 5.1 Patient Pathways
  - 5.2 Primary Care
  - 5.3 Specialized Care
  - 5.4 Urgent and Emergency Care
  - 5.5 Pharmaceutical Care
- 6. Country Case Studies
  - 6.1 Germany
  - 6.2 United Kingdom
  - 6.3 China
  - 6.4 United States
  - 6.5 Case Studies From Low- and Middle-Income Countries

## Literature

### Compulsory Reading

### Further Reading

- Folland, S., Goodman, A. C., & Stano, M. (2017). *The economics of health and health care* (8th ed.). Routledge.
- Merson, M. H., Black, R. E., & Mills, A. J. (2020). *Global health: Diseases, programs, systems, and policies* (4th ed.). Jones & Bartlett.
- Rice, T. (2021). *Health insurance systems: An international comparison*. Elsevier.
- World Health Organization. (n.d.). *Health system in transition reviews (HiT)*. Asia Pacific Observatory on Health Systems and Policies. Available online.
- World Health Organization. (2000). *The world health report. Health systems: Improving performance*. Available online.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



# Automation Technology

Module Code: DLBROEIRA2\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Ha Ngo (Automation Technology)

## Contributing Courses to Module

- Automation Technology (DLBROEIRA02\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Modern automation systems
- Programmable logic controllers
- Batch automation
- SCADA
- Industrial communications
- Distributed control systems
- Cyber-security

**Learning Outcomes****Automation Technology**

On successful completion, students will be able to

- understand modern automation systems.
- identify trends and challenges.
- design an industrial automation system for an application.
- name relevant cyber-security issues.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Engineering

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology fields

# Automation Technology

Course Code: DLBROEIRA02\_E

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

## Course Description

Automation technology refers to the analysis, design and improvement of existing or new automation systems. Modern automation systems are characterized by the combination of many different devices, such as actuators, sensors, machines, which must be able to perform a coordinate action and to exchange data with each other. This course introduces such modern automation systems by listing their necessary components, presenting current challenges and trends and explaining communication technologies to build effective industrial automation networks. A brief overview on the topic of cyber-security is also given.

## Course Outcomes

On successful completion, students will be able to

- understand modern automation systems.
- identify trends and challenges.
- design an industrial automation system for an application.
- name relevant cyber-security issues.

## Contents

1. Introduction
  - 1.1 Evolution of Automation
  - 1.2 Industrial Revolutions
  - 1.3 Modern Automation Systems
  - 1.4 Challenges and Trends
2. An Introduction to Programmable Logic Controllers
  - 2.1 Hardware
  - 2.2 Internal Architecture
  - 2.3 I/O
  - 2.4 Ladder and Functional Block Programming
  - 2.5 Programming Methods
3. Batch Automation
  - 3.1 Basics

- 3.2 Applications
- 4. SCADA Systems
  - 4.1 Overview
  - 4.2 Components
  - 4.3 Communication Technologies
  - 4.4 Interfaces
- 5. Industrial Communication Technologies
  - 5.1 Industrial Networks
  - 5.2 HART
  - 5.3 PROFIBUS
  - 5.4 Wireless Communication
  - 5.5 OPC
  - 5.6 Konnex (EIB/KNX)
  - 5.7 LonWorks®
- 6. Distributed Control System
  - 6.1 Evolution of Control Systems
  - 6.2 Components of Distributed Control Systems
- 7. Cyber Security in Industrial Automation
  - 7.1 Plant Control Network
  - 7.2 Cyber Attacks
  - 7.3 Common Industrial Software Weaknesses

### Literature

#### Compulsory Reading

#### Further Reading

- Dey, C., & Sen, S. (2020). Industrial automation technologies. CRC.
- Gardner, R. F. (2020). Introduction to plant automation and controls. CRC.
- Lehto, M., & Neittaanmäki, P. (2015). Cyber security: Analytics, technology and automation. Springer.
- Mehta, B. R., & Reddy, Y. J. (2014). Industrial process automation systems: Design and implementation. Elsevier.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam

# Product Development in Industry 4.0

Module Code: DLBINGPE\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Dorian Mora (Product Development in Industry 4.0 )

## Contributing Courses to Module

- Product Development in Industry 4.0 (DLBINGPE01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to modern product development
- Fundamentals of product development
- Methods in the product development process
- Alternative design approaches
- Digitalization of product design
- Customized mass production
- Outlook: Digital engineering and operation

**Learning Outcomes****Product Development in Industry 4.0**

On successful completion, students will be able to

- recall the historical development of industrial production.
- name current trends in the context of the "fourth industrial revolution" and their impact on product development.
- know the basic methods in product development.
- know the traditional product development process from design theory.
- differentiate alternative approaches to product development.
- name selected tools in the context of digital and virtual product design.
- explain the lot size problem and determine lot sizes for traditional production types.
- distinguish traditional production types from modern strategies such as customized mass production and rapid manufacturing.
- name current approaches to the complete digitalization of product creation and production processes in terms of digital engineering.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Engineering

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology fields



# Product Development in Industry 4.0

Course Code: DLBINGPE01\_E

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

## Course Description

The aim of the course is to give students an overview of current approaches to modern product development in the context of Industry 4.0. Based on traditional methods and tools of product development, relevant alternative design approaches are described, which put the consumer in the center of the design. In addition, modern tools to support product design are presented with which an engineer can digitally capture and simulate both the static/geometric and dynamic properties of a product. In addition, aspects of customized mass production will be discussed and compared with traditional production types. As an outlook on future developments, current research approaches for consistently digitalized product development are presented.

## Course Outcomes

On successful completion, students will be able to

- recall the historical development of industrial production.
- name current trends in the context of the "fourth industrial revolution" and their impact on product development.
- know the basic methods in product development.
- know the traditional product development process from design theory.
- differentiate alternative approaches to product development.
- name selected tools in the context of digital and virtual product design.
- explain the lot size problem and determine lot sizes for traditional production types.
- distinguish traditional production types from modern strategies such as customized mass production and rapid manufacturing.
- name current approaches to the complete digitalization of product creation and production processes in terms of digital engineering.

## Contents

1. Introduction to Modern Product Development
  - 1.1 Terms of Industrial Production
  - 1.2 The Fourth Industrial Revolution
  - 1.3 Turnaround in the Factors of Production
  - 1.4 Trends in Product Development
2. Fundamentals of Product Development

- 2.1 Methods of Product Planning
- 2.2 Methods of the Solution Search
- 2.3 Selection and Evaluation of Alternatives
3. Methods in the Product Development Process
  - 3.1 Clarify Requirements
  - 3.2 Concept
  - 3.3 Draft
  - 3.4 Development
4. Alternative Design Approaches
  - 4.1 Design Thinking
  - 4.2 Personas
  - 4.3 Human-Centered Design According to ISO 9241-210
  - 4.4 Participatory Design
  - 4.5 Open Innovation
  - 4.6 Empathic Design
5. Digitalization of Product Design
  - 5.1 From Drawing Board to Digital Functional Model
  - 5.2 Computer-Aided Engineering
  - 5.3 Computer-Aided Quality
  - 5.4 Engineering and Product Data Management
  - 5.5 Simulation Data Management
6. Customized Mass Production
  - 6.1 Traditional Types of Production
  - 6.2 Lot Size Problem and Planning
  - 6.3 Mass Customization
  - 6.4 Rapid Manufacturing
7. Outlook: Digital Engineering and Operation
  - 7.1 Definition
  - 7.2 Fields of Application
  - 7.3 Data Mining
  - 7.4 Modeling of Dynamic Product Properties
  - 7.5 Provision of Information

**Literature****Compulsory Reading****Further Reading**

- Kull, H. (2015): Mass Customization. Opportunities, Methods, and Challenges for Manufacturers. Apress, Berkeley/New York.
- Olsen, D. (2015): The Lean product playbook: How to innovate with minimum viable products and rapid customer feedback. Wiley, Hoboken, NJ.
- Stark, J. (2022): Product Lifecycle Management (Volume 1): 21st Century Paradigm for Product Realisation (Decision Engineering) (English Edition). Fifth Edition. Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Electrical Engineering

Module Code: DLBINGET-01\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Dr. Maedeh Ranjbar-Zefreh (Electrical Engineering)

## Contributing Courses to Module

- Electrical Engineering (DLBINGET01-01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies

Exam, 90 Minutes

Study Format: Distance Learning

Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

**Module Contents**

- Basic Terms
- Introduction to Direct Current Technology
- Calculation of Direct Current Networks
- Electric Fields
- Introduction to Alternating Current Technology
- Calculation of Alternating Current Networks
- Locus Curves
- Transformers
- Multiphase Systems
- Transient Response

**Learning Outcomes****Electrical Engineering**

On successful completion, students will be able to

- know the basic terms of electrical engineering.
- calculate DC (direct current) circuits and networks.
- know the different types of electrical fields.
- calculate AC (alternating current) circuits and networks.
- know methods for the construction of root locus curves.
- know the basic structure of different types of transformers.
- calculate equivalent circuit diagrams with transformers.
- know multiphase systems and can distinguish them from single-phase systems.
- measure performance in a three-phase system.
- calculate the transient response with the Laplace transformation.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Engineering

**Links to other Study Programs of the University**

All Bachelor Programmes in the IT & Technology fields

# Electrical Engineering

Course Code: DLBINGET01-01\_E

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

## Course Description

The aim of the course is to offer students a broad insight into the basics of electrical engineering. First of all, the basic terms of electrical engineering and the relevant physical quantities are introduced. This is followed by two comprehensive sections on direct current and alternating current technology. They are first briefly introduced using their essential elements and properties and then supplemented by methods for calculating the respective circuits and networks. Based on this, multi-phase systems and their application in public power supply are presented. The course concludes with a consideration of the transient response and its calculation using the Laplace transformation.

## Course Outcomes

On successful completion, students will be able to

- know the basic terms of electrical engineering.
- calculate DC (direct current) circuits and networks.
- know the different types of electrical fields.
- calculate AC (alternating current) circuits and networks.
- know methods for the construction of root locus curves.
- know the basic structure of different types of transformers.
- calculate equivalent circuit diagrams with transformers.
- know multiphase systems and can distinguish them from single-phase systems.
- measure performance in a three-phase system.
- calculate the transient response with the Laplace transformation.

## Contents

1. Basic Terms
  - 1.1 Charge, Electric Fields and Voltage
  - 1.2 Current and Resistance
  - 1.3 Electrical Energy and Power
2. Introduction to Direct Current Technology
  - 2.1 Kirchhoff's Laws
  - 2.2 Calculation of Series and Parallel Connections
  - 2.3 Voltage and Current Divider Rule



3. Calculation of Direct Current Networks
  - 3.1 Mesh-Current and Node-Voltage Method
  - 3.2 Superposition Method
  - 3.3 Wye-Delta Transformation of Circuits
  - 3.4 Examples
4. Introduction to Alternating Current Technology
  - 4.1 Electrostatic and Magnetic Fields
  - 4.2 Capacitor and Inductor
  - 4.3 Alternating Variables and their Calculation
  - 4.4 Network Analysis with Complex-Valued Variables
5. Calculation of Alternating Current Networks
  - 5.1 Simple AC Circuits and their Calculation
  - 5.2 Power Types in the AC Circuit
  - 5.3 Oscillating Circuits
  - 5.4 Examples
6. Root Locus Curves
  - 6.1 The Root Locus Concept
  - 6.2 Construction of Various Root Locus Curves
  - 6.3 Examples
7. Transformers
  - 7.1 Basic Functionality
  - 7.2 Equivalent Circuit Diagram
  - 7.3 Measurement Methods
8. Multiphase Systems
  - 8.1 Three-Phase Current Technology (Three-Phase Systems)
  - 8.2 Power Measurement in Three-Phase Systems
9. Transient Response
  - 9.1 Description of Time Dependent Processes with Differential Equations
  - 9.2 Setting up Differential Equations of Electrical Circuits
  - 9.3 Introduction to the Laplace Transformation
  - 9.4 Calculation of Transient Response

**Literature****Compulsory Reading****Further Reading**

- Dossis, N. (2013). Basic electronics for tomorrow's inventors. McGraw-Hill.
- Herrick, C. N. (1997). Basic electronics math. Newnes.
- Nilsson, J. W. & Riedel, S. (2019). Electric circuits (11th ed.). Pearson.
- Narayana Rao, B. Y., & Anand, K. (2010). Electronics. Himalaya Publishing House.
- Tayal, D. C. (2010). Basic electronics. Himalaya Publishing House.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Review Book <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Review Book <input checked="" type="checkbox"/> Online Tests

# Customer Relationship Management

Module Code: DLBCRM\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Tanja Moehler (Customer Relationship Management)

## Contributing Courses to Module

- Customer Relationship Management (DLBCRM01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies

Exam, 90 Minutes

Study Format: Distance Learning

Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Theoretical Basis for CRM
- The Customer Lifecycle and Customer Relationship Cycle
- Customer Satisfaction and Loyalty
- Customer Loyalty Management
- Customer Value and Customer Portfolio Management
- Strategies and Tools of CRM
- CRM Implementation and Monitoring

**Learning Outcomes****Customer Relationship Management**

On successful completion, students will be able to

- recall the basics and theoretical explanations of customer relationship management.
- analyze economic management of customer relationships.
- understand the construct of the customer life or customer relationship cycle and its implications for the application of CRM tools.
- classify and measure customer satisfaction and loyalty and present the impact chain of customer loyalty and its contribution to the economic success of a company.
- master the development, planning and implementation of customer loyalty measures.
- classify customers according to their customer value and manage an efficient allocation of resources to create profitable customer relationships.
- use alternative strategies and instruments of CRM, implement them and check their impact on success.

**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 Bachelor Programs in the Marketing & Communication field

# Customer Relationship Management

Course Code: DLBCRM01\_E

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

## Course Description

Customer Relationship Management is considered a central and fundamental concept of marketing management to optimally shape customer relationships. All processes of a company should be consistently and sustainably oriented towards the customer and their needs. This fundamental understanding as well as a broad overview of the topic area of CRM are conveyed to the students. In addition to the theoretical fundamentals of customer relations, this course deals with the customer life and customer relationship cycle, customer satisfaction and loyalty, customer retention management as well as customer value and customer portfolio management. The practical application is addressed through the presentation of the various strategies and instruments of CRM and also in the concrete implementation and controlling of CRM.

## Course Outcomes

On successful completion, students will be able to

- recall the basics and theoretical explanations of customer relationship management.
- analyze economic management of customer relationships.
- understand the construct of the customer life or customer relationship cycle and its implications for the application of CRM tools.
- classify and measure customer satisfaction and loyalty and present the impact chain of customer loyalty and its contribution to the economic success of a company.
- master the development, planning and implementation of customer loyalty measures.
- classify customers according to their customer value and manage an efficient allocation of resources to create profitable customer relationships.
- use alternative strategies and instruments of CRM, implement them and check their impact on success.

## Contents

1. Basics of CRM
  - 1.1 CRM Terms and Objectives
  - 1.2 The Economic Importance of the Customer
  - 1.3 From Transaction-Oriented to Relationship-Oriented Marketing
  - 1.4 Tasks and Structure of CRM
2. Theoretical Basis for CRM

- 2.1 Basis in Neoclassical, Neoinstitutional and Organizational Theory
- 2.2 Basis in Neobehavioral Theory
- 2.3 Basis in Communication Theory
3. The Customer Life Cycle and Customer Relationship Cycle
  - 3.1 Customer Life Cycle
  - 3.2 Customer Relationship Cycle
  - 3.3 Customer Relationships from the Demand and Supply Perspective
4. Customer Satisfaction and Loyalty
  - 4.1 Customer Satisfaction as a Condition for Long-Term Customer Loyalty
  - 4.2 Measuring Customer Satisfaction
  - 4.3 Achieving Customer Loyalty through Customer Satisfaction
  - 4.4 Creating Customer Satisfaction and Loyalty
5. Customer Loyalty Management
  - 5.1 Benefits and Effects of Customer Loyalty Management
  - 5.2 Customer Loyalty Strategies
  - 5.3 Customer Loyalty Measures and Tools
6. Customer Value and Customer Portfolio Management
  - 6.1 Basics of Customer Evaluation
  - 6.2 Customer Evaluation Procedure
  - 6.3 Customer Segmentation and Customer Portfolios
7. Strategies and Tools of CRM
  - 7.1 Characteristics and Tasks of CRM Strategies
  - 7.2 Phase-Dependent CRM Strategies and Tools
  - 7.3 Other Options and Tools
8. CRM Implementation and Monitoring
  - 8.1 Organization, Management, and Company Culture
  - 8.2 Architecture of the CRM Process
  - 8.3 Operational and Analytical CRM Processes
  - 8.4 Data Processing
  - 8.5 Opportunities for Effectiveness Monitoring



**Literature****Compulsory Reading****Further Reading**

- Buttle, F. A., & Maklan, S. (2019). Customer relationship management: Concepts and technologies (4th ed.). Routledge.
- Kumar, V., & Reinartz, W. J. (2018). Customer relationship management: Concept, strategy, and tools (3rd ed.). Springer.
- Palmatier, R. W., & Steinhoff, L. (2019). Relationship marketing in the digital age. Routledge.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Project: Agile Project Management

Module Code: DLBCSAPM

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Inga Schlömer (Project: Agile Project Management)

### Contributing Courses to Module

- Project: Agile Project Management (DLBCSAPM01)

### Module Exam Type

#### Module Exam

Study Format: myStudies  
Written Assessment: Project Report  
Study Format: Distance Learning  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- In this course, students are taught action competences in the field of agile project management. They will be familiarized with the values, activities, roles, and artifacts of agile procedures using Scrum as an example.

**Learning Outcomes****Project: Agile Project Management**

On successful completion, students will be able to

- explain the differences between agile and plan-driven project management.
- explain agile principles.
- work together in an agile manner according to the values defined in Scrum.
- apply the activities defined in Scrum.
- take responsibility for the roles defined in Scrum.
- create and maintain the artefacts defined in Scrum.
- consider the increasing relevance of international, intercultural and virtual collaboration in projects.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

## Project: Agile Project Management

Course Code: DLBCSAPM01

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

### Course Description

Students will receive a practical introduction to agile project management in this course. In addition to teaching its individual basic principles, the differences between agile project management and plan-driven project management will be examined in detail. In order to understand and experience agile project management, the values, activities, roles, and artefacts of typical agile procedures are presented using Scrum and then practiced on an example project.

### Course Outcomes

On successful completion, students will be able to

- explain the differences between agile and plan-driven project management.
- explain agile principles.
- work together in an agile manner according to the values defined in Scrum.
- apply the activities defined in Scrum.
- take responsibility for the roles defined in Scrum.
- create and maintain the artefacts defined in Scrum.
- consider the increasing relevance of international, intercultural and virtual collaboration in projects.

### Contents

- This course teaches students various skills in the field of agile project management. In contrast to plan-driven project management, the principles of agility used in modern software development are taught. Using the example of Scrum, students will acquire skills in applying an agile approach, and then apply their knowledge of respective roles and activities in a simple project to gain initial practical experience, documenting it in a project report. The content of the projects results from the individual abilities and requirements of the students.

**Literature****Compulsory Reading****Further Reading**

- Apress. Agile Alliance (2021). Subway Map to Agile Practices.
- Beck, K. et al. (2001). Manifesto for Agile Software Development.
- Chovanova, H. et al. (2020). Agile Project Management – What is It? Publisher: IEEE. In 18th International Conference on Emerging eLearning Technologies and Applications (ICETA), Emerging eLearning Technologies and Applications (ICETA), 2020 18th International Conference.
- Dalton, Jeff (2019). Great Big Agile. An OS for Agile Leaders.
- Douglass, B. P. (2016). Agile systems engineering. Morgan Kaufmann, p. 151-160.
- Hohl, P., Klünder, J., van Bennekum, A., Lockard, R., Gifford, J., Münch, J., Stupperich, M., & Schneider, K. (2018). Back to the future: origins and directions of the “Agile Manifesto” – views of the originators. Journal of Software Engineering Research and Development, 6(1).
- Project Management Institute (2017). Agile Practice Guide. Project Management Institute.
- Measey P., Radtac (2015). Agile Foundations - Principles, Practices and Frameworks. BCS The Chartered Institute for IT, p. 131-140, p. 148-152.
- Schwaber, K., Sutherland, J. (2020). The Scrum Guide.
- Hohl, P., Klünder, J., van Bennekum, A., Lockard, R., Gifford, J., Münch, J., Stupperich, M., & Schneider, K. (2018). Back to the future: origins and directions of the “Agile Manifesto” – views of the originators. Journal of Software Engineering Research and Development, 6(1).

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## FinTechs (Overview and Technological Basics)

Module Code: DLBFMWFT1\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (FinTechs (Overview and Technological Basics))

### Contributing Courses to Module

- FinTechs (Overview and Technological Basics) (DLBFMWFT01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Digitalization and digital transformation of the financial industry
- Internet platform solutions in the context of business financing as well as investment and asset allocation decisions
- Automation of business processes in the financial industry
- Big Data in the context of the financial industry
- Blockchain application in the financial industry
- Intermediation or disintermediation through FinTECHS

**Learning Outcomes****FinTechs (Overview and Technological Basics)**

On successful completion, students will be able to

- understand various terminologies of digitalization and digital transformation in the context of the financial industry and apply them correctly.
- understand different internet platform solutions in the context of business financing as well as investment and asset allocation decisions and analyze their fundamental services.
- understand the automation of business processes using IT and AI-based systems in the financial industry and analyze their fields of application in the financial industry.
- understand Big Data in the context of the financial industry and explore its application in the financial industry.
- understand Blockchain in the financial industry and analyze possible areas of application in the financial industry.
- evaluate the question of intermediation or disintermediation through FinTECHS in the financial industry.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Finance & Tax Accounting

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

## FinTechs (Overview and Technological Basics)

Course Code: DLBFMWFT01\_E

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

### Course Description

The digitalization and digital transformation of the financial industry are manifested in the term FinTECH. This course first provides conceptual and theoretical foundations on the topic of FinTECH, distinguishing this term from other emerging concepts in this discussion, such as TECHFin, InsureTECH, PropTECH. After understanding clarifying these conceptual and theoretical foundations, the course focuses on the discussion of new opportunities in corporate finance through IT and internet platform-based systems, and also illustrates potential application fields as support tools for investment and financial decision-making. The course also offers deeper insights into the partial and full automation of business processes in the financial industry, including AI-based systems. In a further step, the course reveals basic potential uses of Big Data in the finance industry. This involves an initial distinction between data collection and information generation, as well as specific analysis methods related to Big Data being explained to the students. The course also provides an overview of the technological foundations of blockchain technology and basic application fields of this technology for the financial industry. Finally, students are confronted with the question of whether the existing financial intermediation faces disintermediation within the financial industry due to new technologies and the actors involved (FinTECHs).

### Course Outcomes

On successful completion, students will be able to

- understand various terminologies of digitalization and digital transformation in the context of the financial industry and apply them correctly.
- understand different internet platform solutions in the context of business financing as well as investment and asset allocation decisions and analyze their fundamental services.
- understand the automation of business processes using IT and AI-based systems in the financial industry and analyze their fields of application in the financial industry.
- understand Big Data in the context of the financial industry and explore its application in the financial industry.
- understand Blockchain in the financial industry and analyze possible areas of application in the financial industry.
- evaluate the question of intermediation or disintermediation through FinTECHS in the financial industry.

**Contents**

1. Conceptual Foundations of FinTECH
  - 1.1 Digitalization and Digital Transformation of the Financial Industry and its Neo-Institutional Roots
  - 1.2 What is a FinTECH?
  - 1.3 Fintech vs. Techfin
  - 1.4 Are InsureTECH, PropTECH, and RegTECH Part of the FinTECH World?
2. Internet-Based Platform Solutions in the Financial Industry
  - 2.1 Corporate Financing Based on Internet Platform Solutions
  - 2.2 Investment and Financial Decision-Making Based on Internet Platform Solutions
3. Automation of Business Processes in the Finance Industry
  - 3.1 Automation of Financial Services with the Help of IT-Supported Systems
  - 3.2 Machine Learning and AI-Based Systems in the Finance Industry
4. Big Data and its Analysis
  - 4.1 Data Vs. Information
  - 4.2 What is Big Data?
  - 4.3 Analysis Methods in the World of Big Data
5. Blockchain and its Applications
  - 5.1 Basics of Cryptography and its Role in the Finance Industry
  - 5.2 Blockchain Technology and its Actors
  - 5.3 Potential Application Fields of Blockchain Technology in Economies
6. Is There Disintermediation by FinTECHS in the Finance Industry?
  - 6.1 Financial Intermediation: The Transformational Performance of Financial Intermediaries
  - 6.2 Are FinTECHS in Competition with Established Financial Intermediaries?
  - 6.3 Disintermediation: Reduction of Intermediation by FinTECHS?

**Literature****Compulsory Reading****Further Reading**

- Ashfaq, M., & Randall, V. (2020). Wirecard: The Rise and Fall of a German FinTech. The Case Centre.
- Ashfaq, M., Hasan, R., & Mercon, J. (2023). Central Bank Digital Currencies and Global Financial System: Theory and Practice. de Gruyter.
- Asif, M., Lodhi, R. N., Farhan, S., & Ashfaq, M. (2023). Dark side whitewashes the benefits of FinTech innovations: A bibliometric overview. *International Journal of Bank Marketing*.
- Blackstad, S., & Allen, R. (2018). *FinTech Revolution: Universal Inclusion in the New Financial Ecosystem*. Palgrave Macmillan.
- Hasan, R., Ashfaq, M., & Lingli, S. (2021). Evaluating drivers of FinTech adoption in the Netherlands. *Global Business Review*.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## FinTechs (Disruptive and Innovative Approaches)

Module Code: DLBFMWFT2\_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBFMWFT01_E or DLBFMWFT01	BA	5	150 h

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

### Module Coordinator

N.N. (FinTechs (Disruptive and Innovative Approaches))

### Contributing Courses to Module

- FinTechs (Disruptive and Innovative Approaches) (DLBFMWFT02\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Business models of FinTECHS in corporate finance and in investment and asset allocation decisions
- Business models of FinTECHS within the framework of business process automation in the finance industry
- Business models of FinTECHS based on Big Data in the finance industry
- Blockchain-based business models of FinTECHS in the finance industry
- Are the business models of FinTECHS only innovative, or also disruptively innovative?



**Learning Outcomes****FinTechs (Disruptive and Innovative Approaches)**

On successful completion, students will be able to

- understand internet-based platforms within the framework of business models in the FinTECH world and analyze their level of innovation.
- understand business models of FinTECHS in business process automation in the financial industry and analyze their level of innovation.
- understand the possibilities for the application of Big Data in the financial industry and analyze associated business models of FinTECHS and their level of innovation.
- understanding the possibilities for the application of Blockchain in the financial industry as a business model of FinTECHS and analyze their innovation level.
- evaluate business models of FinTECHS in terms of their innovation level and develop recommendations for various actors in the financial industry.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Finance & Tax Accounting

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

## FinTechs (Disruptive and Innovative Approaches)

Course Code: DLBFMWFT02\_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBFMWFT01_E or DLBFMWFT01

### Course Description

The course provides essential and concrete insights into the business models of FinTECHS. First, various versions of internet-based platform solutions from the FinTECHS world in the context of corporate financing and investment decision optimization are presented to the students. In the further course, students become familiar with various business models of FinTECHS in the context of business process automation. They will also gain detailed insights into the application possibilities of Big Data as a business model in the finance industry. Although the blockchain technology is most often associated with cryptocurrencies, it's also based on so-called smart contracts. The course shows students various areas of application of blockchain technology in the finance industry. Finally, based on a discussion about the degree of innovation of the presented business models, the students will be enabled to better anticipate possible future developments in the finance industry and to give concrete recommendations for various players in the finance industry under the impression of FinTECHS.

### Course Outcomes

On successful completion, students will be able to

- understand internet-based platforms within the framework of business models in the FinTECH world and analyze their level of innovation.
- understand business models of FinTECHS in business process automation in the financial industry and analyze their level of innovation.
- understand the possibilities for the application of Big Data in the financial industry and analyze associated business models of FinTECHS and their level of innovation.
- understanding the possibilities for the application of Blockchain in the financial industry as a business model of FinTECHS and analyze their innovation level.
- evaluate business models of FinTECHS in terms of their innovation level and develop recommendations for various actors in the financial industry.

### Contents

1. IT-Supported and Internet-Based Platform Variants from the FinTECH World
  - 1.1 Basics of Crowdfunding
  - 1.2 Basics of Social Trading
2. Business Process Automation by FinTECHS

- 2.1 IT-Supported Identification and Authentication of Transactions
- 2.2 Robo-Advisory
- 2.3 Instant Payment
- 2.4 Mobile Payment
- 2.5 Fintech-Solutions for Foreign Currency and Money Transactions
3. Big Data and its Application in the FinTECH World
  - 3.1 Big Data and Credit Ratings
  - 3.2 Big Data as a Solution for Optimized Target-Group Specific Financial Service Offerings
4. The Blockchain and its Application in the FinTECH World
  - 4.1 Cryptocurrencies
  - 4.2 Smart Contracts
5. Do FinTECHS Offer Innovative Approaches or are Their Business Models Disruptive Innovations?
  - 5.1 Innovation vs. Disruptive Innovation
  - 5.2 The Future of Traditional Financial Service Providers in the Financial Industry

## Literature

### Compulsory Reading

### Further Reading

- Ashfaq, M., Hasan, R., & Mercon, J. (2023). Central bank digital currencies and global financial system: Theory and practice. De Gruyter.
- Deitch, J. (2020). Disruptive fintech – The coming wave of innovation in financial services with thought leadership provided by CEOs. De Gruyter.
- Gupta, P., & Tham, T. M. (2019). FinTech – The DNA of financial services. De Gruyter.
- Walker, T., Nikbakht, E., & Kooli, M. (2023). The FinTech disruption: How financial innovation is transforming the banking industry. Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Introduction to the Internet of Things

Module Code: DLBINGEIT\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Marian Benner-Wickner (Introduction to the Internet of Things)

## Contributing Courses to Module

- Introduction to the Internet of Things (DLBINGEIT01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Internet of Things Fundamentals
- Social and Economic Significance
- Communication Standards and Technologies
- Data Storage and Processing
- Design and Development
- Applicability

**Learning Outcomes****Introduction to the Internet of Things**

On successful completion, students will be able to

- grasp the distinctive features of Internet of Things (IoT) and IoT systems.
- understand the social and economic importance of Internet of Things.
- identify the most important standards for communication between IoT devices.
- differentiate between various techniques for storing and processing data in IoT systems.
- identify different architectures and technologies for structuring IoT systems.
- recognize challenges of data protection and data security in IoT systems.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software

**Links to other Study Programs of the University**

All Bachelor Programmes in the IT & Technology field

# Introduction to the Internet of Things

Course Code: DLBINGEIT01\_E

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

## Course Description

The aim of this course is to give students an insight into technical and theoretical basics of the Internet of Things (IoT) and its fields of application. In addition to the general structure of IoT systems and the technology standards used in them, students are also taught the importance of Internet of Things for economy and society. Furthermore, this course demonstrates how data is exchanged, stored and processed in IoT.

## Course Outcomes

On successful completion, students will be able to

- grasp the distinctive features of Internet of Things (IoT) and IoT systems.
- understand the social and economic importance of Internet of Things.
- identify the most important standards for communication between IoT devices.
- differentiate between various techniques for storing and processing data in IoT systems.
- identify different architectures and technologies for structuring IoT systems.
- recognize challenges of data protection and data security in IoT systems.

## Contents

1. Internet of Things Fundamentals
  - 1.1 The Internet of Things - Basics and Motivation
  - 1.2 Evolution of the Internet - Web 1.0 to Web 4.0
2. Social and Economic Significance
  - 2.1 Innovations for Consumers and Industry
  - 2.2 Implications on People and the World of Work
  - 2.3 Data Protection and Data Security
3. Communication Standards and Technologies
  - 3.1 Network Topologies
  - 3.2 Network Protocols
  - 3.3 Technologies
4. Data Storage and Processing

- 4.1 Networked Storage with Linked Data and RDF(S)
- 4.2 Analysis of Networked Data using a Semantic Reasoner
- 4.3 Processing of Data Streams with Complex Event Processing
- 4.4 Operation and Analysis of Large Data Clusters using NoSQL and MapReduce
- 5. Design and Development
  - 5.1 Software Engineering for Distributed and Embedded Systems
  - 5.2 Architectural Patterns and Styles for Distributed Systems
  - 5.3 Platforms: Microcontrollers, Monoboard Computers, One-Chip Systems
- 6. Applicability
  - 6.1 Smart Home / Smart Living
  - 6.2 Ambient Assisted Living
  - 6.3 Smart Energy / Smart Grid
  - 6.4 Smart Factory
  - 6.5 Smart Logistics

## Literature

### Compulsory Reading

### Further Reading

- Buyya, R. & Vahid Dastjerdi, A. (Hrsg.) (2016). Internet of things. Principles and paradigms. Morgan Kaufmann, Cambridge (MA).
- Dian, F. J., & Vahidnia, R. (2020). IoT use cases and technologies. British Columbia Institute of Technology.
- Firouzi, F., Chakrabarty, K., & Nassif, S. (2020). Intelligent Internet of Things: From device to fog and cloud. Springer.
- Gilchrist, A. (2016). Industry 4.0. The industrial internet of things. Apress.
- Raj, P., & Raman, A. C. (2017). The Internet of things: enabling technologies, platforms, and use cases. CRC Press.



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Product Development in Industry 4.0

Module Code: DLBINGPE\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Dorian Mora (Product Development in Industry 4.0 )

## Contributing Courses to Module

- Product Development in Industry 4.0 (DLBINGPE01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to modern product development
- Fundamentals of product development
- Methods in the product development process
- Alternative design approaches
- Digitalization of product design
- Customized mass production
- Outlook: Digital engineering and operation

**Learning Outcomes****Product Development in Industry 4.0**

On successful completion, students will be able to

- recall the historical development of industrial production.
- name current trends in the context of the "fourth industrial revolution" and their impact on product development.
- know the basic methods in product development.
- know the traditional product development process from design theory.
- differentiate alternative approaches to product development.
- name selected tools in the context of digital and virtual product design.
- explain the lot size problem and determine lot sizes for traditional production types.
- distinguish traditional production types from modern strategies such as customized mass production and rapid manufacturing.
- name current approaches to the complete digitalization of product creation and production processes in terms of digital engineering.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Engineering

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology fields

# Product Development in Industry 4.0

Course Code: DLBINGPE01\_E

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

## Course Description

The aim of the course is to give students an overview of current approaches to modern product development in the context of Industry 4.0. Based on traditional methods and tools of product development, relevant alternative design approaches are described, which put the consumer in the center of the design. In addition, modern tools to support product design are presented with which an engineer can digitally capture and simulate both the static/geometric and dynamic properties of a product. In addition, aspects of customized mass production will be discussed and compared with traditional production types. As an outlook on future developments, current research approaches for consistently digitalized product development are presented.

## Course Outcomes

On successful completion, students will be able to

- recall the historical development of industrial production.
- name current trends in the context of the "fourth industrial revolution" and their impact on product development.
- know the basic methods in product development.
- know the traditional product development process from design theory.
- differentiate alternative approaches to product development.
- name selected tools in the context of digital and virtual product design.
- explain the lot size problem and determine lot sizes for traditional production types.
- distinguish traditional production types from modern strategies such as customized mass production and rapid manufacturing.
- name current approaches to the complete digitalization of product creation and production processes in terms of digital engineering.

## Contents

1. Introduction to Modern Product Development
  - 1.1 Terms of Industrial Production
  - 1.2 The Fourth Industrial Revolution
  - 1.3 Turnaround in the Factors of Production
  - 1.4 Trends in Product Development
2. Fundamentals of Product Development

- 2.1 Methods of Product Planning
- 2.2 Methods of the Solution Search
- 2.3 Selection and Evaluation of Alternatives
3. Methods in the Product Development Process
  - 3.1 Clarify Requirements
  - 3.2 Concept
  - 3.3 Draft
  - 3.4 Development
4. Alternative Design Approaches
  - 4.1 Design Thinking
  - 4.2 Personas
  - 4.3 Human-Centered Design According to ISO 9241-210
  - 4.4 Participatory Design
  - 4.5 Open Innovation
  - 4.6 Empathic Design
5. Digitalization of Product Design
  - 5.1 From Drawing Board to Digital Functional Model
  - 5.2 Computer-Aided Engineering
  - 5.3 Computer-Aided Quality
  - 5.4 Engineering and Product Data Management
  - 5.5 Simulation Data Management
6. Customized Mass Production
  - 6.1 Traditional Types of Production
  - 6.2 Lot Size Problem and Planning
  - 6.3 Mass Customization
  - 6.4 Rapid Manufacturing
7. Outlook: Digital Engineering and Operation
  - 7.1 Definition
  - 7.2 Fields of Application
  - 7.3 Data Mining
  - 7.4 Modeling of Dynamic Product Properties
  - 7.5 Provision of Information

**Literature****Compulsory Reading****Further Reading**

- Kull, H. (2015): Mass Customization. Opportunities, Methods, and Challenges for Manufacturers. Apress, Berkeley/New York.
- Olsen, D. (2015): The Lean product playbook: How to innovate with minimum viable products and rapid customer feedback. Wiley, Hoboken, NJ.
- Stark, J. (2022): Product Lifecycle Management (Volume 1): 21st Century Paradigm for Product Realisation (Decision Engineering) (English Edition). Fifth Edition. Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Introduction to New Work

Module Code: DLBNWENW\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Stefanie Rödel (Introduction to New Work)

### Contributing Courses to Module

- Introduction to New Work (DLBNWENW01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

<p><b>Module Contents</b></p> <ul style="list-style-type: none"> <li>▪ Working World of the Future</li> <li>▪ Concept Development</li> <li>▪ New Work as an Interdisciplinary Approach</li> <li>▪ Megatrends</li> <li>▪ Effects of Agile Organization Forms</li> <li>▪ Leadership and Cooperation in New Work</li> <li>▪ Empowerment</li> <li>▪ Competence Development</li> <li>▪ General Conditions</li> </ul>	
<p><b>Learning Outcomes</b></p> <p><b>Introduction to New Work</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ identify and understand the challenges of technological and societal change.</li> <li>▪ transfer the emerging challenges to human resources management and the leadership culture in companies.</li> <li>▪ understand the concepts of agile and fluid organizations and the resulting consequences.</li> <li>▪ identify solutions for complex environmental factors on leadership and human resources management.</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>This module is similar to other modules in the field of Human Resources</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programs in the Human Resources field</p>

## Introduction to New Work

Course Code: DLBNWENW01\_E

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

### Course Description

More and more companies leave their bureaucratic systems and hierarchical structures behind and adopt an agile style of work. Knowledge is both increasing and outdated at an increasing rate. Autonomy and creativity become of greater importance in more and more companies. Increasingly, processes and departments are set up according to agile principles. Work experiences an increasing dissolution of boundaries with both positive and negative effects. The question of how structures and corporate culture adapt better and faster to shorter innovation cycles and environmental changes affects all companies and their human resources management. It is more important than ever for knowledge and qualifications to be state of the art; consequently continuous learning needs to take a more prominent role in the work place. In the context of social and demographic change, work and organizations are moving further and further away from Taylorism and towards integral, evolutionary organizations whose work is characterized by self-management, a holistic view and meaningful tasks. This is accompanied by a change in orientation, away from bureaucracy towards democratic structures and empowerment. This course provides an introduction to the complex and contemporary theme of the new working world and work structure. Starting with a classification of the topic, we will define social megatrends as essential factors influencing human resource management and organization. Building on this, we will discuss the dipole of rigid and agile organizational structures and the resulting effects on leadership, personnel management and employees. Further, we will look at the concepts of cooperation and leadership during the implementation of new work structures and methods as well as necessary competencies. Competence development addresses how learning, attitudes and abilities are set to interact to provide companies with agile processes. Finally, we will critically reflect upon the new work concept, looking at advantages and disadvantages for those involved, predominantly in the context of legal and social conditions.

### Course Outcomes

On successful completion, students will be able to

- identify and understand the challenges of technological and societal change.
- transfer the emerging challenges to human resources management and the leadership culture in companies.
- understand the concepts of agile and fluid organizations and the resulting consequences.
- identify solutions for complex environmental factors on leadership and human resources management.

**Contents**

1. What is New Work?
  - 1.1 The World of Work of the Future
  - 1.2 Concept Development
  - 1.3 New Work as an Interdisciplinary Approach
2. Megatrends
  - 2.1 Globalization
  - 2.2 Digitalization and Connectivity
  - 2.3 Individualization and Changing Values
  - 2.4 Demographic Change and Diversity
3. Organization of New Work
  - 3.1 Fixed Organization Forms
  - 3.2 Agile Organization Forms
  - 3.3 Effects of Agile Organization Forms
4. Empowerment, Leadership, and Cooperation
  - 4.1 Empowerment
  - 4.2 Leadership
  - 4.3 New Forms of Agile Cooperation
  - 4.4 New Frameworks, Methods, and Tools for Cooperation
5. Competence Development
  - 5.1 Competencies
  - 5.2 Settings and Mindset
  - 5.3 Continuous Learning
6. General Conditions and Criticism
  - 6.1 General Conditions
  - 6.2 Critical Classification of New Work

**Literature****Compulsory Reading****Further Reading**

- Bergmann, F. (2019): *New Work, New Culture: Work We Want and a Culture That Strengthens Us*. Zero Books, Washington, S. 7–19.
- Bernstein, E. et al. (2016): *Beyond the Holacracy Hype*. Harvard Business Review, Harvard.
- Felin, T./Powell, T. C. (2016): *Designing organizations for dynamic capabilities*. In: *California Management Review, Journal 58, Magazine 4*, p. 78–96.
- Frithjof, B. (2019): *New work, new culture: work we want and a culture that strengthens us*, Winchester, UK ; Washington, USA: Zero Books.
- Haapakangas, A. et al. (2018): *Self-rated productivity and employee well-being in activity based offices: the role of environmental perceptions and workspace use*. *Building and Environment*, Heft 145, S. 115–124.
- Siangchokyoo, Nathapon; Klinger, Ryan L. (2022): *Shared Leadership and Team Performance: The Joint Effect of Team Dispositional Composition and Collective Identification*. In: *Group & Organization Management*. Feb2022, Vol. 47 Issue 1, p109-140. 32p.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



## Project: New Work

Module Code: DLBPEPNW\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Dr. Anna Meindl (Project: New Work)

### Contributing Courses to Module

- Project: New Work (DLBPEPNW01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Portfolio  
Study Format: myStudies  
Portfolio

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

The course deals with the managerial, organizational and workplace changes affecting companies as a result of megatrends.

**Learning Outcomes****Project: New Work**

On successful completion, students will be able to

- define and explain the term New Work.
- develop a grasp for changes in work, leadership and organization in the wake of important megatrends and their effects.
- explain the stages of change processes in the context of the New Work concept and to implement them in an example project.
- apply important methods and tools in change processes.
- reflect and document the most important lessons learned for change processes.

**Links to other Modules within the Study Program**

This module is similar to other modules in the fields of Human Resources

**Links to other Study Programs of the University**

All Bachelor Programs in the Human Resources fields

## Project: New Work

Course Code: DLBPEPNW01\_E

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

### Course Description

The term New Work, as a collective term for all changes to work, leadership and organization, is the focus of this course and will be explored by the students using practical examples. On the basis of a project from company HR practice with a focus on New Work, a portfolio will be developed in which the students reflect and document their most important learning experiences. This will allow the students to further develop their technical, methodological, personal and social skills.

### Course Outcomes

On successful completion, students will be able to

- define and explain the term New Work.
- develop a grasp for changes in work, leadership and organization in the wake of important megatrends and their effects.
- explain the stages of change processes in the context of the New Work concept and to implement them in an example project.
- apply important methods and tools in change processes.
- reflect and document the most important lessons learned for change processes.

### Contents

- New Work deals with changes resulting from megatrends which in turn impact the work, leadership and organizational aspects. These megatrends can be digitalization, globalization, demographic trends or changing values. Possible contents of the course are:
  - new models for workplace design (e.g. Co-Working space)
  - new models of collaboration (e.g. virtual teams, mixed-age teams)
  - new models of leadership (e.g. shared leadership, agile leadership)
  - agile organization (e.g. Holocracy)
  - Effects on staff development (e.g. shifting the responsibility for lifelong learning to the employee)

The process of change that accompanies the introduction of these new concepts is to be exemplified and the important learning experiences of the students reflected and documented.

**Literature****Compulsory Reading****Further Reading**

- Cameron, Esther & Green, Mike (2015) Making Sense of Change Management: A Complete Guide to the Models, Tools and Techniques of Organizational Change, 4th Ed., Kogan Page Limited, London, UK.
- Harteis C. (eds) The Impact of Digitalization in the Workplace. An Educational View. Springer, Cham.
- Keller, Scott, and Schaninger, Bill (2019) Beyond Performance 2.0: A Proven Approach to Leading large-Scale Change, McKinsey & Company, John Wiley and Sons.
- Kotter, John P. (2012) Leading Change, Harvard Business Review Press.
- On Change Management (2011), Harvard Business Review Press, Boston MA.
- Merlijn Venus, Daan Stam, and Daan van Knippenberg (2018) Research: To Get People to Embrace Change, Emphasize What Will Stay the Same, Harvard Business Review, August 15, 2018.
- Hatum, Andres (2013) The New Workforce Challenge - How Today's Leading Companies Are Adapting to the Future. PgraveMacmillan.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Portfolio

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Portfolio

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Social Media Marketing

Module Code: DLBMSM2-01\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Josephine Zhou-Brock (Social Media Marketing)

## Contributing Courses to Module

- Social Media Marketing (DLBMSM02-01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies

Advanced Workbook

Study Format: Distance Learning

Advanced Workbook

### Split Exam

## Weight of Module

see curriculum

<p><b>Module Contents</b></p> <ul style="list-style-type: none"> <li>▪ Basics of Social-Media-Marketing</li> <li>▪ Social Media Marketing Within the Overall Marketing Mix</li> <li>▪ Social Media Landscape</li> <li>▪ Developing a Social Media Strategy</li> <li>▪ The Role of Social Media in Innovation Management</li> <li>▪ Operational Social Media Marketing</li> <li>▪ Legal Terms and Conditions of Social Media</li> <li>▪ Developments in Social Media Marketing</li> </ul>	
<p><b>Learning Outcomes</b></p> <p><b>Social Media Marketing</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ understand social implications and networking communication strategies and to apply them to the field of Social Media Marketing.</li> <li>▪ integrate Social Media Marketing into the overall Marketing Mix.</li> <li>▪ develop a Social Media strategy and proposals for its operational implementation.</li> <li>▪ evaluate the different Social Media channels (Facebook, Instagram...)</li> <li>▪ use Social Media for Innovation Management and networks.</li> <li>▪ fundamentally assess the marketing opportunities of a company in the Social Media sector and make strategic decisions in this regard.</li> <li>▪ evaluate developments in Social Media Marketing from a sociological as well as a business perspective.</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>This module is similar to other modules in the field of Online &amp; Social Media Marketing</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programs in the Marketing &amp; Communication field</p>



# Social Media Marketing

Course Code: DLBMSM02-01\_E

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

## Course Description

How did Social Media become Social Media Marketing? Social Media has developed from a private communication medium to a commercialized advertising tool. A basic understanding of this development, the social implications of Social Media as well as the networked communication strategies on the Internet is the basis for an active examination of Social Media Marketing. Social Media Marketing is considered both strategically and operationally. The strategic perspective includes the aspect of strategic positioning of Social Media in the company as well as the integration into the overall marketing mix. In addition to fundamental aspects of strategy development, students will deal with the instruments of today's Social Media Marketing and the channels to use them specifically for further marketing measures and strategies in a success-oriented manner. For the active operative examination of Social Media Marketing, Social Media channels such as Facebook, Instagram, Pinterest, etc. are examined in detail in order to use them specifically for further marketing measures and strategies. Digital advertising measures that are used in Social Media are an integral part of this course. Their usage will also be considered from a legal perspective. Thus, the Social Media Marketing course teaches basic concepts such as the development of a Social Media strategy, including aspects such as content management, editorial planning or target group analysis. It deals with the usage and monitoring of different Social Media channels in a practice-oriented way and it considers the area of operative Social Media Marketing. Hence, this course provides students with a well-founded holistic view of the field of Social Media Marketing and develops the ability to use Social Media for innovation management.

## Course Outcomes

On successful completion, students will be able to

- understand social implications and networking communication strategies and to apply them to the field of Social Media Marketing.
- integrate Social Media Marketing into the overall Marketing Mix.
- develop a Social Media strategy and proposals for its operational implementation.
- evaluate the different Social Media channels (Facebook, Instagram...)
- use Social Media for Innovation Management and networks.
- fundamentally assess the marketing opportunities of a company in the Social Media sector and make strategic decisions in this regard.
- evaluate developments in Social Media Marketing from a sociological as well as a business perspective.

**Contents**

1. Basics of Social Media Marketing
  - 1.1 The Development of Social Media and the Concept of Social Media Marketing
  - 1.2 Social Implications of Social Media
  - 1.3 The Features, Types, and Areas of Application of Social Media Marketing
  - 1.4 Classification and Activities of Social Media Users
2. Social Media Marketing Within the Overall Marketing Mix
  - 2.1 Opportunities and Risks of Social Media
  - 2.2 The Groundswell POST Method
  - 2.3 Integration within the Traditional Marketing Mix
  - 2.4 Social Media as a Customer Service Channel
  - 2.5 Goals of Social Media Marketing
  - 2.6 Relevant Key Figures to Measure Success
  - 2.7 The Strategic Positioning of Social Media at Companies
3. Social Media Landscape
  - 3.1 Overview of the Social Media Landscape
  - 3.2 Profiles of the Most Relevant Social Media Channels
  - 3.3 Target Audience/User Groups
4. Developing a Social Media Strategy
  - 4.1 What is a Strategy? Definitions
  - 4.2 Strategic Goals
  - 4.3 Steps of Developing a Social Media Strategy
  - 4.4 Online Reputation Management and Crisis Management
  - 4.5 Social Media Governance
5. The Role of Social Media in Innovation Management
  - 5.1 The Importance of the Crowd and its Applications
  - 5.2 Innovations are made possible by Interactive Value Creation, Branded Communities, Lead Users and Social Media Intelligence
  - 5.3 Social Media as a Market Research Tool
6. Operational Social Media Marketing
  - 6.1 Content Marketing and Native Advertising
  - 6.2 Viral Marketing and Word of Mouth
  - 6.3 Influencer Marketing
  - 6.4 Social Media in B2B Marketing

6.5	Community Management und Social Media Monitoring
6.6	Social Media Relations
6.7	Social Media Recruiting
6.8	Social Advertising
7.	Legal Terms and Conditions of Social Media
7.1	Legal Terms and Conditions of using Social Media
7.2	General Data Protection Regulation (GDPR)
7.3	User-generated Content
7.4	Facebook Pixel
8.	Developments in Social Media Marketing
8.1	Social Media in a Time of Digital Transformation: A new kind of Consumption
8.2	Social Products and Brands
8.3	Social Commerce and Social Selling
8.4	Instant Messengers and Bots
8.5	The Terms "Post-Factual" and "Post-Digital"
8.6	Open Leadership and Dealing with Loss of Control

### Literature

#### Compulsory Reading

#### Further Reading

- Aral, S. (2020). The hype machine. How social media disrupts our elections, our economy, and our health – and how we must adapt. Random House.
- Barker, M. S., Barker, D. I., Borman, N. F., Roberts, M. L. & Zahay, D. (2017). Social media marketing. A strategic approach (2nd ed.). CENGAGE Learning.
- Butow, E., Allton, M., Herman, J., Liu, S., & Robinson, A. (2020). Ultimate guide to social media marketing. Entrepreneur Press, Fitch.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Advanced Workbook

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Advanced Workbook

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Project: Marketing Analytics

Module Code: DLBDBPMA\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Project: Marketing Analytics)

### Contributing Courses to Module

- Project: Marketing Analytics (DLBDBPMA01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

In this course, students are given the opportunity to gain practical experience with concepts and methods for analyzing and evaluating marketing activities, particularly online marketing. The main focus is on the use of established marketing analytics tools in a sample project.

**Learning Outcomes****Project: Marketing Analytics**

On successful completion, students will be able to

- name concepts and methods for analyzing and evaluating marketing activities.
- apply tools for analyzing marketing activities, especially online marketing.
- gain information about the customer in order to better understand their behavior.
- understand visitor behavior on websites.
- measure the efficiency and effectiveness of online advertisements using tools.

**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 Bachelor Programs in the Marketing & Communication field

## Project: Marketing Analytics

Course Code: DLBDBPMA01\_E

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

### Course Description

In this course, the students will receive a practical introduction to the analysis of marketing channels. In order to not only understand these activities but also gain initial personal experience, selected tools for analysis will be introduced and applied by the students in a sample project.

### Course Outcomes

On successful completion, students will be able to

- name concepts and methods for analyzing and evaluating marketing activities.
- apply tools for analyzing marketing activities, especially online marketing.
- gain information about the customer in order to better understand their behavior.
- understand visitor behavior on websites.
- measure the efficiency and effectiveness of online advertisements using tools.

### Contents

### Literature

#### Compulsory Reading

#### Further Reading

- Bouvier, G., & Rasmussen, J. (2022). Qualitative research using social media. Routledge.
- Kohli, A., & Gupta, N. (2021). Big data analytics: An overview. In 2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO) (pp. 1-5). Noida.
- McGee, A. (2023). Google Analytics 4: What you need to know. *Shooting Industry*, 68(7), 40-41.
- Nuttavuthisit, K. (2019). Qualitative consumer and marketing research. The Asian perspectives and practices. Springer.
- Vomberg, A., & Klarmann, M. (2022). Crafting survey research: A systematic process for conducting survey research. In C. Homburg, A. Vomberg, & M. Klarmann (Eds.), *Handbook of market research* (pp. 67-119). Springer.



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Search Engine Optimization - SEO

Module Code: DLBECSE01\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Jonas Polfuß (Search Engine Optimization - SEO)

## Contributing Courses to Module

- Search Engine Optimization - SEO (DLBECSE01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Written Assessment: Case Study

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Instruments and Measures of Onpage Optimization
- Instruments and measures of Offpage Optimization
- Monitoring and Controlling

**Learning Outcomes****Search Engine Optimization - SEO**

On successful completion, students will be able to

- recognize the relevance of search engine optimization for a wide variety of business models.
- identify starting points for a convincing search engine optimization.
- optimize one's web presence for search engines by applying appropriate on-page and off-page optimization measures.
- identify "unauthorized" search engine optimization measures.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Online & Social Media Marketing

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field

# Search Engine Optimization - SEO

Course Code: DLBECSEO01\_E

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

## Course Description

The term "search engine optimization", or SEO for short, refers to all activities that lead to the company's own online offerings (i.e. the content of a website that is placed online) achieving a better ranking in the organic or editorial hit lists of the search engines. This is achieved through so-called on-page and off-page optimization and constant monitoring. On-page optimization includes all measures taken on the company's own website, such as technical, content-related and structural measures. Off-page optimization includes measures taken outside the company's own web presence. The course provides the necessary basic knowledge of how the site to be managed can be optimized in terms of On- and Off-page monitoring using appropriate software. The aim of the course is to enable students to better position websites in search engines - especially Google.

## Course Outcomes

On successful completion, students will be able to

- recognize the relevance of search engine optimization for a wide variety of business models.
- identify starting points for a convincing search engine optimization.
- optimize one's web presence for search engines by applying appropriate on-page and off-page optimization measures.
- identify "unauthorized" search engine optimization measures.

## Contents

1. Basics of Search Engine Optimization
  - 1.1 Definition of Terms & Subject of Search Engine Marketing
  - 1.2 Search Engine Marketing in Transition
  - 1.3 SEO Tools and SEO Software
2. Keyword Research
  - 2.1 Basics
  - 2.2 Keyword Strategy: Short Tail and Long Tail
  - 2.3 Steps of a Keyword Research
  - 2.4 Keyword Databases
  - 2.5 Keywords: Types and Properties, Mapping
  - 2.6 Keyword Potential Analysis

3. On-Site Search Engine Optimization
  - 3.1 Basics
  - 3.2 Content Aspects - Content is King!
  - 3.3 Structural Aspects
  - 3.4 Technical Aspects
4. Off-Site Search Engine Optimization
  - 4.1 Basics
  - 4.2 Link Building: Link Building Methodologies
  - 4.3 Back Linking: Audit and Cleanup
  - 4.4 Link Purchase
  - 4.5 Web Catalogs, Web Directories, Weblogs, Satellite Domains, Web 2.0
  - 4.6 Penalties and Link Removal
5. SEO Special Topics
  - 5.1 Google and Universal Search
  - 5.2 International SEO
  - 5.3 Local SEO
  - 5.4 Website Relaunch
  - 5.5 Social Media
6. Monitoring, Controlling and Tracking
  - 6.1 Basics
  - 6.2 Success Criteria
  - 6.3 Google Analytics

## Literature

### Compulsory Reading

### Further Reading

- Allan, H. J. (2021). Introducing to SEO. Understand How to Leverage Search Engine Optimization for Internet Marketing Strategies. Independently published. (SEO Secrets, Band 1).
- Enge, E., Spencer, S., Stricchiola, J. C. (2015). The Art of SEO. Mastering Search Engine Optimization (3rd ed.). O'Reilly.
- Kelsey, T. (2017). Introduction to Search Engine Optimization. A Guide for Absolute Beginners. Apress.
- Moll, B. (2021). SEO 2022. The Ultimate Guide to Search Engine Optimization in 2022 for Beginners and Advanced. Independently Published.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Search Engine Advertising - SEA

Module Code: DLBECSEA2\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Search Engine Advertising - SEA)

### Contributing Courses to Module

- Search Engine Advertising - SEA (DLBECSEA01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Case Study

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Basics of Search Engine Advertising (SEA)
- Google Ads Introduction and Keyword Search
- Evaluation and Optimization of Ads Campaigns
- SEA Tools and SEA Software

**Learning Outcomes****Search Engine Advertising - SEA**

On successful completion, students will be able to

- differentiate between SEO and SEA, classify SEA in the online marketing mix and explain the advantages as well as disadvantages of the channel.
- define goals for search engine advertising.
- design the process of search engine advertising.
- create keyword lists that match search queries.
- set up campaigns in Google Ads and manage and optimize them for success.
- analyze search engine advertising successes.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Online & Social Media Marketing

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field



# Search Engine Advertising - SEA

Course Code: DLBECSEA01\_E

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

## Course Description

SEA is also referred to as search engine advertising, keyword advertising or sponsored links and stands for the placement of (text) ads in search engines such as Google, Yandex, Baidu, Oath (Yahoo) and Bing. Advertising in search engines has established itself as one of the most important measures in online marketing. Above all, placing ads on Google's search results page and on the websites of Google partners (affiliates) is an excellent means of directing prospective customers to a website or online store in a targeted manner, i.e. without major wastage. In this course, students will learn how search engine advertising works, how to design successful ads and how to place them on Google. They will also learn which key figures are relevant for search engine advertising, how to measure the success of a campaign and how to optimize it. Using a given case study, students will apply what they have learned directly in Google Ads and measure their success in Google Analytics. In addition, the course optimally prepares students for the test to obtain the Google Ads certificate.

## Course Outcomes

On successful completion, students will be able to

- differentiate between SEO and SEA, classify SEA in the online marketing mix and explain the advantages as well as disadvantages of the channel.
- define goals for search engine advertising.
- design the process of search engine advertising.
- create keyword lists that match search queries.
- set up campaigns in Google Ads and manage and optimize them for success.
- analyze search engine advertising successes.

## Contents

1. Basics of Search Engine Advertising (SEA)
  - 1.1 Definition, Operating Principle, Significance, Advantages, Legal Aspects
  - 1.2 Provider Structure in Germany
2. Google Ads
  - 2.1 Entry and Basics
  - 2.2 Structural Aspects
  - 2.3 Technical Aspects

- 2.4 Costs and the Quality Factor
- 2.5 Determine Matching Keywords to Ads
- 2.6 Landing Pages: Turning Visitors Into Customers
3. Campaign Evaluation and Optimization
  - 3.1 Campaign Statistics and Report Queries
  - 3.2 Conversions, ROI and Maximum Profit
  - 3.3 Search Funnel and Conversion Path
4. Internal and External Tools and Software
  - 4.1 ACE Tests, Automated Rules
  - 4.2 Web Analytics and Google Analytics
  - 4.3 Landing Page and Conversion Optimization
  - 4.4 SEA Software
5. Display Advertising Network
  - 5.1 Successful Strategies and Optimizations
  - 5.2 Alignment Options and Advanced Settings
  - 5.3 Remarketing and Interest-Based Campaigns
6. Ad Extensions
  - 6.1 Sitelinks, Merchant Center, Product Extensions
  - 6.2 Local Ads, Google Places, ROPO
  - 6.3 Mobile Ads, Click-to-Call, AdMob

## Literature

### Compulsory Reading

### Further Reading

- Chaffey, D., & Ellis-Chadwick, F. (2019). Digital Marketing [Electronic Resource]: (Seventh Edition). Pearson.
- Imtiaz, Hassan (2021). Google Ads (AdWords), in Plain English: Learn PPC- Digital Marketing on Google Ads (AdWords), Display Network & YouTube (First Edition). AIDA Digital Ltd. UK.
- Maya, Laura (2020). Google Ads Mastery Guide (First Edition). Publisher s21598.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Digital Future Industry

Module Code: DLBLODFI\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Digital Future Industry)

### Contributing Courses to Module

- Digital Future Industry (DLBLOISCM201\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- IT systems and digital models
- Technology innovations as drivers of Industry 4.0
- Innovative business models through digitization
- Cyber-physical systems and decentralized control structures in digital value chains
- Fields of application and potential uses of big data applications and cloud computing
- Work and education in the age of digitalization
- Future production systems and value chains ("smart" factory)

## Learning Outcomes

### Digital Future Industry

On successful completion, students will be able to

- place the importance of process thinking in logistics and in the context of supply chain management, and to name the main features of processes.
- demarcate IT systems for the depiction and support of operational processes, and to describe potentials through digitalization in the area of modeling in the form of the digital twins.
- name and characterize the different phases of the industrial revolution.
- show societal developments and implications for the working world as a result of digitalization and Industry 4.0.
- name technological developments and innovations as drivers of Industry 4.0, and describe the opportunities created by digitalization for the development of innovative business models and apply them in an operational context.
- recognize the potentials of decentralized control structures in digital value networks opened up by digitalization, as well as describe cyber-physical systems and their functionality and importance in the context of real-time control of industrial production.
- structurally present the implications and potentials of digitalization for industrial processes and industrial production.
- show improved analysis capabilities through the use of big data applications and mirror them in operational practice, as well as explain the importance of cloud computing in an industrial context.
- describe the impact of digitalization on the design of future production systems and value chains from a higher-level perspective, and explain the connections to other societal tasks and areas such as education and research.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Transportation & Logistics

#### Links to other Study Programs of the University

All Bachelor Programs in the Management field

## Digital Future Industry

Course Code: DLBLOISCM201\_E

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

### Course Description

By participating in this course, students gain a comprehensive insight into questions of digitalization in industrial production and value networks. On one hand, the main drivers of Industry 4.0 in the form of technological innovations and their application and deployment fields are addressed and classified according to their potential to improve operational processes and discussed in the context of developing innovative business models. On the other hand, societal challenges of digitalization, particularly with regard to the working world of tomorrow and the design of the human-machine interface, are presented and put up for discussion.

### Course Outcomes

On successful completion, students will be able to

- place the importance of process thinking in logistics and in the context of supply chain management, and to name the main features of processes.
- demarcate IT systems for the depiction and support of operational processes, and to describe potentials through digitalization in the area of modeling in the form of the digital twins.
- name and characterize the different phases of the industrial revolution.
- show societal developments and implications for the working world as a result of digitalization and Industry 4.0.
- name technological developments and innovations as drivers of Industry 4.0, and describe the opportunities created by digitalization for the development of innovative business models and apply them in an operational context.
- recognize the potentials of decentralized control structures in digital value networks opened up by digitalization, as well as describe cyber-physical systems and their functionality and importance in the context of real-time control of industrial production.
- structurally present the implications and potentials of digitalization for industrial processes and industrial production.
- show improved analysis capabilities through the use of big data applications and mirror them in operational practice, as well as explain the importance of cloud computing in an industrial context.
- describe the impact of digitalization on the design of future production systems and value chains from a higher-level perspective, and explain the connections to other societal tasks and areas such as education and research.

**Contents**

1. Systems and Processes in Economy and Logistics
  - 1.1 Systems Thinking and Model Building
  - 1.2 Processes and Process Thinking - Industrial Processes and Business Processes
  - 1.3 Representation of Business Processes in IT Systems
  - 1.4 Automation and Digitalization in Production – The Digital Twin
2. Trends and Developments
  - 2.1 From the Industrial Revolution to Today and Beyond – From Automation to Digitalization
  - 2.2 Production 4.0 and Society 4.0 - Evolution and Revolution, Social Implications
  - 2.3 Human-Robot Cooperation - Developing Competencies for Production Together
  - 2.4 Innovations and Innovation Management in Industry and for Industry 4.0
3. Digital Value Creation Networks
  - 3.1 Decentralized Forms of Control – Self-controlling Production Systems and Swarm Intelligence
  - 3.2 Value Creation in Real-time Control and Governance
  - 3.3 3D Printing and Implications for Industrial Production
  - 3.4 Industrial Processes in a Digital World
4. Dealing with Large Amounts of Data
  - 4.1 Challenges and Strategies in Dealing with Big Data in Production
  - 4.2 Technical Solutions in Various Application Fields – Predictive Maintenance and Artificial Intelligence in Production
  - 4.3 Cloud Services in Tomorrow's Production
  - 4.4 Security and Data Protection
  - 4.5 Implications and Opportunities for Production Logistics
5. Production Systems in a Digital World
  - 5.1 Future Design of Production Systems
  - 5.2 Production Automation and Cyber-Physical Systems
  - 5.3 Digitalization of Global Production and Supply Networks
  - 5.4 The Human in the Production of the Future
  - 5.5 Education for the Digitalized World – Future Skills for Production of Tomorrow
  - 5.6 Gamification for Concept Development in Production
  - 5.7 Current Research Projects for Production

**Literature****Compulsory Reading****Further Reading**

- Ghobakhloo, M. (2018). The future of manufacturing industry: A strategic roadmap toward Industry 4.0. *Journal of Manufacturing Technology Management*, 29(6), 910-936.
- Kamble, S. S., Mor, R. S., & Belhadi, A. (2023). Digital transformation and Industry 4.0 for sustainable supply chain performance. Springer.
- Paksoy, T., & Deveci, M. (2023). Smart and sustainable operations and supply chain management in Industry 4.0. Routledge.
- Singh, G., Goel, R., & Garg, V. (2023). Industry 4.0 and the digital transformation of international business. Springer.



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Digital Future Commerce

Module Code: DLBDBDFC\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Dr. Konstantinos Kalligiannis (Digital Future Commerce)

## Contributing Courses to Module

- Digital Future Commerce (DLBLOGC201\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Systems and processes in business and logistics
- Trends and developments
- Digital value networks
- Handling large amounts of data
- Global trade in a digital world

**Learning Outcomes****Digital Future Commerce**

On successful completion, students will be able to

- explain the possibilities for mapping business processes in IT systems and assess the possible uses of workflow management systems.
- explain current trends in digitization, outline historical developments starting with the industrial revolution, and explain the innovation potential of digitization.
- describe digital value networks and their special features using examples.
- describe the implications of E-Commerce for logistics and analyze the impact of digitalization on business processes.
- explain the challenges of Big Data and develop concepts as well as solution strategies for individual fields of application, especially from the area of eCommerce.
- describe global commerce in the digitalized world against the backdrop of rapid changes and adaptation processes and to classify the "human factor" in this context.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of E-Commerce

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field

# Digital Future Commerce

Course Code: DLBLOGC201\_E

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

## Course Description

Participation in the course is designed to familiarize students with the future topics of digitization in logistics, industry and commerce. They will gain an overview of the status of technical developments and current implementation. Based on this, they will develop concepts and implementation strategies for selected operational contexts.

## Course Outcomes

On successful completion, students will be able to

- explain the possibilities for mapping business processes in IT systems and assess the possible uses of workflow management systems.
- explain current trends in digitization, outline historical developments starting with the industrial revolution, and explain the innovation potential of digitization.
- describe digital value networks and their special features using examples.
- describe the implications of E-Commerce for logistics and analyze the impact of digitalization on business processes.
- explain the challenges of Big Data and develop concepts as well as solution strategies for individual fields of application, especially from the area of eCommerce.
- describe global commerce in the digitalized world against the backdrop of rapid changes and adaptation processes and to classify the "human factor" in this context.

## Contents

1. Systems and Processes in Business and Logistics
  - 1.1 Logistical Systems Thinking and Economic Modeling
  - 1.2 Logistical Processes and Process Thinking in Retail
  - 1.3 Mapping of Business Processes in IT Systems
  - 1.4 Working Time Management: Demand-Oriented Personnel Logistics
2. Trends and Developments
  - 2.1 The History of Global Trade Logistics - From the Early Forms of Logistics Optimization to Digitalization
  - 2.2 The Tension between Liberalization and Protectionism
  - 2.3 Disruptive Innovations in Retail Logistics Yesterday and Today
  - 2.4 Humans in the Robotized World of Work - an Indispensable Disruptive Factor?

3. Digital Value Networks
  - 3.1 Self-Controlling Systems - Technologies and Organization - Swarm Intelligence
  - 3.2 3D Printing and Implications for Retail Logistics
  - 3.3 Logistics Processes in a Digital World
  - 3.4 E-Commerce and E-Logistics
4. Handling Large Amounts of Data
  - 4.1 Challenges and Strategies in Dealing with Big Data
  - 4.2 Technical Solutions in Various Fields of Application
  - 4.3 Cloud Services
  - 4.4 Security and Data Protection
5. Global Trade in a Digital World
  - 5.1 Adaptive Trade and Supply Chains
  - 5.2 Design and Redesign of Global Retail Chains
  - 5.3 Digitization of Global Production and Supply Networks
  - 5.4 Education for the Digitalized World

## Literature

### Compulsory Reading

### Further Reading

- Ali, M., Khan, S. U., & Vasilakos, A. V. (2015). Security in cloud computing: Opportunities and challenges. *Information Sciences*, 305(1), 357–383.
- Laudon, K. C., & Traver, C. G. (2019). *E-commerce 2019: Business, technology, and society* (15th ed., Global ed.). Pearson.
- Saberi, S., Kouhizadeh, M., Sarkis, J., & Shen, L. (2019). Blockchain technology and its relationship to sustainable supply chain management. *International Journal of Production Research*, 57(7), 2117–2135.
- Tian, Z., & Chen, L. (2020). The self-organization process of logistics industry system. In L. Menggand, Z. Runtong, X. Shang, M. Dresner, & G. Hua (Eds.), *IEIS2019: Proceedings of the 6th international conference and industrial security engineering* (pp. 459–472). Springer.
- Vazquez, E. E. (2019). Effect of e-retail product category on performance. In G. Granata, A. M. Tartaglione, & T. Tsiakis (Eds.), *Predicting trends and building strategies for consumer engagement in retail environments* (pp. 152–168). IGI Global Publishing.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# E-Commerce I

Module Code: DLBECEC1-01\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Kathrein Ristow (E-Commerce I)

## Contributing Courses to Module

- E-Commerce I (BWEC01-02\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Overview
- Players and market forms of e-commerce
- Revenue concepts in e-commerce
- Operation types and business models in e-commerce
- Legal Framework Conditions of e-commerce
- Strategies in e-commerce

**Learning Outcomes****E-Commerce I**

On successful completion, students will be able to

- understand electronic sales as a component of corporate strategy.
- understand the types of business and business models.
- outline the development of online markets.
- analyze legal and economic framework conditions.
- outline the main features of electronic commerce and make initial strategic decisions.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of E-Commerce

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field



# E-Commerce I

Course Code: BWEC01-02\_E

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

## Course Description

This course uses the basics of business and economic principles to give students an initial introduction to the topic of e-commerce. First of all, actors and market forms are explained and possible business relationships are explained. Furthermore, possible operation types and business models in e-commerce are presented and explained in detail. In addition, the legal and economic framework conditions surrounding online retail are described. In summary, the course teaches basic technical terms and concepts from electronic commerce and deals with different strategies in e-commerce.

## Course Outcomes

On successful completion, students will be able to

- understand electronic sales as a component of corporate strategy.
- understand the types of business and business models.
- outline the development of online markets.
- analyze legal and economic framework conditions.
- outline the main features of electronic commerce and make initial strategic decisions.

## Contents

1. Overview
  - 1.1 Classification and Definitions
  - 1.2 Digital Transformation and Disruption
  - 1.3 Economic Importance for Trade
2. Actors and Market Forms in E-Commerce
  - 2.1 Market Participants and Business Relationships
  - 2.2 Online Shops
  - 2.3 Online Marketplaces
3. Revenues in E-Commerce
  - 3.1 Business Plan and Proof of Concept
  - 3.2 Revenue Models
4. Operation Types and Business Models in E-Commerce

- 4.1 Typologies of Operations
- 4.2 Business Model Diversity
- 4.3 Integration with Traditional Retail
5. Legal Framework Conditions of E-Commerce
  - 5.1 Legal Regulations on Distance Selling
  - 5.2 Data Protection
  - 5.3 Copyright (German Copyright Law) and Domain Law
  - 5.4 Imprint Obligation and Dispute Resolution
6. Strategies in E-Commerce
  - 6.1 Strategies for Market Positioning
  - 6.2 Strategies for Market Development and Market Penetration
  - 6.3 Strategies for Market Expansion

## Literature

### Compulsory Reading

### Further Reading

- Chaffey, D., Hemphill, T. & Edmundson-Bird, D. (2019), Digital Business and E-Commerce Management-Strategy, Implementation and Practice (7th edition) Pearson UK.
- Hanlon, A. (2022) Digital Marketing: Strategic Planning & Integration. SAGE Publications
- Hanlon, A. (2024) Digital Business: Strategy, Management & Transformation. SAGE Publications.
- Laudon, K. C., & Traver, C. G. (2023). E-Commerce 2023-2024: Business, Technology and Society (18th edition, Global Edition). Pearson.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## E-Commerce II

Module Code: DLBECEC2-01\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b>	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (E-Commerce II )

### Contributing Courses to Module

- E-Commerce II (BWEC02-02\_E )

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Behavior of Online Customers
- Elements of the Digital Marketing Mix
- Social Media Marketing in E-Commerce
- E-CRM, Online PR, and E-Recruiting
- Payment in E-Commerce
- Controlling in E-Commerce

**Learning Outcomes****E-Commerce II**

On successful completion, students will be able to

- understand variable product assembly and pricing.
- explain electronic communication platforms and models (including online advertising).
- predict and influence the behavior of online customers.
- elaborate on e-commerce in depth and operationalize strategic marketing objectives digitally.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of E-Commerce

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field

## E-Commerce II

Course Code: BWEC02-02\_E

<b>Study Level</b>	<b>Language of Instruction and Examination</b>	<b>Contact Hours</b>	<b>CP</b>	<b>Admission Requirements</b>
	English		5	none

### Course Description

This course expands the understanding of e-commerce with elements of online customer behavior, as well as strategic and operational marketing. Based on the understanding of online customers' behavior, marketing tools are explained and their relevance in e-commerce is presented. The course program is also supplemented by knowledge about the system landscape and the technical infrastructure for e-commerce. Additionally, applications of artificial intelligence, CRM, and online PR in e-commerce are analyzed. Furthermore, payment transactions and controlling online trade are presented in a practical manner. In summary, the course conveys practical concepts from online trade and supplements the introductory course with basic knowledge about e-commerce.

### Course Outcomes

On successful completion, students will be able to

- understand variable product assembly and pricing.
- explain electronic communication platforms and models (including online advertising).
- predict and influence the behavior of online customers.
- elaborate on e-commerce in depth and operationalize strategic marketing objectives digitally.

### Contents

1. Purchasing Process of Online Customers
  - 1.1 Buying Behavior
  - 1.2 Purchase Decision Process
  - 1.3 Customer Journey and Touchpoints
2. Online Marketing in E-Commerce
  - 2.1 Fundamentals of Online Marketing
  - 2.2 Channels of Online Marketing
  - 2.3 Marketing on Online Marketplaces
3. System Landscape and Technical Infrastructure
  - 3.1 Basics and Definitions
  - 3.2 E-Commerce System Landscape

- 3.3 Shop Systems
- 3.4 Technical Infrastructure
4. AI, CRM, and Online PR in E-Commerce
  - 4.1 Artificial Intelligence (AI)
  - 4.2 CRM
  - 4.3 Online PR
5. Payment Transactions in E-Commerce
  - 5.1 Basics and Terms
  - 5.2 Traditional Payment Methods
  - 5.3 Credit Card
  - 5.4 E-Payment and M-Payment Methods
  - 5.5 Other Methods
6. Controlling in E-Commerce
  - 6.1 Success Metrics
  - 6.2 Visitor Metrics
  - 6.3 Customer Metrics
  - 6.4 Performance Measurement and Systems

## Literature

### Compulsory Reading

### Further Reading

- Ahrholdt, D., Greve G., & Hopf G. (2023). Social Media Marketing. Springer Books, 347.
- Dave C., & Smith, P.R. (2023). Digital Marketing Excellence : Planning, Optimizing and Integrating Online Marketing: Vol. Sixth edition. Routledge.
- Radu, C.-G., Dima, A. M., & Vargas, V. M. (2023). Online Shopping and Consumer Behaviour. Sciendo.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b>
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



# Introduction to Biomedical AI

Module Code: DLBAIBEIBAI

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (Introduction to Biomedical AI)

## Contributing Courses to Module

- Introduction to Biomedical AI (DLBAIBEIBAI01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Biomedical AI concepts
- AI in genetic and genomic data analysis
- AI in simulating biological systems
- AI in drug discovery process
- Ethical and legal implications of AI in biomedicine
- Practical application of AI in biomedicine

**Learning Outcomes****Introduction to Biomedical AI**

On successful completion, students will be able to

- comprehend the basic concepts of AI and its applications in modeling and simulating intricate biological systems.
- apply AI-based technology effectively for the analysis of genetic and genomic data to support disease diagnosis, research, and understanding the genetic link to diseases.
- understand and extrapolate the role and benefits of AI in enhancing and streamlining drug discovery, from primary screening to predicting drug interactions.
- explore the symbiotic relationship of AI and biomedical research, expanding our understanding of intricate biological processes.
- analyze and understand the ethical, legal and social implications of integrating AI in biomedicine, with a keen focus on patient privacy and data security.
- design and implement innovative projects that practically apply AI to solve real-world problems and challenges in biomedicine.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Introduction to Biomedical AI

Course Code: DLBAIBEIBAI01

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

## Course Description

The content of the course is designed for students with an interest in leveraging the prowess of AI to tackle complex biomedical challenges. It encapsulates an in-depth understanding of AI concepts and their role in biomedical research and application. Students will learn how AI can be used for analyzing genetic sequences, apply protein structure predictions, and simulating biological systems. To do so, tools and frameworks will be discussed. Furthermore, they will gain insights into AI's instrumental role in expediting drug discovery processes. The ethical, legal, and societal implications of integrating AI into personalized medicine and biomedicine will also be explored, providing a holistic view of the fascinating intersection of AI and biomedicine.

## Course Outcomes

On successful completion, students will be able to

- comprehend the basic concepts of AI and its applications in modeling and simulating intricate biological systems.
- apply AI-based technology effectively for the analysis of genetic and genomic data to support disease diagnosis, research, and understanding the genetic link to diseases.
- understand and extrapolate the role and benefits of AI in enhancing and streamlining drug discovery, from primary screening to predicting drug interactions.
- explore the symbiotic relationship of AI and biomedical research, expanding our understanding of intricate biological processes.
- analyze and understand the ethical, legal and social implications of integrating AI in biomedicine, with a keen focus on patient privacy and data security.
- design and implement innovative projects that practically apply AI to solve real-world problems and challenges in biomedicine.

## Contents

1. Introduction to AI in Biomedicine
  - 1.1 AI Technology and its Biomedical Applications
  - 1.2 AI in Modeling and Simulating Biological Systems
2. AI in Genetic and Genomic Data Analysis
  - 2.1 Genetic Sequencing and AI
  - 2.2 Identifying Disease Links with AI

3. AI in Protein Structure Prediction
  - 3.1 AI Algorithms for Protein Structure
  - 3.2 Protein-Protein Interaction Prediction
4. AI in Drug Discovery
  - 4.1 Omics data for drug target discovery
  - 4.2 AI for Predicting Drug Interactions
5. Ethical, Legal and Social Implications of AI
  - 5.1 Navigating Patient Privacy
  - 5.2 Data Security in Biomedical AI
6. Designing and Executing Biomedical Projects with AI
  - 6.1 Innovation and Practical Solutions
  - 6.2 Project Execution – Case Studies and Applications

## Literature

### Compulsory Reading

### Further Reading

- Dhudum, R., Ganeshpurkar, A., & Pawar, A. (2024). Revolutionizing Drug Discovery: A Comprehensive Review of AI Applications. *Drugs Drug Candidates*, 3, 148-171.
- Glicksberg, B. S., & Klang, E. (2024). Unveiling Recent Trends in Biomedical Artificial Intelligence Research: Analysis of Top-Cited Papers. *Applied Sciences*, 14, 785.
- Hulsen, T. (2022). Literature Analysis of Artificial Intelligence in Biomedicine. *Annals of Translational Medicine*, 10(23), 1284.
- Maqsood, K., Hagra, H., & Zabet, N. R. (2024). An Overview of Artificial Intelligence in the Field of Genomics. *Discovery Artificial Intelligence*, 4, 9.
- Qiu, X., Li, H., Ver Steeg, G., & Godzik, A. (2024). Advances in AI for Protein Structure Prediction: Implications for Cancer Drug Discovery and Development. *Biomolecules*, 14, 339.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Review Book <input checked="" type="checkbox"/> Online Tests

# Pharmaceutical Management

Module Code: DLBIHMPCM

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> None	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Dagmar Ittner (Pharmaceutical Management)

## Contributing Courses to Module

- Pharmaceutical Management (DLBIHMPCM01)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- The Pharmaceutical Industry
- The Demand for Pharmaceuticals
- Pharmaceutical Prices
- The R&D Process and Market Access
- Managing Innovations in the Biotech Industry
- Managing Generics and Biosimilars

**Learning Outcomes****Pharmaceutical Management**

On successful completion, students will be able to

- classify the complex market for pharmaceuticals from an economic perspective.
- analyze the incentive structures of different stakeholders and understand the relevance for the respective areas of pharmaceutical management.
- interpret the role of R&D as the cornerstone of pharmaceutical management.
- understand pharmaceutical pricing strategies against the background of regulatory framework conditions.
- assess recent technological and market developments with regard to implications for pharmaceutical management.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Healthcare Management

**Links to other Study Programs of the University**

All Bachelor Programs in the field of Health Affairs

# Pharmaceutical Management

Course Code: DLBIHMPCM01

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

## Course Description

This course introduces the pharmaceutical industry as the leading industrial sector that contributes to healthcare in different important ways. The course analyzes the demand side and identifies the different parties involved in the consumption decision and their respective roles: physicians, patients, pharmacists, and third party payers. Aspects are highlighted that distinguish the pharmaceuticals market from other markets. The course describes the key importance of the complex R&D processes and associated challenges in decision-making around market access and pricing strategies. The complexities of regulation are also discussed. The course further highlights important developments and trends in the industry with implications for pharmaceutical management.

## Course Outcomes

On successful completion, students will be able to

- classify the complex market for pharmaceuticals from an economic perspective.
- analyze the incentive structures of different stakeholders and understand the relevance for the respective areas of pharmaceutical management.
- interpret the role of R&D as the cornerstone of pharmaceutical management.
- understand pharmaceutical pricing strategies against the background of regulatory framework conditions.
- assess recent technological and market developments with regard to implications for pharmaceutical management.

## Contents

1. The Pharmaceutical Industry
  - 1.1 A Global Perspective of the Pharmaceutical Industry
  - 1.2 Competition in the Pharmaceutical Industry
  - 1.3 Pharmaceutical R & D – an Overview
  - 1.4 Pharmaceuticals for Low- and Middle-Income Countries
  - 1.5 Pharmaceuticals for Rare Diseases
2. The Demand for Pharmaceuticals
  - 2.1 Determination of Demand
  - 2.2 The Changing Structure of Pharmaceutical Markets



- 2.3 Prescription Drugs
- 2.4 The OTC Market
- 2.5 Vaccines
3. Pharmaceutical Prices
  - 3.1 Determination of Drug Prices
  - 3.2 The Cost Structure of Pharmaceutical Companies
  - 3.3 Pricing in the Global Context
  - 3.4 Price Regulation
4. The R&D Process
  - 4.1 Drug Discovery
  - 4.2 The Structure of Clinical Trials
  - 4.3 Patenting and Intellectual Property
  - 4.4 Regulatory Affairs
  - 4.5 Market Access and Pricing Strategy Implementation
5. Pharmaceutical Marketing
  - 5.1 Pharmaceutical Promotion to HC Providers
  - 5.2 Direct-to-Consumer Advertising
  - 5.3 Key Stakeholder Management
  - 5.4 Size of the Investment
6. Lifecycle Management in the Pharmaceutical Industry
  - 6.1 Managing Innovations in R&D
  - 6.2 Future Direction in Pharmaceutical innovation
  - 6.3 The Biotechnology Evolution
  - 6.4 Brands, Generics, and Biosimilars
  - 6.5 Managing Loss of Exclusivity of Pharmaceuticals

## Literature

### Compulsory Reading

### Further Reading

- Schoonveld, E. (2016): The price of global health: Drug pricing strategies to balance patient access and the funding of innovation. 2nd edition, Routledge, New York.
- Schweitzer, S./Lu, J. (2018): Pharmaceutical economics and policy: Perspectives, promises, and problems. 3rd edition, Oxford University Press, Oxford.
- Simon, F./Giovannetti, G. (2017): Managing biotechnology. Wiley, Hoboken NJ.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Smart Factory I

Module Code: DLBDESEF1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Sahar Qadan (Smart Factory I)

## Contributing Courses to Module

- Smart Factory I (DLBDESEF01)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Motivation and Definition of Terms
- Development of Automation
- Technological Basics and Standards
- Basic concepts of a Smart Factory
- Reference Architectures
- Smart Factory Engineering
- Safety and Security

**Learning Outcomes****Smart Factory I**

On successful completion, students will be able to

- understand the term Smart Factory in the context of Industry 4.0.
- be able to trace the development of automation to a fully autonomous, non-centrally organized production plant.
- understand the basic technologies and standards used to design and operate a Smart Factory.
- understand the essential concepts of a Smart Factory.
- identify and differentiate between the individual elements of a Smart Factory using different reference architectures.
- understand the special engineering challenges in the Smart Energy context.
- understand the special safety risks of digitized and networked production plants and assign concrete recommendations for action.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Smart Factory I

Course Code: DLBDESEF01

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

## Course Description

In this course, students will gain a deeper insight into the networking and digitization of production facilities by examining a Smart Factory. For this purpose, they will be familiarized with the basic goals of a Smart Factory in the context of the research complex Industry 4.0. After a brief introduction to the history of automation, students will learn the technical basics and standards required to design and operate a Smart Factory. Building on this, they will learn how these individual technologies are used to implement the central concepts of a Smart Factory. In order to understand which components a Smart Factory consists of, different reference architectures are presented and compared. The course concludes with the special engineering challenges of an autonomously acting and decentralized production plant. Above all, this includes IT security, which is particularly relevant due to the digital networking of production facilities and products.

## Course Outcomes

On successful completion, students will be able to

- understand the term Smart Factory in the context of Industry 4.0.
- be able to trace the development of automation to a fully autonomous, non-centrally organized production plant.
- understand the basic technologies and standards used to design and operate a Smart Factory.
- understand the essential concepts of a Smart Factory.
- identify and differentiate between the individual elements of a Smart Factory using different reference architectures.
- understand the special engineering challenges in the Smart Energy context.
- understand the special safety risks of digitized and networked production plants and assign concrete recommendations for action.

## Contents

1. Motivation and Definition of Terms
  - 1.1 Goals of Smart Factory
  - 1.2 Internet of Things
  - 1.3 Cyber-Physical Systems
  - 1.4 Cyber-Physical Production Systems
  - 1.5 Smart Factory as a Cyber-Physical (Production) System

2. Development of Automation
  - 2.1 Automation Pyramid
  - 2.2 Networked, Decentralized Organization of Production
  - 2.3 Future Challenges
3. Technological Basics and Standards
  - 3.1 Identification of Physical Objects
  - 3.2 Formal Description Languages and Ontologies
  - 3.3 Digital Object Memory
  - 3.4 Physical Situation Recognition
  - 3.5 (Partially) Autonomous Action and Cooperation
  - 3.6 Human-Machine Interaction
  - 3.7 Machine to Machine Communication
4. Basic Concepts of a Smart Factory
  - 4.1 Order-Controlled Production
  - 4.2 Bundling of Machine and Production Data
  - 4.3 Supporting People in Production
  - 4.4 Intelligent Products and Resources
  - 4.5 Smart Services
5. Reference Architectures
  - 5.1 Purpose and Properties of Reference Architectures
  - 5.2 Overview of Standardization Initiatives
  - 5.3 CyProS Reference Architecture
  - 5.4 RAMI 4.0 (DIN SPEC 91345)
6. Smart Factory Engineering
  - 6.1 Classification of Different Engineering Tools
  - 6.2 Virtual Engineering
  - 6.3 User-Centered Design
  - 6.4 Requirements Engineering
  - 6.5 Modelling
  - 6.6 Integration of Classic and Smart Components

**Literature****Compulsory Reading****Further Reading**

- Butun, I. (2020). *Industrial IoT: Challenges, design principles, applications, and security*. Springer.
- Drossel, W. G., Ihlenfeldt, S., Lanzger, T., & Dumitrescu, R. (2019). Cyber-physical systems. In R. Neugebauer (Ed.), *Digital transformation* (pp. 189–213). Springer.
- Durakbasa, N. M., & Gençyılmaz, M. G. (Eds.). (2021). *Digital conversion on the way to Industry 4.0*. Springer.
- Ustundag, A., & Cevikcan, E. (2018). *Industry 4.0: Managing the digital transformation*. Springer.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

# Production Engineering Industry 4.0

Module Code: DLBDSEAR1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Hans Kerwat (Production Engineering Industry 4.0)

## Contributing Courses to Module

- Production Engineering Industry 4.0 (DLBDSEAR01)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to Manufacturing Technology
- Main Production Groups According to DIN 8580
- Additive Manufacturing Processes
- Rapid Prototyping
- Rapid Tooling
- Direct/Rapid Manufacturing
- Cyber-Physical Production Plants

### Learning Outcomes

#### Production Engineering Industry 4.0

On successful completion, students will be able to

- understand the basic concepts and interrelationships of production engineering.
- understand current changes in manufacturing technology due to technologies such as additive manufacturing and megatrends such as cyber physical systems.
- assign different manufacturing processes to the main manufacturing groups according to DIN 8580.
- understand the basic principle of additive manufacturing processes.
- distinguish between different additive manufacturing processes.
- understand the terms Rapid Prototyping, Rapid Tooling, and Direct Manufacturing and name individual processes and application examples.
- understand the elements and properties of cyber-physical production plants.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Computer Science & Software Development

#### Links to other Study Programs of the University

All Bachelor Programs in the IT & Technology field

# Production Engineering Industry 4.0

Course Code: DLBDSEAR01

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

## Course Description

The aim of the course is to provide students with an overview of the processes that have influenced and still influence production processes through technological developments under the generic term Industry 4.0, based on traditional, standardized manufacturing techniques. These include, in particular, technological advances in additive manufacturing processes that enable applications such as rapid prototyping, rapid tooling, and direct manufacturing. Finally, the course deals with the consequences of the digitalization and networking of production facilities and their elements in the sense of a cyber-physical system.

## Course Outcomes

On successful completion, students will be able to

- understand the basic concepts and interrelationships of production engineering.
- understand current changes in manufacturing technology due to technologies such as additive manufacturing and megatrends such as cyber physical systems.
- assign different manufacturing processes to the main manufacturing groups according to DIN 8580.
- understand the basic principle of additive manufacturing processes.
- distinguish between different additive manufacturing processes.
- understand the terms Rapid Prototyping, Rapid Tooling, and Direct Manufacturing and name individual processes and application examples.
- understand the elements and properties of cyber-physical production plants.

## Contents

1. Introduction to Manufacturing Technology
  - 1.1 Basic Terms and Contexts in Manufacturing Theory
  - 1.2 Historical Development of Production
  - 1.3 The Discussion About the Long Tail
2. Classification Of Manufacturing Processes
  - 2.1 Casting and Molding
  - 2.2 Forming
  - 2.3 Machining
  - 2.4 Joining

- 2.5 Coating
- 2.6 Changing the Properties of Substances
- 3. Additive Manufacturing Processes
  - 3.1 Basic Principles and Legal Aspects
  - 3.2 Stereolithography (STL)
  - 3.3 Selective Laser Sintering and Selective Beam Melting With Laser or Electron Beam
  - 3.4 Fused Deposition Modeling (FDM)
  - 3.5 Multi-Jet Modeling (MJM) and Poly-Jet Process (PJM)
  - 3.6 3D Printing Process (3DP)
  - 3.7 Laminating Processes
  - 3.8 Mask Sintering
- 4. Rapid Prototyping
  - 4.1 Definition
  - 4.2 Strategic and Operational Aspects
  - 4.3 Application Areas and Examples
- 5. Rapid Tooling
  - 5.1 Definition, Strategic, and Operational Aspects
  - 5.2 Indirect and Direct Procedures
- 6. Direct/Rapid Manufacturing
  - 6.1 Potentials and Requirements for Procedures
  - 6.2 Implementation, Application Areas, and Examples
- 7. Cyber-Physical Production Plants
  - 7.1 Derivation of the Terms Industry 4.0 and Cyber-Physical Systems
  - 7.2 Megatrend Cyber Physical Systems (CPS)
  - 7.3 Definition Cyber-Physical Production Plant
  - 7.4 Effects on Planning and Operation of Production Facilities
  - 7.5 Dynamic Reconfiguration and Migration of Production Facilities

**Literature****Compulsory Reading****Further Reading**

- Anderson, C. (2012). *Makers: The new industrial revolution*. Crown Business.
- Gebhardt, A., Kessler, J. & Thurn, L. (2019). *3D printing: Understanding additive manufacturing* (2nd ed). Hanser.
- Groover, M. P. (2012). *Fundamentals of modern manufacturing: Materials, processes, and systems* (5th ed.). Wiley.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



# Electrical Machines and Energy Technology

Module Code: DLBAETEME\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> either DLBAETLET01 and DLBAETEFW01 or DLBINGET01-01_E	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (Electrical Machines and Energy Technology)

## Contributing Courses to Module

- Electrical Machines and Energy Technology (DLBAETEME01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies

Exam, 90 Minutes

Study Format: Distance Learning

Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

<p><b>Module Contents</b></p> <ul style="list-style-type: none"> <li>▪ Electrical Signals and Electronic Circuit Elements</li> <li>▪ Transistor Amplifiers</li> <li>▪ Operational Amplifiers</li> <li>▪ Feedback and Stability</li> <li>▪ OpAmp circuits</li> <li>▪ Active Filters</li> <li>▪ Applications</li> </ul>	
<p><b>Learning Outcomes</b></p> <p><b>Electrical Machines and Energy Technology</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ name the basic properties of electrical machines, recall them when required and apply them to technical problems.</li> <li>▪ describe the peculiarities of different types of direct current and alternating current machines in motor and generator operation.</li> <li>▪ perform simple calculations for the design of electrical machines.</li> <li>▪ explain the design and application of converters and power converters.</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>This module is similar to other modules in the field of Engineering</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programs in the IT &amp; Technology field</p>

# Electrical Machines and Energy Technology

Course Code: DLBAETEME01\_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	either DLBAETLET01 and DLBAETEFW01 or DLBINGET01-01_E

## Course Description

Knowledge of electrical drive and power generation components is part of the basic qualification of electrical engineers. This include, among other things, the ability to calculate the behavior of motors and generators in steady-state operation. These fundamentals are required in many professional fields, for example in power engineering, in drive technology or also in mechatronics or robotics. In addition, other courses build on these fundamentals, for example electrical drive engineering. Knowledge of electrical machines and power engineering is thus a tool that should be mastered to pass the education of an electrical engineer. The contents of the module therefore focus on the different types and modes of operation of electrical machines.

## Course Outcomes

On successful completion, students will be able to

- name the basic properties of electrical machines, recall them when required and apply them to technical problems.
- describe the peculiarities of different types of direct current and alternating current machines in motor and generator operation.
- perform simple calculations for the design of electrical machines.
- explain the design and application of converters and power converters.

## Contents

1. Fundamentals of Electrical Machines and Power Engineering
  - 1.1 Energy Demand and Energy Coverage
  - 1.2 Power Generation
  - 1.3 Three-Phase Networks
  - 1.4 Energy Transmission
2. Direct Current Machines
  - 2.1 Structure and Components
  - 2.2 Air-Gap Field and Torque
  - 2.3 SeriesMachine
  - 2.4 Shunt Machine

- 2.5 Brushless DC Motor
- 3. Transformer
  - 3.1 Ideal Transformer
  - 3.2 Real Transformer
  - 3.3 Pointer Diagrams
- 4. Three-Phase Asynchronous Machine
  - 4.1 Structure and Components
  - 4.2 Rotary Field, Voltage Induction and Torque
  - 4.3 Characteristic Curves
  - 4.4 Motor and Generator Operation
- 5. Three-Phase Synchronous Machine
  - 5.1 Structure and Components
  - 5.2 Full Pole Machine
  - 5.3 Motor and Generator Operation

## Literature

### Compulsory Reading

### Further Reading

- Erickson, R. W., & Maksimović, D. (2020). Fundamentals of Power Electronics. Fundamentals of Power Electronics. Springer International Publishing. <https://doi.org/10.1007/978-3-030-43881-4>
- Melkebeek, J. A. (2018). Electrical Machines and Drives. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-319-72730-1>
- Vukosavic, S. N. (2013). Electrical Machines. Electrical Machines. Springer New York. <https://doi.org/10.1007/978-1-4614-0400-2>

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Consumer Behavior

Module Code: DLBMKV\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Diana Murtagh-Böhm (Consumer Behavior)

## Contributing Courses to Module

- Consumer Behavior (DLBMPS02\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Behavioral-Scientific Basics of Consumer Behavior Factors
- Influencing Consumer Behavior
- Consumer Behavior in Service Markets
- Organizational Buying Behavior

**Learning Outcomes****Consumer Behavior**

On successful completion, students will be able to

- explain central terms of consumer psychology as well as being able to distinguish the basic psychological models for explaining consumer behavior and to assess them regarding their significance and applicability.
- present psychological theories and models of factors that trigger behavior and to derive recommendations for target-oriented marketing and advertising measures.
- discuss behavioral models of purchase decisions and purchase processes to develop recommendations for action for companies on this basis.
- explain the essential behavioral-scientific aspects and instruments of customer loyalty and work out approaches to solutions for concrete operational tasks in this field.
- describe the special requirements for the sale of services and plan measures to counter them in a promising way.
- explain organizational buying behavior and its determinants in a model-like way and to make suggestions in order to shape the actions in the individual process phases in a target-oriented way.
- transfer models and theories to the digital multi-channel client.

**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 Bachelor Programs in the Marketing & Communication field



# Consumer Behavior

Course Code: DLBMPS02\_E

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

## Course Description

Companies need to know their customers and their consumption behavior in order to recognize trends early on and take advantage of opportunities to meet demand. Therefore, it is essential to analyze how customers allocate their resources (time, money, effort) and which factors contribute to the purchasing decision. For this purpose, questions such as What, why, when, how, how often and where does the customer buy? need to be answered. How do the characteristics of products and services influence the purchasing decision process? And what other aspects and factors are important? This course introduces students to essential psychological explanations and models of consumer behavior. It examines the purchasing decision processes of households and procuring organizations, explores the individual, social and digital factors that influence each of these processes, and highlights key concepts in customer loyalty. In addition, this course conveys the special features of marketing services and presents approaches on how companies can effectively meet these specific requirements.

## Course Outcomes

On successful completion, students will be able to

- explain central terms of consumer psychology as well as being able to distinguish the basic psychological models for explaining consumer behavior and to assess them regarding their significance and applicability.
- present psychological theories and models of factors that trigger behavior and to derive recommendations for target-oriented marketing and advertising measures.
- discuss behavioral models of purchase decisions and purchase processes to develop recommendations for action for companies on this basis.
- explain the essential behavioral-scientific aspects and instruments of customer loyalty and work out approaches to solutions for concrete operational tasks in this field.
- describe the special requirements for the sale of services and plan measures to counter them in a promising way.
- explain organizational buying behavior and its determinants in a model-like way and to make suggestions in order to shape the actions in the individual process phases in a target-oriented way.
- transfer models and theories to the digital multi-channel client.

## Contents

1. Introduction to Consumer Behavior

- 1.1 Concepts and Development of Consumer Behavior
- 1.2 Goals of Consumer Research
- 1.3 Consumption and Consumers
2. Understanding Consumer Behavior
  - 2.1 Defining Consumer Behavior
  - 2.2 Model Approaches of Models of Consumer Behavior
  - 2.3 Characteristics of Affecting of Consumer Behavior
3. Psychological Factor: Perception
  - 3.1 Perception
  - 3.2 Perceptual Process
  - 3.3 Importance of Perception in Marketing
4. Psychological Factors: Affect, Motivation and Attitude
  - 4.1 Affect
  - 4.2 Motivation
  - 4.3 Beliefs and Attitudes
5. Psychological Factors: Cognitive Processes
  - 5.1 Cognition and Memory
  - 5.2 Learning through Conditioning and Cognitive Learning Theories
6. Other Factors Influencing Consumer Behavior
  - 6.1 Personal Influencing Factors
  - 6.2 Social Factors
  - 6.3 Cultural Factors
  - 6.4 Digital Impact Factors
7. Buying, Using, Disposing
  - 7.1 Types of Buying Behavior and the Buying Process
  - 7.2 Pre-Purchase Phase
  - 7.3 Purchase Phase
  - 7.4 Post-Purchase and Use Phase
8. The Customer is King: From Customer Orientation to Customer Value
  - 8.1 Customer Orientation and Customer Satisfaction
  - 8.2 Customer Loyalty and Customer Value
  - 8.3 Price Sensitivity

8.4 The Multi-Channel Client

9. The Digital Consumer

- 9.1 The Digital Decision-Making Process
- 9.2 Influencers and Consumer Behavior
- 9.3 Opportunities and Challenges for Digital Consumers

10. Organizational Buying Behavior

- 10.1 Basics of Organizational Buying Behavior
- 10.2 A Model of Organizational Purchase Decision

**Literature**

**Compulsory Reading**

**Further Reading**

- Solomon, M. R. (2017). Consumer behavior: Buying, having and being. Pearson.
- Solomon, M. R., Bamossy, G., Askegaard, S., & Hogg, M. K. (2006). Consumer Behavior: A European perspective (3rd ed.). Prentice Hall.
- Wu, T. (2017). The attention merchants: The epic struggle to get inside our heads. Vintage Books.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Business Consulting I

Module Code: DLBMEBC1\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Johannes Ritz (Business Consulting I)

## Contributing Courses to Module

- Business Consulting I (BWCN01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies

Exam, 90 Minutes

Study Format: Distance Learning

Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Introduction to Business Consulting
- Forms and Functions of Business Consulting
- The Market for Business Consulting
- History, Pioneers and Concepts
- Consulting Fields

**Learning Outcomes****Business Consulting I**

On successful completion, students will be able to

- understand the various definitions of business consulting.
- explain the tasks and approaches of business consultants.
- name the characteristics of business consultancies.
- explain business consulting as a highly specialized service.
- identify the specifics of the consultant-client relationship.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Business Administration & Management

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

# Business Consulting I

Course Code: BWCN01\_E

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

## Course Description

Business consulting is a professional service whose overall economic significance is increasing. Business consultants provide professional consulting services for client companies. This requires the ability to analyze and evaluate specific corporate and market situations with the help of modern management concepts. Based on their analyses, business consultants make recommendations for optimizing corporate strategies, structures and processes and - if desired - accompany them during implementation and realization. In order to fulfill successfully the various functions and tasks of business consulting, business consultants require a differentiated profile of technical-methodical and personal-social competencies. The center of professional competencies is composed of basic and specialized knowledge in consulting and business administration. They include analytical skills for understanding corporate and market situations as well as the ability to plan, implement and control consulting projects. The development of personal and social competences aims at the client-centeredness of the students in the sense of the ability to adapt to the individual consulting needs of clients.

## Course Outcomes

On successful completion, students will be able to

- understand the various definitions of business consulting.
- explain the tasks and approaches of business consultants.
- name the characteristics of business consultancies.
- explain business consulting as a highly specialized service.
- identify the specifics of the consultant-client relationship.

## Contents

1. Introduction to Business Consulting
  - 1.1 Business Consulting – Management Consulting
  - 1.2 Business Consulting as a Subject of Science
2. History, Pioneers, and Concepts
  - 2.1 History of Business Consulting
  - 2.2 Business Consulting Concepts
3. Forms and Functions of Business Consulting

- 3.1 The External Consulting Process
- 3.2 Inhouse Consulting
- 4. The Market for Business Consulting
  - 4.1 Data, Structures, and Trends
  - 4.2 Consulting Companies in Germany
- 5. Consulting Fields
  - 5.1 Strategy Consulting
  - 5.2 Organization and Transformation Consulting
  - 5.3 IT Consulting

## Literature

### Compulsory Reading

### Further Reading

- Cerruti, C., Tavoletti, E., & Grieco, C. (2019). Management consulting: a review of fifty years of scholarly research. *Management Research Review*, 42(8), 902-925.
- Curuksu, J.D. (2018). *Data Driven. An Introduction to Management Consulting in the 21st Century*. Cham, Switzerland: Springer.
- da Costa, R. L., et al. (2013). The „Fashionable Knowledge“ of Management Consulting. *Journal of Management and Sustainability*, 3(3), 180-188.
- FEACO. (2019). *Survey of the European Management Consultancy 2018/2019*. Retrieved from <http://www.feaco.org/sites/default/files/sitepagefiles/Feaco.Survey%202018-2019.pdf>
- Kubr, M. (2002). *Management Consulting: A Guide to the Profession*. (4th ed). Genf: International Labour Office.
- Nippa, M., & Petzold, K. (2002). Economic functions of management consulting firms – an integrative theoretical framework. In *Academy Of Management Proceedings & Membership Directory*, B1–B6.



**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Project: Generative AI in an Enterprise Context

Module Code: DLBFMPGKIU\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: Generative AI in an Enterprise Context)

### Contributing Courses to Module

- Project: Generative AI in an Enterprise Context (DLBFMPGKIU01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Portfolio  
Study Format: myStudies  
Portfolio

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

In this course, students gain in-depth knowledge on the fundamentals, development, and implementation of generative AI technologies. They learn to critically analyze the potential of generative AI, plan actionable AI projects, and understand the associated social and ethical implications. The practical implementation of their own AI projects promotes a thorough knowledge of the application possibilities of AI systems in both business and societal contexts.

**Learning Outcomes****Project: Generative AI in an Enterprise Context**

On successful completion, students will be able to

- understand and apply key concepts, algorithms, and tools used for generative AI applications to develop independent AI-based solutions.
- systematically identify the possibilities and potentials of generative AI in various business areas and company functions, and evaluate them for feasibility and strategic relevance.
- create a roadmap for the implementation of a generative AI solution, including resource planning, risk assessment, and milestones.
- develop criteria and methods for evaluating generative AI projects, including quantitative and qualitative KPIs and ROI analyses.
- recognize and address ethical, legal, and data privacy issues when dealing with generative AI technologies.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Methods

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

## Project: Generative AI in an Enterprise Context

Course Code: DLBFMPGKIU01\_E

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

### Course Description

The course places the transformative power of generative Artificial Intelligence (AI) in the landscape of modern businesses. It offers a strategic insight into the application of AI technologies to solve complex business challenges and create new business opportunities. At the same time, the course emphasizes the essential role generative AI can play in the context of societal responsibility and social welfare. Students gain insights into the dynamics between technological development and economic value, which is fundamental for future-oriented businesses. The course agenda aims to enable students to act as frontrunners in the adoption of AI solutions and to sustainably anchor these in corporate structures. They recognize the significance of generative AI as a catalyst for innovation and efficiency increase and learn how to use this leverage profitably for business models and company processes. Through working on practical case studies, students not only acquire valuable technical skills but also strategic competencies that are necessary for the evaluation and implementation of AI-driven business plans. The central element of the course is the creation of an AI prototype that consolidates the knowledge learned and provides forward-looking solutions for businesses.

### Course Outcomes

On successful completion, students will be able to

- understand and apply key concepts, algorithms, and tools used for generative AI applications to develop independent AI-based solutions.
- systematically identify the possibilities and potentials of generative AI in various business areas and company functions, and evaluate them for feasibility and strategic relevance.
- create a roadmap for the implementation of a generative AI solution, including resource planning, risk assessment, and milestones.
- develop criteria and methods for evaluating generative AI projects, including quantitative and qualitative KPIs and ROI analyses.
- recognize and address ethical, legal, and data privacy issues when dealing with generative AI technologies.

### Contents

- In this course, students gain a deep understanding of generative AI technologies and their application in the business context. This allows them to independently develop appropriate solutions. Core areas enable participants to focus on identifying relevant algorithms, use tools and development environments efficiently, and grasp their strategic significance within individual business processes.
- Students are simultaneously encouraged to reflect on the societal impacts of their developments and understand generative AI as a tool for societal progress. Participants independently explore the possibilities that generative AI offers in areas such as financial management, marketing, and logistics, and investigate how these technologies can expand or redesign existing processes.
- Particular value is placed on independent assessment of feasibility, ethical considerations, and compliance with data protection regulations. The self-guided development of a roadmap for an AI project includes defining goals and milestones and setting up and monitoring performance indicators (KPIs).
- Students analyze what resources are needed, how risks can be managed, and how the success of the implemented AI solution can be measured and interpreted. Finally, participants create a prototype that implements the insights gained and supports the chosen business function through the use of generative AI.
- With a project-oriented approach, students develop an awareness that technological advances must always be in line with societal responsibility and ethical standards.

### Literature

#### Compulsory Reading

#### Further Reading

- Dencik, J., Goehring, B., & Marshall, A. (2023). Managing the emerging role of generative AI in next-generation business. *Strategy & Leadership*, 51(6), 30–36.
- Hirsch, P. B. (2023). At the crossroads: generative AI and corporate risk management. *Journal of Business Strategy*, 44(6), 426–429.
- Humphreys, D., Koay, A., Desmond, D., & Mealy, E. (2024). AI hype as a cyber security risk: the moral responsibility of implementing generative AI in business. *AI and Ethics*, 1–14.
- Kulkarni, A., Shivananda, A., Kulkarni, A., & Gudivada, D. (2023). *LLMs for Enterprise and LLMOps*. Apress.
- Obrenovic, B., Gu, X., Wang, G., Godinic, D., & Jakhongirov, I. (2024). Generative AI and human-robot interaction: implications and future agenda for business, society and ethics. *AI & SOCIETY: Journal of Knowledge, Culture and Communication*, 1–14.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Portfolio

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Portfolio

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline



# 6. Semester

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# Start-Up Financing

Module Code: DLBEPGF\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Lena Berndorfer (Start-Up Financing)

## Contributing Courses to Module

- Start-Up Financing (DLBEPGF01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Importance of Startup Financing
- Financing through Equity Capital
- Financing through Debt Capital
- Financing through Mezzanine Capital
- Other Possibilities of the Startup Financing
- Financing vs. Liquidity Management
- Investor Relations

**Learning Outcomes****Start-Up Financing**

On successful completion, students will be able to

- explain the importance of startup financing.
- understand the individual types of equity and debt financing as well as mezzanine financing and to assess them with regard to their suitability for a startup project.
- understand the importance of liquidity management in the context of startup financing.
- assess to what extent investor relations in the context of startup financing is important.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field(s) of Finance & Tax Accounting.

**Links to other Study Programs of the University**

All Bachelor Programs in the Business & Management field(s).

# Start-Up Financing

Course Code: DLBEPGF01\_E

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

## Course Description

In the context of each business startup the question of financing arises. Only if the founders have sufficient financial means at their disposal, they can put their plans into practice. Over the years, a multitude of financing options for startup has been established. In addition to equity capital, debt capital or mezzanine capital can be used. All these types of capital are different in structure and are suitable for different types of startup projects. Moreover, there is also the possibility of taking advantage of public subsidies or newer types of financing such as crowdfunding or crypto currencies. Although not every type of financing is suitable for every founder, it is nevertheless important for a founder of a new business to know his possibilities and to be able to decide what options to use. In addition, financing has a considerable impact on the liquidity management of a startup company as well as on investor relations.

## Course Outcomes

On successful completion, students will be able to

- explain the importance of startup financing.
- understand the individual types of equity and debt financing as well as mezzanine financing and to assess them with regard to their suitability for a startup project.
- understand the importance of liquidity management in the context of startup financing.
- assess to what extent investor relations in the context of startup financing is important.

## Contents

1. Importance of Start-Up Financing
  - 1.1 Business Start-Ups
  - 1.2 Corporate Financing
  - 1.3 Start-Up Financing
2. Financing through Equity Capital
  - 2.1 What is Equity Capital?
  - 2.2 Personal Financial Resources
  - 2.3 Informal and Formal Equity Capital
3. Financing through Debt Capital
  - 3.1 What is Debt Capital?

- 3.2 Loans with Cash Flow
- 3.3 Loans without Cash Flow
- 3.4 Credit Substitutes
- 4. Financing through Mezzanine Capital
  - 4.1 What is Mezzanine Capital?
  - 4.2 Types of Mezzanine Capital
- 5. Further Financing Options
  - 5.1 Crowdfunding
  - 5.2 Initial Coin Offering (ICO)
- 6. Financing versus Liquidity Management
  - 6.1 Basic Principles of Finance
  - 6.2 Liquidity Management
- 7. Investor Relations
  - 7.1 Communication and Cooperation with Investors
  - 7.2 Reporting to Capital Providers

### Literature

#### Compulsory Reading

#### Further Reading

- Alemany, L./Andreoli, J.J. (2018): Entrepreneurial Finance. The Art and Science of Growing Ventures. Cambridge University Press, Cambridge.
- Rogers, S./Makonnen, R. (2020): Entrepreneurial Finance. Finance and Business Strategies for the Serious Entrepreneur. 4th ed., McGraw-Hill, New York.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Project: AI in Finance

Module Code: DLBAIBEPAIF

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: AI in Finance)

### Contributing Courses to Module

- Project: AI in Finance (DLBAIBEPAIF01)

### Module Exam Type

#### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students will explore the multidimensional realm of artificial intelligence, its inherent characteristics, and myriad applications that it offers in the financial domain. They will investigate the potentials and pitfalls of AI and machine learning, and the corresponding influence on asset management, algorithmic trading, and more.

**Learning Outcomes****Project: AI in Finance**

On successful completion, students will be able to

- gain an all-inclusive perspective of AI, Machine Learning, and Deep Learning, opening up multiple dimensions of technological advancements in the financial sector.
- understand the history of AI in the financial industry, understanding its strategic drivers, and current manifestation.
- recognize and appreciate the variations in AI applications and benefits pivotal to the world of finance, including robo-advisors and other technologies.
- determine use cases, examples, and case studies relevant to critical financial domains.
- formulate insightful discussions on AI adoption, posing potential challenges like data protection, ethical considerations, and the feasibility of scalability in finance.
- get attuned to the dynamics of AI regulations in finance, comprehending policy implications across the globe, enriching their sense of internationality.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Finance & Tax Accounting

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field



## Project: AI in Finance

Course Code: DLBAIBEPAIF01

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

### Course Description

Paralleling the rapid progression of technology, artificial intelligence (AI) has become an integral part of financial processes across the globe. Students conduct an in-depth exploration into the fascinating world of AI, machine learning, and deep learning technologies, charting their transformative impact within the financial landscape. It presents an opportunity for students to develop an understanding of the historical progression of AI, its current status, and the driving forces behind its evolution. They will examine numerous applications of these technologies in finance and critically discuss their benefits, challenges, and ethical considerations. This not only broadens their knowledge horizon but deepens it by connecting theoretical knowledge to practical applications.

### Course Outcomes

On successful completion, students will be able to

- gain an all-inclusive perspective of AI, Machine Learning, and Deep Learning, opening up multiple dimensions of technological advancements in the financial sector.
- understand the history of AI in the financial industry, understanding its strategic drivers, and current manifestation.
- recognize and appreciate the variations in AI applications and benefits pivotal to the world of finance, including robo-advisors and other technologies.
- determine use cases, examples, and case studies relevant to critical financial domains.
- formulate insightful discussions on AI adoption, posing potential challenges like data protection, ethical considerations, and the feasibility of scalability in finance.
- get attuned to the dynamics of AI regulations in finance, comprehending policy implications across the globe, enriching their sense of internationality.

### Contents

- Students will cover a range of topics such as AI and machine learning in financial processes, asset management, algorithmic trading, credit scoring mechanisms, and customer service dynamics among others. They will critically evaluate numerous use cases, examples, and case studies, ensuring an in-depth understanding of the subject matter. Students will delve into pertinent challenges associated with AI adoption, protection of data, ethical considerations, and the feasibility of AI scalability in financial processes. Furthermore, topics such as regulatory aspects of AI technology's integration into financial processes are covered, enriching students' knowledge by exploring international policy responses and implications.

A close and critical engagement with the content paves way for a progressive learning platform, encouraging and rewarding active involvement in intellectual discourse. Also, data privacy aspects will be discussed as these are inherent to sensitive financial data.

## Literature

### Compulsory Reading

#### Further Reading

- Ashfaq, M., Hasan, R., & Mercon, J. (2023). Central bank digital currencies and global financial system: Theory and practice. De Gruyter.
- Dewasiri, N. J., Karunarathne, K. S. S. N., Menon, S., Jayarathne, P. G. S. A., & Rathnasiri, M. S. H. (2023). Fusion of artificial intelligence and blockchain in the banking industry: Current application, adoption, and future challenges. In A. Saini & V. Garg (Eds.), *Transformation for sustainable business and management practices: Exploring the spectrum of Industry 5.0* (pp. 293-307). Emerald Publishing Limited.
- Kumari, B., Kaur, J., & Swami, S. (2024). Adoption of artificial intelligence in financial services: A policy framework. *Journal of Science and Technology Policy Management*, 15(2), 396-417.
- Nooren, M., Shafique, A., Ahmed, Z., & Ashfaq, M. (2023). Banking 4.0: Artificial intelligence (AI) in banking industry & consumer's perspective. *Sustainability*.
- Yanting, Z., & Ali, M. (2023). Artificial intelligence, digital finance, and financial inclusion: A conceptual framework. In C.-M. Leong, M. Ali, S. A. Raza, C.-H. Pua, & I. H. Eksi (Eds.), *Financial inclusion across Asia: Bringing opportunities for businesses* (pp. 77-85). Emerald Publishing Limited.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Green and Social Logistics

Module Code: DLBBWGSL\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Green and Social Logistics)

### Contributing Courses to Module

- Green and Social Logistics (DLBBWGSL01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Case Study

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Introduction to Sustainability and Social Responsibility
- Interaction of Logistics - Environment
- Green Logistics
- City Logistics
- Carbon Footprint in Logistics
- Sustainable Transport and Storage Management

**Learning Outcomes****Green and Social Logistics**

On successful completion, students will be able to

- describe sustainable concepts of logistics and to question the causes and drivers of ecological sustainability.
- analyze practical situations and questions on Corporate Social Responsibility (CSR) and sustainability and develop solution paths based on projects, critique them and implement them in a goal-oriented manner in business contexts.
- independently work out and reproduce challenging subject areas of sustainable logistics.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Transportation & Logistics

**Links to other Study Programs of the University**

All Bachelor Programs in the Management field

## Green and Social Logistics

Course Code: DLBBWGSL01\_E

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

### Course Description

Green and social logistics are of great importance today in the context of a globalized economy. In the course, concepts of sustainable logistics such as city logistics and electromobility are presented and discussed. An understanding of the causes and possible drivers of green logistics is developed by juxtaposing resource consumption and environmental compatibility. As solutions for transport management, avoiding, reducing, and shifting transport services are discussed. In the area of sustainable storage management, the solutions of energy-efficient logistics centers with consideration of energy efficiency measures are presented and discussed.

### Course Outcomes

On successful completion, students will be able to

- describe sustainable concepts of logistics and to question the causes and drivers of ecological sustainability.
- analyze practical situations and questions on Corporate Social Responsibility (CSR) and sustainability and develop solution paths based on projects, critique them and implement them in a goal-oriented manner in business contexts.
- independently work out and reproduce challenging subject areas of sustainable logistics.

### Contents

1. Introduction to Corporate Social Responsibility and Sustainability
  - 1.1 The Sustainability Concept
  - 1.2 Reasons for Ecological Sustainability
  - 1.3 Causes and Drivers of Ecological Sustainability
2. Interaction of Logistics - Environment
  - 2.1 Resource Consumption
  - 2.2 Environmental Compatibility
  - 2.3 The Neglected Social Pillar
3. Green Logistics
  - 3.1 Sustainable Transport Management
  - 3.2 Sustainable Warehouse Management

4. City Logistics
  - 4.1 Concepts of City Logistics
  - 4.2 Electric Mobile Logistics
5. Carbon Footprint in Logistics
  - 5.1 Categorization of Terms for Carbon Footprinting
  - 5.2 Accounting of Greenhouse Gas Emissions
6. Sustainable Transport Management
  - 6.1 Avoiding
  - 6.2 Shifting
  - 6.3 Reducing
7. Sustainable Storage Management
  - 7.1 Challenges of Green Warehouses
  - 7.2 Efficiency Measurement in Logistics Centers
  - 7.3 Concepts for Efficiency Measures

## Literature

### Compulsory Reading

### Further Reading

- Dickson, M. A., & Loker, S. (2009). *Social Responsibility in the Global Apparel Industry*. Routledge
- Grant, D. B., & Trautrim, A. (2022). *Sustainable Logistics and Supply Chain Management: Principles and Practices for Sustainable Operations and Management*. Kogan Page.
- McKinnon, A. (2015). *Green Logistics: Improving the Environmental Sustainability of Logistics*. Kogan Page.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests



## Project: AI in Logistics

Module Code: DLBAIBEPAIL

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: AI in Logistics)

### Contributing Courses to Module

- Project: AI in Logistics (DLBAIBEPAIL01)

### Module Exam Type

#### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students dive deep into the transformative role of artificial intelligence (AI) in the logistics sector. They are provided with a comprehensive understanding of the basics of logistics, AI's integral part in enhancing logistic processes, such as automated warehouses and transport optimization, and its bearing on operational tasks.

**Learning Outcomes****Project: AI in Logistics**

On successful completion, students will be able to

- comprehend the core elements of logistics.
- characterize various disciplines of AI that have profound implications in the field of logistics, including IoT and other smart technologies.
- Understand the requirements for the use of chatbots and AI in customer interactions, including order tracking and support service.
- grasp specific AI methods employed for strategic and tactical decision-making, including forecasting algorithms.
- evaluate different AI concepts and their areas of application for operational tasks in logistics.
- recognize various limitations, risks, and challenges associated with the application of AI in logistics.
- critically analyze relevant AI case studies and use cases in logistics to deepen their understanding.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Transportation & Logistics

**Links to other Study Programs of the University**

All Bachelor Programs in the Management field

## Project: AI in Logistics

Course Code: DLBAIBEPAIL01

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

### Course Description

Emerging technologies like AI are fueling a radical transformation in various industries, and logistics is no exception. Students experience a comprehensive exploration of these transformative changes, in line with a broader global shift into the digital era. Starting with a thorough overview of logistics' fundamental elements, it extends to the ways AI can aid in the optimization of logistics processes, such as automating warehouses and improving transport coordination. Moreover, students familiarize themselves with the role of AI in executing operational tasks in logistics and they will learn about intelligent supply chain management through AI-driven approaches for demand forecasting, supplier selection, and risk management. Students will be capable of analyzing AI concepts, understanding their applications in logistics, recognizing their limitations, risks, and challenges. Significantly, this involves detailed discussion around use cases, arming the students with a pragmatic understanding of the field.

### Course Outcomes

On successful completion, students will be able to

- comprehend the core elements of logistics.
- characterize various disciplines of AI that have profound implications in the field of logistics, including IoT and other smart technologies.
- Understand the requirements for the use of chatbots and AI in customer interactions, including order tracking and support service.
- grasp specific AI methods employed for strategic and tactical decision-making, including forecasting algorithms.
- evaluate different AI concepts and their areas of application for operational tasks in logistics.
- recognize various limitations, risks, and challenges associated with the application of AI in logistics.
- critically analyze relevant AI case studies and use cases in logistics to deepen their understanding.

### Contents

- Students experience a broad-spectrum of knowledge, casting light on the deep ties between the logistics industry and artificial intelligence. Embarking on this learning journey, they will first delve into the fundamental elements of logistics, offering the requisite base to build

upon. From there, students will step into the sphere of AI disciplines, learning about their significance and potential in revolutionizing the logistics field to make it more efficient, predictive, and adaptive.

- Students explore the specific AI methods employed in making strategic and tactical decisions in logistics, including different forecasting algorithms. As they progress, they will assess various AI concepts, including NLP in logistics for processing documents such as invoices and shipping notices, and the use of chatbots for customer services. Also, the unique potential benefits of AI, the operational tasks they can facilitate, and also the possible limitations, risks, ethical considerations, and challenges that might arise from their application in logistics.
- Through the engagement with relevant AI use cases in logistics, students are encouraged to actively participate and think critically, pushing them to apply their theoretical learning to real-life applications, deepening their understanding, and assisting them in envisioning the practical realm beyond theoretical constructs. Students will continually engage and interact with the content, fostering an enriching learning experience paramount to their grasp and application of AI in the logistics sector.

## Literature

### Compulsory Reading

#### Further Reading

- Foster, M. N., & Rhoden, S. L. N. H. (2020). The integration of automation and artificial intelligence into the logistics sector: A Caribbean perspective. *Worldwide Hospitality and Tourism Themes*, 12(1), 56-68.
- Kumar, P. J. S., Petla, R. K., Elangovan, K., & Kuppusamy, P. G. (2022). Artificial intelligence revolution in logistics and supply chain management. In R. Kanthavel, K. Ananthajothi, S. Balamurugan, & R. K. Ganesh (Eds.), *Artificial intelligent techniques for wireless communication and networking* (pp. 31-45). Scrivener Publishing.
- Merkert, R., & Hoberg, K. (2023). *Global logistics and supply chain strategies for the 2020s*. Springer.
- Mishrif, A., & Khan, A. (2023). Digitization policy design and implementation in the logistics and supply chain sector during the time of Covid-19. *Journal of International Logistics and Trade*, 21(3), 135-158.
- Wilson, M., Paschen, J., & Pitt, L. (2022). The circular economy meets artificial intelligence (AI): Understanding the opportunities of AI for reverse logistics. *Management of Environmental Quality*, 33(1), 9-25.
- Wu, P.-J., & Tai, Y.-C. (2024). Artificial intelligence-based food-quality and warehousing management for food banks' inbound logistics. *Journal of Enterprise Information Management*, 37(1), 307-325.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Leadership 4.0

Module Code: DLBWPLS\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Tanja Moehler (Leadership 4.0)

### Contributing Courses to Module

- Leadership 4.0 (DLBWPLS01\_E)

### Module Exam Type

#### Module Exam

Study Format: Duales myStudium  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

<p><b>Module Contents</b></p> <ul style="list-style-type: none"> <li>▪ Conventional understanding of leadership</li> <li>▪ Management tools</li> <li>▪ Leadership versus management</li> <li>▪ Integral concept of humankind as future-oriented model</li> <li>▪ Characteristics and competencies of leaders</li> <li>▪ Leadership models</li> <li>▪ Agile Leadership instruments</li> </ul>	
<p><b>Learning Outcomes</b></p> <p><b>Leadership 4.0</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ understand the classical theories of leadership and new leadership models.</li> <li>▪ distinguish between the terms leadership and management.</li> <li>▪ reflect on the understanding of successful leadership models against the background of economic changes.</li> <li>▪ develop an understanding of the need for alternative forms of organizational directing.</li> <li>▪ implement appropriate leadership methods according to a company's level of complexity.</li> <li>▪ draw upon a sound theoretical understanding that they can practice in applied research.</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>This module is similar to other modules in the fields of Business Administration &amp; Management</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programmes in the Business &amp; Management fields</p>

## Leadership 4.0

Course Code: DLBWPLS01\_E

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

### Course Description

Today, competitiveness depends more than ever on continuous innovation. This puts new demands on the management of companies. The task of successful leaders in innovation and business is no longer to offer direction and solutions, but to create a framework in which others develop innovations. This change, which is currently taking place with full force in companies, requires further developments on classic leadership concepts and its principles. Against the background of digital change and the advance of artificial intelligence, established business models are constantly being put to the test. On the one hand, it is important to work on several projects simultaneously and to adapt flexibly to changing conditions at any time; on the other hand, employees want to be integrated into the work process in a different way. Consideration and flexibility for their personal and family situation play an increasing role. Innovation and business leaders can only meet all these diverse challenges with Leadership by inspiring others to think ahead and act inter-divisionally, in other words, to be visionary. This course tries to convey knowledge, understanding and tools for this challenging field of work.

### Course Outcomes

On successful completion, students will be able to

- understand the classical theories of leadership and new leadership models.
- distinguish between the terms leadership and management.
- reflect on the understanding of successful leadership models against the background of economic changes.
- develop an understanding of the need for alternative forms of organizational directing.
- implement appropriate leadership methods according to a company's level of complexity.
- draw upon a sound theoretical understanding that they can practice in applied research.

### Contents

1. Basics of the Leadership Concept
  - 1.1 Definition of the Leadership Concept and Leadership Actions
  - 1.2 Development of the Understanding of Leadership
  - 1.3 The Role of Communication in Leadership
  - 1.4 New Challenges for Leadership
2. Leadership Versus Management



- 2.1 Distinctions between these Concepts
- 2.2 Relevance of Leadership in the Context of Technological Change
- 2.3 New Forms of Work as a Challenge for Leadership 4.0
3. Organizational Prerequisites for Successful Leadership
  - 3.1 Launching Corporate Governance Initiatives
  - 3.2 From Process to Project Management
  - 3.3 Managing Limited Resources
4. Personal Factors for Successful Leadership
  - 4.1 Personal Characteristics
  - 4.2 Technological Know-how
  - 4.3 Policy and Compliance
5. Management Tools
  - 5.1 Definition, Differentiation and Challenges
  - 5.2 Use of Direct Management Tools
  - 5.3 Use of Indirect Management Tools
6. Leadership 4.0 Models
  - 6.1 Transformational Leadership
  - 6.2 Leadership as an Agile Role
  - 6.3 Authentic Leadership
7. Leadership 4.0 Case Studies
  - 7.1 Allsafe Jungfalk
  - 7.2 Automattic

## Literature

### Compulsory Reading

### Further Reading

- Seliger, R (2022): Positive Leadership. The Management revolution, Schäffer-Poeschel, Freiburg
- Luthans, F. (2021): Organizational Behavior: An Evidence-Based Approach, 14th Edition. Charlotte, NC : Information Age Publishing.
- Helmod, M. (2021): New Work, Transformational and Virtual Leadership: Lessons from Covid-19 and other crisis, Springer, Wiesbaden.

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Project: AI in HR

Module Code: DLBAIBEPAIHR

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: AI in HR)

### Contributing Courses to Module

- Project: AI in HR (DLBAIBEPAIHR01)

### Module Exam Type

#### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students will be shown how AI can be used in HR and how it influences the various HR activities. Students undergo an exploration of integrating AI into different facets of HR practices along the employee life cycle. They discover areas such as the deployment of AI in unbiased talent acquisition, the role of AI in automating and personalizing the onboarding process for new hires, data-driven performance evaluations, and the use of AI-powered chatbots for employee engagement. Furthermore, ethical implications when dealing with employee data and the possibility of AI either fostering or hampering workplace discrimination will be discussed.

**Learning Outcomes****Project: AI in HR**

On successful completion, students will be able to

- understand the various benefits of integrating AI into HR practices and analyze the potential impact of AI on various aspects of HR management.
- evaluate ethical considerations in AI-powered HR and develop strategies for responsible implementation of AI in HR.
- design AI-driven solutions for various HR functions such as recruitment, onboarding, and talent management, predictive analytics for various HR functions, and implement AI-driven analytics for workforce planning and decision-making.
- evaluate the effectiveness of AI tools in enhancing employee experience including personalized learning and adaptive training programs and operational efficiency, while understanding the ethical considerations of using AI in HR, including data privacy and bias mitigation.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Human Resources

**Links to other Study Programs of the University**

All Master Programs in the Human Resources field

## Project: AI in HR

Course Code: DLBAIBEPAIHR01

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

### Course Description

However, as we dive into AI-powered HR, it's crucial to stay mindful of ethical considerations. Organizations must ensure that their use of AI in HR practices is responsible, fair, and aligned with their values and principles. Moreover, finding ways how AI can help identify and mitigate biases in HR processes and promote diversity and inclusion and to assess the effectiveness of AI-driven tools in creating more inclusive job descriptions and workplace policies is a primary focus to foster trustworthy AI-integration into HR practices. Only then will employees accept new processes and will trust them.

### Course Outcomes

On successful completion, students will be able to

- understand the various benefits of integrating AI into HR practices and analyze the potential impact of AI on various aspects of HR management.
- evaluate ethical considerations in AI-powered HR and develop strategies for responsible implementation of AI in HR.
- design AI-driven solutions for various HR functions such as recruitment, onboarding, and talent management, predictive analytics for various HR functions, and implement AI-driven analytics for workforce planning and decision-making.
- evaluate the effectiveness of AI tools in enhancing employee experience including personalized learning and adaptive training programs and operational efficiency, while understanding the ethical considerations of using AI in HR, including data privacy and bias mitigation.

### Contents

- Students will delve into the integration of AI into HR practices, examining its influence on various HR activities throughout the employee life cycle. They explore the deployment of AI in unbiased talent acquisition, data-driven performance evaluations, and the utilization of AI-powered chatbots for employee engagement. Additionally, ethical implications concerning employee data and the potential for AI to either foster or hinder workplace discrimination are discussed.
- While the primary aim of integrating AI into HR is to enhance automation and efficiency, the additional benefits such as gaining deeper insights from data analysis, making predictive forecasts based on historical data, personalizing HR processes, and continuously refining HR activities will be highlighted. Also, students will investigate how AI is reshaping job

roles, employee expectations, and the overall workplace. This comprehensive approach spans across workforce planning, recruitment, onboarding, performance management, and employee development, ultimately aiming to improve processes and outcomes for both employees and organizations.

- However, the importance of staying mindful of ethical considerations when implementing AI in HR practices is emphasized. Students learn to ensure that the use of AI is responsible, fair, inclusive, focused on enabling diversity and aligned with organizational values and principles. By addressing ethical concerns, organizations can foster employee acceptance and trust in AI-powered HR processes.

## Literature

### Compulsory Reading

### Further Reading

- Altemeyer, B. (2019). Making the business case for AI in HR: two case studies. *Strategic HR Review*, 18(2), 66–70.
- Figueroa-Armijos, M., Clark, B. B., & da Motta Veiga, S. P. (2023). Ethical perceptions of AI in hiring and organizational trust: The role of performance expectancy and social influence. *Journal of Business Ethics*, 186(1), 179–197.
- Strohmeier, S. (2022). *Handbook of research on artificial intelligence in human resource management*. Edward Elgar Publishing.
- Zhai, Y., Zhang, L., & Yu, M. (2024). AI in human resource management: Literature review and research implications. *Journal of Knowledge Economy*.



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# User Experience

Module Code: DLBMIUEX1\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Dr. Mathias Bauer (User Experience)

## Contributing Courses to Module

- User Experience (DLBMIUEX01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Basics of User Experience
- Customer Journey
- Selected UX Techniques
- UX Evaluation
- Information Design
- UX on a Large Scale

**Learning Outcomes****User Experience**

On successful completion, students will be able to

- describe, classify, and delimit the term user experience and its concepts.
- analyze touchpoints, create customer journey maps and describe personas.
- describe suitable techniques for user experience design and select them for a specific task.
- describe techniques for evaluating UX and identify appropriate ones for specific tasks.
- describe and delimit selected techniques for information design.
- describe and delimit concepts and approaches for designing user experience at the process, service and enterprise levels.
- engage in interdisciplinary team work and communicate comprehensively with UX professionals with complementary backgrounds and skill sets.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Design

**Links to other Study Programs of the University**

All Bachelor Programs in the Design, Architecture & Construction fields

# User Experience

Course Code: DLBMIUEX01\_E

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

## Course Description

The term user experience (UX) generally refers to the experience that users and customers have in relationship to the products and services that a company offers. It is not only about improving the usability of IT systems, but also about analyzing, designing and evaluating the experience of users and customers. After an introduction to the topic of user experience, some methods for analyzing the user experience will be explained and their application will be discussed. Then, selected techniques for designing user experience and suitable approaches to information design are introduced. After that specific techniques for evaluating UX are discussed. Finally, it will be explained how UX can be designed specifically at the level of services and companies.

## Course Outcomes

On successful completion, students will be able to

- describe, classify, and delimit the term user experience and its concepts.
- analyze touchpoints, create customer journey maps and describe personas.
- describe suitable techniques for user experience design and select them for a specific task.
- describe techniques for evaluating UX and identify appropriate ones for specific tasks.
- describe and delimit selected techniques for information design.
- describe and delimit concepts and approaches for designing user experience at the process, service and enterprise levels.
- engage in interdisciplinary team work and communicate comprehensively with UX professionals with complementary backgrounds and skill sets.

## Contents

1. UX Basics
  - 1.1 Terms, Concepts, History
  - 1.2 User Experience Design and Management
  - 1.3 Selected Scenarios from Practice
2. Analysis
  - 2.1 Contextual Inquiry
  - 2.2 Touchpoint Analysis
  - 2.3 Customer Journey Map
  - 2.4 Persona

3. Finding Ideas
  - 3.1 Use Cases
  - 3.2 User Stories
  - 3.3 Storyboards
4. Design and Prototyping
  - 4.1 Card Sorting
  - 4.2 Sketches and Scribbles
  - 4.3 Wireframes
  - 4.4 Prototyping
  - 4.5 Guidelines and Style Guides
5. Evaluation
  - 5.1 Usability Testing
  - 5.2 Observation Techniques
  - 5.3 Interview Techniques and Questionnaires
6. "UX on a Large Scale"
  - 6.1 UX in Services and Business Processes
  - 6.2 Corporate UX

**Literature****Compulsory Reading****Further Reading**

- Buxton, William. *Sketching User Experience: Getting the Design Right and the Right Design*. San Francisco, Calif.: Morgan Kaufmann, 2007. Book.
- Garrett, Jesse James. *The Elements of User Experience : User-Centered Design for the Web and Beyond*. Voices That Matter Ser. Vol. 2nd ed., New edition, revised, Berkeley: New Riders, 2010. Book.
- Kuniavsky, Mike, Andrea Moed, and Elizabeth Goodman. *Observing the User Experience [Electronic Resource] : A Practitioner's Guide to User Research*. Waltham, MA Morgan Kaufmann, 2nd ed, 2012.
- Norman, Don. *The Design of Everyday Things : Revised and Expanded Edition*. Vol. Revised and expanded edition, New York: Basic Books, 2013. Book.
- Saul, Greenberg, Carpendale Sheelagh, Marquardt Nicolai, and Buxton Bill. *Sketching User Experiences: The Workbook*. Waltham, Mass: Morgan Kaufmann, 2012. Book.
- Brown, Diana DeMarco. *Agile User Experience Design a Practitioner's Guide to Making It Work*. Amsterdam [u.a.]: Elsevier MK, 2013. Monograph.
- Robier, Johannes. "Ux Redefined. Winning and Keeping Customers with Enhanced Usability and User Experience." Belgium, Europe: Springer International Publishing, 2016.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline



## Seminar: AI in Marketing & E-Commerce

Module Code: DLBOMSKIMEC\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Seminar: AI in Marketing & E-Commerce)

### Contributing Courses to Module

- Seminar: AI in Marketing & E-Commerce (DLBOMSKIMEC01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Research Essay

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

The course focuses on the increasing role of artificial intelligence in online marketing and e-commerce, with special consideration given to personalization, content creation, process automation, and prediction of customer behavior.

**Learning Outcomes****Seminar: AI in Marketing & E-Commerce**

On successful completion, students will be able to

- apply basic knowledge about the functions and applications of AI in marketing and e-commerce.
- identify and evaluate relevant AI technologies in the context of marketing and e-commerce.
- demonstrate practical experience in implementing AI through case study work and exercises.
- address the ethical, legal, and data protection aspects associated with the use of AI in marketing.
- develop a critical viewpoint on the use of AI, reflect on its effects, and promote methodological competence, interdisciplinarity, and practical relevance.

**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 Bachelor Programs in the Marketing & Communication field

## Seminar: AI in Marketing & E-Commerce

Course Code: DLBOMSKIMEC01\_E

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

### Course Description

The course establishes a crucial link between traditional digital marketing strategies and the advanced Artificial Intelligence (AI) technologies. Students delve deeply into the effects and potential of AI that is transforming the sector and reinvent the way businesses operate their e-commerce. The core of the coursework focuses on personalization, content creation, process automation, and the prediction of customer behavior - key areas where AI demonstrates its strengths and helps businesses achieve their marketing and e-commerce goals more efficiently. Special attention is also given to the ethical, legal, and data protection aspects associated with the use of AI in marketing.

### Course Outcomes

On successful completion, students will be able to

- apply basic knowledge about the functions and applications of AI in marketing and e-commerce.
- identify and evaluate relevant AI technologies in the context of marketing and e-commerce.
- demonstrate practical experience in implementing AI through case study work and exercises.
- address the ethical, legal, and data protection aspects associated with the use of AI in marketing.
- develop a critical viewpoint on the use of AI, reflect on its effects, and promote methodological competence, interdisciplinarity, and practical relevance.

### Contents

- Artificial Intelligence is becoming increasingly important in marketing and e-commerce. AI can be used in many different areas: personalization, content creation, process automation, prediction of customer behavior, etc. In this course, students can explore topics around AI in marketing & e-commerce.

**Literature****Compulsory Reading****Further Reading**

- Castillo, M. J., & Taherdoost, H. (2023). The impact of AI technologies on e-business. *Encyclopedia*, 3(1), 107–121.
- Deng, G., Zhang, J., & Xu, Y. (2024). How e-commerce platforms build channel power: The role of AI resources and market-based assets. *Journal of Business & Industrial Marketing*, 39(2), 173-188.
- Gentsch, P. (2019). AI in marketing, sales and service: How marketers without a data science degree can use AI, big data and bots. Springer.
- Heins, C. (2023). Artificial intelligence in retail – A systematic literature review. *Foresight*, 25(2), 264-286.
- Kalia, P. (2021). Artificial intelligence in e-commerce: A business process analysis. Routledge.
- Thaichon, P., & Quach, S. (2023). Artificial intelligence for marketing management. Routledge.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Project: Cross Media Marketing

Module Code: DLBOMPCMM\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Kingsley Dible (Project: Cross Media Marketing)

### Contributing Courses to Module

- Project: Cross Media Marketing (DLBOMPCMM01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Oral Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- In this course, students work independently on a project in the field of cross media marketing and thus transfer their knowledge into practice. They go through all the necessary phases and present their results orally with the support of adequate visualization. A current list of topics can be found in the Learning Management System.

**Learning Outcomes****Project: Cross Media Marketing**

On successful completion, students will be able to

- understand integrated marketing communication (cross media marketing) in conjunction with practical media planning in a holistic way.
- decisively optimize marketing strategies of a company with well-founded marketing knowledge and its application-safe handling.
- recognize the different ways in which media planning works.
- allocate specific costs to the planning.
- independently carry out a project in the field of cross media marketing and present it in an addressee-oriented manner in a project presentation.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Online & Social Media Marketing

**Links to other Study Programs of the University**

All Bachelor Programs in the Marketing & Communication field

## Project: Cross Media Marketing

Course Code: DLBOMPCMM01\_E

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

### Course Description

Today, communication takes place via many channels: via print and on the web, on all kinds of digital end devices and in many different applications. What is self-evident for the user requires a lot of attention on the company side. Because good integrated communication does not mean feeding the same content into all channels: Optimal impact is only achieved when the media complement each other and highlight different facets of the same message depending on their specific characteristics. Cross-media or integrated marketing communication means the coordinated action of a company with regard to the design of its own offer and corporate design, the communication instruments and media used and the timing - in B2B as well as in B2C. From product development to packaging, all measures are subject to consistent premises; in the marketing channels, the messages complement each other and lead to a uniform perception by the target group. Or, to paraphrase a famous advertising slogan: "Are you still advertising or are you already communicating?"

### Course Outcomes

On successful completion, students will be able to

- understand integrated marketing communication (cross media marketing) in conjunction with practical media planning in a holistic way.
- decisively optimize marketing strategies of a company with well-founded marketing knowledge and its application-safe handling.
- recognize the different ways in which media planning works.
- allocate specific costs to the planning.
- independently carry out a project in the field of cross media marketing and present it in an addressee-oriented manner in a project presentation.

### Contents

- The focus of this course is the independent planning and implementation of a project in the field of cross media marketing. Students test their knowledge in practice and deepen it. Special attention is paid to the individual components of cross-media communication as well as the basics of media planning, selection and attribution.



**Literature****Compulsory Reading****Further Reading**

- Arikan, A. (2008). *Multichannel Marketing: Metrics and Methods for On and Offline Success*. John Wiley & Sons.
- Juska, J. M. (2021). *Integrated Marketing Communication: Advertising and Promotion in a Digital World* (2nd ed.). Routledge.
- Kenneth, E. C., & Baack, D. (2021). *Integrated Advertising, Promotion, and Marketing Communications* (9th ed.). Pearson.
- Krämer, B., & Frey, F. (Eds.). (2020). *How We Use the Media: Strategies, Modes and Styles*. (Transforming Communications – Studies in Cross-Media Research). Palgrave Macmillan.
- Wirtz, B. W. (2021). *Media Management: Strategy, Business Models and Case Studies* (2nd ed.). (Springer Texts in Business and Economics). Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Oral Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Seminar: AI in Marketing & E-Commerce

Module Code: DLBOMSKIMEC\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Seminar: AI in Marketing & E-Commerce)

### Contributing Courses to Module

- Seminar: AI in Marketing & E-Commerce (DLBOMSKIMEC01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Research Essay

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

The course focuses on the increasing role of artificial intelligence in online marketing and e-commerce, with special consideration given to personalization, content creation, process automation, and prediction of customer behavior.

**Learning Outcomes****Seminar: AI in Marketing & E-Commerce**

On successful completion, students will be able to

- apply basic knowledge about the functions and applications of AI in marketing and e-commerce.
- identify and evaluate relevant AI technologies in the context of marketing and e-commerce.
- demonstrate practical experience in implementing AI through case study work and exercises.
- address the ethical, legal, and data protection aspects associated with the use of AI in marketing.
- develop a critical viewpoint on the use of AI, reflect on its effects, and promote methodological competence, interdisciplinarity, and practical relevance.

**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 Bachelor Programs in the Marketing & Communication field

## Seminar: AI in Marketing & E-Commerce

Course Code: DLBOMSKIMEC01\_E

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

### Course Description

The course establishes a crucial link between traditional digital marketing strategies and the advanced Artificial Intelligence (AI) technologies. Students delve deeply into the effects and potential of AI that is transforming the sector and reinvent the way businesses operate their e-commerce. The core of the coursework focuses on personalization, content creation, process automation, and the prediction of customer behavior - key areas where AI demonstrates its strengths and helps businesses achieve their marketing and e-commerce goals more efficiently. Special attention is also given to the ethical, legal, and data protection aspects associated with the use of AI in marketing.

### Course Outcomes

On successful completion, students will be able to

- apply basic knowledge about the functions and applications of AI in marketing and e-commerce.
- identify and evaluate relevant AI technologies in the context of marketing and e-commerce.
- demonstrate practical experience in implementing AI through case study work and exercises.
- address the ethical, legal, and data protection aspects associated with the use of AI in marketing.
- develop a critical viewpoint on the use of AI, reflect on its effects, and promote methodological competence, interdisciplinarity, and practical relevance.

### Contents

- Artificial Intelligence is becoming increasingly important in marketing and e-commerce. AI can be used in many different areas: personalization, content creation, process automation, prediction of customer behavior, etc. In this course, students can explore topics around AI in marketing & e-commerce.

**Literature****Compulsory Reading****Further Reading**

- Castillo, M. J., & Taherdoost, H. (2023). The impact of AI technologies on e-business. *Encyclopedia*, 3(1), 107–121.
- Deng, G., Zhang, J., & Xu, Y. (2024). How e-commerce platforms build channel power: The role of AI resources and market-based assets. *Journal of Business & Industrial Marketing*, 39(2), 173-188.
- Gentsch, P. (2019). AI in marketing, sales and service: How marketers without a data science degree can use AI, big data and bots. Springer.
- Heins, C. (2023). Artificial intelligence in retail – A systematic literature review. *Foresight*, 25(2), 264-286.
- Kalia, P. (2021). Artificial intelligence in e-commerce: A business process analysis. Routledge.
- Thaichon, P., & Quach, S. (2023). Artificial intelligence for marketing management. Routledge.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Introduction to the Internet of Things

Module Code: DLBINGEIT\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Marian Benner-Wickner (Introduction to the Internet of Things)

## Contributing Courses to Module

- Introduction to the Internet of Things (DLBINGEIT01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Internet of Things Fundamentals
- Social and Economic Significance
- Communication Standards and Technologies
- Data Storage and Processing
- Design and Development
- Applicability



**Learning Outcomes****Introduction to the Internet of Things**

On successful completion, students will be able to

- grasp the distinctive features of Internet of Things (IoT) and IoT systems.
- understand the social and economic importance of Internet of Things.
- identify the most important standards for communication between IoT devices.
- differentiate between various techniques for storing and processing data in IoT systems.
- identify different architectures and technologies for structuring IoT systems.
- recognize challenges of data protection and data security in IoT systems.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software

**Links to other Study Programs of the University**

All Bachelor Programmes in the IT & Technology field

# Introduction to the Internet of Things

Course Code: DLBINGEIT01\_E

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

## Course Description

The aim of this course is to give students an insight into technical and theoretical basics of the Internet of Things (IoT) and its fields of application. In addition to the general structure of IoT systems and the technology standards used in them, students are also taught the importance of Internet of Things for economy and society. Furthermore, this course demonstrates how data is exchanged, stored and processed in IoT.

## Course Outcomes

On successful completion, students will be able to

- grasp the distinctive features of Internet of Things (IoT) and IoT systems.
- understand the social and economic importance of Internet of Things.
- identify the most important standards for communication between IoT devices.
- differentiate between various techniques for storing and processing data in IoT systems.
- identify different architectures and technologies for structuring IoT systems.
- recognize challenges of data protection and data security in IoT systems.

## Contents

1. Internet of Things Fundamentals
  - 1.1 The Internet of Things - Basics and Motivation
  - 1.2 Evolution of the Internet - Web 1.0 to Web 4.0
2. Social and Economic Significance
  - 2.1 Innovations for Consumers and Industry
  - 2.2 Implications on People and the World of Work
  - 2.3 Data Protection and Data Security
3. Communication Standards and Technologies
  - 3.1 Network Topologies
  - 3.2 Network Protocols
  - 3.3 Technologies
4. Data Storage and Processing

- 4.1 Networked Storage with Linked Data and RDF(S)
- 4.2 Analysis of Networked Data using a Semantic Reasoner
- 4.3 Processing of Data Streams with Complex Event Processing
- 4.4 Operation and Analysis of Large Data Clusters using NoSQL and MapReduce
- 5. Design and Development
  - 5.1 Software Engineering for Distributed and Embedded Systems
  - 5.2 Architectural Patterns and Styles for Distributed Systems
  - 5.3 Platforms: Microcontrollers, Monoboard Computers, One-Chip Systems
- 6. Applicability
  - 6.1 Smart Home / Smart Living
  - 6.2 Ambient Assisted Living
  - 6.3 Smart Energy / Smart Grid
  - 6.4 Smart Factory
  - 6.5 Smart Logistics

## Literature

### Compulsory Reading

### Further Reading

- Buyya, R. & Vahid Dastjerdi, A. (Hrsg.) (2016). Internet of things. Principles and paradigms. Morgan Kaufmann, Cambridge (MA).
- Dian, F. J., & Vahidnia, R. (2020). IoT use cases and technologies. British Columbia Institute of Technology.
- Firouzi, F., Chakrabarty, K., & Nassif, S. (2020). Intelligent Internet of Things: From device to fog and cloud. Springer.
- Gilchrist, A. (2016). Industry 4.0. The industrial internet of things. Apress.
- Raj, P., & Raman, A. C. (2017). The Internet of things: enabling technologies, platforms, and use cases. CRC Press.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

## Project: AI in Production

Module Code: DLBAIBEPAIP

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Project: AI in Production)

### Contributing Courses to Module

- Project: AI in Production (DLBAIBEPAIP01)

### Module Exam Type

#### Module Exam

Study Format: [Distance Learning](#)  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students develop an understanding of the critical role of Artificial Intelligence (AI) in revolutionizing production and manufacturing processes. They focus on incorporations of AI in defect analysis, predictive maintenance, on-time delivery in the business spectrum, particularly the key characteristics and goals of a smart factory.

**Learning Outcomes****Project: AI in Production**

On successful completion, students will be able to

- comprehend the significance and role of AI in optimizing business processes in production environments.
- understand the fundamental features and objectives of a smart factory.
- gain insights into the application of AI for defect detection and prevention in the framework of a production environment.
- grasp the usage of AI for predictive maintenance, ensuring punctual delivery, and elevating the manufacturing rate.
- recognize different limitations, challenges, ethical and legal considerations, and risks associated with AI implementation in local and international business production operations.
- analyze relevant case studies and use cases to enhance their understanding of AI in production.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Data Science & Artificial Intelligence

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

## Project: AI in Production

Course Code: DLBAIBEPAIP01

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

### Course Description

Students develop an understanding of the profound impact of AI on the modern global production industry. Students are enabled to unravel the power of AI and its implications in boosting business operations and workflow. The integral characteristics and objectives of a smart factory, which act as a blueprint for future industries, is a primary area of focus. The role of AI in certain niche areas like defect analysis in production environments, predictive maintenance, and ensuring on-time delivery is emphasized. In addition to this, discussions around the challenges and risks linked with AI integration in global and local business contexts will equip students with a real-world perspective about the implementation of this technology in production environments. Also, a discussion on how AI reshapes job roles, the emergence of new skills, and strategies for workforce transition and upskilling in the age of automation is stimulated.

### Course Outcomes

On successful completion, students will be able to

- comprehend the significance and role of AI in optimizing business processes in production environments.
- understand the fundamental features and objectives of a smart factory.
- gain insights into the application of AI for defect detection and prevention in the framework of a production environment.
- grasp the usage of AI for predictive maintenance, ensuring punctual delivery, and elevating the manufacturing rate.
- recognize different limitations, challenges, ethical and legal considerations, and risks associated with AI implementation in local and international business production operations.
- analyze relevant case studies and use cases to enhance their understanding of AI in production.

### Contents

- Students dive deep into the epicenter of the use of AI in modern production world. They gain insight into the role of AI in defect detection and prediction in manufacturing settings, thereby reducing errors and elevating efficiency. Another critical area of focus is predictive maintenance, delivered via AI technologies to minimize machine downtime and ensure smoother operations. On-time delivery takes center stage, with students understanding the integral role of AI in optimizing workflow and ensuring timely production output.



Students will also learn potential risks and challenges related to AI applications in the production environments, including an in depth exploration of ethical decision-making in AI development and deployment, with a focus on sustainable practices and responsible innovation in the production industry. Emphasis will be placed on how AI influences global supply chain dynamics, logistics, and trade, taking into account geopolitical and economic factors. An analytical approach to various AI use cases in production will facilitate comprehensive learning, urging students to actively engage, debate, and challenge existing paradigms.

## Literature

### Compulsory Reading

#### Further Reading

- Chen, R., & Zhang, T. (2024). Artificial intelligence applications implication for ESG performance: Can digital transformation of enterprises promote sustainable development? *Chinese Management Studies*. Advance online publication.
- Chryssolouris, G., Alexopoulos, K., & Arkouli, Z. (2023). A perspective on artificial intelligence in manufacturing. Springer.
- Davenport, T. H., & Mittal, N. (2023). How companies can prepare for the coming “AI-first” world. *Strategy & Leadership*, 51(1), 26-30.
- Schulz, W. H., Franck, O., Smolka, S., & Geilenberg, V. (2022). Applicable knowledge for sustainability. The status of artificial intelligence in industrial production and the impact of future sustainability. In S. Grima, E. Özen, & H. Boz (Eds.), *The new digital era: Digitalisation, emerging risks and opportunities (Contemporary Studies in Economic and Financial Analysis, Vol. 109A)* (pp. 117-124). Emerald Publishing Limited.
- Tran, K. P. (2023). *Artificial intelligence for smart manufacturing: Methods, applications, and challenges*. Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Sales and Distribution

Module Code: DLBMASD\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

(Sales and Distribution )

## Contributing Courses to Module

- Sales and Distribution (DLBMASD01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Basics of a "customer-driven organization"
- Structure of the distribution organization
- Omni-, cross- and multi-channel
- Distribution design, planning, management, and control
- Competence, selection, and incentive systems in Sales Force Management

**Learning Outcomes****Sales and Distribution**

On successful completion, students will be able to

- understand the tasks of marketing in a "customer-driven organization".
- analyze the structure of the distribution network in a company.
- support and contribute towards sales and key account management.
- participate in planning, managing and controlling the distribution network.
- understand the challenges of omni-, cross and multi-channel.
- understand the selection and incentive systems of sales staff and dealers.

**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 Bachelor Programs in the Marketing & Communication field

# Sales and Distribution

Course Code: DLBMASD01\_E

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

## Course Description

To establish a successful distribution system, it requires the interaction of marketing and sales. With a customer-centric approach, "customer-driven organizations" win the customers among the competition. The task is to design and manage the distribution network with a focus on the customer. It is important to be able to analyze an organization's distribution network and understand the advantages and disadvantages of different approach. Companies must adapt their strategies and processes internally and externally when designing and structuring their sales channels. Especially omni-, cross- and multi-channel systems must be designed in such a way, that the interplay of sales channels works as smoothly and conflict-free as possible. It is important not only to know the potential power of each distribution model, but also to be aware of the challenges associated with working with partners within each distribution channel. As a result, the requirements for employees also increase simultaneously. In the area of distribution, it is important to hire high-quality experts and collaborate with partners, knowing how to motivate and trigger them. Distribution systems, especially when they are multi-dimensional, must be managed accordingly. For this, it is important to continuously collect and analyze data, ranging from the identification of potential for the business of each individual system to efficient complaint management.

## Course Outcomes

On successful completion, students will be able to

- understand the tasks of marketing in a "customer-driven organization".
- analyze the structure of the distribution network in a company.
- support and contribute towards sales and key account management.
- participate in planning, managing and controlling the distribution network.
- understand the challenges of omni-, cross and multi-channel.
- understand the selection and incentive systems of sales staff and dealers.

## Contents

1. Fundamentals of a "customer-driven organization"
  - 1.1 Introduction and elements of the sales policy
  - 1.2 Customer centricity
  - 1.3 Actual trends and challenges in sales management
2. Structure of the distribution organization

- 2.1 One-dimensional distribution organization per region, product, and type of customer
- 2.2 Multi-dimensional distribution organization
- 2.3 Central or decentralized sales organization
- 2.4 Push versus pull approach
- 2.5 Building a distribution organization through value creation for each segment of the target group
3. Omni-, cross and multi-channel
  - 3.1 Definition and terminology
  - 3.2 Determination of channels and processes
  - 3.3 Control and evaluation of the sales channels
  - 3.4 Success factors and potential for conflicts
4. Distribution design
  - 4.1 Design of the structure of the sales channels
  - 4.2 Partners: Sales intermediaries and sales support
  - 4.3 Actual trends
5. Sales Force Management
  - 5.1 Competency and qualification profiles for hiring high-quality sales staff, selection of sales personnel/distributors
  - 5.2 Deployment planning
  - 5.3 Compensation and incentive systems
  - 5.4 Performance evaluation and control
6. Controlling of the distribution system
  - 6.1 Content and tasks of sales controlling
  - 6.2 Strategic sales controlling
  - 6.3 Operational sales controlling

**Literature****Compulsory Reading****Further Reading**

- Jobber, D., Lancaster, G. & Le Meunier-FitzHugh, K. (2019). *Selling and Sales Management*. Eleventh Edition. Pearson.
- Smith, P. (2022). *Sell with a Story Now to Capture Attention, Build Trust and Close the sale*. AMACOM American Management Association.
- Weinberg, M. (2019). *Sales Management Simplified*. AMACOM American Management Association.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Review Book <input checked="" type="checkbox"/> Online Tests



## Seminar: AI in Marketing & E-Commerce

Module Code: DLBOMSKIMEC\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Seminar: AI in Marketing & E-Commerce)

### Contributing Courses to Module

- Seminar: AI in Marketing & E-Commerce (DLBOMSKIMEC01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Research Essay

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

The course focuses on the increasing role of artificial intelligence in online marketing and e-commerce, with special consideration given to personalization, content creation, process automation, and prediction of customer behavior.

**Learning Outcomes****Seminar: AI in Marketing & E-Commerce**

On successful completion, students will be able to

- apply basic knowledge about the functions and applications of AI in marketing and e-commerce.
- identify and evaluate relevant AI technologies in the context of marketing and e-commerce.
- demonstrate practical experience in implementing AI through case study work and exercises.
- address the ethical, legal, and data protection aspects associated with the use of AI in marketing.
- develop a critical viewpoint on the use of AI, reflect on its effects, and promote methodological competence, interdisciplinarity, and practical relevance.

**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 Bachelor Programs in the Marketing & Communication field

## Seminar: AI in Marketing & E-Commerce

Course Code: DLBOMSKIMEC01\_E

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

### Course Description

The course establishes a crucial link between traditional digital marketing strategies and the advanced Artificial Intelligence (AI) technologies. Students delve deeply into the effects and potential of AI that is transforming the sector and reinvent the way businesses operate their e-commerce. The core of the coursework focuses on personalization, content creation, process automation, and the prediction of customer behavior - key areas where AI demonstrates its strengths and helps businesses achieve their marketing and e-commerce goals more efficiently. Special attention is also given to the ethical, legal, and data protection aspects associated with the use of AI in marketing.

### Course Outcomes

On successful completion, students will be able to

- apply basic knowledge about the functions and applications of AI in marketing and e-commerce.
- identify and evaluate relevant AI technologies in the context of marketing and e-commerce.
- demonstrate practical experience in implementing AI through case study work and exercises.
- address the ethical, legal, and data protection aspects associated with the use of AI in marketing.
- develop a critical viewpoint on the use of AI, reflect on its effects, and promote methodological competence, interdisciplinarity, and practical relevance.

### Contents

- Artificial Intelligence is becoming increasingly important in marketing and e-commerce. AI can be used in many different areas: personalization, content creation, process automation, prediction of customer behavior, etc. In this course, students can explore topics around AI in marketing & e-commerce.

**Literature****Compulsory Reading****Further Reading**

- Castillo, M. J., & Taherdoost, H. (2023). The impact of AI technologies on e-business. *Encyclopedia*, 3(1), 107–121.
- Deng, G., Zhang, J., & Xu, Y. (2024). How e-commerce platforms build channel power: The role of AI resources and market-based assets. *Journal of Business & Industrial Marketing*, 39(2), 173-188.
- Gentsch, P. (2019). AI in marketing, sales and service: How marketers without a data science degree can use AI, big data and bots. Springer.
- Heins, C. (2023). Artificial intelligence in retail – A systematic literature review. *Foresight*, 25(2), 264-286.
- Kalia, P. (2021). Artificial intelligence in e-commerce: A business process analysis. Routledge.
- Thaichon, P., & Quach, S. (2023). Artificial intelligence for marketing management. Routledge.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Global Health

Module Code: DLBIHMGH

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBIHMIHS01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Gerardo Fernandez (Global Health)

## Contributing Courses to Module

- Global Health (DLBIHMGH01)

## Module Exam Type

### Module Exam

Study Format: myStudies  
Exam, 90 Minutes

Study Format: Distance Learning  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Concepts in Global Health
- Global Health Governance: Structures and Institutions
- International Trade and Health
- One Health (Animal Health, Climate, Nutrition, Sexual and Reproductive Health)
- Conflict and Health

**Learning Outcomes****Global Health**

On successful completion, students will be able to

- understand the social, economic, political, and cultural forces that shape health across the world.
- appreciate how social relationship, policies and political processes, as well as technological change shape the context of health and healthcare.
- discuss the appropriateness of current global health governance structures and institutions.
- identify opportunities and pitfalls with a view to international trade, health, and healthcare.
- think strategically with the awareness that global health is shaped by both the natural and the man-made environment.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Healthcare Management

**Links to other Study Programs of the University**

All Bachelor Programs in the field of Health Affairs

# Global Health

Course Code: DLBIHMGH01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBIHMIHS01

## Course Description

This course highlights the view that many health issues concern many countries at the same time and are affected by transnational determinants such as climate change. Improving health around the world requires multidisciplinary approaches. In this course, students of international healthcare management will engage with cross-border determinants of health and the development of strategies to address these determinants. The course will convey an understanding of the role of international trade and the economy with regard to health and healthcare. Ultimately, the course will discuss the interconnectedness of human health within the changing natural and the man-made environment.

## Course Outcomes

On successful completion, students will be able to

- understand the social, economic, political, and cultural forces that shape health across the world.
- appreciate how social relationship, policies and political processes, as well as technological change shape the context of health and healthcare.
- discuss the appropriateness of current global health governance structures and institutions.
- identify opportunities and pitfalls with a view to international trade, health, and healthcare.
- think strategically with the awareness that global health is shaped by both the natural and the man-made environment.

## Contents

1. Concepts in Global Health
  - 1.1 The Evolution of Global Health
  - 1.2 Globalization, Infectious Diseases, and Global Health
  - 1.3 Noncommunicable Diseases
  - 1.4 Epidemiological Transitions
  - 1.5 Global Burden of Disease and Measurement
2. The Political Economy of Health and Development
  - 2.1 The Political Economy of Health
  - 2.2 The Political Economy of Development
  - 2.3 Recent Developments and Global Health Approaches



3. Global Health Governance: Structures and Institutions
  - 3.1 Development Goals, Regulations, and Global Health Governance
  - 3.2 Global health partnerships and governance
  - 3.3 The World Health Organization
  - 3.4 Other Stakeholders in Global Health
4. International Trade and Health
  - 4.1 The World Trade Organization, Trade Agreements, and Health
  - 4.2 Distributional Impacts
  - 4.3 Trade and Communicable Diseases
  - 4.4 Trade in Healthcare Products and Health Services
5. One Health
  - 5.1 Human and Animal Health
  - 5.2 Climate Change and Health
  - 5.3 Global Hunger, Nutrition, and Food Security
  - 5.4 Gender and Global Sexual and Reproductive Health
  - 5.5 Urbanization and health
6. Conflict and Health
  - 6.1 Impact of Conflict on Health
  - 6.2 Rebuilding Health Systems Post-Conflict

## Literature

### Compulsory Reading

### Further Reading

- Armstrong-Mensah, E. (2017): Global health: issues, challenges, and global action. Wiley, Hoboken NJ.
- Birn, A./Pillay, Y./Holtz, T. (2017): Textbook of global health. 4th edition. Oxford University Press, Oxford.
- Jacobsen, K. (2018): Introduction to global health. 3rd edition, Jones & Bartlett, Burlington MA.
- Merson, M./Black, R./Mills, A. (eds.): Global health: Diseases, programs, systems, and policies. 4th edition, Jones & Bartlett, Burlington MA.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed	<input checked="" type="checkbox"/> Course Book	<input checked="" type="checkbox"/> Practice Exam
<input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<input checked="" type="checkbox"/> Video	<input checked="" type="checkbox"/> Online Tests
<input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Slides	

## Seminar: Technology in Healthcare

Module Code: DLBIHMSTHC

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> None	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Amir Al-Munajjed (Seminar: Technology in Healthcare)

### Contributing Courses to Module

- Seminar: Technology in Healthcare (DLBIHMSTHC01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Research Essay

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

This course familiarizes students with some of the latest technologies in healthcare that have started to shape the ways in which healthcare is provided. Students will be guided to critically assess medical technological progress while considering medical, ethical, economic, and legal perspectives.

**Learning Outcomes****Seminar: Technology in Healthcare**

On successful completion, students will be able to

- understand the development process of technological solutions for healthcare.
- undertake an informed assessment of the drivers and barriers of the adoption of blockchain technology in healthcare organisations.
- develop technological scenarios based on (future) patients' needs and requirements.
- describe the technological enablers of precision medicine from genomics to big data analytics.
- conceptualize contexts for machine learning with a view to decision making in healthcare.
- envisage future AI-supported patient care.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Healthcare Management

**Links to other Study Programs of the University**

All Bachelor Programs in the field of Health Affairs

## Seminar: Technology in Healthcare

Course Code: DLBIHMSTHC01

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

### Course Description

In this course, students take a look beyond current approaches to health care. They are confronted with the dynamics of the overall system resulting from medical-technological progress. In doing so, students also grapple with the question of how health technology assessment can be performed and how the integration of new technologies into medical care is organized within a health care system. The course offers students the space to engage with a broad range of new technologies ranging from advances in drug development, biotechnology and genomics to topics of digitalization in healthcare, such as blockchain technology in healthcare management and artificial intelligence in nursing. Students are led to a critical assessment of medical technological advances, taking into account medical, ethical, economic, and legal perspectives.

### Course Outcomes

On successful completion, students will be able to

- understand the development process of technological solutions for healthcare.
- undertake an informed assessment of the drivers and barriers of the adoption of blockchain technology in healthcare organisations.
- develop technological scenarios based on (future) patients' needs and requirements.
- describe the technological enablers of precision medicine from genomics to big data analytics.
- conceptualize contexts for machine learning with a view to decision making in healthcare.
- envisage future AI-supported patient care.

### Contents

- Towards precision medicine
  - Advances in biotechnology and genomics
  - Precision medicine initiatives and programmes
- The health systems perspective
- Big data and data analytics
- Electronic health records and clinical decision support systems
- Blockchain technology in health
- AI-supported patient care
- Telemedicine, health apps, wearables
- Health technology assessment and the absorption of innovation

**Literature****Compulsory Reading****Further Reading**

- Garg, L., Basterrech, S., Banerjee, C., & Sharma, T. K. (Eds.). (2022). Artificial intelligence in healthcare. Springer Singapore.
- Kulkarni, A. J., Siarry, P., Singh, P. K., Abraham, A., Zhang, M., Zomaya, A., & Baki, F. (Eds.). (2020). Big data analytics in healthcare (1st ed.). Springer.
- Lim, C.-P., Chen, Y.-W., & Vaidya, A., Mahorkar, C., Jain, L. (2022). Handbook of artificial intelligence in healthcare: Practicalities and prospects (1st ed. 2022). Springer International Publishing.
- Marques, G., Bhoi, A. K., La Torre Diez, I. de, & Garcia-Zapirain, B. (Eds.). (2021). Enhanced telemedicine and e-health: Advanced IoT enabled soft computing framework. Springer.
- Naithani, N., Atal, A. T., Tilak, T., Vasudevan, B., Misra, P., & Sinha, S. (2021). Precision medicine: Uses and challenges. Medical Journal Armed Forces India, 77(3), 258–265.
- Namasudra, S., & Deka, G. C. (Eds.). (2021). Applications of blockchain in healthcare (1st ed.). Springer Singapore.
- Seifert, A., & Vandelanotte, C. (2021). The use of wearables and health apps and the willingness to share self-collected data among older adults. Aging and Health Research, 1(3).

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline



# Supply Chain Management I

Module Code: DLBDESESCM1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Alex Leberling (Supply Chain Management I)

## Contributing Courses to Module

- Supply Chain Management I (DLBDESESCM01)

## Module Exam Type

### Module Exam

Study Format: myStudies

Exam, 90 Minutes

Study Format: Distance Learning

Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Historical and terminological aspects of the SCM concept
- Motives for the creation of cross-company value creation networks
- Design principles and effects of value creation networks
- Logistical core processes and SCM
- Information technology aspects of the SCM concept
- Coordination and collaboration of the network partners
- Industry-specific solutions of the SCM

**Learning Outcomes****Supply Chain Management I**

On successful completion, students will be able to

- explain the importance of cross-company value creation processes.
- understand common concepts for modeling cross-company value creation processes.
- understand dynamic effects in supply chains and can systematize their causes and effects.
- explain important theoretical concepts for describing the characteristics and challenges of cross-company value creation processes.
- explain the approaches and problem categories commonly used in the context of supply chain management.
- understand important reference and/or management models for the concretization of supply chain systems.
- name and detail important roles and tasks in the SCM network.
- deal with the coordination problem of SCM and describe the common solution approaches.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Transportation & Logistics

**Links to other Study Programs of the University**

All Bachelor Programs in the Transport & Logistics field

# Supply Chain Management I

Course Code: DLBDESCM01

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

## Course Description

SCM proves to be an extremely multi-faceted construct from both a theoretical and a practical point of view. An adequate understanding of the problem dimensions and modes of action of (global) cross-company value creation networks requires a multidimensional approach. It starts by considering logistical processes, with modern process, flow, and network standards forming an important basis for SCM. On the basis of such an approach, students should gain a fundamental understanding of SCM. From the point of view of a holistic approach, it also makes sense to also examine a number of other typical problem areas in addition to the logistical challenges of this concept. This includes IT aspects of SCM (e.g., APS systems), and questions to do with the collaboration and coordination of network partners. This course also considers selected industry specific SCM solutions (ECR or VMI).

## Course Outcomes

On successful completion, students will be able to

- explain the importance of cross-company value creation processes.
- understand common concepts for modeling cross-company value creation processes.
- understand dynamic effects in supply chains and can systematize their causes and effects.
- explain important theoretical concepts for describing the characteristics and challenges of cross-company value creation processes.
- explain the approaches and problem categories commonly used in the context of supply chain management.
- understand important reference and/or management models for the concretization of supply chain systems.
- name and detail important roles and tasks in the SCM network.
- deal with the coordination problem of SCM and describe the common solution approaches.

## Contents

1. Fundamentals of the Supply Chain Concept
  - 1.1 Terminological and Conceptual Fundamentals
  - 1.2 Supply Chain Typology According to Otto
  - 1.3 Supply Chain Typology According to Bechtel/Jayaram
  - 1.4 Dynamic Aspects of Supply Chains

2. Selected Theoretical Concepts for the Supply Chain Concept
  - 2.1 New Institutional Economics
  - 2.2 Game Theory
  - 2.3 Network Approach
  - 2.4 Other Theoretical Additions
3. Supply Chain Management
  - 3.1 Basic Information on the Goals and Scope of SCM
  - 3.2 Popular Problem Areas of the SCM
  - 3.3 Supply Chain Management as an Evolutionary Step in Logistics
  - 3.4 Supply Chain Management as Cooperation Management
4. SCM Model
  - 4.1 Basic Information on the Term SCM Models
  - 4.2 SCOR Model
  - 4.3 SCM Task Model
5. SCM as a Coordination Problem
  - 5.1 Basic Information on the Concept of Coordination
  - 5.2 Coordination Concepts, Context, and Perspectives of SCM
  - 5.3 Coordination Instruments

## Literature

### Compulsory Reading

### Further Reading

- Bowersox, J., Closs, D., & Cooper, M. B. (2020). Supply chain logistics management (5th ed.). McGraw Hill Education.
- Chopra, S., & Meindl, P. (2019). Supply chain management: Strategy, planning, and operation (7th ed., Global ed.). Pearson Education.
- Es-Satty, Asmaa; Lemghari, Radouane; Okar, Chafik. (2020). Supply Chain Digitalization Overview SCOR model implication. In: 2020 IEEE 13th International Colloquium of Logistics and Supply Chain Management (LOGISTIQUA) Logistics and Supply Chain Management (LOGISTIQUA), 2020 IEEE 13th International Colloquium of. :1-7 Dec, 2020; IEEE Language: English, Datenbank: IEEE Xplore Digital Library.
- Tarigan, Z. J. H., Siagian, H., & Jie, F. (2021). Impact of enhanced enterprise resource planning (ERP) on firm performance through green supply chain management. Sustainability, 13(8), article 4358.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Seminar: Human-Robot Interaction

Module Code: DLBROSHRI\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Amir Al-Munajjed (Seminar: Human-Robot Interaction)

### Contributing Courses to Module

- Seminar: Human-Robot Interaction (DLBROSHRI01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Research Essay  
Study Format: myStudies  
Written Assessment: Research Essay

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

In this course several aspects in the design field of human-robot interaction will be investigated, ranging from fundamentals (design basics, ethics) to application in robot design, such as finding metrics for the assessment of the emotional impact of a robot design, as well as ongoing and future developments (e.g., use of artificial intelligence).

**Learning Outcomes****Seminar: Human-Robot Interaction**

On successful completion, students will be able to

- understand state-of-the-art human-robot interaction approaches and accompanying problems.
- name important design issues for social robots.
- measure the emotional component of robots.
- apply design patterns to develop social robots.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Engineering

**Links to other Study Programs of the University**

All Bachelor Programmes in the IT & Technology fields



## Seminar: Human-Robot Interaction

Course Code: DLBROSHRI01\_E

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

### Course Description

Over the past few years, significant technological development has been made in the field of Robotics and Design. Whereas industrial robots have replaced a significant proportion of human workers in industrial environments, the last decades have witnessed the development of robots designed to work together with humans. With this developments Human-Robot Interaction, i.e., a robot design methodology which considers theses interactions, has become a requirement. Robots are increasingly becoming a part of human lives and will impact human lives even more in the future. Innovative design approaches such as emotional design, based on pleasure and usability, are effective methods to develop innovative robots that can properly interact and communicate with humans, also at an emotional level. This course provides an overview on technological and design issues about “social robot design”.

### Course Outcomes

On successful completion, students will be able to

- understand state-of-the-art human-robot interaction approaches and accompanying problems.
- name important design issues for social robots.
- measure the emotional component of robots.
- apply design patterns to develop social robots.

### Contents

- In this course several aspects in the design field of human-robot interaction will be investigated, ranging from fundamentals (design basics, ethics) to application in robot design, such as finding metrics for the assessment of the emotional impact of a robot design, as well as ongoing and future developments (e.g., use of artificial intelligence).

**Literature****Compulsory Reading****Further Reading**

- Ayanoğlu, H./Duarte, E. (Eds.) (2019): Emotional Design in Human-Robot Interaction. Springer International Publishing, Chams.
- Brooks, R. A. (2003): Flesh and machines: how robots will change us. Vintage Books, New York City, NY.
- Kanda, T./Ishiguro, H. (2013): Human-Robot Interaction in Social Robotics. CRC Press, Boca Raton, FL.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>	
<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Personal Career Plan

Module Code: DLBKAENT1\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Annette Strauß (Personal Career Plan)

### Contributing Courses to Module

- Personal Career Plan (DLBKAENT01\_E)

### Module Exam Type

#### Module Exam

Study Format: Duales myStudium  
Advanced Workbook

Study Format: myStudies  
Advanced Workbook

Study Format: Distance Learning  
Advanced Workbook

#### Split Exam

### Weight of Module

see curriculum

<p><b>Module Contents</b></p> <ul style="list-style-type: none"> <li>▪ Career Theories and Approaches</li> <li>▪ Career Development</li> <li>▪ Career Planning</li> <li>▪ Personal Assessment</li> <li>▪ Career Choice</li> <li>▪ Develop a Career Strategy and Manage your Career</li> <li>▪ Global Careers</li> <li>▪ Search for Employment in Germany and Abroad</li> </ul>	
<p><b>Learning Outcomes</b></p> <p><b>Personal Career Plan</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ understand, apply, and reflect presented career theory and models with regard to their personal situation to arrive at a concept or picture of a desired career.</li> <li>▪ understand and critically reflect the concept of career and career planning.</li> <li>▪ understand the relevance of a strategically oriented career planning.</li> <li>▪ understand the importance of and conduct a personal assessment to identify one's personality, values, motivation, strengths, competencies, skills, and interests.</li> <li>▪ understand the necessity of building and maintaining their own personal brand.</li> <li>▪ understand differing job search processes across national/international contexts, and to create context-sensitive job applications accordingly.</li> <li>▪ understand the principles of global careers and how to effectively act in international environments.</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>This module is similar to other modules in the field of Human Resources</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programs in the Human Resources field</p>

# Personal Career Plan

Course Code: DLBKAENT01\_E

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

## Course Description

In today's complex and ever-changing environment, the forms of careers vary depending on the context, understanding of values, and market dynamics. The 'classic career ladder' that one is climbing being the only predominant form of career is long outdated, and individuals are being confronted with a great number of opportunities regarding industry or job choice and working arrangements. Considering the great variety of options especially for well-educated individuals, has become more important than ever to make informed decisions. This course is designed to support students maneuvering themselves through these complexities of their personal career plan, whereby self-awareness, self-reflection, and goal-setting are important elements of this process. Guided by central elements of career theory, career models, and research outcomes, students will be given tools and reflection exercises to arrive at a solid, directly applicable strategy to further steer their professional progress and career steps.

## Course Outcomes

On successful completion, students will be able to

- understand, apply, and reflect presented career theory and models with regard to their personal situation to arrive at a concept or picture of a desired career.
- understand and critically reflect the concept of career and career planning.
- understand the relevance of a strategically oriented career planning.
- understand the importance of and conduct a personal assessment to identify one's personality, values, motivation, strengths, competencies, skills, and interests.
- understand the necessity of building and maintaining their own personal brand.
- understand differing job search processes across national/international contexts, and to create context-sensitive job applications accordingly.
- understand the principles of global careers and how to effectively act in international environments.

## Contents

1. Career Theories and Approaches
  - 1.1 Traditional Career Theories and Models
  - 1.2 Protean Career Orientation
  - 1.3 Career Learning Cycle
2. Career Development

- 2.1 Career Motives
- 2.2 Career Roles
- 2.3 Career Performance
3. Career Planning
  - 3.1 Essentials of Career Planning
  - 3.2 The Career Planning Process
  - 3.3 Contingencies of Career Planning
4. Personal Assessment
  - 4.1 Personality
  - 4.2 Values and Motivation
  - 4.3 Competencies, Skills, Strengths, and Fields of Interest
5. Career Choice
  - 5.1 Possible Career Paths
  - 5.2 Forms of Careers
  - 5.3 Employability
  - 5.4 Career Identity
6. Develop a Career Strategy and Manage your Career
  - 6.1 Career Capital
  - 6.2 Career Goals
  - 6.3 Career Success
  - 6.4 Personal Reflection
  - 6.5 Personal Branding
7. Global Careers
  - 7.1 Forms of Global Careers
  - 7.2 Individual Characteristics of Global Leaders
  - 7.3 Role of Interculturality
  - 7.4 Diversity and Inclusion
8. Search for Employment in Germany and Abroad
  - 8.1 Job Search Databases
  - 8.2 Networks and Platforms
  - 8.3 Shaping Resume and Cover Letter
  - 8.4 Written and Video Application
  - 8.5 Selection Procedures



**Literature****Compulsory Reading****Further Reading**

- Baruch, Y. (2022). *Managing Careers and Employability*. SAGE.
- Greenhaus, J.H., Callanan, G.A., & Godshalk, V.M. (2018). *Career Management for Life* (5th edition). College of Business & Public Management Faculty Books.
- Hoeckstra, H. (2011). A career roles model of career development. *Journal of Vocational Behavior*, 78(2), 159-173.
- Ibarra, H. (2004). *Working Identity: Unconventional Strategies for Reinventing Your Career*. Harvard Business School Press.
- Kingsley, T. (2022). *Personal Branding*. Independently published.
- Ng, T.W.H., Eby, L.T., Sorensen, K.L., & Feldman, D.C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel psychology*, 58(2), 367-408.
- Ng, T.W.H., & Feldman, D.C. (2014). Subjective career success: A meta-analytic review. *Journal of Vocational Behavior*, 85(2), 169-179.

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Advanced Workbook

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Advanced Workbook

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Advanced Workbook

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

## Personal Elevator Pitch

Module Code: DLBKAENT2\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBKAENT01_E	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Heike Schiebeck (Personal Elevator Pitch)

### Contributing Courses to Module

- Personal Elevator Pitch (DLBKAENT02\_E)

### Module Exam Type

#### Module Exam

Study Format: Duales myStudium

Concept Presentation

Study Format: Distance Learning

Concept Presentation

Study Format: myStudies

Concept Presentation

#### Split Exam

### Weight of Module

see curriculum

**Module Contents**

Through the application of self-reflection, self-awareness based on relevant career success parameters students should develop career goals, career stages, and their career strategy. Taking into account their current professional and/or study situation, the central elements of a short-, and medium-term career planning are worked out by the students for their individual case. At the end of the course, students will be able to present their personal elevator pitch and communicate it in a proper way that is appropriate for the target group or audience. In this way, they will reflect on their current professional situation. The personal elevator pitch, being at hear of personal branding, supports the conveyance of this vision during personal networking activities.

**Learning Outcomes****Personal Elevator Pitch**

On successful completion, students will be able to

- identify their career goals, career stages, and the personal status quo with regard to their achievement.
- reflect their current situation and define where they want to aim.
- develop a career strategy by creating personal career goals and a coherent action plan.
- understand and apply the process of building a personal brand.
- define their identity, skills, profession, reasons to believe and necessary investments.
- identify their personal strengths and their core driver.
- understand the power of effective communication, networking, and storytelling.
- understand the principles and apply the process of designing a strong personal elevator pitch.
- critically reflect and adapt their personal elevator pitch to the specificities of the context, audience, target group, and way of delivery.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Human Resources

**Links to other Study Programs of the University**

All Bachelor Programs in the Human Resources field

# Personal Elevator Pitch

Course Code: DLBKAENT02\_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBKAENT01_E

## Course Description

The forms of careers vary depending on the context or personal preferences in today's ever-changing, demanding, and complex environment. Changes in the environment, as for example technology, sustainability, and the rise of artificial intelligence, push individuals to take career transitions into their own hands. Personal endeavors to develop one's career through the acquisition of, for instance, new projects, jobs, or employers, require the right strategies to be successful. Contacts through targeted networking and the development of one's own brand play a special role here. Evenly so for individuals starting their careers after having accomplished their education, effective networking is key to career entry and development in these turbulent times. In addition, personal branding is a concept that not only has gained relevance in research but is also widely used in career counseling. Developing and conveying a personal brand is central to this course. Using the personal branding approach during networking activities, individuals can actively contribute to their career success.

## Course Outcomes

On successful completion, students will be able to

- identify their career goals, career stages, and the personal status quo with regard to their achievement.
- reflect their current situation and define where they want to aim.
- develop a career strategy by creating personal career goals and a coherent action plan.
- understand and apply the process of building a personal brand.
- define their identity, skills, profession, reasons to believe and necessary investments.
- identify their personal strengths and their core driver.
- understand the power of effective communication, networking, and storytelling.
- understand the principles and apply the process of designing a strong personal elevator pitch.
- critically reflect and adapt their personal elevator pitch to the specificities of the context, audience, target group, and way of delivery.

## Contents

- The core element of this course is a personal elevator pitch with the use of a personal branding canvas. The creation of a personal brand is not only relevant for self-employed freelancers or entrepreneurs but is as well helpful for individuals who strive for their own further development on the career ladder within their organization or for those who

are seeking employment. Having understood the characteristics of and reasoning behind personal branding and the underlying process, students will be able to apply this process to their own person and situation.

- Self-awareness being the main 'ingredient' for an effective personal brand, students will be encouraged to go on an intensive self-reflection journey to deepen their understanding of their identity, skills, profession, and reasons to believe for a personal brand, and subsequently, for a personal elevator pitch.
- Being at the heart of and the essence of personal branding, the elevator pitch enables individuals to impactfully present themselves in a nutshell to important individuals and potential employers. Having understood the principles and key success factors characterizing an elevator pitch, students will be able to develop their own one. They will learn to consider aspects like timing, benefit, clear positioning, target audience through an oral form of delivery. In addition, the role of communication, networking and storytelling principles will be highlighted.
- Knowledge of the core elements and success factors of the personal elevator pitch within the framework of the individual career development.

## Literature

### Compulsory Reading

### Further Reading

- Dowling, D. (2009). How to Perfect an Elevator Pitch About Yourself. Harvard Business Review. <https://hbr.org/2009/05/how-to-perfect-an-elevator-pit>.
- Gorbatov, S., Khapova, S.N., & Lysova, E.I. (2018). Personal branding: Interdisciplinary systematic review and research agenda. *Frontiers in psychology*, 2238.
- Gorbatov, S., Khapova, S.N., & Lysova, E.I. (2019). Get noticed to get ahead: The impact of personal branding on career success. *Frontiers in psychology*, 2662.
- Jourdan Jr, Louis F., Deis, M., & Lysova, E.I. (2010). Getting Your Elevator Pitch To The Plate. *Business Journal for Entrepreneurs*, 2010(1), 43-47.
- Woodside, A.G. (2010). Brand consumer storytelling theory and research: Introduction to a Psychology & Marketing special issue. *Psychology & Marketing*, 27(6), 531-540.



**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Concept Presentation

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Concept Presentation

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Concept Presentation

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Business Consulting II

Module Code: DLBMEBC2\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Johannes Ritz (Business Consulting II)

### Contributing Courses to Module

- Business Consulting II (BWCN02\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Business Modell of Business Consulting
- Forms and Functions of Business Consulting
- Marketing of Consulting Services
- Consultant Liability, Contract Drafting and Professional Law
- The Consulting Project

**Learning Outcomes****Business Consulting II**

On successful completion, students will be able to

- explain the special framework conditions of consulting companies.
- identify the approaches in marketing for consulting services.
- explain the strategic and operational direction of consulting companies.
- understand the challenges of human resource management in consulting companies.
- explain the operational phases of the consulting process.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Business Administration & Management

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

## Business Consulting II

Course Code: BWCN02\_E

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

### Course Description

Business consultants offer professional consulting services for client companies. The object of business consulting is therefore the acquisition, planning and implementation of business consulting projects. The content of these consulting projects is diverse and, depending on the task, can include aspects of strategic corporate management, challenges in the area of financing and cost reduction, the introduction of new technologies, working methods and systems, internal communication, restructuring, mergers/acquisitions or outsourcing of companies or individual company divisions. Consulting projects and consulting processes are characterized by recurring elements, the understanding and application of which significantly influence the success of a consulting service. The competence and quality of contract acquisition and project management is determined by the management of the consulting firm itself. Depending on the consulting philosophy, consulting concept, consulting organization and service marketing, success or failure is reached in consultant-client relationships. Participation in the course requires successful completion of the Business Consulting I course.

### Course Outcomes

On successful completion, students will be able to

- explain the special framework conditions of consulting companies.
- identify the approaches in marketing for consulting services.
- explain the strategic and operational direction of consulting companies.
- understand the challenges of human resource management in consulting companies.
- explain the operational phases of the consulting process.

### Contents

1. The Business Model of Business Consulting
  - 1.1 The Business Consultancy as a Professional Service Firm
  - 1.2 The Value Creation Model of Business Consulting
  - 1.3 The Market Environment of the Consulting Company
2. The Management of the Consultancy Company
  - 2.1 Fields of Action and Decision-Making for the Management of Business Consulting Companies
  - 2.2 Normative and Strategic Fields of Action and Decision-Making

- 2.3 Personnel and HR Management in the Consulting Company
- 3. Marketing of Consulting Services
  - 3.1 Special Features of Service Marketing
  - 3.2 Strategic Marketing of Consulting Companies
  - 3.3 Relationship Marketing of Consulting Companies
- 4. Consultant Liability, Contract Drafting and Professional Law
  - 4.1 Consultant Liability
  - 4.2 Contract Drafting
  - 4.3 Legal Issues of Professional Practice
- 5. The Consulting Project
  - 5.1 Requirements
  - 5.2 Settings and Techniques
  - 5.3 Consulting Phase

## Literature

### Compulsory Reading

### Further Reading

- Block, P. (2011). *Flawless consulting: A guide to getting your expertise used* (3rd ed.). Pfeiffer.
- Chereau, P., & Meschi, P.-X. (2018). *Strategic consulting: Tools and methods for successful strategy missions*. Palgrave Macmillan.
- Kaiser, S., & Others. (2015). Human Resource Management in Professional Service Firms: Learning from a framework for research and practice. *Zeitschrift Für Personalforschung*, 29(2), 77-101.
- Kubr, M. (2002). *Management consulting: A guide to the profession* (4th ed.). International Labour Office.
- Skjølsvik, T., Perner, F., & Løwendahl, B. (2017). Strategic management of professional service firms: Reviewing ABS journals and identifying key research themes. *Journal Of Professions & Organization*, 4(2), 203-239.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

## Collaborative Work

Module Code: DLBCSCW

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Karin Halbritter (Collaborative Work)

### Contributing Courses to Module

- Collaborative Work (DLBCSCW01)

### Module Exam Type

#### Module Exam

Study Format: myStudies

Oral Assignment

Study Format: Duales myStudium

Oral Assignment

Study Format: Distance Learning

Oral Assignment

#### Split Exam

### Weight of Module

see curriculum

**Module Contents**

- Self-Directed and Collaborative Learning
- Networking and Cooperation
- Performance in (Virtual) Teams
- Communication, Arguments, and Being Convincing
- Potentials for Conflict and Managing Conflicts
- Self-Management and Personal Skills

**Learning Outcomes****Collaborative Work**

On successful completion, students will be able to

- design their own learning processes both self-directed and collaborative with analog and digital media.
- initiate face-to-face and virtual cooperation and select suitable methods for shaping collaboration even in an intercultural context and across disciplinary boundaries.
- assess different forms of communication in relation to the goals and requirements of different situations and to reflect on their own communication and argumentation behavior in order to be able to shape conducive collaboration also in an interdisciplinary context.
- recognize social diversity including cultural and professional differences as a value, and to name and apply tools to deal with them constructively.
- explain conflict potentials and the role of emotions in conflicts and to describe the use of systemic methods in the target- and solution-oriented handling of conflicts.
- analyze one's own resources, present methods of self-leadership and self-motivation, and derive appropriate strategies.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Business Administration & Management

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

## Collaborative Work

Course Code: DLBCSCW01

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

### Course Description

The course supports the students in building up and expanding important interdisciplinary competences for our networked world, and in doing so, students can take advantage of the opportunities for constructive cooperation with others. It presents essential forms and design possibilities of collaborative learning and working, imparts basic knowledge and tools for self-managed, flexible, and creative thinking, learning and acting and familiarizes students with the topics of empathy and emotional intelligence. Students are also encouraged to use the course contents. In this way, they promote their autonomous competence to act and their competence in the interactive application of tools and in interacting in heterogeneous groups.

### Course Outcomes

On successful completion, students will be able to

- design their own learning processes both self-directed and collaborative with analog and digital media.
- initiate face-to-face and virtual cooperation and select suitable methods for shaping collaboration even in an intercultural context and across disciplinary boundaries.
- assess different forms of communication in relation to the goals and requirements of different situations and to reflect on their own communication and argumentation behavior in order to be able to shape conducive collaboration also in an interdisciplinary context.
- recognize social diversity including cultural and professional differences as a value, and to name and apply tools to deal with them constructively.
- explain conflict potentials and the role of emotions in conflicts and to describe the use of systemic methods in the target- and solution-oriented handling of conflicts.
- analyze one's own resources, present methods of self-leadership and self-motivation, and derive appropriate strategies.

### Contents

1. Learning for a Networked World, in a Networked World
  - 1.1 Requirements and Opportunities in the "VUCA" World
  - 1.2 Learning, Knowing and Not-Knowing
  - 1.3 The 4C Model: Collective, Collaborative, Continuous, and Connected
  - 1.4 Monitoring Learning Behaviour

2. Networking & Cooperation
  - 2.1 Cooperation Partners
  - 2.2 Sustainable Relationships: Digital Interaction and Trust Building
  - 2.3 Organizing Collaboration
  - 2.4 Social Learning
3. Performance in (Online) Teams
  - 3.1 Goals, Roles, Organization and Performance Measurement
  - 3.2 Team Building and Team Flow
  - 3.3 Agile Project Management with Scrum
  - 3.4 Other Agile Methods
4. Communicating and Convincing
  - 4.1 Communication as Social Interaction
  - 4.2 Language, Images, Metaphors, and Stories
  - 4.3 Attitude: Open, Empathetic, and Appreciative Communication
  - 4.4 Active Listening
  - 4.5 Analyze Your Conversational and Argumentative Skills
5. Recognizing Conflict Potential — Managing Conflicts — Negotiating Effectively
  - 5.1 Respecting Diversity and Seizing Opportunities
  - 5.2 Empathy
  - 5.3 Systemic Solution Process Work
  - 5.4 Constructive Negotiation
6. Achieving Your Goals
  - 6.1 Effective Goal Setting
  - 6.2 The Agile Use of Time
  - 6.3 (Self-)Coaching Methods
  - 6.4 Self-Management and Motivation Strategies
7. Mobilizing Resources
  - 7.1 Recognizing Resources
  - 7.2 Reflection and Innovation
  - 7.3 Transfer Strength and Willpower

**Literature****Compulsory Reading****Further Reading**

- Baber, A., Waymon, L., Alphonso, A., & Wylde, J. (2015). Strategic connections: The new face of networking in a collaborative world. AMACOM.
- Kaats, E., & Opheij, W. (2014). Creating conditions for promising collaboration: Alliances, networks, chains, strategic partnerships. Springer.
- Martin, S. J., Goldstein, N. J., & Cialdini, R. B. (2014). The small BIG: Small changes that spark BIG influence. Profile Books.
- Oettingen, G. (2014). Rethinking positive thinking: Inside the new science of motivation. Current.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Oral Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Oral Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Oral Assignment

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b>	<b>Learning Material</b>	<b>Exam Preparation</b>
<input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Conflict Management and Mediation

Module Code: DLBWPKUM\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Hendrik Fenz (Conflict Management and Mediation)

## Contributing Courses to Module

- Conflict Management and Mediation (DLBWPKUM01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Forms of cooperation
- Basic concepts of conflict research
- Conflict Management
- Basics of communication psychology
- Conducting discussions and moderation
- Mediation

**Learning Outcomes****Conflict Management and Mediation**

On successful completion, students will be able to

- explain the central characteristics of conflicts and reflect, analyze and assess their progression.
- analyze conflicts according to the degree of their escalation.
- explain how conflicts arise and how to avoid them.
- understand conflicts and negotiations as a process and plan and implement the necessary measures to solve them.
- use special conversation and question techniques.
- identify hidden messages in communication and develop suggestions for optimization.
- develop goals and strategies for conflict and negotiation management in order to contribute to successful conflict management and negotiation with a clear procedure.
- assess and apply mediation as a method of conflict resolution.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Psychology

**Links to other Study Programs of the University**

All Bachelor Programs in the Social Sciences field

# Conflict Management and Mediation

Course Code: DLBWPKUM01\_E

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

## Course Description

In the business world, different perspectives of negotiating partners or parties often clash. This often leads to conflicts because the parties involved pursue different goals and evaluate situations differently. Especially against the background of transformation and restructuring processes in companies, conflicts are often pre-programmed due to different interests. To ensure that the different perspectives of the parties involved do not conclude in escalation, knowledge of the nature and structure of conflicts, techniques for dealing with them and basic knowledge of the possibilities of successful communication at a verbal and non-verbal level are essential. This course will equip students with the necessary understanding and present necessary tools to recognize conflicts, to solve them and to lead negotiations. In this context, mediation is highlighted as an increasingly popular method of conflict resolution.

## Course Outcomes

On successful completion, students will be able to

- explain the central characteristics of conflicts and reflect, analyze and assess their progression.
- analyze conflicts according to the degree of their escalation.
- explain how conflicts arise and how to avoid them.
- understand conflicts and negotiations as a process and plan and implement the necessary measures to solve them.
- use special conversation and question techniques.
- identify hidden messages in communication and develop suggestions for optimization.
- develop goals and strategies for conflict and negotiation management in order to contribute to successful conflict management and negotiation with a clear procedure.
- assess and apply mediation as a method of conflict resolution.

## Contents

1. From Cooperation to Confrontation
  - 1.1 Cooperation and Competition
  - 1.2 Forms of Cooperation
  - 1.3 Game Theoretical Approaches
  - 1.4 The Way into the Conflict

2. Basic Concepts of Conflict Research
  - 2.1 What is a Conflict?
  - 2.2 Types of Conflict
  - 2.3 Mobbing - a Special Type of Conflict
  - 2.4 The Stages of Conflict Escalation
  - 2.5 Conflict Resistance of Organizations
3. Conflict Management in the World of Work
  - 3.1 Conflict Costs
  - 3.2 Conflict Management in Business
  - 3.3 Elements of Conflict Management
4. Basics of Communication Psychology
  - 4.1 What is "Communication"?
  - 4.2 Axioms of Communication
  - 4.3 The Importance of Non-Verbal Communication
  - 4.4 The Message Square Model: The Four Sides of a Message
  - 4.5 Transactional Analysis as Analysis of Interpersonal Communication
  - 4.6 Non-Violent Communication
5. Conducting Discussions and Moderation
  - 5.1 Conversation and Question Techniques in Conflict Situations
  - 5.2 The Discussion Moderation
6. Mediation as an Instrument of Conflict Resolution
  - 6.1 Principles of Mediation
  - 6.2 Areas of Application of Mediation
  - 6.3 Principles and Rules of Mediation
  - 6.4 The Mediation Process - Phases and Procedures

**Literature****Compulsory Reading****Further Reading**

- Coltri, L. (2020). *Alternative dispute resolution* (2nd ed.). McGraw Hill.
- Fisher, R., Ury, W., & Patton, B. (2011). *Getting to yes: Negotiating agreement without giving in* (3rd ed.). Penguin Books.
- Rosenberg, M. B. (2015). *Nonviolent communication - A language of life: Life-changing tools for healthy relationships* (3rd ed.). PuddleDancer Press.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



# Corporate Planning and Simulation

Module Code: BUPL\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (Corporate Planning and Simulation)

## Contributing Courses to Module

- Corporate Planning and Simulation (BUPL01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Proof of participation in the simulation game,  
with a minimum score (passed / not passed)

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Computer-Based Business Simulation Considering the Following Areas, Among Others:
  - R&D
  - Finance
  - Production
  - Purchasing
  - Marketing and Sales

**Learning Outcomes****Corporate Planning and Simulation**

On successful completion, students will be able to

- make economic decisions in the economic areas of production, purchasing, finance, personnel, research and development as well as marketing and sales within the framework of a business management game.
- consider central aspects of personnel qualification, productivity, the product life cycle, the rationalization, the share price, as well as the environment and the value of the company in their decisions.
- design business goals and strategies, make decisions under time pressure and to analyze and evaluate the decisions made.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Business Administration & Management

**Links to other Study Programs of the University**

All Bachelor Programs in the Business & Management field

# Corporate Planning and Simulation

Course Code: BUPL01\_E

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

## Course Description

The computer-based business simulation puts students in the shoes of board members. Working in teams, they deepen their business knowledge, interlink it more strongly and present themselves in a dynamic market environment. The business game can address almost all areas (e.g. R&D, finance, production, purchasing, marketing and sales) of a company. In particular, internal accounting with detailed cost accounting, external accounting and market research reports provide the basis for decision-making. The complexity of the tasks/decisions increases in the course of the game, while the time sequences remain the same.

## Course Outcomes

On successful completion, students will be able to

- make economic decisions in the economic areas of production, purchasing, finance, personnel, research and development as well as marketing and sales within the framework of a business management game.
- consider central aspects of personnel qualification, productivity, the product life cycle, the rationalization, the share price, as well as the environment and the value of the company in their decisions.
- design business goals and strategies, make decisions under time pressure and to analyze and evaluate the decisions made.

## Contents

1. Corporate Goals and Strategies
2. Sales: Competitor Analysis, Marketing Mix, Product Life Cycles, Product Relaunch, New Product Introduction, Entry Into a New Market, Calculation of Special Business, Contribution Margin Calculation and Market Research Reports as Information Basis for Marketing Decisions
3. R&D: Technology, Ecology, Value Analysis
4. Procurement/Warehousing: Optimal Order Quantity
5. Manufacturing: Investment, Disinvestment, In-House or Outsourced Manufacturing, Utilization Planning, Green Production, Rationalization, Learning Curve

6. Personnel: Personnel Planning, Qualification, Productivity, Absenteeism, Fluctuation
7. Finance and Accounting: Cost Element, Cost Center, Cost Unit Accounting, Stepwise Contribution Margin Accounting, Financial Planning, Balance Sheet and Income Statement, Cash Flow
8. Share Price and Enterprise Value
9. Portfolio Analysis

**Literature****Compulsory Reading****Further Reading**

- Participants will receive a manual with their registration.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b>
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Proof of participation in the simulation game, with a minimum score (passed / not passed)

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>
<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Energy Industry

Module Code: DLBAETWET2\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Energy Industry)

### Contributing Courses to Module

- Energy Industry (DLBAETWET02\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

- Fundamentals of the energy industry
- Nuclear energy and fossil fuels
- Electricity markets
- Energy and environment

**Learning Outcomes****Energy Industry**

On successful completion, students will be able to

- understand and reflect the fundamentals of the energy industry.
- understand and reflect technical as well as economic constraints of nuclear energy and fossil fuels.
- understand and analyze the fundamentals of electricity markets and grid fees.
- understand and analyze the relationship between energy generation production, environmental protection and climate change.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of engineering

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Energy Industry

Course Code: DLBAETWET02\_E

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

## Course Description

Energy is the backbone or rather the lifeblood of modern society. However, energy generation and supply are not only a technical issue, but also an extremely important economic one. Energy is by no means infinite; rather, it is a resource that is becoming scarce. Therefore, it must be managed and its generation, distribution, and prices must be regulated. This course teaches the basics of energy management and establishes the aforementioned link between technical and economic aspects. After discussing nuclear energy, fossil fuels, and electricity markets, the critical issues of energy generation related to climate change are also discussed.

## Course Outcomes

On successful completion, students will be able to

- understand and reflect the fundamentals of the energy industry.
- understand and reflect technical as well as economic constraints of nuclear energy and fossil fuels.
- understand and analyze the fundamentals of electricity markets and grid fees.
- understand and analyze the relationship between energy generation production, environmental protection and climate change.

## Contents

1. Introduction
  - 1.1 Energy Economics and Energy Demand
  - 1.2 Energy Economics Calculations
  - 1.3 Energy Markets
  - 1.4 Goals and Tasks of Energy Policy
2. Fundamentals of the Energy Industry
  - 2.1 Main theorems of thermodynamics and Definitions
  - 2.2 Primary and Secondary Energy Sources
  - 2.3 The Energy Balance
  - 2.4 Energy Markets
  - 2.5 Resource Economics



3. Nuclear Energy
  - 3.1 The foundations of Nuclear Technology
  - 3.2 Nuclear Power Plants
  - 3.3 Nuclear Power Market
  - 3.4 Nuclear Power in Germany, Nuclear Phase-Out and Concepts for Nuclear Fusion
4. Fossil Fuels
  - 4.1 Coal
  - 4.2 Crude Oil Market
  - 4.3 Natural Gas Economy
  - 4.4 Transport and Logistics
  - 4.5 Resources and Reserves
5. Electricity Markets
  - 5.1 Features of Electricity Markets
  - 5.2 Economics of Electrical Grids
  - 5.3 Regulation of Grid Fees
  - 5.4 Electric Power Grids in Germany and the EU
  - 5.5 Unbundling
6. Energy and Environment
  - 6.1 The Greenhouse Gas Problem and Global Warming
  - 6.2 Emissions and Possible Consequences of Climate Change
  - 6.3 Climate Policy and Climate Protection Agreement
  - 6.4 Emissions Trading

### Literature

#### Compulsory Reading

#### Further Reading

- Glachant, J.M., Joskow P., Politt, M. (2021): Handbook on Electricity Markets. Edward Elgar Publishing, Cheltenham, UK.
- Zweifel, P., Praktiknjo, A., Erdmann, G. (2017): Energy Economics: Theory and Application. Springer, Berlin.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Audio <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

# Project: SAP S/4HANA - Financial Company Setup incl. Human Capital Management

Module Code: DLBSAPBPI1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Sebastian Werning (Project: SAP S/4HANA - Financial Company Setup incl. Human Capital Management)

## Contributing Courses to Module

- Project: SAP S/4HANA - Financial Company Setup incl. Human Capital Management (DLBSAPBPI01)

## Module Exam Type

### Module Exam

Study Format: Duales myStudium  
Written Assessment: Project Report

Study Format: Distance Learning  
Written Assessment: Project Report

Study Format: myStudies  
Written Assessment: Project Report

### Split Exam

## Weight of Module

see curriculum

**Module Contents**

This module empowers students to configure and perform core business processes of medium-sized and large companies in an enterprise resource planning (ERP) system using SAP S/4HANA and the user interface SAP Fiori. The module consists of two steps, each catering to specific facets. In the first step, attention is directed towards the core financial setup as well as the preliminary configuration of the Human Capital Management module using a demo company as an illustration. This step lays down a robust foundation in these domains. Moving on to the second step, the focus shifts to expanding the initial setup by integrating business processes related to sales, distribution, and production.

**Learning Outcomes****Project: SAP S/4HANA - Financial Company Setup incl. Human Capital Management**

On successful completion, students will be able to

- navigate confidently within the SAP S/4HANA ERP system.
- explain the organizational structures.
- understand the concept of master data.
- explain financial accounting (FI) module.
- explain management accounting (CO) module.
- explain the employee master data record (HCM).

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Project: SAP S/4HANA - Financial Company Setup incl. Human Capital Management

Course Code: DLBSAPBPI01

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

## Course Description

This course aims to empower students to perform financial business processes of medium-sized and large companies using the well-established ERP system SAP S/4HANA (S4H). At first, you will gain important insights into the typical organizational structure and navigation within S4H. You will understand the new user experience concept of SAP Fiori. Based on that knowledge, you will get in contact with the concept of master data in S4H. Next, you will familiarize yourself with the most important and common financial business processes in the financial accounting (FI) and management accounting (CO) module of S4H. Finally, you will configure the employee master data record in the Human Capital Management (HCM) module of S4H.

## Course Outcomes

On successful completion, students will be able to

- navigate confidently within the SAP S/4HANA ERP system.
- explain the organizational structures.
- understand the concept of master data.
- explain financial accounting (FI) module.
- explain management accounting (CO) module.
- explain the employee master data record (HCM).

## Contents

- The course provides a comprehensive introduction into SAP S/4HANA starting with the overall SAP S/4HANA Enterprise Management: Overview. Therefore, the course offers a comprehensive and presentation of various key concepts and functions relevant in the world of SAP S/4HANA. Furthermore, it focuses on the new user experience brought by SAP Fiori UX. The course covers the basics of SAP S/4HANA as well as the various organizational structures that exist within this system. A central concept addressed is that of master data. The subjects of Financial Accounting and Management Accounting (Record-to-Report processing) are thoroughly examined, providing an overview. Within these areas, Financial Accounting (FI) is explained, and Management Accounting (CO) is illuminated further. The integration between FI and CO is also outlined. The fundamentals of Financial Accounting and Management Accounting (Record-to-Report processing) are further delved into. This includes the definitions of General Ledger (G/L) accounts and cost elements, as well as

the definition of cost centers. Step-by-step instructions for posting G/L account documents and handling business partners and invoices are conveyed. The management of Asset Accounting, Activity Types, and Internal Orders is also comprehensively explained. The course also addresses the realm of Human Capital Management (HCM). This covers organizational management in HCM, as well as the significance of HCM master data. Another important aspect is the integration with SAP Success Factors.

## Literature

### Compulsory Reading

### Further Reading

- Fitzner, W., Fitzner, D. (2021). SAP S/4HANA: Der Grundkurs für Einsteiger und Anwender. SAP Press
- Fix, W., Plota, R. (2021). SAP – Der technische Einstieg: Der Standardtitel für Ausbildung, Studium und Quereinstieg. SAP Press
- SAP SE. (2023). SAP Learning journey “Explore Integrated Business Processes in SAP S/4HANA”.
- SAP SE. (2023). SAP Learning journey “Discovering End-to-End Business Processes for the Intelligent Enterprise”.

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Project: SAP S/4HANA - Business Processes

Module Code: DLBSAPBPI2

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBSAPBPI01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Sebastian Werning (Project: SAP S/4HANA - Business Processes)

## Contributing Courses to Module

- Project: SAP S/4HANA - Business Processes (DLBSAPBPI02)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Written Assessment: Project Report

Study Format: myStudies  
Written Assessment: Project Report

Study Format: Duales myStudium  
Written Assessment: Project Report

### Split Exam

## Weight of Module

see curriculum

**Module Contents**

This module empowers students to configure and perform core business processes of medium-sized and large companies in an enterprise resource planning (ERP) system using SAP S/4HANA and the user interface SAP Fiori. The module consists of two steps, each catering to specific facets. In the first step, attention is directed towards the core financial setup as well as the preliminary configuration of the Human Capital Management module using a demo company as an illustration. This step lays down a robust foundation in these domains. Moving on to the second step, the focus shifts to expanding the initial setup by integrating business processes related to sales, distribution, and production.

**Learning Outcomes****Project: SAP S/4HANA - Business Processes**

On successful completion, students will be able to

- describe the source to pay business process (MM).
- describe warehouse management systems (WM).
- explain the design to operate business process (PP).
- describe the order to cash business process (SD).
- create a project structure (PS).
- defining the organizational levels used in enterprise asset management (EAM).

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

## Project: SAP S/4HANA - Business Processes

Course Code: DLBSAPBPI02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBSAPBPI01

### Course Description

This course aims to empower students to perform sales and distribution processes of medium-sized and large companies using the well-established ERP system SAP S/4HANA (S4H). At first, you will gain important insights into the configuration of the purchasing (MM) and warehouse management (WM) module within S4H. You will also understand the production process (PP) of S4H. Based on that knowledge, you will get in contact with the lead to cash business process (SD) in S4H. Next, you will familiarize yourself with the project system (PS) in S4H while creating project steps and structures. Finally, you will define the organizational levels and for the management and maintenance of the company's physical assets in the enterprise asset management (EAM) module of S4H.

### Course Outcomes

On successful completion, students will be able to

- describe the source to pay business process (MM).
- describe warehouse management systems (WM).
- explain the design to operate business process (PP).
- describe the order to cash business process (SD).
- create a project structure (PS).
- defining the organizational levels used in enterprise asset management (EAM).

### Contents

- The course covers a wide range of processes and concepts within SAP S/4HANA: Purchase to Pay Processing in SAP S/4HANA: Exploring the Purchase to Pay business process, including the definition of master data involved. This encompasses creating vendor master records, listing vendor-specific master data records, generating purchase requisitions, crafting purchase orders, posting goods receipts for purchase orders, and managing vendor invoices. The automatic payment run process is also elucidated. Warehouse Management - Stock Transfer: This section delves into Warehouse Management (WM) structures and usage, highlighting the distinctions between Extended Warehouse Management (EWM), WM, and Inventory Management (IM). The process of handling stock transfer orders is outlined. Plan to Produce Business Process in SAP S/4HANA: Understanding the Plan to Produce process within SAP S/4HANA, which encompasses defining master data, creating product cost estimates, planning product demand through integrated planning, establishing Material Requirements Planning (MRP) processes, and executing advanced planning. Advanced

Planning - Describing the Manufacturing Business Process: Exploring the manufacturing business process, starting from the creation and release of production orders to material withdrawal, order confirmation, materials goods receipt, and period-end closing activities. Order to Cash Processing in SAP S/4HANA: This section focuses on the Order to Cash business process, describing the master data used in sales and distribution. The process involves creating customer master records, setting up condition records, processing sales orders, managing delivery documents, generating customer invoices, and handling related activities. Project System (PS): Detailing the steps within Project System, including creating project structures, project planning, budgeting, project execution, and concluding with period-end closing activities. SAP Enterprise Asset Management (EAM): Covering the business steps in SAP EAM, describing the master data utilized, creating notifications, processing maintenance orders, executing maintenance tasks, and wrapping up with period-end closing activities.

## Literature

### Compulsory Reading

### Further Reading

- Fitzner, W., Fitzner, D. (2021). SAP S/4HANA: Der Grundkurs für Einsteiger und Anwender. SAP Press
- Fix, W., Plota, R. (2021). SAP – Der technische Einstieg: Der Standardtitel für Ausbildung, Studium und Quereinstieg. SAP Press
- SAP SE. (2023). SAP Learning journey “Explore Integrated Business Processes in SAP S/4HANA”.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline



**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Project: Dynamics 365 Business Central - Financial Company Setup

Module Code: DLBMSERP1

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Sebastian Werning (Project: Dynamics 365 Business Central - Financial Company Setup)

## Contributing Courses to Module

- Project: Dynamics 365 Business Central - Financial Company Setup (DLBMSERP01)

## Module Exam Type

### Module Exam

Study Format: Duales myStudium  
Written Assessment: Project Report

Study Format: Distance Learning  
Written Assessment: Project Report

Study Format: myStudies  
Written Assessment: Project Report

### Split Exam

## Weight of Module

see curriculum

**Module Contents**

This module empowers students to configure and perform core business processes of a small or medium-sized company in an enterprise resource planning (ERP) system using Microsoft Dynamics 365 Business Central. Therefore, the module will address the core financial setup as well as sales and distribution processes for a small or medium-sized company.

**Learning Outcomes****Project: Dynamics 365 Business Central - Financial Company Setup**

On successful completion, students will be able to

- describe the core feature of Business Central as an ERP system for small or medium-sized company.
- initially setup Business Central (SaaS).
- configure a new small or medium-sized demo company in Business Central.
- manage core security settings in Business Central.
- configure financials by setting up the finance module in Business Central.
- configure the chart of accounts in Business Central.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Project: Dynamics 365 Business Central - Financial Company Setup

Course Code: DLBMSERP01

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

## Course Description

This course aims to empower students to perform financial business processes of a small or medium-sized company using the well-established cloud-based ERP system Microsoft Dynamics 365 Business Central (BC). At first, you will gain important insights into the typical structure of BC. Based on that knowledge, you will be guided to setup a SaaS environment for a demo company in BC. To ensure a safe operation of BC in the cloud you will learn how to configure essential security settings. Next, you will familiarize yourself with the most important and common financial business processes for a small or medium-sized business. Finally, you will configure the accounting module for your demo company in BC.

## Course Outcomes

On successful completion, students will be able to

- describe the core feature of Business Central as an ERP system for small or medium-sized company.
- initially setup Business Central (SaaS).
- configure a new small or medium-sized demo company in Business Central.
- manage core security settings in Business Central.
- configure financials by setting up the finance module in Business Central.
- configure the chart of accounts in Business Central.

## Contents

- Embarking on the journey of utilizing BC involves a series of pivotal steps. It commences with the fundamental task of setting up the platform itself. This encompasses the creation and meticulous configuration of a company, including the setup of security settings to ensure a secure operational environment. The process further extends to establishing the core functionality, which serves as the backbone of operations. The inclusion of dimensions adds an additional layer of precision to data handling. A critical aspect of the BC framework lies in managing approvals seamlessly through the implementation of workflows, streamlining processes and enhancing efficiency. Within the finance module, a thorough configuration is undertaken. This involves the setup of financial management procedures, which ensures the financial aspect of operations is well-structured and organized. Part of this process includes the establishment of the chart of accounts, providing a foundation for accurate

financial tracking. Moreover, the setup of posting groups refines the financial recording process, facilitating precise categorization. The establishment of journals and bank accounts enhances financial transparency, offering a clear overview of monetary transactions. Notably, payable accounts are configured, ensuring seamless management of outgoing payments. Similarly, the setup of receivable accounts streamlines the handling of incoming payments. Collectively, these steps form a comprehensive roadmap to unleash the full potential of BC, enabling efficient operations and meticulous financial management.

## Literature

### Compulsory Reading

### Further Reading

- Gayer, M., Hauptmann, C., & Ebert, J. (2020). Microsoft Dynamics 365 Business Central: Das Anwenderbuch zur Abwicklung von Geschäftsprozessen (11. Ausgabe). Carl Hanser Verlag.
- Ferner, C. (2020): Microsoft Dynamics 365 Business Central Basiswissen (Auflage 1). BoD – Books on Demand.
- Merk, J. (2020). Microsoft Dynamics 365 BC Finanzbuchhaltung. NEW ERA Publications
- Microsoft Corporation. (2023). Learning path for certification: Dynamics 365 Business Central Functional Consultant.

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline



# Project: Dynamics 365 Business Central - Business Processes with Focus on Sales and Distribution

Module Code: DLBMSERP2

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> DLBMSERP01	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Sebastian Werning (Project: Dynamics 365 Business Central - Business Processes with Focus on Sales and Distribution)

## Contributing Courses to Module

- Project: Dynamics 365 Business Central - Business Processes with Focus on Sales and Distribution (DLBMSERP02)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Written Assessment: Project Report  
Study Format: myStudies  
Written Assessment: Project Report  
Study Format: Duales myStudium  
Written Assessment: Project Report

### Split Exam

## Weight of Module

see curriculum

**Module Contents**

This module empowers students to configure and perform core business processes of a small or medium-sized company in an enterprise resource planning (ERP) system using Microsoft Dynamics 365 Business Central. Therefore, the module will address the core financial setup as well as sales and distribution processes for a small or medium-sized company.

**Learning Outcomes****Project: Dynamics 365 Business Central - Business Processes with Focus on Sales and Distribution**

On successful completion, students will be able to

- configure sales module in Business Central.
- configure purchasing module in Business Central.
- set up inventory management in Business Central.
- configure master data for sales and purchasing in Business Central.
- describe how to perform Business Central operations including selling and purchasing.
- process financial documents.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

# Project: Dynamics 365 Business Central - Business Processes with Focus on Sales and Distribution

Course Code: DLBMSERP02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBMSERP01

## Course Description

This course aims to empower students to perform sales and distribution processes using the well-established cloud-based ERP system Microsoft Dynamics 365 Business Central (BC). At first, you will gain important insights into the configuration of the sales module for a small or medium-sized company. Based on that knowledge, you will be guided to setup the purchasing module and inventory management in BC. Next, you will familiarize yourself with the configuration of the corresponding master data management. Finally, you will perform common business transaction in the sales and distribution module as well as process core financial documents for your demo company in BC.

## Course Outcomes

On successful completion, students will be able to

- configure sales module in Business Central.
- configure purchasing module in Business Central.
- set up inventory management in Business Central.
- configure master data for sales and purchasing in Business Central.
- describe how to perform Business Central operations including selling and purchasing.
- process financial documents.

## Contents

- To ensure the smooth flow of business processes in BC, various steps are necessary. First, the configuration of the sales and purchases modules takes place to establish the foundation for efficient work. During this phase, inventory management is set up to ensure an organized inventory flow. An essential step is configuring master data for sales and purchasing, as these form the basis for all subsequent activities. Prices and discounts are also established to create a clear pricing structure. Following this, common operations are performed in Business Central, encompassing both basic tasks and frequent operations. The processing of purchases as well as the handling of sales transactions is a central part of the process and a common operation in BC. Financial documents are processed as well to accurately represent the accounting aspect. Another step involves processing payments and journal entries to meticulously manage the financial aspects. All of these steps contribute to the seamless execution of business activities while maintaining financial integrity.

**Literature****Compulsory Reading****Further Reading**

- Gayer, M., Hauptmann, C., & Ebert, J. (2020). Microsoft Dynamics 365 Business Central: Das Anwenderbuch zur Abwicklung von Geschäftsprozessen (11. Ausgabe). Carl Hanser Verlag.
- Ferner, C. (2020): Microsoft Dynamics 365 Business Central Basiswissen (Auflage 1). BoD – Books on Demand.
- Microsoft Corporation. (2023). Learning path for certification: Dynamics 365 Business Central Functional Consultant.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Studium Generale I

Module Code: DLBSG1\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (Studium Generale I)

## Contributing Courses to Module

- Studium Generale I (DLBSG01\_E)

## Module Exam Type

### Module Exam

Study Format: myStudies

See Selected Course

Study Format: Distance Learning

See Selected Course

### Split Exam

## Weight of Module

see curriculum

## Module Contents

In principle, all IU Bachelor courses can be selected as courses for the "Studium Generale", so that the content can be chosen from the entire breadth of the IU distance learning program.



**Learning Outcomes****Studium Generale I**

On successful completion, students will be able to

- apply acquired key competencies to issues in their field of study and/or in their professional environment.
- to deepen one's own skills and abilities in a self-directed manner.
- to look beyond the boundaries of their own area of expertise.

**Links to other Modules within the Study Program**

It is a stand-alone offering with possible references to various required and elective modules

**Links to other Study Programs of the University**

All IU Distance Learning Bachelor Programs

# Studium Generale I

Course Code: DLBSG01\_E

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

## Course Description

In the course "Studium Generale I", students deepen their knowledge in a self-selected subject area by completing an IU course outside their applicable curriculum. This gives them the opportunity to look beyond their own subject area and acquire further competencies. The associated option enables students to self-determine their study content to focus even more on issues relevant to them and/or to strengthen or develop selected competencies.

## Course Outcomes

On successful completion, students will be able to

- apply acquired key competencies to issues in their field of study and/or in their professional environment.
- to deepen one's own skills and abilities in a self-directed manner.
- to look beyond the boundaries of their own area of expertise.

## Contents

- The course "Studium Generale I" offers students the opportunity to take courses outside of their curriculum and the result can be credited as an elective subject. In principle, all IU bachelor courses that fulfill the following requirements are creditable for this purpose:
  - They are not part of an integral part of the applicable mandatory curriculum.
  - They do not have admission requirements or students can prove that they have met the admission requirement.
- The examination of the selected courses must be taken in full and finally passed in order to be credited as part of the 'Studium Generale'.

## Literature

### Compulsory Reading

### Further Reading

- See course description of the selected course

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> See Selected Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	See Selected Course

<b>Student Workload</b>					
<b>Self Study</b> 0 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 0 h

<b>Instructional Methods</b>
see selected course

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> See Selected Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	See Selected Course

<b>Student Workload</b>					
<b>Self Study</b> 0 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 0 h

<b>Instructional Methods</b>
See Selected Course

## Studium Generale II

Module Code: DLBSG2\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Studium Generale II)

### Contributing Courses to Module

- Studium Generale II (DLBSG02\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
See Selected Course  
Study Format: myStudies  
See Selected Course

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

In principle, all IU Bachelor courses can be selected as courses for the "Studium Generale", so that the content can be chosen from the entire breadth of the IU distance learning program.

**Learning Outcomes****Studium Generale II**

On successful completion, students will be able to

- apply acquired key competencies to issues in their field of study and/or in their professional environment.
- to deepen one's own skills and abilities in a self-directed manner.
- to look beyond the boundaries of their own area of expertise.

**Links to other Modules within the Study Program**

It is a stand-alone offering with possible references to various required and elective modules

**Links to other Study Programs of the University**

All IU Distance Learning Bachelor Programs

## Studium Generale II

Course Code: DLBSG02\_E

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

### Course Description

In the course "Studium Generale II", students deepen their knowledge in a self-selected subject area by completing an IU course outside their applicable curriculum. This gives them the opportunity to look beyond their own subject area and acquire further competencies. The associated option enables students to self-determine their study content to focus even more on issues relevant to them and/or to strengthen or develop selected competencies.

### Course Outcomes

On successful completion, students will be able to

- apply acquired key competencies to issues in their field of study and/or in their professional environment.
- to deepen one's own skills and abilities in a self-directed manner.
- to look beyond the boundaries of their own area of expertise.

### Contents

- The course "Studium Generale II" offers students the opportunity to take courses outside of their curriculum and the result can be credited as an elective subject. In principle, all IU bachelor courses that fulfill the following requirements can be chosen for this purpose:
  - They are not part of an integral part of the applicable mandatory curriculum.
  - They do not have admission requirements or students can prove that they have met the admission requirement.
- The examination of the selected courses must be taken in full and finally passed in order to be credited as part of the 'Studium Generale'.

### Literature

#### Compulsory Reading

#### Further Reading

- See course description of the selected course

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> See Selected Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	See Selected Course

<b>Student Workload</b>					
<b>Self Study</b> 0 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 0 h

<b>Instructional Methods</b>
See Selected Course



**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> See Selected Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	See Selected Course

<b>Student Workload</b>					
<b>Self Study</b> 0 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 0 h

<b>Instructional Methods</b>

## Project: AWS - Cloud Essentials

Module Code: DLBPAWSCLES

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b>	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: AWS - Cloud Essentials)

### Contributing Courses to Module

- Project: AWS - Cloud Essentials (DLBPAWSCLES01)

### Module Exam Type

#### Module Exam

Study Format: myStudies  
Written Assessment: Project Report  
Study Format: Distance Learning  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Students will learn the foundational concepts and services of Amazon Web Services (AWS), covering its core infrastructure services including computing, storage, and networking through practical experience. Emphasis is placed on practical skills for deploying Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS) solutions.

**Learning Outcomes****Project: AWS - Cloud Essentials**

On successful completion, students will be able to

- understand the core services of AWS including compute, network, databases, and storage, deployment models (on-premises, hybrid, and vpc).
- explain the shared responsibility model, describe the basic global infrastructure and core security services.
- describe the AWS Well-Architected Framework and the basics of AWS Cloud Migration.
- get familiar with the terminology and concepts related to AWS Services, the AWS Management Console, AWS security measures, IAM and AWS networking services.
- apply and manage core service settings within the AWS cloud console effectively.
- assess data storage services in AWS to meet various application needs.
- plan and implement a scenario-based serverless service for small or medium-sized companies.
- configure basic network security using Amazon CloudWatch monitoring features for simple use cases in AWS, ensuring secure cloud operations.
- critically examine the core billing, account management, and pricing models and explain how to use pricing tools to make cost-effective choices for AWS services.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

## Project: AWS - Cloud Essentials

Course Code: DLBPAWSCLES01

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

### Course Description

Amazon Web Services (AWS) is a comprehensive cloud computing platform provided by Amazon that offers scalable computing power, storage, and various other functionalities to help businesses and individuals deploy applications and manage data efficiently. It reduces the need for physical hardware, thus lowering costs and increasing flexibility by allowing users to access services and resources on-demand from anywhere in the world. This service is highly relevant for daily life and business as it supports a wide range of applications and services, from hosting websites to supporting IoT devices and big data analytics, ultimately facilitating innovation, scalability, and global operations. This course prepares students for the AWS Cloud Practitioner Certificate, providing a foundational understanding of AWS core services. Students will learn to articulate the benefits and use cases of AWS IaaS, PaaS, and SaaS, and grasp the basics of public, private, and hybrid cloud deployments. The course emphasizes practical skills in managing and configuring AWS services, ensuring students can effectively navigate the AWS cloud console. It lays the groundwork for critical assessments of AWS deployment features, addressing compliance and security requirements, and preparing students for more advanced AWS certifications and applications.

### Course Outcomes

On successful completion, students will be able to

- understand the core services of AWS including compute, network, databases, and storage, deployment models (on-premises, hybrid, and vpc).
- explain the shared responsibility model, describe the basic global infrastructure and core security services.
- describe the AWS Well-Architected Framework and the basics of AWS Cloud Migration.
- get familiar with the terminology and concepts related to AWS Services, the AWS Management Console, AWS security measures, IAM and AWS networking services.
- apply and manage core service settings within the AWS cloud console effectively.
- assess data storage services in AWS to meet various application needs.
- plan and implement a scenario-based serverless service for small or medium-sized companies.
- configure basic network security using Amazon CloudWatch monitoring features for simple use cases in AWS, ensuring secure cloud operations.
- critically examine the core billing, account management, and pricing models and explain how to use pricing tools to make cost-effective choices for AWS services.

**Contents**

- This course offers a comprehensive exploration of Amazon Web Services (AWS), focusing on its core services such as computing, networking, databases, and storage solutions. Students will delve into the AWS shared responsibility model, understand the global infrastructure, and learn about the integral security services provided. This also covers the AWS Well-Architected Framework and an introduction of the fundamentals for cloud migration strategies. Through hands-on exercises, students will gain proficiency in managing AWS environments using the AWS Management Console and implement security measures via AWS Identity and Access Management (IAM) and network services. Additionally, the course emphasizes the importance of cost management, enabling students to critically analyze AWS pricing models to make informed financial decisions for cloud-based solutions.

**Literature****Compulsory Reading****Further Reading**

- AWS Training and Certification Skill Builder. (2024). AWS Cloud Practitioner Essentials (7 hours).
- AWS Training and Certification Skill Builder. (2024). AWS Cloud Quest: Cloud Practitioner.
- AWS Training and Certification Skill Builder. (2024). AWS Technical Essentials (4 hours).
- AWS Training and Certification Skill Builder. (2024). Serverless – Knowledge Badge Readiness Path (13 hours).
- AWS Training and Certification Skill Builder. (2024). Standard Exam Prep Plan: AWS Certified Cloud Practitioner (CLF-C02) (18 hours).

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Project: AWS - Cloud Advanced

Module Code: DLBPAWSCLAD

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: AWS - Cloud Advanced)

### Contributing Courses to Module

- Project: AWS - Cloud Advanced (DLBPAWSCLAD01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Project Report  
Study Format: myStudies  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

This course offers advanced understanding of AWS, with a particular emphasis on specialized areas such as Solutions Architecture, Compliance & Security, and AI & Machine Learning. Students will acquire hands-on expertise in these areas, with the goal of enabling them to deploy IaaS, PaaS, or SaaS workloads using AWS, effectively tackle real-life interdisciplinary challenges, and confidently handle service configurations within the AWS cloud console.



**Learning Outcomes****Project: AWS - Cloud Advanced**

On successful completion, students will be able to

- understand and articulate the core services provided by AWS within chosen specialization tracks, including Solutions Architect, Compliance & Security, and AI & Machine Learning.
- critically examine the pros and cons of developing and deploying real-world scenarios using AWS IaaS, PaaS, vs. SaaS and public, private or hybrid deployment demonstrating a clear grasp of the necessary service and deployment intricacies.
- manage and configure profound service settings within the AWS cloud console, showing depth in technical proficiency and operational capabilities.
- critically assess, test and monitor the effect of different AWS deployment features, addressing interdisciplinary challenges through the appropriate use of AWS cloud services in realistic use cases.
- assess and critically reflect on AWS-based solutions, considering industry compliance and security requirements, ensuring a robust understanding of the legal and regulatory framework.
- apply and implement machine learning and artificial intelligence concepts using AWS to solve real-world problems, demonstrating innovative thinking and practical application of theoretical knowledge.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field

## Project: AWS - Cloud Advanced

Course Code: DLBPAWSCLAD01

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

### Course Description

AWS (Amazon Web Services) is a comprehensive cloud computing platform provided by Amazon that offers scalable computing power, storage, and various other functionalities to help businesses and individuals deploy applications and manage data efficiently. It reduces the need for physical hardware, thus lowering costs and increasing flexibility by allowing users to access services and resources on-demand from anywhere in the world. This service is highly relevant for daily life and business as it supports a wide range of applications and services, from hosting websites to supporting IoT devices, big data analytics and machine learning, ultimately facilitating innovation, scalability, and global operations. The course prepares students for the AWS Cloud Solution Architect Professional Certificate. It dives deeper into AWS core services, focusing on sophisticated deployment and management techniques. Students will critically examine and apply real-world scenarios using AWS IaaS, PaaS, and SaaS, and navigate complex deployment models. They will gain technical proficiency in managing advanced service settings within the AWS cloud console and address interdisciplinary challenges through hands-on practice. Additionally, the course covers assessing AWS solutions for compliance and security, ensuring robust understanding of legal frameworks. Students will also implement machine learning and AI concepts to solve real-world problems, fostering innovative thinking and practical application, and preparing them for the dynamic demands of the tech industry.

**Course Outcomes**

On successful completion, students will be able to

- understand and articulate the core services provided by AWS within chosen specialization tracks, including Solutions Architect, Compliance & Security, and AI & Machine Learning.
- critically examine the pros and cons of developing and deploying real-world scenarios using AWS IaaS, PaaS, vs. SaaS and public, private or hybrid deployment demonstrating a clear grasp of the necessary service and deployment intricacies.
- manage and configure profound service settings within the AWS cloud console, showing depth in technical proficiency and operational capabilities.
- critically assess, test and monitor the effect of different AWS deployment features, addressing interdisciplinary challenges through the appropriate use of AWS cloud services in realistic use cases.
- assess and critically reflect on AWS-based solutions, considering industry compliance and security requirements, ensuring a robust understanding of the legal and regulatory framework.
- apply and implement machine learning and artificial intelligence concepts using AWS to solve real-world problems, demonstrating innovative thinking and practical application of theoretical knowledge.

**Contents**

- This course ensures students gain a comprehensive understanding of AWS, specializing in Solutions Architect, Compliance & Security, and AI & Machine Learning. They will articulate core AWS services and critically examine the pros and cons of deploying real-world scenarios using AWS IaaS, PaaS, SaaS, and different deployment models (public, private, hybrid).
- Students will manage and configure service settings within the AWS cloud console, demonstrating technical proficiency. They will assess, test, and monitor AWS deployment features, addressing interdisciplinary challenges using realistic use cases. Additionally, students will evaluate AWS-based solutions for industry compliance and security, understanding the legal and regulatory frameworks.
- The course also covers applying machine learning and AI concepts using AWS to solve real-world problems, encouraging innovative thinking and practical application. This approach prepares students to excel in cloud architecture, compliance protocols, security measures, and AI-driven problem-solving, ensuring readiness for the tech industry's dynamic demands.

**Literature****Compulsory Reading****Further Reading**

- AWS Training and Certification Skill Builder. (2024). AWS Solutions Architect – Knowledge Badge Readiness Path (51 hours).
- AWS Training and Certification Skill Builder. (2024). Generative AI Learning Plan for Developers (12 hours).
- AWS Training and Certification Skill Builder. (2024). Online Course Supplement: Practical Data Science with Amazon SageMaker (1 day).

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Project: Low-Code Development

Module Code: DLBDBEPLCD

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

N.N. (Project: Low-Code Development)

### Contributing Courses to Module

- Project: Low-Code Development (DLBDBEPLCD01)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Oral Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

In the age of digitization, low-code represents an opportunity to develop software at a manageable cost and time. The use of low-code platforms such as the Microsoft Power Platform provides support for the digital transformation under appropriate project conditions. Objective of this project is to teach students the process of developing a low-code app through a low-code project that they plan and execute themselves.

**Learning Outcomes****Project: Low-Code Development**

On successful completion, students will be able to

- identify a relevant problem for the development of a low-code app.
- carry out a modelling of relevant business processes.
- plan and implement a low-code project based on the business process.
- successfully develop and deploy a low-code app.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field



# Project: Low-Code Development

Course Code: DLDBBEPLCD01

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

## Course Description

Digital transformation is a challenging process that places high demands on many companies. In practice, there is often a lack of well thought-out concepts for exploiting the potential of digitization. A lack of IT expertise or IT infrastructure are among the reasons. Low-code is a method for companies to experience support for digital transformation. Simplification, acceleration, and agility are just some of the benefits that low-code offers for digitization in companies. Against this background, students will identify a relevant problem for the development of a low-code app based on a practical project. Starting from the modeling of relevant business processes, a low-code app is to be systematically planned, developed, implemented, and deployed within the Power Platform of Microsoft or Mendix.

## Course Outcomes

On successful completion, students will be able to

- identify a relevant problem for the development of a low-code app.
- carry out a modelling of relevant business processes.
- plan and implement a low-code project based on the business process.
- successfully develop and deploy a low-code app.

## Contents

- Students learn how to use a low-code environment on a practical example project. The result of the low-code programming is a low-code application for a self-selected business process. After identifying a relevant problem, students will first model the affected business process. In practice, these are often processes that can be digitized and automated, where data was previously exchanged verbally, by form, notepad, or e-mail. While users today write information in an e-mail that other users then transfer to or check using standard software, low-code applications offer a decisive advantage: data can be recorded in a structured manner and the checks can be automated by accessing other programs. Low-code is therefore particularly interesting for administrative business processes and secondary processes. Once business process modeling is complete, students develop a comprehensive project plan and implementation strategy. Next step is to develop the low-code application and demonstrate how to deploy it via the Microsoft's Power Platform or Mendix. In addition, they develop the low-code application considering the previously defined problem and the selected business process. They show how the low-code app can be deployed and used in practical application.

**Literature****Compulsory Reading****Further Reading**

- Gurcan, F. & Taentzer, G. (2021). Using Microsoft PowerApps, Mendix and OutSystems in Two Development Scenarios: An Experience Report. In 2021 ACM/IEEE International Conference on Model Driven Engineering Languages and Systems Companion (MODELS-C) (S. 67–72). IEEE.
- Leung, T. (2021). Beginning Power Apps: The Non-Developer's Guide to Building Business Applications. Springer eBook Collection. Apress.
- Prakash Pradhan, S. (2022). Power Platform and Dynamics 365 CE for Absolute Beginners. Apress.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Oral Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Internship: Business & Management

Module Code: DLBBWPWM\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 30	<b>Student Workload</b> 900 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

(Internship: Business & Management)

### Contributing Courses to Module

- Internship: Business & Management (DLBBWPWM01\_E)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Internship Reflection Paper (passed / not passed)

Study Format: myStudies  
Internship Reflection Paper (passed / not passed)

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Within the framework of this internship, students document and reflect on their everyday practical experiences. This is based on knowledge they have acquired. Students now apply this theoretical knowledge in various fields of practice and reflect upon it.

**Learning Outcomes****Internship: Business & Management**

On successful completion, students will be able to

- to transfer theoretical knowledge to practical problems.
- depending on the tasks undertaken, to independently address and manage practical challenges; to reflect on their success.
- to better assess the scope, significance, and limitations of theoretical concepts in light of practical demands.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Business Administration & Management

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

## Internship: Business & Management

Course Code: DLBBWPWM01\_E

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		30	none

### Course Description

Within the scope of this course, students document and reflect on their everyday practical experience, relating it to the subject-specific and related scientific knowledge bases they have previously learned and developed, as well as previously acquired skills and competencies for action. The students apply their theoretical knowledge in various practical fields and reflect upon it. The connection between theory and practice, the application of knowledge in the practical field, and the reflection of these experiences in relation to theory and personal development are the primary focus.

### Course Outcomes

On successful completion, students will be able to

- to transfer theoretical knowledge to practical problems.
- depending on the tasks undertaken, to independently address and manage practical challenges; to reflect on their success.
- to better assess the scope, significance, and limitations of theoretical concepts in light of practical demands.

### Contents

- As part of the internship, students document and reflect on their everyday professional experiences in the field of economics. The individual problems and questions that arise are reflected upon from the perspective of professional practice. This module provides students with the opportunity to apply the content they have learned in previous modules through practical reflection and to directly implement practical knowledge where it has been acquired. Various concepts and methods are concretely tested in practice and reflected upon in their specific applications. The basis for this is the documentation, evaluation, and presentation of approaches and methods in the chosen context of action.

### Literature

#### Compulsory Reading

#### Further Reading

- Within the subject relation, the literature of each module in the program is relevant.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Practical Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Internship Reflection Paper (passed / not passed)

<b>Student Workload</b>					
<b>Self Study</b> 0 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 900 h	<b>Hours Total</b> 900 h

<b>Instructional Methods</b>
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Practical Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Internship Reflection Paper (passed / not passed)

<b>Student Workload</b>					
<b>Self Study</b> 0 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 900 h	<b>Hours Total</b> 900 h

<b>Instructional Methods</b>
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions



## Project: Digital Business Models

Module Code: DLBWPPDBM\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Tamara Wehrstein (Project: Digital Business Models)

### Contributing Courses to Module

- Project: Digital Business Models (DLBWPPDBM01\_E)

### Module Exam Type

#### Module Exam

Study Format: myStudies  
Written Assessment: Project Report  
Study Format: Distance Learning  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Digital business models are part of the value creation of today's digital transformation. In this module, the fundamentals of digital business models are researched and defined. On the basis of this foundation, a digital business model is independently developed and documented.

**Learning Outcomes****Project: Digital Business Models**

On successful completion, students will be able to

- identify fundamentals, solution approaches, challenges and forms of digital business models.
- describe digital business models using case studies.
- apply the acquired knowledge by means of (digital) market research methods and independently create and document digital business models.
- analyze digital business models and discuss challenges in practice.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Business Administration & Management

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

## Project: Digital Business Models

Course Code: DLBWPPDBM01\_E

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

### Course Description

Digital technologies have radically changed markets, the business world and society. The development of digital business models is an important task to be able to secure the future of a company. In this course, the essential basics of digital business models are researched and defined. Based on a (digital) market research method, a digital business model will be developed and challenges in practice will be discussed. The results are then documented by the students.

### Course Outcomes

On successful completion, students will be able to

- identify fundamentals, solution approaches, challenges and forms of digital business models.
- describe digital business models using case studies.
- apply the acquired knowledge by means of (digital) market research methods and independently create and document digital business models.
- analyze digital business models and discuss challenges in practice.

### Contents

- In order to develop a digital business model, the project report includes a literature review to define the essential principles and characteristics of a digital business model. Case studies are used to describe forms of digital business models. By means of (digital) market research methods, a practical question/problem is derived, which forms the starting point for the creation of a digital business model. Using suitable methods and tools for the creation of a digital business model, students independently create a business model. Subsequently, the challenges of the business model will be discussed. The application reference (e.g. web store) and/or industry (e.g. retail or health sector) is established in coordination with the course instructor.

**Literature****Compulsory Reading****Further Reading**

- Osterwalder, A., Pigneur, Y., & Clark, T. (2013). *Business model generation: A handbook for visionaries, game changers, and challengers*. Hoboken, NJ: Wiley.
- Rogers, D. L. (2016). *The digital transformation playbook: Rethink your business for the digital age*. New York, NY: Columbia Business School Publishing.
- Wirtz, B. W. (2019). *Digital business models: Concepts, models, and the Alphabet case study*. Springer International Publishing.
- Weill, P., & Woerner, S. (2018). What's your digital business model?: Six questions to help you build the next-generation enterprise. *Harvard Business Review*.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

## Project: Business Intelligence

Module Code: DLBCSEBI2

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Neil Arvin Bretana (Project: Business Intelligence)

### Contributing Courses to Module

- Project: Business Intelligence (DLBCSEBI02)

### Module Exam Type

#### Module Exam

Study Format: Distance Learning  
Written Assessment: Project Report  
Study Format: myStudies  
Written Assessment: Project Report

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

Possible topics for the BI project include “Management of BI projects”, “Design of multidimensional data models” and “Prototypical implementation of small BI applications”.

**Learning Outcomes****Project: Business Intelligence**

On successful completion, students will be able to

- independently design a solution to a practical problem in the field of Business Intelligence in order to then implement a prototype and document the results.
- identify and explain typical problems and challenges in the design and practical implementation of small BI solutions.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Computer Science & Software Development

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field



# Project: Business Intelligence

Course Code: DLBCSEBI02

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

## Course Description

Using well-known methods and techniques from the field of Business Intelligence, students will work independently on a practical question in this course. At the end of the course you will be able to independently design and prototype Business Intelligence applications based on concrete requirements.

## Course Outcomes

On successful completion, students will be able to

- independently design a solution to a practical problem in the field of Business Intelligence in order to then implement a prototype and document the results.
- identify and explain typical problems and challenges in the design and practical implementation of small BI solutions.

## Contents

- Implementation and documentation of practical questions regarding the use of Business Intelligence applications. Typical scenarios are, for example, “Management of BI projects”, “Design of multidimensional data models” and “Prototypical implementation of small BI applications”.

## Literature

### Compulsory Reading

### Further Reading

- Liedtka, J. (2018). Why design thinking works. Harvard Business Review, 2018(9), 72–79.
- Meinel, C., & Leifer, L. J. (2021). Design thinking research: Interrogating the doing. Springer International Publishing.
- Meinel, C., Plattner, H., & Leifer, L. (2011). Design thinking: Understand – Improve – Apply. Springer Berlin Heidelberg.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Project
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Project Report

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Intercultural and Ethical Decision-Making

Module Code: DLBCSIDM

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Prof. Dr. Zeljko Sevic (Intercultural and Ethical Decision-Making)

## Contributing Courses to Module

- Intercultural and Ethical Decision-Making (DLBCSIDM01)

## Module Exam Type

### Module Exam

Study Format: myStudies

Written Assessment: Case Study

Study Format: Distance Learning

Written Assessment: Case Study

Study Format: Duales myStudium

Written Assessment: Case Study

### Split Exam

## Weight of Module

see curriculum

**Module Contents**

- Basics of Intercultural Competence
- Cultural Concepts
- Culture and Ethics
- Implications of Current Ethical Problems in the Area of Interculturality, Ethics, and Diversity
- Intercultural Learning and Working
- Case Studies for Cultural and Ethical Conflicts

**Learning Outcomes****Intercultural and Ethical Decision-Making**

On successful completion, students will be able to

- explain the most important terms in the areas of interculturality, diversity, and ethics.
- distinguish different explanatory patterns of culture.
- understand culture at different levels.
- plan processes of intercultural learning and working.
- understand the interdependencies of culture and ethics.
- independently work on a case study on intercultural competence.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Business Administration & Management

**Links to other Study Programs of the University**

All Bachelor Programs in the Business field

# Intercultural and Ethical Decision-Making

Course Code: DLBCSIDM01

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

## Course Description

In this course, students acquire the necessary knowledge to understand intercultural competencies and current developments in the fields of diversity and ethics. Students will understand how to systematically plan and implement learning processes for the development of competences important in these areas. First, important terms are clarified and differentiated from each other, and cultural aspects are explained from different perspectives. In addition, students learn that cultural issues are relevant at different levels, for example, within a state, company, or other group. In this context, students also recognize the connection between ethics and culture with different interdependencies. On the basis of this knowledge, students are then familiarized with the different possibilities and potentials of intercultural and ethical learning and working. Practical cases are used to illustrate the importance of the relationships learned for today's work context in many companies. The students then work on a case study in which the acquired knowledge is systematically applied.

## Course Outcomes

On successful completion, students will be able to

- explain the most important terms in the areas of interculturality, diversity, and ethics.
- distinguish different explanatory patterns of culture.
- understand culture at different levels.
- plan processes of intercultural learning and working.
- understand the interdependencies of culture and ethics.
- independently work on a case study on intercultural competence.

## Contents

1. Basics of Intercultural and Ethical Competence to Act
  - 1.1 Subject Areas, Terms, and Definitions
  - 1.2 Relevance of Intercultural and Ethical Action
  - 1.3 Intercultural Action - Diversity, Globalization, Ethics
2. Cultural Concepts
  - 2.1 Hofstede's Cultural Dimensions
  - 2.2 Culture Differentiation According to Hall
  - 2.3 Locus of Control Concept to Rotter

3. Culture and Ethics
  - 3.1 Ethics - Basic Terms and Concepts
  - 3.2 Interdependence of Culture and Ethics
  - 3.3 Ethical Concepts in Different Regions of the World
4. Current Topics in the Area of Interculturality, Ethics, and Diversity
  - 4.1 Digital Ethics
  - 4.2 Equality and Equal Opportunities
  - 4.3 Social Diversity
5. Intercultural Learning and Working
  - 5.1 Acculturation
  - 5.2 Learning and Working in Intercultural Groups
  - 5.3 Strategies for Dealing with Cultural Conflicts
6. Case Studies for Cultural and Ethical Conflicts
  - 6.1 Case Study: Interculturality
  - 6.2 Case Study: Diversity
  - 6.3 Case Study: Interculturality and Ethics

## Literature

### Compulsory Reading

### Further Reading

- Al-Ali, E., & Masmoudi, M. (2023). Leadership and Workplace Culture in the Digital Era. Business Science Reference.
- Barmeyer, C., Bausch, M., & Mayrhofer, U. (2021). Constructive Intercultural Management.
- Berrones-Flemmig, N., Contreras, F., & Dornberger, U. (2022). Business in the 21st century: A sustainable approach (1st ed.). Emerald Publishing Limited.
- Rossouw, J., & Van Vuuren, L. (2017). Business ethics (6th ed.). Oxford University Press Southern Africa.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline



**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

**Study Format Duales myStudium**

<b>Study Format</b> Duales myStudium	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Written Assessment: Case Study

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Digital Skills

Module Code: DLBDS\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

Anup Ninan (Digital Skills)

## Contributing Courses to Module

- Digital Skills (DLBDS01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Advanced Workbook  
Study Format: myStudies  
Advanced Workbook

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Digital Transformation and Digital Communication
- Methods for Digital, Agile and Collaborative Working
- Social Media and Mobile
- Digital in the Enterprise: Selected Scenarios
- Selected Technologies
- Trends and Outlook

### Learning Outcomes

#### Digital Skills

On successful completion, students will be able to

- apply and classify the acquired basic knowledge.
- apply methodical knowledge to control and accompany digital processes.
- apply the acquired deeper understanding of digital technologies in practice.
- classify the digital holistically and to design interfaces innovatively.
- apply the digital skills they have learned to their work and career environment and use them in a goal-oriented manner.
- develop a vision of what the development of Digital Skills will look like in the future and
- to decide for themselves how they want to gain further knowledge in this area.

#### Links to other Modules within the Study Program

This module is similar to other modules in the field of Methods

#### Links to other Study Programs of the University

All Bachelor Programs in the Business field

# Digital Skills

Course Code: DLBDS01\_E

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

## Course Description

Whether social work, marketing, management or nursing professions – the digital transformation as a megatrend determines a profound change that affects every individual and all levels of society. This course is about understanding the causes of change and change as such with its effects. From this understanding, skills – Digital Skills – are developed to deal with digitalization in different (professional) contexts. Fundamentally, aspects of digital transformation and digital communication are discussed and how the economy, society and communication have changed and are changing are presented. Among other things, this affects work and collaboration. Methods such as design thinking, tools such as Slack or content management systems such as WordPress have interdisciplinary relevance. Social media and mobile are an integral part of everyday life, shaping (media) socialization and digital marketing. Under the aspect "Digital in the enterprise", selected scenarios are considered, such as Digital HR or Digital and Social. A basic understanding of digital technologies such as cloud computing or big data is essential in order to be able to accompany and control digital processes and assess trends such as quantum computing.

## Course Outcomes

On successful completion, students will be able to

- apply and classify the acquired basic knowledge.
- apply methodical knowledge to control and accompany digital processes.
- apply the acquired deeper understanding of digital technologies in practice.
- classify the digital holistically and to design interfaces innovatively.
- apply the digital skills they have learned to their work and career environment and use them in a goal-oriented manner.
- develop a vision of what the development of Digital Skills will look like in the future and
- to decide for themselves how they want to gain further knowledge in this area.

## Contents

1. Digital Transformation
  - 1.1 Basics, Causes, Consequences
  - 1.2 Infrastructure and Technologies
  - 1.3 Implications for the Economy and Society
  - 1.4 Concepts

2. Digital communication
  - 2.1 Basics
  - 2.2 The Online Communication Process
  - 2.3 Communication Tools
  - 2.4 Bot Communication
  - 2.5 Text vs. Voice
3. Methods for Digital Work
  - 3.1 Agile Methods: Agile Basics, SCRUM, Kanban
  - 3.2 Design Thinking
  - 3.3 Game Thinking
  - 3.4 Lean Startup and Lean Management
4. Distributed and Collaborative Work
  - 4.1 Basics
  - 4.2 Tools and Systems
  - 4.3 (Green) Web Design and Content Management Systems
  - 4.4 Presentation Techniques
5. Social Media and Mobile
  - 5.1 Social Media and Social Media Marketing
  - 5.2 Social Media Channels
  - 5.3 Responsive Design and Mobile Websites
  - 5.4 Apps and Messengers
  - 5.5 QR Codes and Location-Based Services
  - 5.6 Mobile First and Mobile Only
6. Selected technologies
  - 6.1 Cloud Computing
  - 6.2 Big Data / Data Analytics
  - 6.3 AI / Machine Learning
  - 6.4 Internet of Things
  - 6.5 Application Programming Interfaces (APIs)
  - 6.6 Smart Services
  - 6.7 Robotics
  - 6.8 Blockchain
  - 6.9 Virtual and Augmented Reality
  - 6.10 3D / 4D Printing

7. Digital in the Enterprise: Selected Scenarios
  - 7.1 Digital Business
  - 7.2 Digital Marketing
  - 7.3 Digital Design
  - 7.4 Digital HR
  - 7.5 Digital and Social
  
8. Trends and Outlook
  - 8.1 Acquiring and Expanding Competencies for the Digital Age
  - 8.2 Trends and Outlook for Digital Communication, Social Media and Mobile
  - 8.3 Trends and Outlook for Distributed and Collaborative Working
  - 8.4 Trends and Outlook for Selected Technologies

## Literature

### Compulsory Reading

### Further Reading

- Goethe, O. (2019). Gamification mindset. Springer International.
- Helmold, M. (2021). New work, transformational and virtual leadership: Lessons from Covid-19 and other crises. Springer.
- Mills, M. P. (2021). The cloud revolution: How the convergence of new technologies will unleash the next economic boom and a roaring 2020s. Encounter Books.
- Pressman, A. (2019). Design thinking: A guide to creative problem solving for everyone. Routledge.
- Rogers, D. L. (2016). The digital transformation playbook: Rethink your business for the digital age. Columbia Business School Publishing.
- Urbach, N., & Röglinger, M. (Eds.). (2019). Digitalization cases: How organizations rethink their business for the digital age. Springer.

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Advanced Workbook

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline



**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Advanced Workbook

<b>Student Workload</b>					
<b>Self Study</b> 110 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 20 h	<b>Self Test</b> 20 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Online Tests <input checked="" type="checkbox"/> Guideline

# Interaction and Communication in Organisations

Module Code: DLBKPSIKO\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

N.N. (Interaction and Communication in Organisations)

## Contributing Courses to Module

- Interaction and Communication in Organisations (DLBKPSIKO01\_E)

## Module Exam Type

### Module Exam

Study Format: Distance Learning  
Exam, 90 Minutes

Study Format: myStudies  
Exam, 90 Minutes

### Split Exam

## Weight of Module

see curriculum

## Module Contents

- Definition and Communication Structures
- Trust-Building Communication and Conflict Resolution
- Opinion Formation and Media Communication
- Transparency and Politically Correct Communication

**Learning Outcomes****Interaction and Communication in Organisations**

On successful completion, students will be able to

- understand communication channels and processes within the company.
- apply communication strategies to establish trust and credibility.
- name information and public disclosure obligations of entrepreneurs.
- reflect on methods of measuring the success of communication.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field of Psychology

**Links to other Study Programs of the University**

All Bachelor Programs in the Social Sciences field

# Interaction and Communication in Organisations

Course Code: DLBKPSIK001\_E

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

## Course Description

Intact communication processes play a decisive role in the success of an organization: On the one hand, successful internal communication ensures the productive transfer of information, the management of a team or the cohesion of employees. On the other hand, professional external communication determines how a company is perceived by the media, stakeholders and customers. In this context, companies today are confronted with increasingly tightened communication conditions as well as with an extremely increasing range of communication options. This course begins by defining the essentials of corporate communications and illustrates the communication tools, processes, and guidelines within an organization. It will also look at strategies, building trust and credibility, and defusing crises. Finally, the use of various digital communication channels and methods for measuring successful corporate communication are discussed.

## Course Outcomes

On successful completion, students will be able to

- understand communication channels and processes within the company.
- apply communication strategies to establish trust and credibility.
- name information and public disclosure obligations of entrepreneurs.
- reflect on methods of measuring the success of communication.

## Contents

1. Terminology and History
  - 1.1 What falls under the Concept of Corporate Communication?
  - 1.2 Overview Development of Corporate Communication
2. Structural Aspects of Corporate Communication
  - 2.1 Forms of Communication
  - 2.2 Communication Hierarchies
  - 2.3 Communication Channels
  - 2.4 Communication Processes
3. Trust and Credibility
  - 3.1 Definition of Trust

- 3.2 Appreciative Communication
- 3.3 Organizational Culture and Rules of Conduct
- 3.4 Psychological Contracts
4. Change and Crisis Management
  - 4.1 Communication in Change
  - 4.2 Communication for Conflict Resolution
  - 4.3 Rumors
  - 4.4 Achieving Win-Win Solutions
5. Media Communication
  - 5.1 Press Relations
  - 5.2 The Company as a Brand
  - 5.3 Impression Management
  - 5.4 Communication via Social Media
  - 5.5 Communication via Numbers and Statistics
6. Legal Aspects of Communication
  - 6.1 Politically Correct Communication
  - 6.2 Transparent Communication
  - 6.3 Data Protection
7. Measuring Successful Communication
  - 7.1 Employee Surveys
  - 7.2 360 Degree Feedback
  - 7.3 Evaluation on the Basis of Key Figures

**Literature****Compulsory Reading****Further Reading**

- Chmiel, N. (2000). *Introduction to Work and Organizational Psychology : A European Perspective*. Blackwell Publ.
- Church, A. H., Bracken, D. W., Fleenor, J. W., & Rose, D. S. (2019). *Handbook of Strategic 360 Feedback*. Oxford University Press.
- Falkheimer, J., & Heide, M. (2018). *Strategic Communication: An Introduction*. Routledge.
- Harris, T. E., & Nelson, M. D. (2019). *Applied Organizational Communication: Theory and Practice in a Global Environment* (4th ed). Routledge.
- Luring, J. (2011). Intercultural Organizational Communication: The Social Organizing of Interaction in International Encounters. *Journal of Business Communication*, 48(3), 231–255. <https://doi-org.pxz.iubh.de:8443/10.1177/0021943611406500>
- Lipsky, D. B., Avgar, A. C., & Lamare, J. R. (2020). Organizational Conflict Resolution and Strategic Choice: Evidence from a Survey of Fortune 1000 Firms. *ILR Review*, 73(2), 431–455. <https://doi-org.pxz.iubh.de:8443/10.1177/0019793919870169>

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Theory Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> yes
<b>Type of Exam</b>	Exam, 90 Minutes

<b>Student Workload</b>					
<b>Self Study</b> 90 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 30 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint <input checked="" type="checkbox"/> Recorded Live Sessions	<b>Learning Material</b> <input checked="" type="checkbox"/> Course Book <input checked="" type="checkbox"/> Video <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Practice Exam <input checked="" type="checkbox"/> Online Tests



## Seminar: Current Topics in Digitalization

Module Code: DLBDBATD\_E

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 5	<b>Student Workload</b> 150 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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### Module Coordinator

Prof. Dr. Johann Smalla (Seminar in Current Topics in Digitalization)

### Contributing Courses to Module

- Seminar in Current Topics in Digitalization (DLBDBATD01\_E)

### Module Exam Type

#### Module Exam

Study Format: myStudies

Written Assessment: Research Essay

Study Format: Distance Learning

Written Assessment: Research Essay

#### Split Exam

### Weight of Module

see curriculum

### Module Contents

The seminar deals with current topics of digitalization and digital transformation. Students can discuss the effects on the economy and society, or gather information on current technological developments.

**Learning Outcomes****Seminar in Current Topics in Digitalization**

On successful completion, students will be able to

- independently familiarize themselves with a given topic from the field of digitalization or digital transformation.
- write down important characteristics, connections and findings in form of a paper.
- remember the basics of scientific work and to implement them in the seminar paper.

**Links to other Modules within the Study Program**

This module is similar to other modules in the field(s) of Computer Science & Software Development.

**Links to other Study Programs of the University**

All Bachelor Programs in the IT & Technology field(s).

## Seminar in Current Topics in Digitalization

Course Code: DLBDBATD01\_E

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

### Course Description

In the seminar "Current Topics in Digitalization" students write a seminar paper on a specific topic and present their results. In this way, the students demonstrate that they are able to independently familiarize themselves with a topic and to document and present the knowledge gained in a structured manner.

### Course Outcomes

On successful completion, students will be able to

- independently familiarize themselves with a given topic from the field of digitalization or digital transformation.
- write down important characteristics, connections and findings in form of a paper.
- remember the basics of scientific work and to implement them in the seminar paper.

### Contents

- Digitalization is a wide-ranging subject area that can relate to very different aspects, depending on the specific terminology used. The seminar will meet this diversity by picking up current trends within the framework of formulated topic areas. Each participant must prepare a seminar paper for this purpose. Possible topics include new technologies that drive digitalization (e.g. deep learning), effects on the working world (e.g. crowdsourcing or new qualification requirements in the field of data science) or new digital business models (e.g. Fintechs).

**Literature****Compulsory Reading****Further Reading**

- Pascual, D/ Daponte, P/ Kumar, U (2019): Handbook of Industry 4.0 and SMART Systems. CRC Press. Boca Raton.
- Porter, M. E.; Heppelmann, J. E. (2014): How Smart, Connected Products Are Transforming Competition. In: Harvard Business Review 92 (11), S. 64-88.
- Anand, B. (2016): The Content Trap: A Strategist's Guide to Digital Change. Random House. New York.
- Ross, PK/ Ressia, S/ Sander, JS (2017): Work in the 21st Century: How Do I Log On?. Emerald Publishing. Bingley.
- Osterwalder, A/Pigneur, Y. (2010): Business Model Generation: A Handbook for Visionaries, Game Changers, John Wiley & Sons Inc. New Jersey.
- Dark Horse Innovation (Hrsg.) (2017): Digital Innovation Playbook. The essential exercise book for founders, doers and managers. Murmann. Hamburg.

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Seminar
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Written Assessment: Research Essay

<b>Student Workload</b>					
<b>Self Study</b> 120 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 30 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 150 h

<b>Instructional Methods</b>		
<b>Tutorial Support</b> <input checked="" type="checkbox"/> Course Feed <input checked="" type="checkbox"/> Intensive Live Sessions/Learning Sprint	<b>Learning Material</b> <input checked="" type="checkbox"/> Slides	<b>Exam Preparation</b> <input checked="" type="checkbox"/> Guideline

# Bachelor Thesis

Module Code: DLBBT

<b>Module Type</b> see curriculum	<b>Admission Requirements</b> none	<b>Study Level</b> BA	<b>CP</b> 10	<b>Student Workload</b> 300 h
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<b>Semester / Term</b> see curriculum	<b>Duration</b> Minimum 1 semester	<b>Regularly offered in</b> WiSe/SoSe	<b>Language of Instruction and Examination</b> English
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## Module Coordinator

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

## Contributing Courses to Module

- Bachelor Thesis (DLBBT01)
- Colloquium (DLBBT02)

## Module Exam Type

### Module Exam

### Split Exam

#### Bachelor Thesis

- Study Format "myStudies": Bachelor Thesis
- Study Format "Distance Learning": Bachelor Thesis

#### Colloquium

- Study Format "myStudies": Colloquium
- Study Format "Distance Learning": Colloquium

## Weight of Module

see curriculum

<p><b>Module Contents</b></p> <p><b>Bachelor Thesis</b></p> <ul style="list-style-type: none"> <li>▪ Bachelor's thesis</li> <li>▪ Colloquium on the bachelor's thesis</li> </ul> <p><b>Colloquium</b></p>	
<p><b>Learning Outcomes</b></p> <p><b>Bachelor Thesis</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ work on a problem from their major field of study by applying the specialist and methodological skills they have acquired during their studies.</li> <li>▪ independently analyze selected tasks with scientific methods, critically evaluate them, and develop appropriate solutions under the guidance of an academic supervisor.</li> <li>▪ record and analyze existing (research) literature appropriate to the topic of their bachelor's thesis.</li> <li>▪ prepare a detailed written elaboration in compliance with scientific methods.</li> </ul> <p><b>Colloquium</b></p> <p>On successful completion, students will be able to</p> <ul style="list-style-type: none"> <li>▪ present a problem from their field of study using academic presentation and communication techniques.</li> <li>▪ reflect on the scientific and methodological approach chosen in their bachelor's thesis.</li> <li>▪ demonstrate that they can actively answer subject-related questions from the subject experts (reviewers of the bachelor's thesis).</li> </ul>	
<p><b>Links to other Modules within the Study Program</b></p> <p>All modules in the Bachelor program</p>	<p><b>Links to other Study Programs of the University</b></p> <p>All Bachelor Programs in distance learning</p>



# Bachelor Thesis

Course Code: DLBBT01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		9	none

## Course Description

The aim and purpose of the bachelor'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 bachelor's thesis can be a practical-empirical or theoretical-scientific problem. Students should prove that they can independently analyze 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 chosen by the student from their respective field of study should meet the acquired scientific competences, deepening their academic knowledge and skills in order to meet the future needs of the field.

## 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.
- independently analyze selected tasks with scientific methods, critically evaluate them, and develop appropriate solutions under the guidance of an academic supervisor.
- record and analyze existing (research) literature appropriate to the topic of their bachelor's thesis.
- prepare a detailed written elaboration in compliance with scientific methods.

## Contents

- The bachelor's thesis must be written on a topic that relates to the content of the respective major field of study. In the context of the bachelor'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 their 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**

- Lipson, C. (2018). How to write a BA thesis. A practical guide from your first ideas to your finished paper (2nd ed.). University of Chicago Press.
- Turabian, K. L. (2013). A Manual for Writers of Research Papers, theses, and dissertations (8th ed.). University of Chicago Press.
- Selection of literature according to topic

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Thesis Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Bachelor Thesis

<b>Student Workload</b>					
<b>Self Study</b> 270 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 270 h

<b>Instructional Methods</b>
<b>Exam Preparation</b> <input checked="" type="checkbox"/> Review Book

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Thesis Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Bachelor Thesis

<b>Student Workload</b>					
<b>Self Study</b> 270 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 270 h

<b>Instructional Methods</b>
<b>Exam Preparation</b> <input checked="" type="checkbox"/> Review Book

# Colloquium

Course Code: DLBBT02

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		1	none

## Course Description

The colloquium will take place after the submission of the bachelor's thesis. This is done at the invitation of the experts. During the colloquium, students must prove that they have 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 as well as the answering of questions by experts.

## Course Outcomes

On successful completion, students will be able to

- present a problem from their field of study using academic presentation and communication techniques.
- reflect on the scientific and methodological approach chosen in their bachelor's thesis.
- demonstrate that they can actively answer subject-related questions from the subject experts (reviewers of the bachelor's thesis).

## Contents

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

## Literature

### Compulsory Reading

### Further Reading

- Subject specific literature chosen by the student

**Study Format myStudies**

<b>Study Format</b> myStudies	<b>Course Type</b> Thesis Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Colloquium

<b>Student Workload</b>					
<b>Self Study</b> 30 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 30 h

<b>Instructional Methods</b>

**Study Format Distance Learning**

<b>Study Format</b> Distance Learning	<b>Course Type</b> Thesis Course
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<b>Information about the examination</b>	
<b>Examination Admission Requirements</b>	<b>Online Tests:</b> no
<b>Type of Exam</b>	Colloquium

<b>Student Workload</b>					
<b>Self Study</b> 30 h	<b>Contact Hours</b> 0 h	<b>Tutorial/Tutorial Support</b> 0 h	<b>Self Test</b> 0 h	<b>Independent Study</b> 0 h	<b>Hours Total</b> 30 h

<b>Instructional Methods</b>