MODULE HANDBOOK

Bachelor of Arts

Bachelor Digital Business (FS-BADBE-02)

180 CP

Distance Learning

As of December 18th, 2024

INTERNATIONAL
UNIVERSITY OF
APPLIED SCIENCES

Classification: Undergraduate

Contents

1. Semester

Module DLBLODB_E: Digital Business Models
Module Description . . . 13
Course DLBLODB01_E: Digital Business Models . . . 15

Module DLBCSIAW: Introduction to Academic Work
Module Description . . . 19
Course DLBCSIAW01: Introduction to Academic Work . . . 21

Module DLBCSICS: Introduction to Computer Science
Module Description . . . 26
Course DLBCSICS01: Introduction to Computer Science . . . 28

Module DLBBAB_E: Business 101
Module Description . . . 33
Course DLBBAB01_E: Business 101 . . . 35

Module DLBCSAPM: Project: Agile Project Management
Module Description . . . 39
Course DLBCSAPM01: Project: Agile Project Management . . . 41

2. Semester

Module DLBDSIDS-01: Introduction to Data Science
Module Description . . . 46
Course DLBDSIDS01-01: Introduction to Data Science . . . 48

Module DLBEPEAB: Accounting and Balancing
Module Description . . . 52
Course DLBEPEAB01: Accounting and Balancing . . . 54

Module DLBINGDABD_E: Data Analytics and Big Data
Module Description . . . 59
Course DLBINGDABD01_E: Data Analytics and Big Data . . . 61

Module DLBDBEFDPISNP: Fundamentals of Data Protection and IT Security for Non-Technical Programs
Module Description . . . 66

Course DLBDBEFDPISNP01: Fundamentals of Data Protection and IT Security for Non-Technical Programs 68

Module DLBINGDT_E: Project: Design Thinking
Module Description 72
Course DLBINGDT01_E: Project: Design Thinking 74

---

3. Semester

Module BWMA_E: Business Mathematics
Module Description 79
Course BWMA01_E: Business Mathematics 81

Module DLBMAE: Management Accounting
Module Description 85
Course DLBMAE01: Management Accounting 87

Module DLBBWME_E: Managerial Economics
Module Description 92
Course DLBBWME01_E: Managerial Economics 94

Module DLBAIBEELAAI: Ethics and Legal Aspects in AI
Module Description 100
Course DLBAIBEELAAI01: Ethics and Legal Aspects in AI 102

Module DLBWPPOE_E: Project: Organizational Development
Module Description 107
Course DLBWPPOE01_E: Project: Organizational Development 109

---

4. Semester

Module BSTA-01_E: Statistics
Module Description 114
Course BSTA01-01_E: Statistics 116

Module DLBDSEAIS1: Artificial Intelligence
Module Description 121
Course DLBDSEAIS01: Artificial Intelligence 123

Module DLBCFIE: Corporate Finance and Investment
Module Description 128
Course DLBCFIE01: Corporate Finance and Investment 130

Module DLBDBATD_E: Seminar: Current Topics in Digitalization
Module Description 135
Course DLBDBATD01_E: Seminar in Current Topics in Digitalization 137

Module DLBPEPNW_E: Project: New Work
Module Description 141
Course DLBPEPNW01_E: Project: New Work 143

---

5. Semester

Module DLBPRWCCPR1_E: Corporate Communication
Module Description 148
Course DLBPRWCCPR01_E: Corporate Communication 150

Module DLBCRM_E: Customer Relationship Management
Module Description 154
Course DLBCRM01_E: Customer Relationship Management 156

Module DLBCSDMDS: Database Modeling and Database Systems
Module Description 161
Course DLBCSDMDS01: Database Modeling and Database Systems 163

Module DLBBAEFOR1_E: Operations Research
Module Description 167
Course DLBBAEFOR01_E: Operations Research 169

Module DLBAIINLP: Introduction to NLP
Module Description 174
Course DLBAIINLP01: Introduction to NLP 176

Module DLBPKIEKPT1_E : Project: AI Excellence with Creative Prompting Techniques
Module Description 180
Course DLBPKIEKPT01_E: Project: AI Excellence with Creative Prompting Techniques 182

Module DLBDSIPWP: Introduction to Programming with Python
Module Description 187
Course DLBDSIPWP01: Introduction to Programming with Python 189

Module DLBCSOOPJ: Object-oriented Programming with Java
Module Description 193
Course DLBCSOOPJ01: Object-oriented Programming with Java 195

Module DLBBAPM_E: Principles of Management
Module Description 200

Course DLBBAPM01_E: Principles of Management 202

Module DLBNWENW_E: Introduction to New Work
Module Description 206
Course DLBNWENW01_E: Introduction to New Work 208

Module DLBAIBEDLBCPA: Deep Learning in Business Contexts: Predictive Analytics
Module Description 213
Course DLBAIBEDLBCPA01: Deep Learning in Business Contexts: Predictive Analytics 215

Module DLBDBEILCD: Introduction to Low-Code Development
Module Description 218
Course DLBDBEILCD01: Introduction to Low-Code Development 220

Module DLSFPD2: Salesforce Platform Developer
Module Description 224
Course DLSFPD02: Salesforce Platform Developer 226

Module DLBMSM1-01_E: Online Marketing
Module Description 230
Course DLBMSM01-01_E: Online Marketing 232

Module DLBOMPSMK_E: Project: Campaigns in Social Media
Module Description 239
Course DLBOMPSMK01_E: Project: Campaigns in Social Media 241

Module DLBDSEDA1: Advanced Data Analysis
Module Description 244
Course DLBDSEDA01: Advanced Data Analysis 246

Module DLBAIBEBIDV: Business Intelligence and Data Visualization
Module Description 250
Course DLBAIBEBIDV01: Business Intelligence and Data Visualization 252

Module DLBMIAMVR1_E: Augmented, Mixed and Virtual Reality
Module Description 256
Course DLBMIAMVR01_E: Augmented, Mixed and Virtual Reality 258

Module DLBDSBDT: Big Data Technologies
Module Description 264
Course DLBDSBDT01: Big Data Technologies 266

Module DLBSEPPSD-01_E: Project: Software Development with AI
Module Description 270
Course DLBSEPPSD01-01_E: Project: Software Development with AI 272

Module DLBCSWAD: Web Application Development
Module Description 275
Course DLBCSWAD01: Web Application Development 277

Module DLBCSEITPAM1: IT Project Management
Module Description 281
Course DLBCSEITPAM01: IT Project Management 283

Module DLBAIBESEI: Seminar: Ethical Innovation
Module Description 287
Course DLBAIBESEI01: Seminar: Ethical Innovation 289

Module DLBDBEPLCD: Project: Low-Code Development
Module Description 293
Course DLBDBEPLCD01: Project: Low-Code Development 295

Module DLBPAWSCLAD: Project: AWS - Cloud Advanced
Module Description 298
Course DLBPAWSCLAD01: Project: AWS - Cloud Advanced 300

Module DLBWPPDBM_E: Project: Digital Business Models
Module Description 306
Course DLBWPPDBM01_E: Project: Digital Business Models 308

---

6. Semester

Module DLBMSM2-01_E: Social Media Marketing
Module Description 313
Course DLBMSM02-01_E: Social Media Marketing 315

Module DLBOMSKIMEC_E: Seminar: AI in Marketing & E-Commerce
Module Description 320
Course DLBOMSKIMEC01_E: Seminar: AI in Marketing & E-Commerce 322

Module DLBDSEDA2: Project: Data Analysis
Module Description 325
Course DLBDSEDA02: Project: Data Analysis 327

Module DLBDBDL_E: Deep Learning
Module Description 330
Course DLBDBDL01_E: Deep Learning 332

Module DLBAIBEANGAIBA: Advanced NLP: Generative AI in Business Applications
Module Description 337

Course DLBAIBEANGAIBA01: Advanced NLP: Generative AI in Business Applications 339

Module DLBAIBEPNBACSA: Project: NLP in Business Applications: Customer Service Automation and Sentiment Analysis
Module Description 342
Course DLBAIBEPNBACSA01: Project: NLP in Business Applications: Customer Service Automation and Sentiment Analysis 344

Module DLSFPD1: Salesforce Platform App Builder
Module Description 347
Course DLSFPD01: Salesforce Platform App Builder 349

Module DLBPAWSCLES: Project: AWS - Cloud Essentials
Module Description 354
Course DLBPAWSCLES01: Project: AWS - Cloud Essentials 356

Module BWINT1-02: International Management
Module Description 361
Course BWINT01: International Management 363

Module DLBWPLS_E: Leadership 4.0
Module Description 370
Course DLBWPLS01_E: Leadership 4.0 372

Module DLBDBSC_E: Statistical Computing
Module Description 377
Course DLBDBSC01_E: Statistical Computing 379

Module DLBDSEAIS2: Project: Artificial Intelligence
Module Description 383
Course DLBDSEAIS02: Project: Artificial Intelligence 385

Module DLBPEDHR_E: Digital HR
Module Description 390
Course DLBPEDHR01_E: Digital HR 392

Module DLBKAENT1_E: Personal Career Plan
Module Description 397
Course DLBKAENT01_E: Personal Career Plan 399

Module DLBKAENT2_E: Personal Elevator Pitch
Module Description 405
Course DLBKAENT02_E: Personal Elevator Pitch 407

Module DLBINGEIT_E: Introduction to the Internet of Things

Module Description 412
Course DLBINGEIT01_E: Introduction to the Internet of Things 414

Module DLBINGPE_E: Product Development in Industry 4.0
Module Description 418
Course DLBINGPE01_E: Product Development in Industry 4.0 420

Module DLBECEC1-01_E: E-Commerce I
Module Description 425
Course BWEC01-02_E: E-Commerce I 427

Module DLBCSIITL: IT Law
Module Description 430
Course DLBCSIITL01: IT Law 432

Module DLFSWG1: Certificate Course German
Module Description 436
Course DLFSWG01: Certificate Course German 438

Module DLFSG: Foreign Language German
Module Description 442
Course DLFSG01: Foreign Language German 444

Module DLFSWF1_E: Certificate Course French
Module Description 448
Course DLFSWF01_E: Certificate Course French 450

Module DLFSF_E: Foreign Language French
Module Description 454
Course DLFSF01_E: Foreign Language French 456

Module DLFSWS1_E: Certificate Course Spanish
Module Description 460
Course DLFSWS01_E: Certificate Course Spanish 462

Module DLFSS_E: Foreign Language Spanish
Module Description 466
Course DLFSS01_E: Foreign Language Spanish 468

Module DLFSWI1_E: Certificate Course Italian
Module Description 472
Course DLFSWI01_E: Certificate Course Italian 474

Module DLFSI_E: Foreign Language Italian
Module Description 478

Course DLFSI01_E: Foreign Language Italian 480

Module DLBSG1_E: Studium Generale I
Module Description 484
Course DLBSG01_E: Studium Generale I 486

Module DLBSG2_E: Studium Generale II
Module Description 489
Course DLBSG02_E: Studium Generale II 491

Module DLBFMPGKIU_E: Project: Generative AI in an Enterprise Context
Module Description 494
Course DLBFMPGKIU01_E: Project: Generative AI in an Enterprise Context 496

Module DLBBWPWM_E: Internship: Business & Management
Module Description 500
Course DLBBWPWM01_E: Internship: Business & Management 502

Module DLBKAENT1_E: Personal Career Plan
Module Description 505
Course DLBKAENT01_E: Personal Career Plan 507

Module DLBPGDM_E: Diversity Management
Module Description 513
Course DLBPGDM01_E: Diversity Management 515

Module DLBCSCW: Collaborative Work
Module Description 519
Course DLBCSCW01: Collaborative Work 521

Module DLBKPSIKO_E: Interaction and Communication in Organisations
Module Description 527
Course DLBKPSIKO01_E: Interaction and Communication in Organisations 529

Module DLBCSIDM: Intercultural and Ethical Decision-Making
Module Description 534
Course DLBCSIDM01: Intercultural and Ethical Decision-Making 536

Module BUPL_E: Corporate Planning and Simulation
Module Description 541
Course BUPL01_E: Corporate Planning and Simulation 543

Module DLBBT: Bachelor Thesis
Module Description 546
Course DLBBT01: Bachelor Thesis 548

Course DLBBT02: Colloquium 552

1. Semester

Digital Business Models

Module Code: DLBLODB_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Muhammad Ashfaq (Digital Business Models)

Contributing Courses to Module

- Digital Business Models (DLBLODB01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Meaning, origin and definition of the term "digital business model”
- Basic concepts for the description of business models
- Tools for the description of business models
- Patterns of digital business models
- Digital business models and business plans

Learning Outcomes

Digital Business Models

On successful completion, students will be able to

- understand what a business model is and how to describe it systematically.
- outline the basic features of the historical development of business models.
- describe key digital business models and evaluate their advantages and disadvantages.
- establish the relationship between a business model and a business plan to independently derive and analyse the positioning of a company.

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

Digital Business Models

Course Code: DLBLODB01_E

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

Course Description

A business model contains the depiction of the logic of how a company generates, delivers and secures value. The progressing digitalization of many processes, products and services has made possible a large number of innovations in the area of business models in recent years. The subject of this course rounds up the presentation, the underlying patterns and the main factors that influence these digital business models.Starting from a general definition of the concept of a business model, a system is developed to describe the essential factors of a business model. An overview of the historical development of important business models and in particular the influence of digitization on newer business models allows a classification of the concept and an understanding of the framework.Then the most important alternative digital business models of recent years are systematically presented, analyzed and evaluated with regard to their respective strengths and weaknesses.Finally, the role of business models in the creation process of a business plan is described. Students learn the central approaches to developing an independent corporate positioning and are enabled to examine and evaluate the central factors influencing corporate success in digital business.

Course Outcomes

On successful completion, students will be able to

- understand what a business model is and how to describe it systematically.
- outline the basic features of the historical development of business models.
- describe key digital business models and evaluate their advantages and disadvantages.
- establish the relationship between a business model and a business plan to independently derive and analyse the positioning of a company.

Contents

1. Meaning, Origin and Definition of the Term "Digital Business Model
   - 1.1 Goals and Functions of Digital Business Models
   - 1.2 Business Model - Origin of the Term and its Meaning in the Digital Economy
   - 1.3 Definition of the terms Business Model and Digital Business Model
   - 1.4 Differentiation from Other Terminologies of the Digital Economy
2. Basic Concepts for the Description of Business Models
   - 2.1 Value Chain by Porter

2.2 Value-added Chain
2.3 Dominant Logic
2.4 Revenue Model
2.5 Unique Selling Proposition
2.6 Transaction
2.7 Product or Service Range

3. Tools for the Description of Business Models
   3.1 Business Model Canvas
   3.2 St. Gallen Business Model Navigator
   3.3 MIT Framework

4. Patterns of Digital Business Models
   4.1 Long Tail
   4.2 Multi-Sided Pattern
   4.3 Free and Freemium
   4.4 OPEN API Pattern

5. Digital Business Models and Business Plans
   5.1 Integration of the Business Model into the Business Plan
   5.2 Company Positioning and the Digital Business Model
   5.3 Digital Business Models as Innovation Drivers for the Development of New Businesses

Literature

Compulsory Reading

Further Reading

- Gassmann, O., Frankenberger, K., & Choudury, M. (2020). The business model navigator: The strategies behind the most successful companies (Second edition). FT Financial Times publishing. Pearson Education, Limited.
- Weil, P., & Woerner, S. L. (2018). What's your digital business model? Six questions to help you to build the next-generation enterprise. Harvard Business Review Press.
- Wirtz, B. W. (2019). Digital Business Models: Concepts, Models, and the Alphabet Case Study (1st edition 2019). Progress in IS. Springer International Publishing.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Advanced Workbook, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Advanced Workbook, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Introduction to Academic Work

Module Code: DLBCSIAW

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

Contributing Courses to Module

- Introduction to Academic Work (DLBCSIAW01)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Basic Workbook (passed / not passed) Study Format: Distance Learning Basic Workbook (passed / not passed)	

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Methods	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

Study Format	**Course Type**
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Basic Workbook (passed / not passed)

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video
- ☑ Slides

Exam Preparation
- ☑ Online Tests
- ☑ Guideline

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Basic Workbook (passed / not passed)

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Introduction to Computer Science

Module Code: DLBCSICS

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Carsten Skerra (Introduction to Computer Science)

Contributing Courses to Module

- Introduction to Computer Science (DLBCSICS01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Information representation
- Algorithms and data structures
- Propositional logic / Boolean algebra
- Hardware
- Networks and the internet
- Software
- Computer science as a discipline

Learning Outcomes

Introduction to Computer Science

On successful completion, students will be able to

- understand basic algorithms and data structures.
- apply basic constructs of propositional logic in programming.
- describe the structure of computer hardware systems.
- specify the structure and the main services of the internet.
- discuss professional conduct in computer science.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Computer Science & Software Development.	All Bachelor Programs in the IT & Technology field.

Introduction to Computer Science

Course Code: DLBCSICS01

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

Course Description

The goal of this course is to provide an introduction to computer science and its main concepts. It covers basic topics such as information representation and an introduction to algorithms and data structures. Propositional logic and Boolean algebra are also introduced, both of which form an important basis in computer science, e.g., for expressing conditions in programming.Furthermore, the course introduces the three main components of computing infrastructures: hardware, networks, and software. Finally, the course covers the meta level by looking at the role of computer science as a discipline as well as ethics and professional conduct.

Course Outcomes

On successful completion, students will be able to

- understand basic algorithms and data structures.
- apply basic constructs of propositional logic in programming.
- describe the structure of computer hardware systems.
- specify the structure and the main services of the internet.
- discuss professional conduct in computer science.

Contents

1. Basic concepts of data processing
   - 1.1 Data, information and messages
   - 1.2 Software, firmware and hardware
   - 1.3 Languages, syntax and semantics
   - 1.4 Historical overview
2. Information representation
   - 2.1 Number representation formats
   - 2.2 Representation of non-numerical information
   - 2.3 Data types
   - 2.4 Redundancy and error tolerance
3. Algorithms and data structures
   - 3.1 Algorithms and flow diagrams

- 3.2 Simple data structures
- 3.3 Searching and sorting
- 3.4 Quality of algorithms (correctness, termination, efficiency/complexity)

4. Propositional logic, Boolean algebra and circuit design
   - 4.1 Propositions and logical conclusions
   - 4.2 Conjunctive and disjunctive normal form
   - 4.3 Digital circuit design

5. Hardware and computer architectures
   - 5.1 Computer types and their architecture
   - 5.2 Processors and memory
   - 5.3 Input and output
   - 5.4 Interfaces and drivers
   - 5.5 High-performance computing

6. Networks and the internet
   - 6.1 Wired and wireless networks and their topologies
   - 6.2 The TCP/IP and the ISO/OSI model
   - 6.3 Internet structure and services
   - 6.4 The internet of things

7. Software
   - 7.1 BIOS and operating systems
   - 7.2 Application software and information systems
   - 7.3 Apps
   - 7.4 Embedded systems
   - 7.5 Software development

8. Computer Science as a discipline
   - 8.1 The role and sub-disciplines of computer science
   - 8.2 Artificial intelligence, data science and computer science
   - 8.3 Ethical aspects of computer science
   - 8.4 The ACM Code of Ethics and Professional Conduct

Literature
Compulsory Reading
Further Reading ▪ Dale, N., & Lewis, J. (2020). Computer science illuminated (7th ed.). Jones & Bartlett Learning. ▪ Downey, A. B., & Mayfield, C. (2020). Think Java: How to think like a computer scientist. O'Reilly. ▪ Filho, W. F. (2018). Computer science distilled: Learn the art of solving computational problems. Code Energy LLC. ▪ Petzold, C. (2000). Code: The hidden language of computer hardware and software. Microsoft Press. ▪ Whitington, J. (2016). A machine made this book: Ten sketches of computer science. Coherent Press.

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Business 101

Module Code: DLBBAB_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Andreas Herrmann (Business 101)

Contributing Courses to Module

- Business 101 (DLBBAB01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Businesses and their environment
- Types of business organizations
- Management and structure of business
- Production of goods and services
- Marketing of products and services
- Management of labor
- Accounting in business

Learning Outcomes

Business 101

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.

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

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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Written Assessment: Written Assignment, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Written Assessment: Written Assignment, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Project: Agile Project Management

Module Code: DLBCSAPM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

Contributing Courses to Module

- Project: Agile Project Management (DLBCSAPM01)

Module Exam Type

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

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

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods	
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	**Exam Preparation** ☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods	
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	**Exam Preparation** ☑ Guideline

2. Semester

Introduction to Data Science

Module Code: DLBDSIDS-01

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Ha Ngo (Introduction to Data Science)

Contributing Courses to Module

- Introduction to Data Science (DLBDSIDS01-01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Advanced Workbook Study Format: myStudies Advanced Workbook	

Weight of Module

see curriculum

Module Contents

- Introduction to Data Science
- Data
- Data Science in Business
- Statistics
- Machine Learning

Learning Outcomes

Introduction to Data Science

On successful completion, students will be able to

- define data science and its relation to other fields.
- comprehend data science activities.
- recognize the origins of data and the challenges of working with data.
- understand how data science methods are integrated into business settings.
- grasp fundamental statistical concepts.
- appreciate the importance of machine learning in data science.

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

Introduction to Data Science

Course Code: DLBDSIDS01-01

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

Course Description

Data science emerged as a multi-disciplinary field aimed at creating value from data. This course starts with an overview of data science and related fields and then defines data types and sources. Special focus is put on the assessment of data quality and electronic data processing.Use of data-driven methods has become vital for businesses, and this course outlines how data-driven approaches can be integrated within a business context and how operational decisions can be made using data-driven methods.Finally, this course highlights the importance of statistics and machine learning in the field of data science and gives an overview of relevant methods and approaches.

Course Outcomes

On successful completion, students will be able to

- define data science and its relation to other fields.
- comprehend data science activities.
- recognize the origins of data and the challenges of working with data.
- understand how data science methods are integrated into business settings.
- grasp fundamental statistical concepts.
- appreciate the importance of machine learning in data science.

Contents

1. Introduction to Data Science
   - 1.1 Definition of the term „data science“
   - 1.2 Data science and related fields
   - 1.3 Data science activities
2. Data
   - 2.1 Data types and data sources
   - 2.2 The 5Vs of data
   - 2.3 Data curation and data quality
   - 2.4 Data engineering
3. Data Science in Business
   - 3.1 Identification of use cases

3.2 Performance evaluation
3.3 Data-driven operational decisions
3.4 Cognitive biases

4. Statistics
   4.1 Importance of statistics for data science
   4.2 Important statistical concepts

5. Machine Learning
   5.1 Role of machine learning in data science
   5.2 Overview of machine learning approaches

Literature

Compulsory Reading

Further Reading

- Akerkar, R., & Sajja, P. S. (2016). Intelligent techniques for data science. Springer International Publishing.
- Hodeghatta, U. R., & Nayak, U. (2017). Business analytics using R—A practical approach. Apress Publishing.
- Runkler, T. A. (2012). Data analytics: Models and algorithms for intelligent data analysis. Springer.
- Skiena, S. S. (2017). The data science design manual. Springer International Publishing.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	**Course Type**
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Accounting and Balancing

Module Code: DLBEPEAB

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Andreas Simon (Accounting and Balancing)

Contributing Courses to Module

- Accounting and Balancing (DLBEPEAB01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Exam, 90 Minutes Study Format: myStudies Exam, 90 Minutes Study Format: Duales myStudium Exam, 90 Minutes	

Weight of Module

see curriculum

Module Contents

- Balance Sheet, Income Statement, Statement of Cash Flows
- IFRS Financial Statement of Small and Medium Sized Entities
- Recognition and Measurement Rules for IFRS Financial Reports
- Accounting Equation and Ratio Analysis
- Accrual Basis of Accounting and Revenue Recognition Rules
- Debt and Equity Financing of The Firm

Learning Outcomes

Accounting and Balancing

On successful completion, students will be able to

- explain how business activities are captured by financial statements and prepare financial statements from these business events.
- understand the objectives of financial reporting, analyze financial statements, compute key ratios.
- compare and contrast the objectives, characteristics and principles of IFRS reporting in an international context and compare them to national accounting principles (HGB).
- describe IFRS standards as they relate to the recognition, measurement, presentation and disclosure requirements in general purpose financial statements.
- apply accounting knowledge to solve business problems and make informed business decisions.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Finance & Tax Accounting	All Bachelor Programs in the Business & Management field

Accounting and Balancing

Course Code: DLBEPEAB01

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

Course Description

The knowledge obtained in this class will provide you with an important set of tools that are vital for anyone who will be expected to use financial statements in a meaningful way, and make key managerial decisions particularly with respect to the start-up of an enterprise. Procedural aspects of financial accounting will be discussed in order to enhance your understanding of the content of the financial statements. However, the emphasis of the class is on analyzing the financial condition of an operating company and to make recommendations to the management for improvements.

Course Outcomes

On successful completion, students will be able to

- explain how business activities are captured by financial statements and prepare financial statements from these business events.
- understand the objectives of financial reporting, analyze financial statements, compute key ratios.
- compare and contrast the objectives, characteristics and principles of IFRS reporting in an international context and compare them to national accounting principles (HGB).
- describe IFRS standards as they relate to the recognition, measurement, presentation and disclosure requirements in general purpose financial statements.
- apply accounting knowledge to solve business problems and make informed business decisions.

Contents

1. Financial Accounting as Information Source
    - 1.1 Business activities and the role of accounting
    - 1.2 Basic financial statements
    - 1.3 Key ratios
2. General Accounting Principles
    - 2.1 Conceptual Framework under IFRS
    - 2.2 IFRS for SMEs
    - 2.3 BilMog and HGB in Germany

3. Measuring Performance: Income Statement and Statement of Cash Flow
   - 3.1 Accrual accounting
   - 3.2 Income statement
   - 3.3 Statement of cash flow
   - 3.4 Revenue recognition

4. Reporting and Analysing Assets: Balance Sheet
   - 4.1 Definition of Assets
   - 4.2 Inventory
   - 4.3 Property, plant & equipment
   - 4.4 Intangible assets

5. Reporting and Analysing Liabilities and Equity: Balance Sheet
   - 5.1 Definition of Liabilities and Equity
   - 5.2 Accounting for debt financing
   - 5.3 Accounting for contributed and earned capital

6. Financial Statement Analysis
   - 6.1 Horizontal and vertical Ratio Analysis
   - 6.2 Analysing profitability, liquidity, and solvency
   - 6.3 Using Accounting Information in Valuation

7. Accounting Illustrated – case study
   - 7.1 Application of Accounting principles
   - 7.2 Analysis of Accounting Information
   - 7.3 Recommendations based on Accounting Information

Literature

Compulsory Reading

Further Reading

- Harrison, Walter T., et al. (2017): Financial Accounting. Global Edition, Pearson Education Limited.
- Stittle, John, and Robert T Wearing (2008): Financial Accounting. SAGE Publications.
- Van, Horne, J., et al. (2008): Fundamentals of Financial Management. Pearson Education, Limited.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
	☑ Audio	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	**Course Type**
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
	☑ Audio	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Study Format Duales myStudium

Study Format	**Course Type**
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
	☑ Audio	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Data Analytics and Big Data

Module Code: DLBINGDABD_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Gereon Wellmann (Data Analytics and Big Data)

Contributing Courses to Module

- Data Analytics and Big Data (DLBINGDABD01_E)

Module Exam Type

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

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

Study Format	**Course Type**
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video
- ☑ Slides

Exam Preparation
- ☑ Online Tests
- ☑ Guideline

Fundamentals of Data Protection and IT Security for Non-Technical Programs

Module Code: DLBDBEFDPISNP

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Brian Gannon (Fundamentals of Data Protection and IT Security for Non-Technical Programs)

Contributing Courses to Module

- Fundamentals of Data Protection and IT Security for Non-Technical Programs (DLBDBEFDPISNP01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Basic Concepts and Terminology of Data Protection
- Introduction to GDPR
- Basic Concepts and Terminology of IT Security
- Legal Requirements of IT Security
- Basic Concepts of Cryptology

Learning Outcomes

Fundamentals of Data Protection and IT Security for Non-Technical Programs

On successful completion, students will be able to

- explain and assess the need for data protection according to GDPR, and protection of IT systems.
- apply the essential requirements of data protection in a practical way and explain them by means of examples.
- name important legal requirements on IT security.
- explain and implement basic measures to protect individual computers and IT system on the internet.
- explain the core concepts of IT security management.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Computer Science & Software Development	All Bachelor Programs in the IT & Technology field

Fundamentals of Data Protection and IT Security for Non-Technical Programs

Course Code: DLBDBEFDPISNP01

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

Course Description

The course teaches the essential basics of data protection, based on GDPR, and IT security from the user's perspective. The aim is for participants to be familiar with the key requirements of these topics for companies and other organizations and to be able to initiate and manage their implementation. To this end, the first part of the course introduces terminology, principles, data subjects' rights and essential requirements of data protection and practical examples. The second part then covers the basic concepts of IT security, relevant legal requirements as well as protective measures and encryption concepts.

Course Outcomes

On successful completion, students will be able to

- explain and assess the need for data protection according to GDPR, and protection of IT systems.
- apply the essential requirements of data protection in a practical way and explain them by means of examples.
- name important legal requirements on IT security.
- explain and implement basic measures to protect individual computers and IT system on the internet.
- explain the core concepts of IT security management.

Contents

1. Foundations of Data Protection
   - 1.1 Data Protection as a Personal Right
   - 1.2 Terminology, Roles and Responsibilities
   - 1.3 Legal Foundations of Data Protection and Privacy
   - 1.4 Introduction to GDPR
   - 1.5 Introduction to Legislation on Data Protection and Privacy in the USA
2. Data Protection Requirements According to GDPR
   - 2.1 Data Protection Principles
   - 2.2 Transparency and Right of Access

2.3 Further Rights of Data Subjects
2.4 Processor and Controller
2.5 Export of Data Outside the EU

3. Data Protection in Specific Application Areas
3.1 Data Protection of Employee Data
3.2 Websites and Social Networks
3.3 Data Protection in Online Marketing
3.4 Protection of Health Data

4. Foundations of IT Security
4.1 Motivation and Core Concepts
4.2 Attack Forms and Protective Measures
4.3 Basic Protection of Private Computers and on the Internet
4.4 Critical Infrastructures

5. Compliance and Information Security Management
5.1 Basic Concepts of Security Management
5.2 ISO/IEC 270xx Series
5.3 NIST Security Framework
5.4 EU NIS Directive

6. Basic Concepts of Cryptology
6.1 Motivation and Terminology
6.2 Symmetric Encryption
6.3 Asymmetric Encryption
6.4 Practical Applications

Literature
Compulsory Reading
Further Reading ▪ Chopra, A. & Chaudhary, M. (2019). Implementing an Information Security Management System: Security Management Based on ISO 27001 Guidelines. Apress. https://link-springer-com.pxz.iubh.de:8443/book/10.1007/978-1-4842-5413-4 ▪ European Union (2016). Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). [available on the Internet] ▪ Singh, Simon (2000). The Code Book: Science of Secrecy from Ancient Egypt to Quantum Cryptography. Anchor. ▪ Voigt, P. & von dem Bussche, A. (2017). The EU General Data Protection Regulation (GDPR): A Practical Guide. Springer.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
	☑ Slides	

Project: Design Thinking

Module Code: DLBINGDT_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Inga Schlömer (Project: Design Thinking)

Contributing Courses to Module

- Project: Design Thinking (DLBINGDT01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Basic principles of Design Thinking
- The Design Thinking microvprocess
- The Design Thinking macro process
- Methods for early phases of the process
- Methods for idea generation
- Methods for prototyping and testing
- Space concepts for Design Thinking
- Examples and case studies

Learning Outcomes

Project: Design Thinking

On successful completion, students will be able to

- know the mindset of Design Thinking.
- know the individual phases of the incremental micro cycle and carry them out on an example project.
- know the individual stages of prototyping and apply them in an example project.
- know and use methods and tools for the individual steps of the micro cycle.
- know different space concepts for Design Thinking work environments.
- know examples for the application of Design Thinking by means of business case studies.

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

Project: Design Thinking

Course Code: DLBINGDT01_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 practical introduction to Design Thinking. In addition to teaching the individual basic principles, the procedures in Design Thinking will also be examined in detail. In order not only to understand Design Thinking but also to experience it, selected methods for the individual process steps will be presented and practiced on an example project.

Course Outcomes

On successful completion, students will be able to

- know the mindset of Design Thinking.
- know the individual phases of the incremental micro cycle and carry them out on an example project.
- know the individual stages of prototyping and apply them in an example project.
- know and use methods and tools for the individual steps of the micro cycle.
- know different space concepts for Design Thinking work environments.
- know examples for the application of Design Thinking by means of business case studies.

Contents

1. Basic Principles of Design Thinking
2. The Design Thinking Micro Process
3. The Design Thinking Macro Process
4. Methods for Early Phases of the Process
5. Methods for Idea Generation
6. Methods for Prototyping and Testing
7. Examples and Case Studies

Literature
Compulsory Reading
Further Reading ▪ Brown, T. (2008). Design Thinking. Harvard Business Review, June, 84–95. ▪ Brown, T., & Kātz, B. (2019). Change by design: How design thinking transforms organizations and inspires innovation (Revised and updated edition). Harper Business. ▪ IDEO. (2015). The field guide to human-centered design: Design kit (1st ed.). IDEO. ▪ Lewrick, M., Patrick, L., & Leifer, L. (2018). The design thinking playbook: Mindful digital transformation of teams, products, services, businesses and ecosystems. John Wiley & Sons. ▪ Lewrick, M., Patrick, L., & Leifer, L. (2020). Design Thinking Toolbook. John Wiley & Sons.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods	
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	**Exam Preparation** ☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods	
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	**Exam Preparation** ☑ Guideline

3. Semester

Business Mathematics

Module Code: BWMA_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Andreas Herrmann (Business Mathematics)

Contributing Courses to Module

- Business Mathematics (BWMA01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Mathematical Basics
- Functions of a Single Variable
- Differential Calculus
- Mathematical Optimization
- Functions of Several Variables
- Financial Mathematics
- Further Topics

Learning Outcomes

Business Mathematics

On successful completion, students will be able to

- know the basic business mathematical tools and methods and to apply them to other problems in economics and business administration.
- comprehend and understand mathematical derivations in other modules.
- to arrive at their own analytical conclusions.
- to recognize quantitative relationships by themselves.

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

Business Mathematics

Course Code: BWMA01_E

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

Course Description

Business mathematics is an essential subject that teaches quantitative methods applicable to all areas of economics. As such, students must be able to describe and analyze complex economic processes in a factually logical manner, making economic mathematics a crucial tool in decision-making and optimization. The Business Mathematics course aims to provide students with the fundamental basics of mathematics applicable to business. Furthermore, application examples are used to demonstrate how these mathematical tools can be implemented in real-world business settings. Upon completion of this course, students will be equipped with the skills necessary to solve business problems, comprehend and understand mathematical derivations, derive analytical conclusions and recognize quantitative relationships independently.

Course Outcomes

On successful completion, students will be able to

- know the basic business mathematical tools and methods and to apply them to other problems in economics and business administration.
- comprehend and understand mathematical derivations in other modules.
- to arrive at their own analytical conclusions.
- to recognize quantitative relationships by themselves.

Contents

1. Mathematical Foundations
    - 1.1 Mathematics
    - 1.2 The Sets of Numbers
    - 1.3 Rules for Arithmetic Operations
    - 1.4 Equations
    - 1.5 Inequalities
    - 1.6 Set Theory—A Brief Overview
    - 1.7 Percentage Calculation—A Brief Overview
2. Functions of a Single Variable
    - 2.1 Basic Definitions
    - 2.2 Representation of Functions

2.3 Types of Functions
2.4 Properties of Functions
2.5 Business Applications

3. Differential Calculus
   3.1 Difference and Differential Quotient
   3.2 Derivative Rules
   3.3 Slope and Curvature
   3.4 Business Applications

4. Mathematical Optimization
   4.1 Extreme Points
   4.2 Curve Sketching
   4.3 Business Applications

5. Functions of Several Variables
   5.1 Introduction to the Consideration of Several Variables
   5.2 Differentiation
   5.3 Optimization
   5.4 Business Applications

6. Financial Mathematics
   6.1 Basics
   6.2 Applications

7. Further Topics
   7.1 Integration
   7.2 Linear Algebra
   7.3 Difference and Differential Equations

Literature

Compulsory Reading

Further Reading

- Neill, H., & Johnson, T. (2013). Teach yourself mathematics: A complete introduction. Teach Yourself.
- Sydsæter, K., Hammond, P., Strom, A., & Carvajal, A. (2016). Essential mathematics for economic analysis (5th ed.). Pearson.
- Taylor, R., & Hawkins, S. (2008). Mathematics for economics and business. McGraw-Hill.

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
	☑ Audio	☑ Online Tests
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
	☑ Audio	☑ Online Tests
	☑ Slides	

Management Accounting

Module Code: DLBMAE

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Zeljko Sevic (Management Accounting)

Contributing Courses to Module

- Management Accounting (DLBMAE01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Management accounting and control function
- Differences between management accounting, and financial accounting
- Cost terms, cost categories, and cost behavior
- Cost allocation
- General and specific cost allocation methods
- Break-even analysis
- Planning and budgeting

Learning Outcomes

Management Accounting

On successful completion, students will be able to

- differentiate the management accounting and control function from the financial accounting and the financial management function.
- understand the cost structure and discuss the cost aspects of business operation.
- analyze and apply the tools for viewing and differentiating costs and utilize them to ameliorate business decision-making.
- discuss how the budgeting process and variance analysis works to implement the management control function.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Finance & Tax Accounting	All Bachelor Programs in the Business field

Management Accounting

Course Code: DLBMAE01

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

Course Description

Management accounting is an important function to operate an organization. Managers need to understand this function in order to be able to run an organization efficiently. In most organizations, decisions, actions and human behavior are directly linked to the feature, use and focus of management accounting information. This course is about understanding the preparation and use of information provided by management accounting. Cost accounting as a central part of the management accounting informs the management about the profitability of its core business. The cost and performance measurement serves the internal decision, control and budgeting process.

Course Outcomes

On successful completion, students will be able to

- differentiate the management accounting and control function from the financial accounting and the financial management function.
- understand the cost structure and discuss the cost aspects of business operation.
- analyze and apply the tools for viewing and differentiating costs and utilize them to ameliorate business decision-making.
- discuss how the budgeting process and variance analysis works to implement the management control function.

Contents

1. Introduction to Management Accounting
   - 1.1 Financial vs. Management/Cost Accounting
   - 1.2 Definition of Cost
   - 1.3 Considering the Contemporary Business World Context
   - 1.4 Cost Behavior: Fixed and Variable Costs
2. Cost-Volume-Profit Analysis
   - 2.1 Break-Even Analysis
   - 2.2 Cost Structure and Operating Leverage
   - 2.3 Cost Structure and Variabilization
3. Simplistic Methods of Cost Allocation

3.1 Cost Behavior: Direct and Indirect Costs
3.2 The Need for Cost Allocation
3.3 Predetermined Overhead Rate
3.4 Departmental Overhead Rate
3.5 Over- and Under-Application of Overhead

4. Activity-Based Costing
4.1 The Rationale of Activity-Based Costing
4.2 Implementing Activity-Based Costing

5. Overhead Analysis Sheet
5.1 Departmental Cost Allocation
5.2 Reciprocal Method
5.3 Step Method

6. Relevant Cost Concepts
6.1 Foundational Cost Concepts
6.2 Replacement of Equipment
6.3 Make or Buy
6.4 Special Order
6.5 Drop Product Line

7. Operating Budgets
7.1 The Budgeting Process
7.2 Sales Budget
7.3 Production Budgets
7.4 Administrative Expense Budget
7.5 Budgeted Income Statement

8. Financial Budgets
8.1 Cash Budget
8.2 Conflicts and Pitfalls in Budgeting

Literature
Compulsory Reading
Further Reading ▪ Atkinson, A. A., Kaplan, R., Matsumura, E. M., & Young, S. M. (2012). Management accounting: Information for decision-making and strategy execution (6th ed.). Pearson. ▪ Drury, C. (2019). Management accounting for business (7th ed.). Cengage.

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Written Assessment: Written Assignment, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions		☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Written Assessment: Written Assignment, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions		☑ Guideline

Managerial Economics

Module Code: DLBBWME_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Tolga Ülkü (Managerial Economics)

Contributing Courses to Module

- Managerial Economics (DLBBWME01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Duales myStudium Exam, 90 Minutes Study Format: Distance Learning Exam, 90 Minutes Study Format: myStudies Exam, 90 Minutes	

Weight of Module

see curriculum

Module Contents

- Basics
- The Invisible Hand of the Market
- Consumer Decisions
- Business Decisions I: Full Competition
- Business Decisions II: Partial Competition
- Business Decisions III: Game Theory
- Advanced Microeconomics

Learning Outcomes

Managerial Economics

On successful completion, students will be able to

- understand basic economic interrelationships and apply them to different markets.
- explain the importance of supply, demand and market balance.
- assess the determinants of consumers' willingness to pay.
- discuss the determinants of production decisions and identify peak entrepreneurial strategies.
- assess the influence of different types of markets on production and price decisions.
- analyse strategic interactions between companies.
- critically question traditional economic models on the basis of findings from information and behavioural economics.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Economics	All Bachelor Programs in the Business field

Managerial Economics

Course Code: DLBBWME01_E

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

Course Description

The source for (almost) all economic questions is the issue of scarcity. Building on this insight, this course considers three central elements. First, an analysis of the interplay between supply and demand on markets is made. Secondly, the course will consider the development of insights into the behaviour of consumers in markets. In a third part, the course will focus on entrepreneurial decisions that depend, among other things, on production technology available and competitive conditions in markets. These three core elements are taught from an application-oriented standpoint, in which references to (current) challenges of the management of companies are established. The course includes both the examination of economic theories and their application in business practice.

Course Outcomes

On successful completion, students will be able to

- understand basic economic interrelationships and apply them to different markets.
- explain the importance of supply, demand and market balance.
- assess the determinants of consumers' willingness to pay.
- discuss the determinants of production decisions and identify peak entrepreneurial strategies.
- assess the influence of different types of markets on production and price decisions.
- analyse strategic interactions between companies.
- critically question traditional economic models on the basis of findings from information and behavioural economics.

Contents

1. Basics
   - 1.1 Definitions & Main Topics of Economics
   - 1.2 Thinking like an Economist
2. The Invisible Hand of the Market
   - 2.1 Supply and Demand
   - 2.2 Market Balance
   - 2.3 Flexibility
   - 2.4 Applications

3. Consumer Decisions
   - 3.1 Utility Theory
   - 3.2 Willingness to Pay
   - 3.3 Demand
   - 3.4 Applications

4. Business Decisions I: Full Competition
   - 4.1 Production
   - 4.2 Costs
   - 4.3 Supply
   - 4.4 Applications

5. Business Decisions II: Partial Competition
   - 5.1 Monopoly
   - 5.2 Monopolistic Competition
   - 5.3 Oligopoly

6. Business Decisions III: Game Theory
   - 6.1 Methodology
   - 6.2 Simultaneous Games
   - 6.3 Sequential Games

7. Advanced Microeconomics
   - 7.1 Information Economics
   - 7.2 Behavioural Economics

Literature
Compulsory Reading
Further Reading ▪ Acemoglu, D., Laibson, D., & List, J. A. (2018). Microeconomics (Global edition, 2nd ed.). Pearson. ▪ Case, K. E., Fair, R. C., & Osten, S. M. (2019). Principles of economics (Global edition, 13th ed.). Harlow. ▪ Keat, P. G., & Young, P. K. Y. (2013). Managerial economics (Global Edition, 7th ed.). Pearson Education Limited. ▪ Leyton-Brown, K., & Shoham, Y. (2008). Essentials of game theory: A concise multidisciplinary introduction. Morgan & Claypool. ▪ Parkin, M. (2019). Economics (13th ed.). Harlow. ▪ Pindyck, R. S., & Rubinfeld, D. L. (2017). Microeconomics (9th ed.). Pearson.

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions		

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions		

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions		

Ethics and Legal Aspects in AI

Module Code: DLBAIBEELAAI

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Data Science & Artificial Intelligence	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., Chereshnyuk, 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 myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

Student Workload					
Self Study	**Contact Hours**	**Tutorial/Tutorial Support**	**Self Test**	**Independent Study**	**Hours Total**
90 h	0 h	30 h	0 h	0 h	120 h

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
☑ Recorded Live Sessions	☑ Slides	☑ Online Tests

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
☑ Recorded Live Sessions	☑ Slides	☑ Online Tests

Project: Organizational Development

Module Code: DLBWPPOE_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Gregor Nimz (Project: Organizational Development)

Contributing Courses to Module

- Project: Organizational Development (DLBWPPOE01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

This module deals with a topic within the discipline organizational development. This topic addresses a problem in the field of designing new forms of work.

Learning Outcomes

Project: Organizational Development

On successful completion, students will be able to

- independently familiarize themselves with the basics of organizational development and change management.
- describe various classical and current models and methods of organizational change and evaluate their practical applicability.
- identify relevant current trends in work design and describe them based on theoretical approaches.
- independently develop a specific research question or task in the field of work design and answer this question with the help of theories and methods of organizational development.
- develop their own recommendations for the solution of the problem, which are theoretically justified as well as realizable in practice.
- critically reflect upon their own approach and solution.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Psychology	All Bachelor Programs in the Social Sciences field

Project: Organizational Development

Course Code: DLBWPPOE01_E

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

Course Description

Organizational change is an essential component of management as the speed and magnitude of organizational change has greatly increased. This course deals with a specific topic from the field of organizational development. In particular, it focuses on the redesign of work, which is becoming increasingly crucial for the success of companies due to megatrends such as digitization and demographic change. The development of a concrete and practically relevant concept for the redesign of work is the focus of the course. Contents are on the one hand the new forms of work itself and on the other hand their implementation into an existing context.

Course Outcomes

On successful completion, students will be able to

- independently familiarize themselves with the basics of organizational development and change management.
- describe various classical and current models and methods of organizational change and evaluate their practical applicability.
- identify relevant current trends in work design and describe them based on theoretical approaches.
- independently develop a specific research question or task in the field of work design and answer this question with the help of theories and methods of organizational development.
- develop their own recommendations for the solution of the problem, which are theoretically justified as well as realizable in practice.
- critically reflect upon their own approach and solution.

Contents

- This course is positioned in the context of organizational development and change management as it deals with new forms of organization and work ("New Work") as well was with their implementation into an organization. Hence, it is necessary to get an overview of the basics of new ways of working, e.g., agile ways of working, swarm organization, holacracy or the virtualization of work. In addition, students should familiarize themselves with theoretical and practical models and methods of organizational development and change management in order to use them to address a specific, practice-relevant issue. These consist, for example, in various change models (e.g., Lewin, Kotter) or concepts for the acceptance of change. The essential aspect of this course is the linkage of a solid theoretical basis with concrete and current issues of management practice.

Literature
Compulsory Reading
Further Reading ▪ Kotter, J. (2007). Leading Change. Why Transformation Efforts fail. Harvard Business Review 85, 1-10. ▪ Laloux, F. (2014). Reinventing Organizations: Reinventing Organizations: A Guide to Creating Organizations Inspired by the Next Stage in Human Consciousness. Vahlen, München. ▪ Lauer, T. (2021). Change Management – Fundamentals and Success Factors. Springer Verlag. ▪ Lewin, K. (1947). Frontiers in group dynamics. In Cartwright, D. (Ed.), Field Theory in Social Science. Social Science Paperbacks. ▪ Van de Ven, A. & Poole, M. (1995). Explaining development and change in organizations. Academy of Management Review 20(3), 510-540.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	**Course Type**
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

4. Semester

Statistics

Module Code: BSTA-01_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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
Prof. Dr. Heike Bornewasser-Hermes (Statistics)

Contributing Courses to Module
▪ Statistics (BSTA01-01_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

- Evaluation Methods of One-Dimensional Data
- Evaluation Methods of Two-Dimensional Data
- Fundamentals of Probability Theory
- Special Probability Distributions
- Samples
- Statistical Estimation Procedures
- Hypothesis Testing
- Linear Regression

Learning Outcomes

Statistics

On successful completion, students will be able to

- prepare and present data in tabular and graphical format
- analyze and interpret data and their measures of location and dispersion.
- identify how two variables are related to one another and analyze their relationship.
- describe real conditions in probabilistic terms and evaluate them quantitatively.
- name the most important probability distributions and apply them to real-world problems.
- utilize numerical material from a sample as a basis for drawing conclusions about phenomena in the population.
- perform statistical test procedures and evaluate the results.
- perform regressions and interpret the results.
- critically appraise prepared statistics or statistical analyses

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

Statistics

Course Code: BSTA01-01_E

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

Course Description

The term "statistics" usually describes two phenomena: (i) the tabular and/or graphical processing of data and (ii) statistical methods used to collect, process and draw conclusions from data. From this it immediately follows that confrontation with statistics is ubiquitous - whether in studies, where statistical methods are applied in related courses, in bachelor theses, or in everyday professional life, where managers are confronted daily with statistical analyses that they are required to understand and interpret. The aim of the course is therefore to teach the most essential elements of statistical procedures. Methodologically, the course is comprised of two steps. Firstly, theoretical basics of individual statistical methods are presented and these are deepened by means of smaller examples and (interactive) illustrations. Secondly, the methods learned are studied on the basis of application cases. In terms of content, the course is divided into three parts. Descriptive statistics deals with different forms of data representation. Probability calculation serves above all as the basis for inferential statistics, in which the attempt is made to draw conclusions about the population from a sample.

Course Outcomes

On successful completion, students will be able to

- prepare and present data in tabular and graphical format
- analyze and interpret data and their measures of location and dispersion.
- identify how two variables are related to one another and analyze their relationship.
- describe real conditions in probabilistic terms and evaluate them quantitatively.
- name the most important probability distributions and apply them to real-world problems.
- utilize numerical material from a sample as a basis for drawing conclusions about phenomena in the population.
- perform statistical test procedures and evaluate the results.
- perform regressions and interpret the results.
- critically appraise prepared statistics or statistical analyses

Contents

1. Introduction
    - 1.1 Subject of Statistics
    - 1.2 Basic Concepts of statistics
    - 1.3 Procedure of Statistical Investigations

2. Evaluation Methods of One-Dimensional Data
   - 2.1 Frequency Distributions
   - 2.2 Measures of Central Tendency
   - 2.3 Measures of Dispersion

3. Evaluation Methods of Two-Dimensional Data
   - 3.1 Scatter Diagram and Contingency Table
   - 3.2 Correlation Measures

4. Fundamentals of Probability Theory
   - 4.1 Random Experiments and Events
   - 4.2 Probability of Events
   - 4.3 Random Variables and Their Distribution

5. Special Probability Distributions
   - 5.1 Normal Distribution
   - 5.2 T-Distribution

6. Samples
   - 6.1 Sampling
   - 6.2 Sampling Functions
   - 6.3 Sampling Distributions

7. Statistical Estimation Procedures
   - 7.1 Point Estimate
   - 7.2 Interval Estimation

8. Hypothesis Testing
   - 8.1 Methodology
   - 8.2 Expected Value Test with Known Standard Deviation (Z-Test)
   - 8.3 Expected Value Test with Unknown Standard Deviation (T-Test)

9. Linear Regression
   - 9.1 Regression Line
   - 9.2 Quality Assessment
   - 9.3 Applications

Literature
Compulsory Reading
Further Reading ▪ Carlson, Kieth A., Winquist, Jennifer R. (2021): An Introduction to Statistics: An Active Learning Approach, 3rd Edition, SAGE Publications. ▪ Frost, Jim (2020): Introduction to Statistics: An Intuitive Guide for Analyzing Data and Unlocking Discoveries, 1st Edition, Statistics by Jim Publishing. ▪ Frost, Jim (2020) Hypothesis Testing: An Intuitive Guide for Making Data Driven Decisions, 1st Edition, Statistics by Jim Publishing. ▪ Heumann, C.; Schomaker, M. (2018): Introduction to Statistics an Data Analysis: With Exercises, Solutions an Applications in R, 2nd Edition, Springer. ▪ James, Gareth; Witten, Daniela; Hastie, Trevor; Tibshirani, Robert (2021): An Introduction to Statistical Learning: with Applications in R, 2nd Edition, Spinner. ▪ Pishro-Nik, Hossein (2014): Introduction to Probability, Statistics and Random Process, 1st Edition Kappa Research. ▪ Reid, Howard M. (2014): Introduction to Statistics: fundamental concepts and procedures of data analysis, 1st Edition, SAGE Publications.

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
☑ Recorded Live Sessions	☑ Slides	☑ Online Tests

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods

Tutorial Support	Learning Material	Exam Preparation
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
☑ Recorded Live Sessions	☑ Slides	☑ Online Tests

Artificial Intelligence

Module Code: DLBDSEAIS1

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Kristina Schaaff (Artificial Intelligence)

Contributing Courses to Module

- Artificial Intelligence (DLBDSEAIS01)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Exam, 90 Minutes Study Format: Distance Learning Exam, 90 Minutes Study Format: Duales myStudium Exam, 90 Minutes	

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

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Corporate Finance and Investment

Module Code: DLBCFIE

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

Contributing Courses to Module

- Corporate Finance and Investment (DLBCFIE01)

Module Exam Type

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

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	**Links to other Study Programs of the University**
This module is similar to other modules in the fields of Finance & Tax Accounting	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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Written Assignment

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Written Assignment

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
	☑ Audio	
	☑ Slides	

Seminar: Current Topics in Digitalization

Module Code: DLBDBATD_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field(s) of Computer Science & Software Development.	All 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

Study Format	Course Type
myStudies	Seminar

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Research Essay

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Research Essay

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint	☑ Slides	☑ Guideline

Project: New Work

Module Code: DLBPEPNW_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Dr. Anna Meindl (Project: New Work)

Contributing Courses to Module

- Project: New Work (DLBPEPNW01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Portfolio Study Format: myStudies Portfolio	

Weight of Module

see curriculum

Module Contents

The course deals with the managerial, organizational and workplace changes affecting companiesas 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	Links to other Study Programs of the University
This module is similar to other modules in the fields of Human Resources	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 ttheir echnical, 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. PagraveMacmillan.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	**Course Type**
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

5. Semester

Corporate Communication

Module Code: DLBPRWCCPR1_E

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

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

Module Coordinator

Prof. Dr. Jonathan Black-Branch (Corporate Communication)

Contributing Courses to Module

- Corporate Communication (DLBPRWCCPR01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Corporate Identity
- Corporate Design
- Corporate Image
- Corporate Communication as a Sub-Discipline of Corporate Communications
- Differentiation From Public Relations

Learning Outcomes

Corporate Communication

On successful completion, students will be able to

- comprehend the essence of corporate identity, corporate design and corporate image, differentiate them from and relate them to one another.
- understand and explain corporate communication as a sub-discipline of corporate communications.
- distinguish corporate communication from public relations.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Public Relations Management	All Bachelor Programs in the Marketing & Communication field

Corporate Communication

Course Code: DLBPRWCCPR01_E

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

Course Description

In this course students are encouraged to fully grasp all internal and external communication activities of a company. Corporate communication is part of corporate identity and serves to communicate the corporate image. Here, for example, the focus can be on "sustainability" or "being hip". With the rise of saturated markets and global competition, the corporate image is becoming increasingly important. Corporate image and communication are increasingly becoming competitive advantages because it is becoming more and more difficult for companies to achieve and maintain product-related competitive advantages.This course combines targeted theoretical and strategic principles with practical knowledge of the content, methods, instruments and structures of corporate communication.

Course Outcomes

On successful completion, students will be able to

- comprehend the essence of corporate identity, corporate design and corporate image, differentiate them from and relate them to one another.
- understand and explain corporate communication as a sub-discipline of corporate communications.
- distinguish corporate communication from public relations.

Contents

1. Introduction to Corporate Communication
   - 1.1 Principles and Definitions
   - 1.2 Internal vs. External Corporate Communications
   - 1.3 Image Building and Brand Development
   - 1.4 Best Practice Examples in an International Context
2. Corporate Communication and PR
   - 2.1 Sub-Disciplines of Corporate Communications
   - 2.2 Differentiation from Public Relations
   - 2.3 Historical Development and Milestones
3. Corporate Philosophy as a Means of Corporate Management
   - 3.1 Corporate Soul

3.2 Corporate Language
3.3 Corporate Culture

4. Corporate Identity in Focus
   4.1 Visual Branding: Corporate Design
   4.2 Non-Visual Branding: Corporate Identity

5. Corporate Communication and Digitalization
   5.1 Challenges of Multi-Channel Communication
   5.2 Outlook: Trends and Developments in the Age of Digitalization

Literature

Compulsory Reading

Further Reading

- Argenti, P. A. (2022). Corporate communication (8th ed.). McGraw Hill.
- Brinkert, R., & Chewning, L. V. (2020). Strategic corporate communication: Core concepts for managing your career and your clients' brands. Cognella Academic Publishing.
- Cornelissen, J. P. (2017). Corporate communication: A guide to theory and practice (5th ed.). Sage Publications.
- Field, J. (2021). Influential internal communication: Streamline your corporate communication to drive efficiency and engagement. Kogan Page.
- Schneider, B., & Barbera, K. M. (2014). The Oxford handbook of organizational climate andculture. Oxford University Press.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Customer Relationship Management

Module Code: DLBCRM_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Tanja Moehler (Customer Relationship Management)

Contributing Courses to Module

- Customer Relationship Management (DLBCRM01_E)

Module Exam Type

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

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Marketing & Sales	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

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions		

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video

Exam Preparation
- ☑ Practice Exam
- ☑ Online Tests

Database Modeling and Database Systems

Module Code: DLBCSDMDS

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Carsten Skerra (Database Modeling and Database Systems)

Contributing Courses to Module

- Database Modeling and Database Systems (DLBCSDMDS01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Fundamentals of Relational Databases
- Simple Database Queries
- Entity/Relationship (E/R) Diagrams
- Database Development
- Complex Database Queries Across Multiple Tables
- Changing Data in Databases
- NoSQL Database Systems

Learning Outcomes

Database Modeling and Database Systems

On successful completion, students will be able to

- describe the basic concepts of the relational data model and distinguish them from each other.
- visually model data schemas.
- know SQL queries, read data from databases, change the data stock, and have experience in their use.
- design, create, and modify SQL queries and data schemas for SQL databases, and have experience using them.
- independently design database schemas and create database queries to solve concrete problems.
- know the most important NoSQL concepts and distinguish them from each other.

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

Database Modeling and Database Systems

Course Code: DLBCSDMDS01

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

Course Description

Stored data form the basis of many value chains of an information and knowledge society. The methodical structuring of data through data schemas therefore forms an important basis for storing information in such a way that it can be retrieved and processed quickly and easily. In addition to the structured storage of data, structured access to large amounts of data must also be possible.This course teaches students how to store data in relational data models and how to access stored data with SQL. In addition to relational database systems, modern DB systems (NoSQL) for storing and accessing data will be presented.

Course Outcomes

On successful completion, students will be able to

- describe the basic concepts of the relational data model and distinguish them from each other.
- visually model data schemas.
- know SQL queries, read data from databases, change the data stock, and have experience in their use.
- design, create, and modify SQL queries and data schemas for SQL databases, and have experience using them.
- independently design database schemas and create database queries to solve concrete problems.
- know the most important NoSQL concepts and distinguish them from each other.

Contents

1. Fundamentals of Relational Databases
   - 1.1 Basic Concepts of the Relational Data Model
   - 1.2 Find and Delete Records in the Database
   - 1.3 SQL and Relational Database Systems
2. Querying Data from a Single Table
   - 2.1 Query Data (SELECT)
   - 2.2 Query Data With Condition (WHERE)
   - 2.3 Sort Query Output (ORDER BY)
   - 2.4 Queries With Group Formation (GROUP BY)

2.5 Subqueries With Nested SELECT Statements

3. Conception and Modeling of Relational Databases
   - 3.1 The Entity Relationship Model
   - 3.2 Relationships and Cardinalities in E/R Models
   - 3.3 Normal Forms of Databases

4. Creation of Relational Databases
   - 4.1 Logical Database Design Activities
   - 4.2 Mapping of the Conceptual Data Model into the Physical Data Model
   - 4.3 Generation of Tables in SQL Databases from E/R Diagrams

5. Complex Database Queries on Multiple Tables
   - 5.1 Composite Quantities (JOIN)
   - 5.2 Set Operations
   - 5.3 Data Views With CREATE VIEW

6. Manipulating Records in Databases
   - 6.1 Insert New Data Records (INSERT)
   - 6.2 Change Existing Records
   - 6.3 Transactions

7. NoSQL Database Systems
   - 7.1 Motivation and Basic Idea
   - 7.2 Selected Groups of NoSQL Systems

Literature

Compulsory Reading

Further Reading

- Date, C.J. (2019). Database design and relational theory: Normal forms and all that jazz (2nd ed.). Apress.
- Elmasri, R., & Navathe, S. (2017). Fundamentals of database systems (7th ed., global ed.). Pearson.
- Esakkirajan, S., & Sumathi, S. (2007). Fundamentals of relational database management systems [electronic resource] : Springer.
- Foster, E. C., & Godbole, S. V. (2016). Database systems: a pragmatic approach (2nd ed.). Apress.
- W3Schools (2020). SQL Tutorial.

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Operations Research

Module Code: DLBBAEFOR1_E

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

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

Module Coordinator

Prof. Dr. Manuela Ender (Operations Research)

Contributing Courses to Module

- Operations Research (DLBBAEFOR01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Exam or Written Assessment: Case Study, 90 Minutes Study Format: myStudies Exam or Written Assessment: Case Study, 90 Minutes	

Weight of Module

see curriculum

Module Contents

- Quantitative decision support
- Linear optimization
- Graph theory
- Network planning and project management
- Simulation
- Queuing systems

Learning Outcomes

Operations Research

On successful completion, students will be able to

- describe the essential methodological foundations of optimization problems and their applications in various areas.
- know basic procedures from the fields of decision analysis, linear optimization, and integer linear optimization.
- apply various methods of decision support theoretically and also tool supported.
- model operational planning and decision problems such as transport problems or network flow problems and understand algorithms to solve these problems effectively.
- know the essential properties of these algorithms and applications relevant to business management.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Planning & Controlling	All Bachelor Programs in the Business field

Operations Research

Course Code: DLBBAEFOR01_E

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

Course Description

The term Operations Research (OR) refers to the development and application of quantitative models and methods for decision support in companies and organizations. Applications can be found in all areas of business administration, especially in production planning, supply chain management, distribution, location planning, warehousing, personnel planning and scheduling, as well as financial planning. This course introduces OR and its applications. The terminological fundamentals of the problem, model and method are presented. Further emphasis is put on graphs and basic graph algorithms. In addition, the course focuses on linear optimization, especially linear programs, simplex methods and sensitivity analysis. A special focus is the modelling of economic problems (decision, planning and optimization problems). Basic computer skills relevant for operations research are presented by means of spreadsheet calculation (esp. Microsoft Excel).

Course Outcomes

On successful completion, students will be able to

- describe the essential methodological foundations of optimization problems and their applications in various areas.
- know basic procedures from the fields of decision analysis, linear optimization, and integer linear optimization.
- apply various methods of decision support theoretically and also tool supported.
- model operational planning and decision problems such as transport problems or network flow problems and understand algorithms to solve these problems effectively.
- know the essential properties of these algorithms and applications relevant to business management.

Contents

1. Introduction to Quantitative Decision Support
    - 1.1 Definition: Operations Research as a Structured Problem-Solving Approach
    - 1.2 Terminology: Models, Methods, and Algorithms
    - 1.3 Decision Support and Decision Theory
    - 1.4 Fields and Applications of Operations Research
    - 1.5 Software Applications in Operations Research

2. Fundamentals of Linear Optimization
   - 2.1 Definition: Linear Optimization and Properties
   - 2.2 Forms of Linear Optimization
   - 2.3 Simplex Algorithm
   - 2.4 Special Cases and Sensitivity Analysis

3. Application of Linear Optimization
   - 3.1 Production Program Planning
   - 3.2 Supply Chain Management and the Transport Problem
   - 3.3 Financing and Investment
   - 3.4 Game Theory

4. Further Optimization Approaches
   - 4.1 Integer and Combinatorial Optimization
   - 4.2 Application: Branch-And-Bound Procedures
   - 4.3 Dynamic Optimization
   - 4.4 Nonlinear Optimization

5. Graph Theory
   - 5.1 Fundamentals and Concepts of Graph Theory
   - 5.2 Structural Modelling Using Graphs
   - 5.3 Shortest Paths in Graphs

6. Network Planning and Project Management
   - 6.1 Elements and Methods of Network Planning
   - 6.2 Structure, Time Planning, and Gantt charts
   - 6.3 Cost and Capacity Planning

7. Simulation and Queuing Systems
   - 7.1 Basic Types of Simulation
   - 7.2 Deterministic Simulation: Systems and Model Experiments
   - 7.3 Stochastic Simulation: Waiting Queue Systems and Models
   - 7.4 Applications of Simulation

8. Application: Operations Research Implementation with a Spreadsheet
   - 8.1 Integer Linear Optimization
   - 8.2 Shortest Paths in Graphs and Traveling Salesman Problems
   - 8.3 Simulation of a Queue Problem

Literature
Compulsory Reading
Further Reading ▪ Eiselt, H. A./Sandblom, C.-L. (2013): Operations research: A model-based approach. 2nd ed., Springer Texts in Business and Economics, Berlin. ▪ Khachay, M./Kochetov, Y./Pardalos, P. (Eds.) (2019): Mathematical Optimization Theory and Operations Research: 18th International Conference, MOTOR 2019, Ekaterinburg, Russia, July 8-12, 2019, Proceedings. 1st ed., Springer International Publishing, Cham. ▪ Poler, R./Mula, J./Díaz-Madroñero, M. (2016): Operations research problems: Statements and solutions. Softcover reprint of the original 1st edition 2014, Springer, London. ▪ Sharma, J. K. (2016): Operations research: Theory and applications. 6th ed., Trinity Press, New Delhi.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Written Assessment: Case Study, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam or Written Assessment: Case Study, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Audio	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Introduction to NLP

Module Code: DLBAIINLP

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Kristina Schaaff (Introduction to NLP)

Contributing Courses to Module

- Introduction to NLP (DLBAIINLP01)

Module Exam Type

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

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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Project: AI Excellence with Creative Prompting Techniques

Module Code: DLBPKIEKPT1_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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	Split Exam
Study Format: myStudies Oral Project Report Study Format: Duales myStudium Oral Project Report Study Format: Distance Learning Oral Project Report	

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Data Science & Artificial Intelligence	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-though prompting elicit reasoning in large language models. arXiv. https://arxiv.org/pdf/2201.11903.pdf

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Introduction to Programming with Python

Module Code: DLBDSIPWP

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Dr. Cosmina Croitoru (Introduction to Programming with Python)

Contributing Courses to Module

- Introduction to Programming with Python (DLBDSIPWP01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Python as a programming language for data science
- Variables and built-in datatypes
- Statements and functions
- Error and exception handling
- Important Python data science modules

Learning Outcomes

Introduction to Programming with Python

On successful completion, students will be able to

- use fundamental Python syntax.
- recollect common elementary data types.
- recognize foundational programming concepts and their realization in Python.
- understand error handling and logging.
- create working programs.
- list the most important libraries and packages for data science.

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

Introduction to Programming with Python

Course Code: DLBDSIPWP01

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

Course Description

This course provides students with a foundational understanding of the Python programming language. Following an introductory exposition to the importance of Python for data science-related programming tasks, students will be acquainted with fundamental programming concepts like variables, data types, and statements. Building on this basis, the important notion of a function is explained and errors, exception handling, and logging are explicated. The course concludes with an overview of the most widely-used library packages for data science.

Course Outcomes

On successful completion, students will be able to

- use fundamental Python syntax.
- recollect common elementary data types.
- recognize foundational programming concepts and their realization in Python.
- understand error handling and logging.
- create working programs.
- list the most important libraries and packages for data science.

Contents

1. Introduction
   - 1.1 Why Python?
   - 1.2 Obtaining and installing Python
   - 1.3 The Python interpreter , IPython, and Jupyter
2. Variables and Data Types
   - 2.1 Variables and value assignment
   - 2.2 Numbers
   - 2.3 Strings
   - 2.4 Collections
   - 2.5 Files
3. Statements
   - 3.1 Assignment, expressions, and print

3.2 Conditional statements
3.3 Loops
3.4 Iterators and comprehensions

4. Functions
   4.1 Function declaration
   4.2 Scope
   4.3 Arguments

5. Errors and Exceptions
   5.1 Errors
   5.2 Exception handling
   5.3 Logs

6. Modules and Packages
   6.1 Usage
   6.2 Namespaces
   6.3 Documentation
   6.4 Popular data science packages

Literature

Compulsory Reading

Further Reading

- Barry, P. (2016). Head first Python: A brain-friendly guide. O'Reilly Media, Inc.
- Kapil, S. (2019). Clean Python: Elegant coding in Python. Apress.
- Lubanovic, B. (2019). Introducing Python (2nd ed.). O'Reilly.
- Lutz, M. (2013). Learning Python (5th ed.). O'Reilly.
- Matthes, E. (2015). Python crash course: A hands-on, project-based introduction to programming. No Starch Press.
- Müller, A. C., & Guido, S. (2016). Introduction to machine learning with Python: A guide for data scientists. O'Reilly Media, Inc.
- Ramalho, L. (2015). Fluent Python: Clear, concise, and effective programming. O'Reilly.

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Object-oriented Programming with Java

Module Code: DLBCSOOPJ

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Damir Ismailovic (Object-oriented Programming with Java)

Contributing Courses to Module

- Object-oriented Programming with Java (DLBCSOOPJ01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Introduction to the Java language
- Java language constructs
- Introduction to object-oriented system developement
- Inheritance
- Object-oriented concepts
- Exception handling
- Interfaces

Learning Outcomes

Object-oriented Programming with Java

On successful completion, students will be able to

- describe the basic concepts of object-oriented modeling and programming, distinguishing them from one another.
- describe the basic concepts and elements of the Java programming language and have some experience in their use.
- independently create Java programs to solve concrete problems.

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

Object-oriented Programming with Java

Course Code: DLBCSOOPJ01

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

Course Description

Operational information systems are usually planned and programmed to be object-oriented. Therefore, this course teaches the basic skills of object-oriented programming. Theoretical concepts are presented and practiced directly with the programming language Java.

Course Outcomes

On successful completion, students will be able to

- describe the basic concepts of object-oriented modeling and programming, distinguishing them from one another.
- describe the basic concepts and elements of the Java programming language and have some experience in their use.
- independently create Java programs to solve concrete problems.

Contents

1. Introduction to Object-Oriented System Development
   - 1.1 Object Orientation as a Way of Looking at Complex Systems
   - 1.2 The Object as a Basic Concept of Object Orientation
   - 1.3 Phases in the Object-Oriented Development Process
   - 1.4 Basic Principle of Object-Oriented System Development
2. Introduction to Object-Oriented Modeling
   - 2.1 Structuring Problems With Classes
   - 2.2 Identifying Classes
   - 2.3 Attributes as Properties of Classes
   - 2.4 Methods as Functions of Classes
   - 2.5 Associations between Classes
   - 2.6 Unified Modeling Language (UML)
3. Programming Classes in Java
   - 3.1 Introduction to the Java Programming Language
   - 3.2 Basic Elements of a Class in Java
   - 3.3 Attributes in Java

3.4 Methods in Java
3.5 Main Method: Starting Point of a Java Program

4. Java Language Constructs
4.1 Primitive Data Types
4.2 Variables
4.3 Operators and Expressions
4.4 Control Structures
4.5 Packages and Visibility Modifiers .

5. Inheritance
5.1 Modeling and Inheritance in the Class Diagram
5.2 Programming Inheritance in Java

6. Important Object-Oriented Concepts
6.1 Abstract Classes
6.2 Polymorphism
6.3 Static Attributes and Methods

7. Constructors for Generating Objects
7.1 The Standard Constructor
7.2 Overloading Constructors
7.3 Constructors and Inheritance

8. Handling Exceptions with Exceptions
8.1 Typical Scenarios of Exception Handling
8.2 Standard Exceptions in Java
8.3 Defining Your Own Exceptions

9. Programming Interfaces with Interfaces
9.1 Typical Scenarios of Programming Interfaces
9.2 Interfaces as Programming Interfaces in Java

Literature
Compulsory Reading
Further Reading

- Freeman, E., Robson, E., Bates, B., & Sierra, K. (2014). Head first design patterns (A brain friendly guide). O'Reilly Media.
- Gamma, E., Helm, R., Johnson, R., & Vlissides, J. (1995). Design patterns: Elements of re-usable object-oriented software. Addison-Wesley.
- Liang, Y. D. (2018). Introduction to Java programming and data structures. Pearson Education.
- Liguiori, L. & Liguori, P. (2008). Java pocket guide: Instant help for Java. O'Reilly Media.
- Oracle (2017). The Java tutorials. Available online.
- Samoylov, N. (2019). Learn Java 12 programming: A step-by-step guide to learning essential concepts in Java SE 10, 11, and 12. Packt Publishing.
- Weisfeld M. (2019). The object-oriented thought process (5th ed.). Addison-Wesley.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Principles of Management

Module Code: DLBBAPM_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Andreas Herrmann (Principles of Management)

Contributing Courses to Module

- Principles of Management (DLBBAPM01_E)

Module Exam Type

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

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	Links to other Study Programs of the University
This module is similar to other modules in the fields of Business Administration & Management	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 und 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

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
	☑ Audio	
	☑ Slides	

Introduction to New Work

Module Code: DLBNWENW_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Stefanie Rödel (Introduction to New Work)

Contributing Courses to Module

- Introduction to New Work (DLBNWENW01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Working World of the Future
- Concept Development
- New Work as an Interdisciplinary Approach
- Megatrends
- Effects of Agile Organization Forms
- Leadership and Cooperation in New Work
- Empowerment
- Competence Development
- General Conditions

Learning Outcomes

Introduction to New Work

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.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Human Resources	All Bachelor Programs in the Human Resources field

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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods

Tutorial Support	Learning Material	Exam Preparation
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	**Course Type**
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Deep Learning in Business Contexts: Predictive Analytics

Module Code: DLBAIBEDLBCPA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBDSEAIS01	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

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	Split Exam
Study Format: Distance Learning Exam, 90 Minutes	

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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Review Book
☑ Recorded Live Sessions		☑ Online Tests

Introduction to Low-Code Development

Module Code: DLBDBEILCD

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Tianxiang Lu (Introduction to Low-Code Development)

Contributing Courses to Module

- Introduction to Low-Code Development (DLBDBEILCD01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Definition of Low-Code, No-Code and Citizen Development
- Areas of Application and Advantages and Disadvantages of Low-Code Development
- Low-Code and No-Code Platforms and Vendor Landscape
- Frameworks and Patterns in Low-Code Programming
- Data Models in Low-Code Development
- User Interface Design in Low-Code Development

Learning Outcomes

Introduction to Low-Code Development

On successful completion, students will be able to

- reflect what is considered low-code, no-code and citizen development.
- approach low-code projects methodically and to evaluate the importance of business process modeling in this context.
- classify which environments and platforms exist for low-code development.
- evaluate which data models are relevant in low-code development.
- discuss which patterns are applied in low-code programming and for what purpose.
- configure applications from software modules and made them available on different end devices.

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

Introduction to Low-Code Development

Course Code: DLBDBEILCD01

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

Course Description

Low-code programming offers considerable potential for the digitization and optimization of business processes. Thus, in the context of low-code programming, in contrast to classic software development, it is possible to create software applications without advanced programming knowledge by means of a graphical user interface. Low-code is a type of app development that uses visual, model-based development methods to reduce time to value. In the process, agile development methods enable cross-team collaboration and the rapid creation and deployment of cloud-based applications. In addition, low-code platforms reduce the burden on non-expert programmers by eliminating the need to write code, while supporting professional developers by abstracting tedious installation and infrastructure tasks during application development. Against this background, this course will explain the historical background and the conceptual foundations of low-code, no-code, and citizen development. Furthermore, the significance as well as advantages and disadvantages of the concepts will be clarified. Important platforms and the technological framework conditions are also presented. Finally, the typical phases in the low-code and no-code application lifecycle as well as important areas of application are also discussed in detail.

Course Outcomes

On successful completion, students will be able to

- reflect what is considered low-code, no-code and citizen development.
- approach low-code projects methodically and to evaluate the importance of business process modeling in this context.
- classify which environments and platforms exist for low-code development.
- evaluate which data models are relevant in low-code development.
- discuss which patterns are applied in low-code programming and for what purpose.
- configure applications from software modules and made them available on different end devices.

Contents

1. History and Conceptual Basics
    - 1.1 Origin and Emergence of Low-Code and No-Code Concepts
    - 1.2 Definition of the Low-Code and No-Code Concept
    - 1.3 The Major Characteristics of Today's Low-Code and No-Code Tools

1.4 Building Blocks of Low-Code and No-Code Concepts
1.5 The Low-Code and No-Code Application Lifecycle

2. Unleashing Low-Code, No-Code, and Citizen Developers
2.1 Reimagining Application Development in the Age of Digital Transformation
2.2 The Understanding and Relevance of the Citizen Developer
2.3 The Relevance of Business Process Modeling
2.4 Opportunities and Benefits of Low-Code- and No-Code Development
2.5 Limitations and Risks of Low-Code and No-Code Application

3. Platforms and Vendor Landscape
3.1 A Burgeoning Industry
3.2 Major Subcategories within the Vendor Landscape
3.3 Contextualizing Low-Code and No-Code Platforms
3.4 Important Vendors at a Glance
3.5 Evaluating Existing Tools and Concepts

4. Strategies, Frameworks, and Technological Environment
4.1 Tech Strategies
4.2 Integration of Agile Development Methods and Cross-Team Collaboration
4.3 Low-Code and No-Code Frameworks
4.4 Data Models in Low-Code and No-Code Development
4.5 User Interface Design in Low-Code and No-Code Development

5. Phases in the Low-Code and No-Code Application Lifecycle
5.1 Planning and Gathering Requirements
5.2 Design, Development, and Testing
5.3 Deploy and Launch
5.4 Support, Maintenance, and Documentation
5.5 Retirement

6. Application, Cases Studies, and Future Outlook
6.1 Evaluating and Learning New Low-Code and No-Code Tools
6.2 Configurating and Deploying Low-Code and No-Code Applications
6.3 Case Study: Microsoft Power Platform
6.4 Case Study: Mendix
6.5 The Next Frontier in Business Applications

Literature
Compulsory Reading
Further Reading ▪ Di Ruscio, D., Kolovos, D., Lara, J. de, Pierantonio, A., Tisi, M. & Wimmer, M. (2022). Low-Code Development and Model-Driven Engineering: Two Sides of the Same Coin? Software and Systems Modeling, 21(2), 437–446. ▪ Leung, T. (2021). Beginning Power Apps: The Non-Developer's Guide to Building Business Applications. Springer eBook Collection. Apress. ▪ Sahay, A., Indamutsa, A., Di Ruscio, D. & Pierantonio, A. (2020). Supporting the Understanding and Comparison of Low-Code Development Platforms. In 2020 46th Euromicro Conference on Software Engineering and Advanced Applications (SEAA) (S. 171–178). IEEE. ▪ Sanchis, R., García-Perales, Ó., Fraile, F. & Poler, R. (2020). Low-Code as Enabler of Digital Transformation in Manufacturing Industry. Applied Sciences, 10(1), 12.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Salesforce Platform Developer

Module Code: DLSFPD2

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Thomas Bolz (Salesforce Platform Developer)

Contributing Courses to Module

- Salesforce Platform Developer (DLSFPD02)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Oral Project Report Study Format: Duales myStudium Oral Project Report Study Format: myStudies Oral Project Report	

Weight of Module

see curriculum

Module Contents

Using the learning platform Trailhead students will learn how to develop own applications, built from various parts of the Salesforce platform. At the end of the course they will be able to use Apex, Visualforce and basic Lightning components. This course prepares the students for the Salesforce Platform Developer I Certification.

Learning Outcomes

Salesforce Platform Developer

On successful completion, students will be able to

- develop own applications using Apex and basic Lightning components,
- write SOSL, SOQL and DML statements,
- use Visualforce to build custom user interfaces for mobile and web apps,
- build reusable, performant components that follow modern web standards,
- use the built-in testing framework to test Apex and Visualforce.

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

Salesforce Platform Developer

Course Code: DLSFPD02

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

Course Description

The Salesforce platform not only forms the foundation of core Salesforce products like Sales Cloud and Service Cloud, but it is also possible to build own functionalities and own applications. Using the learning platform Trailhead, students will learn how to use the programmatic pillars of the Salesforce platform: Lightning components, Apex and Visualforce. This course prepares students for the Salesforce Platform Developer I Certification.

Course Outcomes

On successful completion, students will be able to

- develop own applications using Apex and basic Lightning components,
- write SOSL, SOQL and DML statements,
- use Visualforce to build custom user interfaces for mobile and web apps,
- build reusable, performant components that follow modern web standards,
- use the built-in testing framework to test Apex and Visualforce.

Contents

- The content on the learning platform focuses on the development of own functionality and own applications, built from various parts of the Salesforce platform. The content enables to use the programmatic elements Lightning components, Apex and Visualforce. Furthermore, knowledge is provided for data modeling, process automation, user interface design, testing and deployment. Thus, the content of this course enables to extend Salesforce by individual applications to cover the needs in customer organizations.

Literature

Compulsory Reading

Further Reading

- Salesforce (2020): Developer Documentation. (URL: https://developer.salesforce.com/docs/ [accessed: 12.12.2020])

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint	☑ Slides	☑ Guideline

Online Marketing

Module Code: DLBMSM1-01_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

Contributing Courses to Module

- Online Marketing (DLBMSM01-01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Written Assessment: Written Assignment Study Format: Duales myStudium Written Assessment: Written Assignment Study Format: myStudies Written Assessment: Written Assignment	

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Online & Social Media Marketing	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 (GDRP) 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

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Written Assignment

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Written Assignment

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

Instructional Methods

Tutorial Support	Learning Material	Exam Preparation
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Written Assignment

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Project: Campaigns in Social Media

Module Code: DLBOMPSMK_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

(Project: Campaigns in Social Media)

Contributing Courses to Module

- Project: Campaigns in Social Media (DLBOMPSMK01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Portfolio	

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Marketing & Sales	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

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods	
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	**Exam Preparation** ☑ Guideline

Advanced Data Analysis

Module Code: DLBDSEDA1

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Thomas Zöller (Advanced Data Analysis)

Contributing Courses to Module

- Advanced Data Analysis (DLBDSEDA01)

Module Exam Type

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

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

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
☑ Recorded Live Sessions	☑ Slides	

Business Intelligence and Data Visualization

Module Code: DLBAIBEBIDV

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBDSEDA01	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. (Business Intelligence and Data Visualization)

Contributing Courses to Module

- Business Intelligence and Data Visualization (DLBAIBEBIDV01)

Module Exam Type

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Data Science & Artificial Intelligence	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	DLBDSEDA01

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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Written Assignment

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions		

Augmented, Mixed and Virtual Reality

Module Code: DLBMIAMVR1_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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	Split Exam
Study Format: Distance Learning Exam, 90 Minutes Study Format: myStudies Exam, 90 Minutes Study Format: Duales myStudium Exam, 90 Minutes	

Weight of Module

see curriculum

Module Contents

- Definition and Differentiation of Terms
- Fields of Application and Examples
- Aspects of Human Perception
- Augmented and Virtual Reality Output Devices
- Input Devices
- Interaction in Virtual and Augmented Realities
- Aspects of XR Application Development
- Future of XR Technologies

Learning Outcomes

Augmented, Mixed and Virtual Reality

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.

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

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 ▪ Billinghurst, 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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Big Data Technologies

Module Code: DLBDSBDT

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBCSDMDS01	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

Prof. Dr. Christian Müller-Kett (Big Data Technologies)

Contributing Courses to Module

- Big Data Technologies (DLBDSBDT01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Data types and data sources
- Text-based and binary data formats
- Distributed systems
- Streaming frameworks
- NoSQL approach to data storage

Learning Outcomes

Big Data Technologies

On successful completion, students will be able to

- name types and sources of data.
- understand text-based and binary data formats.
- analyze the requirements and constraints of distributed analysis systems.
- evaluate the applications of streaming frameworks.
- describe the motivation for NoSQL data stores and categorize pertaining established concepts.

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

Big Data Technologies

Course Code: DLBDSBDT01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBCSDMDS01

Course Description

Data are often considered the “new oil”, the raw material from which value is created. To harness the power of data, the data need to be stored and processed on a technical level. This course introduces the four “Vs” of data, as well as typical data sources and types. The course discusses the most common data storage formats encountered in modern systems, focusing both on text-based as well as binary data formats.Handling large amounts of data poses significant challenges for the underlying infrastructure. The course discusses the most important distributed and streaming data handling frameworks which are used in leading edge applications.

Course Outcomes

On successful completion, students will be able to

- name types and sources of data.
- understand text-based and binary data formats.
- analyze the requirements and constraints of distributed analysis systems.
- evaluate the applications of streaming frameworks.
- describe the motivation for NoSQL data stores and categorize pertaining established concepts.

Contents

1. Data Types and Data Sources
   - 1.1 The 4Vs of data: volume, velocity, variety, veracity
   - 1.2 Data sources
   - 1.3 Data types
2. Working with Common Data Formats
   - 2.1 Text-Based Formats (CSV, XML, JSON)
   - 2.2 Binary Formats (HDF5, Parquet, Arrow)
3. NoSQL data stores
   - 3.1 Introduction and motivation
   - 3.2 Approaches and technical concepts
4. Distributed Systems

4.1 Hadoop & MapReduce
4.2 Hadoop file system (HDFS)
4.3 Spark
4.4 DASK

5. Streaming Frameworks
5.1 Spark streaming
5.2 Kafka

Literature
Compulsory Reading
Further Reading ▪ Kleppmann, M. (2017). Designing data-intensive applications: The big ideas behind reliable, scalable, and maintainable systems. O'Reilly. ▪ White, T. (2015). Hadoop: The definitive guide. O'Reilly.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods

Tutorial Support	Learning Material	Exam Preparation
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Project: Software Development with AI

Module Code: DLBSEPPSD-01_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

(Project: Software Development with AI)

Contributing Courses to Module

- Project: Software Development with AI (DLBSEPPSD01-01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Oral Project Report	

Weight of Module

see curriculum

Module Contents

The software development project offers students the opportunity to building on the subject-specific study components to gain practical experience in the field of AI-supported software development. For this purpose any software is to be implemented, e.g. a comprehensive smartphone app, a web application or a set of microservices hosted in the cloud, which together fulfill a complex business need. In principle, the Software should be able to solve a relevant practical problem be able to solve. Students should demonstrate how they have used AI-based code generation Tools to develop the solution.

Learning Outcomes

Project: Software Development with AI

On successful completion, students will be able to

- identify relevant problems from the professional environment of software developers and explain them to an interested audience.
- apply established procedures with the help of AI-supported code generation to find a software-based solution to a problem.
- identify relevant technologies, programming languages and software libraries for the solution and to put the software into operation in a suitable infrastructure suitable infrastructure.
- evaluate the Output with regard to its suitability for solving the practical problem.
- present the problem, the solution and the way to get there in an understandable and clear way in an understandable and clear way.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the fields of Computer Science & Software Development	All Bachelor Programs in the IT & Technology field

Project: Software Development with AI

Course Code: DLBSEPPSD01-01_E

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

Course Description

In the course of the studies, a variety of different concepts, methods and techniques were introduced that are relevant to the professional practice of a software developer. This project offers the opportunity to use the accumulated knowledge and skills to solve a relevant practical problem independently and on one's own responsibility. The result should be a software that has been fully implemented, tested and that is deployable. The software shall profoundly demonstrate how the practical problem can be solved. The result has to be made available as open source to other students and to the tutor on a platform provided for this purpose.

Course Outcomes

On successful completion, students will be able to

- identify relevant problems from the professional environment of software developers and explain them to an interested audience.
- apply established procedures with the help of AI-supported code generation to find a software-based solution to a problem.
- identify relevant technologies, programming languages and software libraries for the solution and to put the software into operation in a suitable infrastructure suitable infrastructure.
- evaluate the Output with regard to its suitability for solving the practical problem.
- present the problem, the solution and the way to get there in an understandable and clear way in an understandable and clear way.

Contents

- At the beginning of the project the students choose a concrete task in coordination with the tutor. The task shall be derived from a relevant practical problem. Possible problems and use cases can be found in any industry from insurance to healthcare. Problems are also found in cross-sectional topics like, for example, in the areas of smart services, smart home, business information systems, artificial intelligence, sustainability, accessibility, data analytics or robotic process automation. The solution approach can consider mobile apps, web apps, web services, microservices, embedded software or even batch jobs hosted on mainframes. Students work on the task with the help of an integrated development environment that fits the subject of the task. The environment is intended to focus on software (e.g. technology-specific development environments such as Eclipse IDE, Android Studio or matlab) but can also be extended to hardware environment (e.g. prototyping

boards such as the Arduino). To complete the task, students apply the concepts, methods and tools taught throughout the curriculum. The result is evaluated in terms of its suitability to solve the previously selected problem. Aspects such as complexity, creativity and practical relevance play a role.

Literature

Compulsory Reading

Further Reading

- Newman, S. (2015): Building microservices: designing fine-grained systems. O'Really, Sebastopol, California.
- Thomas, D., & Hunt, A. (2020): The pragmatic programmer: your journey to mastery. 2nd Edition, Addison-Wesley, Boston.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Web Application Development

Module Code: DLBCSWAD

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBCSOOPJ01, DLBCSDSJCL01	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

Prof. Dr. Sebastian Werning (Web Application Development)

Contributing Courses to Module

- Web Application Development (DLBCSWAD01)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Advanced Workbook Study Format: Distance Learning Advanced Workbook	

Weight of Module

see curriculum

Module Contents

- Architectural Foundations
- Tools of web development
- HTML
- CSS
- Javascript
- Web application testing and security

Learning Outcomes

Web Application Development

On successful completion, students will be able to

- identify important elements and describe the structure of current web application architectures.
- write simple static web pages using HTML.
- design simple web pages using CSS.
- store and handle structured information using XML.
- program simple dynamic web content using PHP.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Computer Science & Software Development.	All Bachelor Programmes in the IT & Technology field.

Web Application Development

Course Code: DLBCSWAD01

Study Level	Language of Instruction and Examination	Contact Hours	CP	Admission Requirements
BA	English		5	DLBCSOOPJ01, DLBCSDSJCL01

Course Description

TThis course aims to empower students to program simple web applications using established technologies. At first, they will gain important insights into the typical structure of current web application architectures. Based on that knowledge, the students will learn the hypertext markup language (HTML) to develop simple web pages. Next, they will familiarize themselves with the most important and common elements of the cascading stylesheet (CSS) standard to layout the content written in HTML. To implement simple dynamic web pages, students learn how to use Javascript and exemplary supporting frameworks. This is combined with the use of relevant tools for the development and source code management of web pages. Finally, they will learn the very basics of the web page testing and security.

Course Outcomes

On successful completion, students will be able to

- identify important elements and describe the structure of current web application architectures.
- write simple static web pages using HTML.
- design simple web pages using CSS.
- store and handle structured information using XML.
- program simple dynamic web content using PHP.

Contents

1. Architectural Foundations
   - 1.1 Structure and History of the Internet
   - 1.2 Internet protocols and URIs
   - 1.3 Web application architecture
   - 1.4 Current trends
2. Tools of web development
   - 2.1 Development Tools
   - 2.2 Version management
   - 2.3 Package Manager
   - 2.4 Upload/Deployment

3. Static web pages developement
   - 3.1 Fundamentals of HTML5
   - 3.2 Fundamentals of CSS

4. Advanced design techniques
   - 4.1 Responsive web design
   - 4.2 Page layout
   - 4.3 Media queries
   - 4.4 CSS Frameworks (Bootstrap)

5. Web page development with JavaScript
   - 5.1 JavaScript history, ES5/ES6
   - 5.2 JavaScript fundamentals
   - 5.3 Use of JSON
   - 5.4 Common JavaScript Frameworks

6. Web application testing and security
   - 6.1 Testing of web applications
   - 6.2 Basic security concepts and principles

Literature

Compulsory Reading

Further Reading

- Ferguson, R. (2019). Beginning JavaScript: The ultimate guide to modern JavaScript development (3rd ed.). Apress.
- Sunyaev, A. (2020). Internet computing: Principles of distributed systems and emerging internet based technologies. Springer

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

IT Project Management

Module Code: DLBCSEITPAM1

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Johannes Kent Walter (IT Project Management)

Contributing Courses to Module

- IT Project Management (DLBCSEITPAM01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Basic terms and foundations of IT project management
- Large and small planning techniques
- Techniques for prioritization, cost-estimation, and project controlling
- Techniques for stakeholder, communication, and risk management
- Organization and structure in IT project management
- Schools of thought in IT project management

Learning Outcomes

IT Project Management

On successful completion, students will be able to

- explain and differentiate between the basic principles and tasks of IT project management.
- explain the important practical techniques and methods necessary for the implementation of IT project management.
- describe the basic procedural models and explain their advantages and disadvantages as well as their possible applications.
- identify possible project risks on the basis of given practical scenarios and select suitable measures from IT project management in order to minimize them in a targeted manner.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the fields of Computer Science & Software Development	All Bachelor Programs in the IT & Technology fields

IT Project Management

Course Code: DLBCSEITPAM01

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

Course Description

In this course, typical problems in the management of Software projects are discussed and the methods and techniques used to address challenges conveyed.In addition, standard procedural models for IT project management are explained and their strengths and weaknesses specifically identified.

Course Outcomes

On successful completion, students will be able to

- explain and differentiate between the basic principles and tasks of IT project management.
- explain the important practical techniques and methods necessary for the implementation of IT project management.
- describe the basic procedural models and explain their advantages and disadvantages as well as their possible applications.
- identify possible project risks on the basis of given practical scenarios and select suitable measures from IT project management in order to minimize them in a targeted manner.

Contents

1. Basics Terms and Foundations of IT Project Management
   - 1.1 Definition of a Project and Types of IT Projects
   - 1.2 IT Project Lifecycle
   - 1.3 Multi-Project Management – The Project in the Context of the Organization
2. Planning Techniques
   - 2.1 Large-Scale Planning: Milestones, Sub-tasks, and Work Packages
   - 2.2 Large-Scale Planning: Gantt Charts
   - 2.3 Planning and Organization of Work Packages: Kanban Board
3. Prioritization, Estimation of Costs, Project Controlling
   - 3.1 Prioritization
   - 3.2 Estimation of Costs
   - 3.3 Project Controlling

4. Stakeholder, Communication and Risk Management
   - 4.1 Stakeholder Management
   - 4.2 Communication Management
   - 4.3 Risk Management

5. Organization and Structure in IT Project Management
   - 5.1 Overview and Levels of Management from PRINCE2
   - 5.2 Management Processes in PRINCE2
   - 5.3 Pragmatic IT Project Management (PITPM)
   - 5.4 Configuration of an IT Project in PITPM
   - 5.5 Management of a project in PITPM

6. Schools of Thought in IT Project Management
   - 6.1 Agile Software Development
   - 6.2 Value-Based Software Engineering

Literature

Compulsory Reading

Further Reading

- Project Management Institute. (2021). A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Seventh Edition and The Standard for Project Management (ENGLISH): Vol. Seventh edition. Project Management Institute.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
	☑ Slides	

Seminar: Ethical Innovation

Module Code: DLBAIBESEI

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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. (Seminar: Ethical Innovation)

Contributing Courses to Module

- Seminar: Ethical Innovation (DLBAIBESEI01)

Module Exam Type

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

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Data Science & Artificial Intelligence	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 myStudies

Study Format	Course Type
myStudies	Seminar

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Research Essay

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Research Essay

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Project: Low-Code Development

Module Code: DLBDBEPLCD

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Tianxiang Lu (Project: Low-Code Development)

Contributing Courses to Module

- Project: Low-Code Development (DLBDBEPLCD01)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Oral Project Report	

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Computer Science & Software Development	All Bachelor Programs in the IT & Technology field

Project: Low-Code Development

Course Code: DLBDBEPLCD01

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

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Oral Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Project: AWS - Cloud Advanced

Module Code: DLBPAWSCLAD

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Tianxiang Lu (Project: AWS - Cloud Advanced)

Contributing Courses to Module

- Project: AWS - Cloud Advanced (DLBPAWSCLAD01)

Module Exam Type

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

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 laaS, 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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Computer Science & Software Development	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

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Project: Digital Business Models

Module Code: DLBWPPDBM_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Tamara Wehrstein (Project: Digital Business Models)

Contributing Courses to Module

- Project: Digital Business Models (DLBWPPDBM01_E)

Module Exam Type

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Business Administration & Management	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) isestablished 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

Study Format	**Course Type**
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

6. Semester

Social Media Marketing

Module Code: DLBMSM2-01_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Josephine Zhou-Brock (Social Media Marketing)

Contributing Courses to Module

- Social Media Marketing (DLBMSM02-01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Advanced Workbook Study Format: Distance Learning Advanced Workbook	

Weight of Module

see curriculum

Module Contents

- Basics of Social-Media-Marketing
- Social Media Marketing Within the Overall Marketing Mix
- Social Media Landscape
- Developing a Social Media Strategy
- The Role of Social Media in Innovation Management
- Operational Social Media Marketing
- Legal Terms and Conditions of Social Media
- Developments in Social Media Marketing

Learning Outcomes

Social Media Marketing

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.

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

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

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions		

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions		

Seminar: AI in Marketing & E-Commerce

Module Code: DLBOMSKIMEC_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

(Seminar: AI in Marketing & E-Commerce)

Contributing Courses to Module

- Seminar: AI in Marketing & E-Commerce (DLBOMSKIMEC01_E)

Module Exam Type

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Marketing & Sales	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

Study Format	Course Type
Distance Learning	Seminar

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Research Essay

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

Instructional Methods	
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	**Exam Preparation** ☑ Guideline

Project: Data Analysis

Module Code: DLBDSEDA2

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Frank Passing (Project: Data Analysis)

Contributing Courses to Module

- Project: Data Analysis (DLBDSEDA02)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Portfolio Study Format: Distance Learning Portfolio	

Weight of Module

see curriculum

Module Contents

Transfer of methodological knowledge to the implementation of real-world analytics use cases from the above-mentioned problem domains.

Learning Outcomes

Project: Data Analysis

On successful completion, students will be able to

- formulate and implement a real-world analytical use case.
- analyze the suitability of different possible approaches with respect to the project task.
- transfer acquired specialized analytical knowledge to real-world use cases.
- derive relevant design choices from the given project setting.
- make apposite choices with respect to implementation alternatives.
- select appropriate resources

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

Project: Data Analysis

Course Code: DLBDSEDA02

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

Course Description

The focus of this course is the implementation of a real-world, advanced analytics use case in the form of a student project. Primary subject areas for this practical work include business performance analytics, text mining, web- and social analytics, and experimentation and testing.The goal is for students to demonstrate they can transfer the theoretical knowledge acquired in Advanced Data Analysis (DLBDSEDA01) to an implementation scenario that closely mimics project work in a professional data science setting.

Course Outcomes

On successful completion, students will be able to

- formulate and implement a real-world analytical use case.
- analyze the suitability of different possible approaches with respect to the project task.
- transfer acquired specialized analytical knowledge to real-world use cases.
- derive relevant design choices from the given project setting.
- make apposite choices with respect to implementation alternatives.
- select appropriate resources

Contents

- This course covers the practical implementation of the approaches and techniques covered in the course Advanced Data Analysis (DLBDSEDA01) in a project-oriented setting. Each participant must produce a project report detailing and documenting their work. Project tasks are chosen from a list or suggested by the students in accord with the tutor.

Literature

Compulsory Reading

Further Reading

- Hapke, H., Howard, C., & Lane, H. (2019). Natural language processing in action. Manning Publications.
- Klassen, M., & Russell, M. A. (2019). Mining the social web (3rd ed.). O'Reilly Media.
- Ojeda, T., Bilbro, R., & Bengfort, B. (2018). Applied text analysis with Python. O'Reilly Media.
- Parmenter, D. (2020). Key performance indicators: Developing, implementing, and using winning KPIs (3rd ed.). John Wiley & Sons.

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Deep Learning

Module Code: DLBDBDL_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Dr. Lino Antoni Giefer (Deep Learning)

Contributing Courses to Module

- Deep Learning (DLBDBDL01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Introduction
- Introduction to Neural Networks
- Training Neural Networks
- Introduction to Deep Learning Frameworks
- Classification and Optimization
- Multilayer Neural Networks
- Convolutional Neural Networks

Learning Outcomes

Deep Learning

On successful completion, students will be able to

- place concepts of deep learning in the context of machine learning and artificial intelligence.
- define different types of regression and explain the implementation of logistic regression with perceptrons.
- explain the structure and function of simple neural networks.
- explain concepts and interrelationships in training of neural networks and to partially implement these concepts.
- differentiate between deep learning frameworks.
- implement, train and optimize neural networks with the help of a Deep Learning Framework
- understand the structure and functioning of Convolutional Neural Networks and train them using a Deep Learning Framework.

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

Deep Learning

Course Code: DLBDBDL01_E

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

Course Description

Owing to recent technological advances, some concepts and methods from artificial intelligence can now be applied in practice. A major concept affected by this progress are neural networks. Thanks to fast and inexpensive GPUs on the one hand and freely available and well-documented frameworks on the other hand, neural networks are used today to solve many different problems, from pattern recognition in text and images to the automated assessment of insurance claims. In this course, students are introduced to the basics of this technology and enabled to apply it using simple examples.

Course Outcomes

On successful completion, students will be able to

- place concepts of deep learning in the context of machine learning and artificial intelligence.
- define different types of regression and explain the implementation of logistic regression with perceptrons.
- explain the structure and function of simple neural networks.
- explain concepts and interrelationships in training of neural networks and to partially implement these concepts.
- differentiate between deep learning frameworks.
- implement, train and optimize neural networks with the help of a Deep Learning Framework
- understand the structure and functioning of Convolutional Neural Networks and train them using a Deep Learning Framework.

Contents

1. Introduction
   - 1.1 AI
   - 1.2 Machine Learning
   - 1.3 Deep Learning
   - 1.4 Deep Learning Frameworks
2. Introduction to Neural Networks
   - 2.1 Linear Regression
   - 2.2 Logistic Regression
   - 2.3 Perceptrons

2.4 Types of Perceptrons

3. Training Neural Networks
   - 3.1 Mean Square Deviation
   - 3.2 Gradient Method
   - 3.3 Multilayer Perceptron
   - 3.4 Backpropagation
   - 3.5 Implementing Backpropagation

4. Introduction to Deep Learning Frameworks
   - 4.1 Overview
   - 4.2 First Steps with Tensorflow
   - 4.3 Basic Concepts
   - 4.4 Mathematical Functions

5. Classification and Optimization
   - 5.1 Linear Classifier
   - 5.2 Cost Functions
   - 5.3 Parameter Configuration and Cross-Validation
   - 5.4 Stochastic Gradient Descent
   - 5.5 Mini-Batching
   - 5.6 Epochs

6. Multilayer Neural Networks
   - 6.1 Introduction and Motivation
   - 6.2 Structure and Mathematics
   - 6.3 Implementation with Tensorflow
   - 6.4 Adaptation of Existing Models
   - 6.5 Over-Adaptation and Possible Solutions

7. Convolutional Neural Networks
   - 7.1 Motivation and Fields of Application
   - 7.2 Structure
   - 7.3 CNNs for Text Analysis
   - 7.4 CNNs for Image Analysis

Literature
Compulsory Reading
Further Reading ▪ Alpaydin, E. (2008): Maschinelles Lernen. Oldenbourg Wissenschaftsverlag, München. ▪ Géron, A. (2017): Praxiseinstieg Machine Learning mit Scikit-Learn und TensorFlow. Konzepte, Tools und Techniken für intelligente Systeme. O'Reilly. ▪ Rashid, T. (2017): Neuronale Netze selbst programmieren. Ein verständlicher Einstieg mit Python. O'Reilly. ▪ Russel, S. (2012): Künstliche Intelligenz – Ein moderner Ansatz. Pearson, Hallbergmoos. ▪ Zhang, Y./Wallace, B. (2016): A Sensitivity Analysis of (and Practitioners' Guide to) Convolutional Neural Networks for Sentence Classification. In: Proceedings of the Eighth International Joint Conference on Natural Language Processing, IJCNLP 2017. Asian Federation of Natural Language Processing Taipei, Taiwan.

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
	☑ Slides	

Advanced NLP: Generative AI in Business Applications

Module Code: DLBAIBEANGAIBA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBDSEAIS01 and DLBAIINLP01	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

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

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Data Science & Artificial Intelligence	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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions		

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

Module Code: DLBAIBEPNBACSA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBAIINLP01 and DLBAIBEANGAIBA01	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. (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	Split Exam
Study Format: Distance Learning Written Assessment: Project Report	

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

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods	
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	**Exam Preparation** ☑ Guideline

Salesforce Platform App Builder

Module Code: DLSFPD1

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

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

Module Coordinator

Prof. Dr. Thomas Bolz (Salesforce Platform App Builder)

Contributing Courses to Module

- Salesforce Platform App Builder (DLSFPD01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

Using the learning platform Trailhead students will learn the fundamentals of Salesforce. At the end of the course, the students will be able to design, build and deploy custom applications. This course prepares them for the Salesforce Platform App Builder Certification.

Learning Outcomes

Salesforce Platform App Builder

On successful completion, students will be able to

- define what Salesforce and customer relationship management is,
- design the data model, user interface, and business logic for custom applications,
- customize applications for mobile use,
- design reports and dashboards,
- manage application security and deploy custom applications.

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

Salesforce Platform App Builder

Course Code: DLSFPD01

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

Course Description

Salesforce is the most used software solution for customer relationship management worldwide. This solution can be customized and personalized for the needs of customers, partners and employees. Using the learning platform Trailhead, students will learn independently the fundamentals of Salesforce and the development of customized application. This course prepares students for the Salesforce Platform App Builder Certification.

Course Outcomes

On successful completion, students will be able to

- define what Salesforce and customer relationship management is,
- design the data model, user interface, and business logic for custom applications,
- customize applications for mobile use,
- design reports and dashboards,
- manage application security and deploy custom applications.

Contents

- The content on the learning platform focuses on the features and functionality to design, build and deploy custom applications. The content also provides knowledge to define business logic and process automation declaratively. Furthermore, the design and management of the correct data models and the customization of applications for individual needs is included in this course. Thus, the content of this course enables to automate repetitive tasks and to optimize processes in customer organizations.

Literature
Compulsory Reading
Further Reading ▪ Gupta, R. (2019): Salesforce Platform App Builder Certification. A Practical Study Guide. 1st ed., Apress. ▪ Weinmeister, P. (2019): Practical Salesforce Development Without Code. Building Declarative Solutions on the Salesforce Platform. 2nd ed., Apress, Berkeley. ▪ Shaalan, S. (2020): Salesforce for Beginners. A step-by-step guide to creating, managing, and automating sales and marketing processes. Packt Publishing, Birmingham. ▪ Benioff, M./Langley, M. (2019): Trailblazer. The Power of Business as the Greatest Platform for Change. 1st ed.

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Slides	☑ Guideline
☑ Intensive Live Sessions/Learning Sprint		
☑ Recorded Live Sessions		

Project: AWS - Cloud Essentials

Module Code: DLBPAWSCLES

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

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

Module Coordinator

Georgi Dimchev (Project: AWS - Cloud Essentials)

Contributing Courses to Module

- Project: AWS - Cloud Essentials (DLBPAWSCLES01)

Module Exam Type

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

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Computer Science & Software Development	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

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Written Assessment: Project Report

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

International Management

Module Code: BWINT1-02

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Jonathan Black-Branch (International Management)

Contributing Courses to Module

- International Management (BWINT01)

Module Exam Type

Module Exam	Split Exam
Study Format: Duales myStudium Exam, 90 Minutes Study Format: myStudies Exam, 90 Minutes Study Format: On Campus Exam, 90 Minutes Study Format: Distance Learning Exam, 90 Minutes	

Weight of Module

see curriculum

Module Contents

- Globalization and the Internationalization of Business
- Assessment of Political, Legal, Economic, and Cultural Contexts
- Strategy in International Business
- Organization in International Business
- Marketing in International Business
- Human Resource Management in International Business

Learning Outcomes

International Management

On successful completion, students will be able to

- recognize and explain the cultural, social, economic, historical, and political differences that affect strategic decision making on an international/global scale.
- gather specific information and conduct reliable assessments of the opportunities and risks related to business activities in different geographical market regions and specific national markets.
- describe the impact of culture on international business activities.
- identify different options for market entry and market development and participate in strategic planning activities that address these issues.
- design and evaluate different organizational structures for international businesses and design measures to optimize organizational structures for international operations.
- design, evaluate, and optimize human resource management practices for global and multinational companies.
- explain options for international marketing and select an appropriate marketing mix relative to specific products/services and the target market.
- identify and manage challenges associated with operating in an international/global business environment, such as the procurement and coordination of resources and human resource management.
- develop business plans that implement specific organizational, marketing, and distribution strategies in selected regions/countries.

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

International Management

Course Code: BWINT01

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

Course Description

Globalization presents multiple opportunities and challenges to product and service industries. Many companies previously engaged in local markets must consider global trends and international markets, both on the demand and on the supply side. With this, comes new opportunities to market products and services. At the same time, complexity in daily business increases and managers have to face ambiguities and frequently changing contexts. With more competition, more diverse markets, and cultural, political, and legal challenges abroad, it has become more difficult to manage a company efficiently. All these factors call for managers to adopt a global mindset and sufficient cultural sensitivity.The course is designed to cover the economic, organizational, and cultural underpinnings that students need to grasp in order to better understand the managerial challenges that global organizations of all types and sizes have to cope with. Participants of this course will be provided with empirical knowledge and first-hand experiences of international management. Through multiple case studies within the course book, online lectures, and tutorials, students will develop a detailed understanding of the strategies and operational patterns necessary to successfully operate in international markets.

Course Outcomes

On successful completion, students will be able to

- recognize and explain the cultural, social, economic, historical, and political differences that affect strategic decision making on an international/global scale.
- gather specific information and conduct reliable assessments of the opportunities and risks related to business activities in different geographical market regions and specific national markets.
- describe the impact of culture on international business activities.
- identify different options for market entry and market development and participate in strategic planning activities that address these issues.
- design and evaluate different organizational structures for international businesses and design measures to optimize organizational structures for international operations.
- design, evaluate, and optimize human resource management practices for global and multinational companies.
- explain options for international marketing and select an appropriate marketing mix relative to specific products/services and the target market.
- identify and manage challenges associated with operating in an international/global business environment, such as the procurement and coordination of resources and human resource management.
- develop business plans that implement specific organizational, marketing, and distribution strategies in selected regions/countries.

Contents

1. Introduction to International Management
   - 1.1 What is Globalization?
   - 1.2 Facts about Globalization and the Global Economy
   - 1.3 Theoretical Explanations for Globalization
2. The International Company and its Environment
   - 2.1 International Companies and their Operations
   - 2.2 Operational Patterns in International Markets
   - 2.3 Assessment of the Environment for Internalization
3. Culture and International Business
   - 3.1 A Generic Perspective on Culture
   - 3.2 Organizational Culture
   - 3.3 Cultural Diversity and the Contemporary Manager
4. Strategy Development in International Business
   - 4.1 Strategy in Globalized Business Operations
   - 4.2 Strategy Concepts and Strategic Options

4.3 Managing Strategy

5. International Human Resource Management
   - 5.1 Characteristics of International Human Resource Management
   - 5.2 The Global Manager
   - 5.3 Instruments in International Human Resource Management

6. Organization in International Business
   - 6.1 Traditional Perspectives on Business Organization
   - 6.2 Modern Views on Business Organization
   - 6.3 Coordination of Intra-Organization Collaboration

7. International Marketing
   - 7.1 Marketing in International Business
   - 7.2 Strategic Choices in International Marketing
   - 7.3 Marketing Mix Choices in International Marketing

Literature

Compulsory Reading

Further Reading

- Deresky, H. (2016). International management (9th ed.). Harlow: Prentice Hall International
- Collinson, C., Narula, R., and Rugma, Alan.M. (2020). International Business, 8th edition Pearson.
- Peng, M. W., & Meyer, K. (2023). International business. (4th ed.) London: Cengage Learning Emea.
- Daniels, J. D., Radebaugh, L. H., & Sullivan, D. P. (2019). International business: Environments and Operations (16th ed.). Harlow: Pearson.

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format On Campus

Study Format	Course Type
On Campus	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Leadership 4.0

Module Code: DLBWPLS_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Simon Fischer (Leadership 4.0)

Contributing Courses to Module

- Leadership 4.0 (DLBWPLS01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Duales myStudium Exam, 90 Minutes Study Format: myStudies Exam, 90 Minutes Study Format: Distance Learning Exam, 90 Minutes	

Weight of Module

see curriculum

Module Contents

- Conventional understanding of leadership
- Management tools
- Leadership versus management
- Integral concept of humankind as future-oriented model
- Characteristics and competencies of leaders
- Leadership models
- Agile Leadership instruments

Learning Outcomes

Leadership 4.0

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.

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

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

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Statistical Computing

Module Code: DLBDBSC_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Kamran Mahmood (Statistical Computing)

Contributing Courses to Module

- Statistical Computing (DLBDBSC01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Introduction to Statistical Computing
- Basics of programming with R
- Accessing data
- Descriptive statistics
- Inferential statistics
- Analysis of Variance
- Regression Analysis

Learning Outcomes

Statistical Computing

On successful completion, students will be able to

- classify and define the term statistical computing.
- create a PC working environment for the completion of tasks in the field of statistical computing.
- write simple programs with the R programming language.
- import and export data with R.
- apply different statistical methods with R, from descriptive statistics and inferential statistics to variance and regression analysis.

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

Statistical Computing

Course Code: DLBDBSC01_E

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

Course Description

Statistical computing combines the concepts and methods of statistics with tools from computer science. The results include statistics programs and programming languages that offer many useful functions for the analysis of digitally available data sources. In this course, students are taught the programming language R in order to be able to apply statistical methods (e.g. regression analysis, analysis of variance). In the context of a case study, the acquired skills will be used to extract correlations from complex data sources and to display them graphically.

Course Outcomes

On successful completion, students will be able to

- classify and define the term statistical computing.
- create a PC working environment for the completion of tasks in the field of statistical computing.
- write simple programs with the R programming language.
- import and export data with R.
- apply different statistical methods with R, from descriptive statistics and inferential statistics to variance and regression analysis.

Contents

1. Introduction to Statistical Computing
   - 1.1 Definition and Delimitation
   - 1.2 Statistics Program vs. Statistics Programming Language
   - 1.3 Setting Up the Working Environment

2. Basics of Programming with R
   - 2.1 R as Pocket Calculator
   - 2.2 Assignments and Variables
   - 2.3 Vectors and Matrices
   - 2.4 Logic
   - 2.5 Functions
   - 2.6 Data Types and Data Structures

3. Accessing Data
   - 3.1 Enter Data
   - 3.2 Import and Export of External Files
   - 3.3 Data Management in R

4. Descriptive Statistics
   - 4.1 Univariate Descriptive Statistics
   - 4.2 Bivariate Descriptive Statistics

5. Inferential Statistics
   - 5.1 Distributions
   - 5.2 Samples
   - 5.3 t-Tests

6. Analysis of Variance
   - 6.1 Principles and Delimitation to the t-Test
   - 6.2 One-way Analysis of Variance
   - 6.3 Two-way Analysis of Variance

7. Regression Analysis
   - 7.1 Correlation
   - 7.2 Linear Regression
   - 7.3 Other Models and Procedures

Literature

Compulsory Reading

Further Reading

- Hui, E. (2018): Learn R for Applied Statistics: With Data Visualizations, Regressions, and Statistics. Apress, New York, New York, US.
- Toomey, D. (2017): Jupyter for Data Science. Exploratory analysis, statistical modeling, machine learning, and data visualization with Jupyter. Packt Publishing, Birmingham, UK.
- Wickham, H. and Grolemund, G. (2017): R for Data Science: Import, Tidy, Transform, Visualize, and Model Data. O'Reilly Media, Sebastopol, California, US.

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
	☑ Audio	
	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
	☑ Audio	
	☑ Slides	

Project: Artificial Intelligence

Module Code: DLBDSEAIS2

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Simon Martin (Project: Artificial Intelligence)

Contributing Courses to Module

- Project: Artificial Intelligence (DLBDSEAIS02)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Portfolio Study Format: myStudies Portfolio Study Format: Duales myStudium Portfolio	

Weight of Module

see curriculum

Module Contents

This course focuses on developing a simple AI system for a specific application and domain. A current list of topics is located in the Learning Management System.

Learning Outcomes

Project: Artificial Intelligence

On successful completion, students will be able to

- determine the requirements for building an artificial intelligence system.
- evaluate an application for an AI system.
- transfer theoretically-sound and practically-proven methods and tools to an application domain.
- create an AI system for a chosen application.

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

Project: Artificial Intelligence

Course Code: DLBDSEAIS02

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

Course Description

This project course will give students hands-on experience in the challenging task of designing and developing an AI system for a specific application and domain. Students will need to consider requirements and practical constraints as well as the desired output of the AI system.Following this course the students will get holistic overview of developing a specific AI-based application.

Course Outcomes

On successful completion, students will be able to

- determine the requirements for building an artificial intelligence system.
- evaluate an application for an AI system.
- transfer theoretically-sound and practically-proven methods and tools to an application domain.
- create an AI system for a chosen application.

Contents

- This project course focuses on understanding and implementing a simple AI system. Based on the course Artificial Intelligence (DLBDSEAI01), students will design and implement a simple AI system. In the first step, students will choose a specific application and domain and then use the methods from the course to analyze the requirements and outcomes before implementing their own AI application. All relevant artifacts and considerations are documented by the students in a course portfolio.

Literature
Compulsory Reading
Further Reading ▪ Bear, M. F., Barry, W. S., & Paradiso, M. A. (2020). Neuroscience: Exploring the brain (4th ed.). Lippincott Williams & Wilkins. ▪ Chollet, F. (2018). Deep learning with Python. Manning. ▪ 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. ▪ Szeliski, R. (2022). Computer vision: Algorithms and applications (2nd ed. 2022). Springer.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Digital HR

Module Code: DLBPEDHR_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Michaela Moser (Digital HR)

Contributing Courses to Module

- Digital HR (DLBPEDHR01_E)

Module Exam Type

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Human Resources	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 Digitalizationand 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.
- Güldenberg, 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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods

Tutorial Support	Learning Material	Exam Preparation
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	**Course Type**
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Personal Career Plan

Module Code: DLBKAENT1_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Annette Strauß (Personal Career Plan)

Contributing Courses to Module

- Personal Career Plan (DLBKAENT01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Duales myStudium Advanced Workbook Study Format: myStudies Advanced Workbook Study Format: Distance Learning Advanced Workbook	

Weight of Module

see curriculum

Module Contents

- Career Theories and Approaches
- Career Development
- Career Planning
- Personal Assessment
- Career Choice
- Develop a Career Strategy and Manage your Career
- Global Careers
- Search for Employment in Germany and Abroad

Learning Outcomes

Personal Career Plan

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 pictore 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.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Human Resources	All Bachelor Programs in the Human Resources field

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 maneauvering 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 steet 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 pictore 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

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video
- ☑ Slides

Exam Preparation
- ☑ Online Tests
- ☑ Guideline

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Personal Elevator Pitch

Module Code: DLBKAENT2_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	DLBKAENT01_E	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

Prof. Dr. Heike Schiebeck (Personal Elevator Pitch)

Contributing Courses to Module

- Personal Elevator Pitch (DLBKAENT02_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Duales myStudium Concept Presentation Study Format: Distance Learning Concept Presentation Study Format: myStudies Concept Presentation	

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Human Resources	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

Study Format	Course Type
Duales myStudium	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Concept Presentation

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Concept Presentation

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Concept Presentation

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Introduction to the Internet of Things

Module Code: DLBINGEIT_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Computer Science & Software	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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	
	☑ Slides	

Product Development in Industry 4.0

Module Code: DLBINGPE_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

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

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Engineering	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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods

Tutorial Support	Learning Material	Exam Preparation
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
	☑ Audio	
	☑ Slides	

E-Commerce I

Module Code: DLBECEC1-01_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Kathrein Ristow (E-Commerce I)

Contributing Courses to Module

- E-Commerce I (BWEC01-02_E)

Module Exam Type

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of E-Commerce	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 Intellectual Property
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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods

Tutorial Support	Learning Material	Exam Preparation
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions		

IT Law

Module Code: DLBCSIITL

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Brian Gannon (IT Law)

Contributing Courses to Module

- IT Law (DLBCSIITL01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Basic Concepts of Legal Systems
- Internet and Domain Law
- Contracts
- Intellectual Property
- Data Protection / Privacy

Learning Outcomes

IT Law

On successful completion, students will be able to

- describe basic concepts of IT law.
- provide examples of different approaches to IT law in different countries.
- identify legal questions as they arise in IT.
- apply the core ideas of data protection and privacy in their work.
- distinguish the different types of contracts and intellectual property as they relate to IT.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Computer Science & Software Developement	All Bachelor Programs in the IT & Technology field

IT Law

Course Code: DLBCSIITL01

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

Course Description

The application of IT is embedded in a legal framework which computer scientists need to know and adhere to in their work. This applies to the way their own work is performed which, for example, may be governed by contracts with suppliers and/or customers. Computer scientists create and use intellectual property, and this leads to questions of copyright, software patents, etc. Beyond this, IT strongly influences the social environment and therefore needs to abide by regulations such as data protection. The goal of this module is to provide students with a basic understanding of these legal aspects so they can take them into account, apply them in simple cases, and recognize when more specialised legal knowledge is required. Since IT is a topic that connects different countries and legal frameworks, the course looks at some of the common legal questions as they are handled in the European Union, the USA, and India.

Course Outcomes

On successful completion, students will be able to

- describe basic concepts of IT law.
- provide examples of different approaches to IT law in different countries.
- identify legal questions as they arise in IT.
- apply the core ideas of data protection and privacy in their work.
- distinguish the different types of contracts and intellectual property as they relate to IT.

Contents

1. Basic Concepts of Legal Systems
   - 1.1 The Role of Law in IT
   - 1.2 Basic Concepts of the Legal System in the European Union
   - 1.3 Basic Concepts of the Legal System in the USA
   - 1.4 Basic Concepts of the Legal System in India
2. Internet and Domain Law
   - 2.1 Web Sites and the Law
   - 2.2 Net Neutrality
   - 2.3 Domain Registration
   - 2.4 Internet Crime

3. Contracts
   - 3.1 Types of IT Contracts
   - 3.2 Electronic Contracts and Electronic Signatures
   - 3.3 Licences
   - 3.4 Free and Open Source Software
   - 3.5 Buying and Selling Off-the-Shelf Software
   - 3.6 Software Development Contracts

4. Intellectual Property
   - 4.1 Brands, Trade Marks and Domain Names
   - 4.2 Copyright
   - 4.3 Software Patents
   - 4.4 Digital and Data Ownership

5. Data Protection/Privacy
   - 5.1 Basic Concepts of Data Protection
   - 5.2 Data Protection in the European Union: the GDPR
   - 5.3 Data Protection in the USA
   - 5.4 Data Protection in India
   - 5.5 Trans-Border Data Flows

Literature

Compulsory Reading

Further Reading

- Hoeren, T., & Pinelli, S. (2018). Agile programming – Introduction and current legal challenges. Computer Law & Security Review, 34(5), pp. 1131-1138. Retrieved from www.uni-muenster.de/Jura.itm/hoeren/itm/wp-content/uploads/Hr.-Hoeren-29.10.pdf
- Lloyd, I. (2018). Information technology law (8th ed.). Oxford: Oxford University Press.
- Murray, A. (2019). Information technology law: The law and society (4th ed.). Oxford: Oxford University Press.
- Soma, J. T. (2014). Privacy law in a nutshell. St. Paul, MN: West Academic.
- Wikia.org. (n.d.). The IT law wiki [web encyclopedia]. Retrieved from https://itlaw.wikia.org/wiki/The_IT_Law_Wiki#

Study Format Distance Learning

Study Format	**Course Type**
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Certificate Course German

Module Code: DLFSWG1

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

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

Module Coordinator

Prof. Dr. Regina Cordes (Certificate Course German)

Contributing Courses to Module

- Certificate Course German (DLFSWG01)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Participation Certificate (passed / not passed) Study Format: Distance Learning Participation Certificate (passed / not passed)	

Weight of Module

see curriculum

Module Contents

To learn and deepen German as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Certificate Course German

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language German according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Certificate Course German

Course Code: DLFSWG01

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of German as a foreign language is taught and practiced according to a CEFR placement test. Upon successful completion, students will receive a certificate corresponding to their chosen level.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language German according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply

and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)
    - to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)
- Grammar:
    - Level A1 - present and past tenses, sentence structure, prepositions, etc.
    - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
    - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
    - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading - According to the Information given in the Online Course speexx

Study Format myStudies

Study Format	**Course Type**
myStudies	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Foreign Language German

Module Code: DLFSG

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Regina Cordes (Foreign Language German)

Contributing Courses to Module

- Foreign Language German (DLFSG01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

To learn and deepen German as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Foreign Language German

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language German according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Foreign Language German

Course Code: DLFSG01

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of German as a foreign language is taught and practiced according to a CEFR placement test.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language German according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)

        - to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)
- Grammar:
    - Level A1 - present and past tenses, sentence structure, prepositions, etc.
    - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
    - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
    - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading ▪ According to the Information given in the Online Course speexx

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Certificate Course French

Module Code: DLFSWF1_E

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

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

Module Coordinator

Britta Heienbrock (Certificate Course French)

Contributing Courses to Module

- Certificate Course French (DLFSWF01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Participation Certificate (passed / not passed) Study Format: myStudies Participation Certificate (passed / not passed)	

Weight of Module

see curriculum

Module Contents

To learn and deepen French as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Certificate Course French

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language French according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Certificate Course French

Course Code: DLFSWF01_E

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of French as a foreign language is taught and practiced according to a CEFR placement test. Upon successful completion, students will receive a certificate corresponding to their chosen level.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language French according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply

and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)
    - to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)
- Grammar:
    - Level A1 - present and past tenses, sentence structure, prepositions, etc.
    - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
    - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
    - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading - According to the Information given in the Online Course speexx

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format myStudies

Study Format	Course Type
myStudies	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Foreign Language French

Module Code: DLFSF_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Britta Heienbrock (Foreign Language French)

Contributing Courses to Module

- Foreign Language French (DLFSF01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

To learn and deepen French as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Foreign Language French

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language French according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Foreign Language French

Course Code: DLFSF01_E

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of French as a foreign language is taught and practiced according to a CEFR placement test.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language French according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)

- to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)

- Grammar:
  - Level A1 - present and past tenses, sentence structure, prepositions, etc.
  - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
  - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
  - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading ▪ According to the Information given in the Online Course speexx

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Certificate Course Spanish

Module Code: DLFSWS1_E

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

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

Module Coordinator

Prof. Dr. Regina Cordes (Certificate Course Spanish)

Contributing Courses to Module

- Certificate Course Spanish (DLFSWS01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Participation Certificate (passed / not passed) Study Format: myStudies Participation Certificate (passed / not passed)	

Weight of Module

see curriculum

Module Contents

To learn and deepen Spanish as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Certificate Course Spanish

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Spanish according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Certificate Course Spanish

Course Code: DLFSWS01_E

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of Spanish as a foreign language is taught and practiced according to a CEFR placement test. Upon successful completion, students will receive a certificate corresponding to their chosen level.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Spanish according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply

and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)
    - to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)
- Grammar:
    - Level A1 - present and past tenses, sentence structure, prepositions, etc.
    - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
    - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
    - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading - According to the Information given in the Online Course speexx

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format myStudies

Study Format	Course Type
myStudies	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Foreign Language Spanish

Module Code: DLFSS_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Regina Cordes (Foreign Language Spanish)

Contributing Courses to Module

- Foreign Language Spanish (DLFSS01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

To learn and deepen Spanish as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Foreign Language Spanish

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Spanish according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Foreign Language Spanish

Course Code: DLFSS01_E

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of Spanish as a foreign language is taught and practiced according to a CEFR placement test.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Spanish according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)

- to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)

- Grammar:
  - Level A1 - present and past tenses, sentence structure, prepositions, etc.
  - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
  - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
  - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading ▪ According to the Information given in the Online Course speexx

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Certificate Course Italian

Module Code: DLFSWI1_E

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

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

Module Coordinator

Prof. Dr. Regina Cordes (Certificate Course Italian)

Contributing Courses to Module

- Certificate Course Italian (DLFSWI01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Participation Certificate (passed / not passed) Study Format: Distance Learning Participation Certificate (passed / not passed)	

Weight of Module

see curriculum

Module Contents

To learn and deepen Italian as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Certificate Course Italian

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Italian according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Certificate Course Italian

Course Code: DLFSWI01_E

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of Italian as a foreign language is taught and practiced according to a CEFR placement test. Upon successful completion, students will receive a certificate corresponding to their chosen level.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Italian according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply

and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)
    - to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)
- Grammar:
    - Level A1 - present and past tenses, sentence structure, prepositions, etc.
    - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
    - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
    - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading - According to the Information given in the Online Course speexx

Study Format myStudies

Study Format	Course Type
myStudies	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Language Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Participation Certificate (passed / not passed)

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Foreign Language Italian

Module Code: DLFSI_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Regina Cordes (Foreign Language Italian)

Contributing Courses to Module

- Foreign Language Italian (DLFSI01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

To learn and deepen Italian as a foreign language at the chosen CEFR level with regard to the respective qualitative aspects of range, correctness, fluency, interaction and coherence. The module includes a combination of listening, comprehension, writing and speaking exercises as well as various course material.

Learning Outcomes

Foreign Language Italian

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Italian according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Languages	All Bachelor Programs in the Management field

Foreign Language Italian

Course Code: DLFSI01_E

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

Course Description

The qualification objectives correspond to levels A1, A2, B1 and B2 according to the criteria of the Common European Framework of Reference for Languages (CEFR). Using everyday subject areas, chosen areas of specialization, and using basic and advanced grammatical structures, the use of Italian as a foreign language is taught and practiced according to a CEFR placement test.

Course Outcomes

On successful completion, students will be able to

- meet the qualification objectives according to the chosen level (A1, A2, B1 or B2) according to the criteria of the Common European Framework of Reference for Languages (CEFR).
- use the foreign language Italian according to a CEFR placement test on the basis of everyday topics, selected areas of specialization and by adapting basic and advanced grammatical structures.

Contents

- Depending on the CEFR placement, students will be proficient
  - to understand and use familiar, everyday expressions and very simple phrases aimed at satisfying concrete needs. They can introduce themselves and others and ask other people questions about themselves - e.g. where they live, what kind of people they know or what kind of things they have - and they can give answers to questions of this kind. They can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help. (Level A1)
  - to understand sentences and frequently used expressions related to areas of immediate importance (e.g. personal and family information, shopping, work, local area). You can communicate in simple, routine situations involving a simple and direct exchange of information about familiar things. You can describe by simple means your own background and education, immediate environment and things related to immediate needs. (Level A2)
  - to understand the main points when clear standard language is used and when it's about familiar things from work, school, leisure, etc. You can handle most situations encountered while traveling in the language area. You can express yourself simply and coherently on familiar topics and personal areas of interest. You can talk about experiences and events, describe dreams, hopes and goals, and give brief reasons or explanations for plans and opinions. (Level B1)

- to understand the main content of complex texts on concrete and abstract topics; and to understand specialist discussions in their own area of specialization. You can communicate so spontaneously and fluently that a normal conversation with native speakers is quite possible without major effort on either side. You can express yourself clearly and in detail on a wide range of topics, explain a point of view on a topical issue and state the advantages and disadvantages of various options. (Level B2)

- Grammar:
  - Level A1 - present and past tenses, sentence structure, prepositions, etc.
  - Level A2 - among other things tenses of the past, differences in the past tenses, imperative, subordinate clauses, pronouns (dative, accusative)
  - Level B1 - including introduction of past perfect, conjunctions, introduction of passive voice, adverbs, adjectives (difference), future tense
  - Level B2 - among others verb constructions, conditional clauses, indirect speech

Literature
Compulsory Reading
Further Reading ▪ According to the Information given in the Online Course speexx

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Exam, 90 Minutes

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

Instructional Methods
Instructional Methods are provided by the External Service Provider

Studium Generale I

Module Code: DLBSG1_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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. (Studium Generale I)

Contributing Courses to Module

- Studium Generale I (DLBSG01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies See Selected Course Study Format: Distance Learning See Selected Course	

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	**Links to other Study Programs of the University**
It is a stand-alone offering with possible references to various required and elective modules	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

Study Format	Course Type
myStudies	See Selected Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	See Selected Course

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

Instructional Methods
see selected course

Study Format Distance Learning

Study Format	Course Type
Distance Learning	See Selected Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	See Selected Course

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

Instructional Methods
See Selected Course

Studium Generale II

Module Code: DLBSG2_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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. (Studium Generale II)

Contributing Courses to Module

- Studium Generale II (DLBSG02_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning See Selected Course Study Format: myStudies See Selected Course	

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	**Links to other Study Programs of the University**
It is a stand-alone offering with possible references to various required and elective modules	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

Study Format	Course Type
Distance Learning	See Selected Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	See Selected Course

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

Instructional Methods
See Selected Course

Study Format myStudies

Study Format	Course Type
myStudies	See Selected Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	See Selected Course

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

Instructional Methods

Project: Generative AI in an Enterprise Context

Module Code: DLBFMPGKIU_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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. (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	Split Exam
Study Format: Distance Learning Portfolio Study Format: myStudies Portfolio	

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	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Methods	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

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Study Format myStudies

Study Format	Course Type
myStudies	Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Portfolio

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions	☑ Slides	☑ Guideline

Internship: Business & Management

Module Code: DLBBWPWM_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	BA	30	900 h

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

Module Coordinator

Magda Sylwestrowicz (Internship: Business & Management)

Contributing Courses to Module

- Internship: Business & Management (DLBBWPWM01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Internship Reflection Paper (passed / not passed) Study Format: myStudies Internship Reflection Paper (passed / not passed)	

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

Study Format	Course Type
Distance Learning	Practical Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Internship Reflection Paper (passed / not passed)

Student Workload					
Self Study	**Contact Hours**	**Tutorial/Tutorial Support**	**Self Test**	**Independent Study**	**Hours Total**
0 h	0 h	0 h	0 h	900 h	900 h

Instructional Methods
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions

Study Format myStudies

Study Format	Course Type
myStudies	Practical Project

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Internship Reflection Paper (passed / not passed)

Student Workload					
Self Study	**Contact Hours**	**Tutorial/Tutorial Support**	**Self Test**	**Independent Study**	**Hours Total**
0 h	0 h	0 h	0 h	900 h	900 h

Instructional Methods
Tutorial Support ☑ Course Feed ☑ Intensive Live Sessions/Learning Sprint ☑ Recorded Live Sessions

Personal Career Plan

Module Code: DLBKAENT1_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Annette Strauß (Personal Career Plan)

Contributing Courses to Module

- Personal Career Plan (DLBKAENT01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Duales myStudium Advanced Workbook Study Format: myStudies Advanced Workbook Study Format: Distance Learning Advanced Workbook	

Weight of Module

see curriculum

Module Contents

- Career Theories and Approaches
- Career Development
- Career Planning
- Personal Assessment
- Career Choice
- Develop a Career Strategy and Manage your Career
- Global Careers
- Search for Employment in Germany and Abroad

Learning Outcomes

Personal Career Plan

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 pictore 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.

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
This module is similar to other modules in the field of Human Resources	All Bachelor Programs in the Human Resources field

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 maneauvering 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 steet 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 pictore 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

Study Format	**Course Type**
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video
- ☑ Slides

Exam Preparation
- ☑ Online Tests
- ☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Advanced Workbook

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Diversity Management

Module Code: DLBPGDM_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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. (Diversity Management)

Contributing Courses to Module

- Diversity Management (DLBPGDM01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Important Concepts and Terminology
- Overlapping Topics (Reflection, Diagnosis, Support, Group Formation, ...)
- Reflection on Own Stereotypes
- Personnel Development
- Leadership Development

Learning Outcomes

Diversity Management

On successful completion, students will be able to

- use the terms "other(s)", "own", "heterogeneity" and "inclusion" in a reflective way.
- name and critically discuss the background to the current inclusion debate.
- explain the objectives, methods and structures of diversity management
- name and apply suitable support and diagnostic options.
- recognize problems and solutions in diversity management.

Links to other Modules within the Study Program	Links to other Study Programs of the University
This module is similar to other modules in the field of Human Resources	All Bachelor Programs in the Human Resources field

Diversity Management

Course Code: DLBPGDM01_E

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

Course Description

Dealing with heterogeneity and diversity is always an issue wherever people from different backgrounds work and live together - which means that the topic is relevant for almost every group. The issue of inclusion has become increasingly important, especially in recent times. During equal treatment of all those involved, heterogeneity is seen as an opportunity and consciously valued under the basic idea of "enrichment through diversity". The positive group formation of every company is based on successfully dealing with the individuality and uniqueness of each employee. Diversity management of this kind unfolds its great potential when this diversity is used to create a harmonious group climate within a workforce in which the individual members feel accepted and welcomed, and can contribute their strengths in the best possible way. This often results in surprising synergy effects that further enrich the productive working atmosphere. On the one hand, this promotes equality and, on the other, automatically encourages a successful competitive orientation.

Course Outcomes

On successful completion, students will be able to

- use the terms "other(s)", "own", "heterogeneity" and "inclusion" in a reflective way.
- name and critically discuss the background to the current inclusion debate.
- explain the objectives, methods and structures of diversity management
- name and apply suitable support and diagnostic options.
- recognize problems and solutions in diversity management.

Contents

1. The Image of People and Society Behind the Guiding Principle of Diversity Management
   - 1.1 The Conception of Human Being
   - 1.2 The Current Debate on Inclusion and Dealing with Heterogeneity
2. The "Other", the "Own"
   - 2.1 Stereotypes, Roles, and Clichés
   - 2.2 Research Findings on Diversity and Stereotypes
3. Inclusion as a Human Right - Understanding the Legal Background
   - 3.1 Development of Inclusion in the Course of Time

3.2 Current Situation

4. Conceptualization and Practical Examples
   - 4.1 Separation
   - 4.2 Integration
   - 4.3 Inclusion

5. Requirements of Inclusive Processes for Those Responsible
   - 5.1 Management Level
   - 5.2 Employees
   - 5.3 Social Perspective

6. General Conditions of an Inclusive Company
   - 6.1 Organizational Culture and Structure
   - 6.2 Aids, Support, etc.
   - 6.3 Personal Resources

7. Inclusive Course Planning
   - 7.1 Differentiation
   - 7.2 Teaching Methods
   - 7.3 Open Course Design

8. Cooperation in an Interdisciplinary Team
   - 8.1 Phases of Group Formation
   - 8.2 Designing Positive Team Building
   - 8.3 Processes and Roles Within the Group

9. The Joint Creation of Support Plans
   - 9.1 What is a Support Plan?
   - 9.2 The Role of Feedback in the Support Process
   - 9.3 Joint Development of a Support Plan: Why, Who, and How?

10. Information on Suitable Educational Diagnostic Tools
    - 10.1 Why Diagnostics?
    - 10.2 What Types of Diagnostics are Used in Educational Practice?
    - 10.3 Which Diagnostic Tools are Suitable in an Inclusive Context?

Literature

Compulsory Reading

Further Reading

- Barnes, A., & Grayer, M. (2023). Does language Matter? Perceptions of the use of diversity training in the public sector workforce. Public Personnel Management, 52(2), 240–262.
- Galdiero, C., Maltempo, C., Marrapodi, R., & Martinez, M. (2024). Gender diversity: An opportunity for socially inclusive human resource management policies for organizational sustainability. Social Sciences (2076-0760), 13(3), 173.
- Joo, M., Lee, J., Kong, D. T., & Jolly, P. M. (2023). Gender diversity advantage at middle management: Implications for high performance work system improvement and organizational performance. Human Resource Management, 62(5), 765–785.
- Moore, J. (2024). Breaking barriers, fostering inclusion - the transformative power of teacher diversity in education. Scan: The Journal for Educators, 43(1), 34–37.
- Pamela Irazú Ramírez Ibarra, & Adriana Martínez Martínez. (2024). Unveiling power dynamics: Diversity interpretations, management practices, and inclusion perceptions in the Workplace. Nova Scientia, 16(32).

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Audio	

Collaborative Work

Module Code: DLBCSCW

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Karin Halbritter (Collaborative Work)

Contributing Courses to Module

- Collaborative Work (DLBCSCW01)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Oral Assignment Study Format: Duales myStudium Oral Assignment Study Format: Distance Learning Oral Assignment	

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Business Administration & Management	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

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Oral Assignment

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video
- ☑ Slides

Exam Preparation
- ☑ Online Tests
- ☑ Guideline

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Oral Assignment

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video
- ☑ Slides

Exam Preparation
- ☑ Online Tests
- ☑ Guideline

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Oral Assignment

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

Instructional Methods

Tutorial Support
- ☑ Course Feed
- ☑ Intensive Live Sessions/Learning Sprint
- ☑ Recorded Live Sessions

Learning Material
- ☑ Course Book
- ☑ Video
- ☑ Slides

Exam Preparation
- ☑ Online Tests
- ☑ Guideline

Interaction and Communication in Organisations

Module Code: DLBKPSIKO_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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. (Interaction and Communication in Organisations)

Contributing Courses to Module

- Interaction and Communication in Organisations (DLBKPSIKO01_E)

Module Exam Type

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

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Psychology	All Bachelor Programs in the Social Sciences field

Interaction and Communication in Organisations

Course Code: DLBKPSIKO01_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.
- Lauring, 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

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Study Format myStudies

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Exam, 90 Minutes

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Practice Exam
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Online Tests
☑ Recorded Live Sessions	☑ Slides	

Intercultural and Ethical Decision-Making

Module Code: DLBCSIDM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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

Prof. Dr. Zeljko Sevic (Intercultural and Ethical Decision-Making)

Contributing Courses to Module

- Intercultural and Ethical Decision-Making (DLBCSIDM01)

Module Exam Type

Module Exam	Split Exam
Study Format: myStudies Written Assessment: Case Study Study Format: Distance Learning Written Assessment: Case Study Study Format: Duales myStudium Written Assessment: Case Study	

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Business Administration & Management	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 Hofstedes 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

Study Format	Course Type
myStudies	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Study Format Duales myStudium

Study Format	Course Type
Duales myStudium	Theory Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** yes
Type of Exam	Written Assessment: Case Study

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

Instructional Methods		
Tutorial Support	**Learning Material**	**Exam Preparation**
☑ Course Feed	☑ Course Book	☑ Online Tests
☑ Intensive Live Sessions/Learning Sprint	☑ Video	☑ Guideline
☑ Recorded Live Sessions	☑ Slides	

Corporate Planning and Simulation

Module Code: BUPL_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	none	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. (Corporate Planning and Simulation)

Contributing Courses to Module

- Corporate Planning and Simulation (BUPL01_E)

Module Exam Type

Module Exam	Split Exam
Study Format: Distance Learning Proof of participation in the simulation game, with a minimum score (passed / not passed)	

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	Links to other Study Programs of the University
This module is similar to other modules in the field of Business Administration & Management	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

Study Format	Course Type
Distance Learning	

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Proof of participation in the simulation game, with a minimum score (passed / not passed)

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

Instructional Methods
Exam Preparation ☑ Guideline

Bachelor Thesis

Module Code: DLBBT

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

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

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

Module Contents

Bachelor Thesis

- Bachelor's thesis
- Colloquium on the bachelor's thesis

Colloquium

Learning Outcomes

Bachelor Thesis

On successful completion, students will be able to

- work on a problem from their major field of study by applying the specialist and methodological skills they have acquired during their studies.
- 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.

Colloquium

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).

Links to other Modules within the Study Program	**Links to other Study Programs of the University**
All modules in the Bachelor program	All Bachelor Programs in distance learning

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

Study Format	Course Type
myStudies	Thesis Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Bachelor Thesis

Student Workload					
Self Study	**Contact Hours**	**Tutorial/Tutorial Support**	**Self Test**	**Independent Study**	**Hours Total**
270 h	0 h	0 h	0 h	0 h	270 h

Instructional Methods
Exam Preparation ☑ Review Book

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Thesis Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Bachelor Thesis

Student Workload					
Self Study	**Contact Hours**	**Tutorial/Tutorial Support**	**Self Test**	**Independent Study**	**Hours Total**
270 h	0 h	0 h	0 h	0 h	270 h

Instructional Methods
Exam Preparation ☑ 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

Study Format	Course Type
myStudies	Thesis Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Colloquium

Student Workload					
Self Study	**Contact Hours**	**Tutorial/Tutorial Support**	**Self Test**	**Independent Study**	**Hours Total**
30 h	0 h	0 h	0 h	0 h	30 h

Instructional Methods

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Thesis Course

Information about the examination	
Examination Admission Requirements	**Online Tests:** no
Type of Exam	Colloquium

Student Workload					
Self Study	**Contact Hours**	**Tutorial/Tutorial Support**	**Self Test**	**Independent Study**	**Hours Total**
30 h	0 h	0 h	0 h	0 h	30 h

Instructional Methods