MODULE HANDBOOK

Bachelor of Arts

Aviation Management (FS-OI-BAAM)

180 ECTS

Distance Learning

INTERNATIONAL
UNIVERSITY OF
APPLIED SCIENCES

Classification: Undergraduate

Contents

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3. Semester

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4. Semester

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5. Semester

2022-09-01

1. Semester

Academic Integrity and Writing for Business

Module Code: DLBBAAIWB_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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Andreas Simon (Academic Integrity and Writing for Business)

Contributing Courses to Module

- Academic Integrity and Writing for Business (DLBBAAIWB01_E)

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 Academic Integrity
- Introduction to Academic Referencing
- Work with Academic Resources
- Fundamentals of Business Writing
- Developing Convincing Business Writing
- Examples for Compelling Business Writing

Learning Outcomes

Academic Integrity and Writing for Business

On successful completion, students will be able to

- understand the concept of academic integrity.
- use sources from other authors in an academically acceptable way.
- reference works of other authors correctly.
- avoid plagiarism.
- develop written communication in business appropriately.
- adequately address different corporate stakeholders.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Business Administration & Management	All Bachelor Programmes in the Business & Management fields

Academic Integrity and Writing for Business

Course Code: DLBBAAIWB01_E

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

Course Description

This course facilitates key aspects of academic integrity and provides students with the skills of appropriate business writing. Therefore, this course is contributing to students' capacity to academic writing and research. Students will learn to handle academic sources developed by other authors. The issue of plagiarism will be prominently addressed. In addition, this course provides students with the skills to communicate with corporate stakeholders in writing. Students will learn how to adequately develop business communication in writing.

Course Outcomes

On successful completion, students will be able to

- understand the concept of academic integrity.
- use sources from other authors in an academically acceptable way.
- reference works of other authors correctly.
- avoid plagiarism.
- develop written communication in business appropriately.
- adequately address different corporate stakeholders.

Contents

1. Introduction to Academic Integrity
   - 1.1 Key Elements of Academic Integrity
   - 1.2 Plagiarism...
   - 1.3 How to avoid Plagiarism
2. Introduction to Academic Referencing
   - 2.1 Using Sources from other Authors in Academic Writing
   - 2.2 Citation and the List of Literature
   - 2.3 Referencing Styles
3. Work with Academic Resources
   - 3.1 How to employ Academic Data Bases
   - 3.2 Search in Data Bases
   - 3.3 Administration of Sources

4. Fundamentals of Business Writing
   - 4.1 Definition and Explanation of Business Writing
   - 4.2 Purpose of Business Writing
   - 4.3 Best Practices – Useful Hints on Business Writing

5. Developing Convincing Business Writing
   - 5.1 Considering the Recipient: What is the Target Group
   - 5.2 Considering the Objective: What do you want to achieve?
   - 5.3 Developing Your Written Communication

6. Examples for Compelling Business Writing
   - 6.1 Internal Communication to all staff via Email
   - 6.2 Warning Letter to an Employee
   - 6.3 Email to a Supplier in Delay

Literature

Compulsory Reading

Further Reading

- Atkinson, I. (2012). Financial times essential guide to business writing. Pearson Education
- Hatala, M. (2020). APA simplified: Your concise guide to the seventh edition. Greentop Academic Press.
- Houghton, P. & Houghton, T. (2019). APA: The easy way! XanEdu Publishing.
- International Center for Academic Integrity. (2014). The fundamental values of academic integrity (2nd ed.).
- Whitmell, C. (2014). Business writing essentials: How to write letters, reports and emails. Claire Whitmell.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Maya Stagge (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 IUBH

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 IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Methods	All Bachelor Programmes in the Business & Management field

Introduction to Academic Work

Course Code: DLBCSIAW01

Study Level	Language of Instruction	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 Research
   - 4.3 Literature Administration
   - 4.4 4.4 Citation and Author Guidelines
   - 4.5 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. (2014). Doing your research project. [electronic resource] : a guide for first-time researchers. Berkshire: Open University Press
- Creswell, J. W., & Guetterman, T. C. (2020). Educational research [electronic resource] : planning, conducting, and evaluating quantitative and qualitative research. Harlow, Essex, United Kingdom Pearson Education Limited
- Neuman, W. L. (n.d.). Social Research Methods [electronic resource]: Pearson New International Edition: Qualitative and Quantitative Approaches. Pearson
- Paul Oliver. (2012). Succeeding with Your Literature Review: A Handbook for Students. Open University Press
- Schwaiger, M. [Ed., Taylor, C. R. [Ed., & Sarstedt, M. [Ed. (2011). Measurement and research methods in international marketing. Emerald
- Sonyel Oflazoglu. (2017). Qualitative versus Quantitative Research.
- Taylor, S. J., Bogdan, R., & DeVault, M. L. (2016). Introduction to qualitative research methods [electronic resource]: a guidebook and resource. Hoboken, New Jersey Wiley
- Thornhill, A., Saunders, M., & Lewis, P. (2019). Research methods for business students [electronic resource]. Harlow, England Pearson

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Basic Workbook (passed / not passed)

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format Distance Learning

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

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Basic Workbook (passed / not passed)

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Introduction to Aviation Management

Module Code: DLBAMIAM

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Jakob Funkenstein (Introduction to Aviation Management)

Contributing Courses to Module

- Introduction to Aviation Management (DLBAMIAM01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Introduction to the Aviation Industry
- Aviation Market Segments, Supply Chain (from OEM to Scrapping) and Regulatory Framework
- Commercial Aviation Aircraft Types and Operations
- Management of Airports
- Management of Airlines

Learning Outcomes

Introduction to Aviation Management

On successful completion, students will be able to

- remember the structure and actors in the aviation industry.
- understand the interrelations within the aviation system.
- explain the fundamental functions of airports and airlines.
- understand the core organizational and management challenges.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Introduction to Aviation Management

Course Code: DLBAMIAM01

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

Course Description

Aviation is a relatively young industry providing fast and global transportation of both, humans and cargo (including e.g. animals, mail, parcels, or dangerous goods). Aviation happens at great height and speed, globally and within the autonomous airspace of nations – which poses unique challenges for the aviation system.The course first provides a general overview of the aviation system's historical development and its current structure, explaining the roles of different actors along the aviation supply chain.After this general introduction, the course focuses on the largest market segment: commercial aviation. The different aircraft in use, their capabilities, restraints as well as their operational and maintenance characteristics are discussed.The final two sections introduce the most important operational actors in commercial aviation: airports and airlines. Their individual roles, their respective operational and management challenges, and the nature of their interdependence and collaboration are explored.

Course Outcomes

On successful completion, students will be able to

- remember the structure and actors in the aviation industry.
- understand the interrelations within the aviation system.
- explain the fundamental functions of airports and airlines.
- understand the core organizational and management challenges.

Contents

1. Introduction to the Aviation System
   - 1.1 History of Aviation
   - 1.2 The Aviation Market and the Aerospace Industry
   - 1.3 International Aviation Regulatory Actors and Roles
2. Aircraft in Commercial Aviation
   - 2.1 Aircraft Families and Types
   - 2.2 Aircraft Operation
   - 2.3 Aircraft Maintenance

3. Airport Management
   - 3.1 Elements of Airports
   - 3.2 Runway Systems and Operations
   - 3.3 Airport Slot Management
   - 3.4 Terminal Concepts

4. Airline Management
   - 4.1 Traffic forecasting and planning
   - 4.2 Network design and planning
   - 4.3 Cost structures and their management
   - 4.4 Yield Management

Literature

Compulsory Reading

Further Reading

- Doganis, R. (2019). Flying off course: The economics of international airlines (5th ed.). Routledge.
- Graham, A. (2018). Managing airports: An international perspective (5th ed.). Routledge.
- Vogel, H.-A. (2019). Foundations of airport economics and finance. Elsevier.
- Wensveen, J. (2018). Air transportation: A management perspective. Routledge.

Study Format Distance Learning

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

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam or Advanced Workbook

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

DLBAMIAM01

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Markus Prandini (Business 101)

Contributing Courses to Module

- Business 101 (DLBBAB01_E)

Module Exam Type

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

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 IU International University of Applied Sciences (IU)
This module is similar to other modules in the fields of Business Administration & Management	All Bachelor Programmes in the Business & Management fields

Business 101

Course Code: DLBBAB01_E

Study Level	Language of Instruction	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

- Collins, J. (2011). Good to great: Why some companies make the leap...and others don't. Harper Business.
- Covey, S. (1989) The 7 habits of highly effective people: Powerful lessons in personal change. Free Press.
- Miller, J. (2004). QBQ! The question behind the question. Penguin.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Modern Aviation Transport Modes

Module Code: DLBAMMATM

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Jakob Funkenstein (Modern Aviation Transport Modes)

Contributing Courses to Module

- Modern Aviation Transport Modes (DLBAMMATM01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Discussion of Business Models and Comparison of Commercial Air Transport Business Models
- Analysis of Marketing Strategies and Value Propositions
- Identification of Key Success Metrics
- Overview of Recent Developments and Future Scenarios
- Focus is on Large Commercial Air Transport with some Discussion of the General Aviation and Business Jet Markets

Learning Outcomes

Modern Aviation Transport Modes

On successful completion, students will be able to

- be familiar with business models, what they are and why they matter.
- develop an enhanced understanding of different airline business models.
- know who the major market players are.
- understand the threats and opportunities facing the business models.
- be familiar with General Aviation, Business Jet and Urban Air Mobility concepts.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Modern Aviation Transport Modes

Course Code: DLBAMMATM01

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

Course Description

There are many different types of airlines, such as Full Service Network Carriers, Low-Cost Carriers, Independent Airlines, Charter Airlines, Cargo Carriers and Regional Airlines, to name a few.This course will introduce students in the basic workings of different airline business models as well as the different kinds of general aviation. Moreover, the operative complexity and the economic potential of more recent developments in business aviation and Urban Air Mobility will be covered.

Course Outcomes

On successful completion, students will be able to

- be familiar with business models, what they are and why they matter.
- develop an enhanced understanding of different airline business models.
- know who the major market players are.
- understand the threats and opportunities facing the business models.
- be familiar with General Aviation, Business Jet and Urban Air Mobility concepts.

Contents

1. Overall Market Development and Basic Concepts
   - 1.1 What are Business Models?
   - 1.2 What are Airline Business Models?
   - 1.3 Historical Development of Airline Business Models
2. Full Service Network Carriers
   - 2.1 Major Players
   - 2.2 S.W.O.T
3. Low Cost Carriers
   - 3.1 Major Players
   - 3.2 S.W.O.T
4. Charter/Integrated Tour Operators
   - 4.1 Major Players
   - 4.2 S.W.O.T

5. Regional Carriers
   - 5.1 Environment and Trends
   - 5.2 Major Players
   - 5.3 S.W.O.T

6. General and Business Aviation
   - 6.1 Environment and Trends
   - 6.2 Major Players
   - 6.3 S.W.O.T

7. Urban Air Mobility
   - 7.1 Air Taxis
   - 7.2 UAVs
   - 7.3 Infrastructure Requirements

8. Cargo Carriers
   - 8.1 Importance of Air Cargo
   - 8.2 Integrators
   - 8.3 Combination Carriers
   - 8.4 All-Cargo Operators
   - 8.5 Trends in Air Cargo

Literature

Compulsory Reading

Further Reading

- Doganis, R. (2006). The Airline Business (in the 21st century), Routledge, 2nd edition 2006,
- Marshall, D. et al: Introduction to Unmanned Aircraft Systems, Apple Academic Press, 2nd edition 2016, ISBN-13: 978-1482263930
- Taneja, N. (2016). Airline Industry: Poised for Disruptive Innovation? Ashgate

Study Format Distance Learning

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

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam or Advanced Workbook

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Andreas Simon (Managerial Economics)

Contributing Courses to Module

- Managerial Economics (DLBBWME01_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

- 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 IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Economics	All Bachelor Programmes in the Business & Management fields

Managerial Economics

Course Code: DLBBWME01_E

Study Level	Language of Instruction	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

Literature
Compulsory Reading
Further Reading ▪ Acemoglu, D., Laibson, & D., List, J. A. (2018). Microeconomics, Global edition (2nd ed.). Pearson. ▪ Case, K. E., Osten, S. M., & Fair, R. C. (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. ▪ Mankiw, N. G. (2017). Principles of economics (8th ed.). Cengage Learning. ▪ Pindyck, R. S., & Rubinfeld, D. L. (2017). Microeconomics (9th ed.). Pearson. ▪ Parkin, M. (2019). Economics (13th ed.). Harlow.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBBWME01_E

2. Semester

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Markus Prandini (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 IU International University of Applied Sciences (IU)**
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	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	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

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
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: 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 IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Business Administration & Management	All Bachelor Programmes in the Business & Management fields

Collaborative Work

Course Code: DLBCSCW01

Study Level	Language of Instruction	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 of the VUCA World
   - 1.2 Learning, Information, and Dealing with Knowledge and Ignorance
   - 1.3 C-Model: Collective – Collaborative – Continuous – Connected
   - 1.4 Checking Your Own Learning Behaviour

2. Networking and Cooperation
   - 2.1 Finding and Winning Suitable Cooperation Partners
   - 2.2 Sustainable Relationships: Digital Interaction and Building Trust
   - 2.3 Collaboration: Organizing Locally and Virtually and Using Media
   - 2.4 Social Learning: Agile, Collaborative, and Mobile Planning of Learning Processes

3. Performance in (Virtual) Teams
   - 3.1 Goals, Roles, Organization and Performance Measurement
   - 3.2 Team Building and Team Flow
   - 3.3 Scrum as a Framework for Agile Project Management
   - 3.4 Design Thinking, Kanban, Planning Poker, Working-in-Progress-Limits & Co

4. Communicate and Convince
   - 4.1 Communication as Social Interaction
   - 4.2 Language, Images, Metaphors, and Stories
   - 4.3 It's the Attitude that Counts: Open, Empathetic, and Appreciative Communication
   - 4.4 Listen Actively - Argue - Convince - Motivate
   - 4.5 Analyze Your Own Conversational and Argumentational Skills

5. Recognize Conflict Potentials - Handle Conflicts - Negotiate Effectively
   - 5.1 Respecting Diversity - Seizing Opportunities
   - 5.2 Developing Empathy for Yourself and Others
   - 5.3 Systemic Work Solutions and Reframing
   - 5.4 Negotiate Constructively: Finding Clear Words - Interests Instead of Positions

6. Realize Your Own Projects
   - 6.1 Set Goals Effectively - Focus - Reflect
   - 6.2 The Agile Use of One's Own Time
   - 6.3 (Self-)Coaching and Inner Team
   - 6.4 Strategies and Methods for Self-Management and Self-Motivation

7. Mobilize Your Resources
   - 7.1 Recognizing Resources - Regulating Emotions
   - 7.2 Reflection and Innovation - Lateral Thinking and Creativity
   - 7.3 Transfer Strength and Willpower: Analyzing and Controlling Condition Factors

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. New York: AMACOM.
- Boulton, J. G., Allen, P. M., & Bowman, C. (2015): Embracing complexity. Strategic perspectives for an age of turbulence. 1. ed. Oxford: Oxford Univ. Press.
- Chang, B., & Kang, H. (2016): Challenges facing group work online. In: Distance Education 37 (1), S. 73–88. DOI: 10.1080/01587919.2016.1154781.
- Duhigg, C. (2013): The power of habit. Why we do what we do and how to change. London: Random House Books.
- Fisher, R., & Ury, W. (2012): Getting to yes. Negotiating an agreement without giving in. Updated and rev., 3. ed. London: Random House Business Books.
- Kaats, E., & Opheij, W. (2014): Creating conditions for promising collaboration. Alliances, networks, chains, strategic partnerships. Berlin, Heidelberg, s.l.: Springer Berlin Heidelberg (SpringerBriefs in Business).
- Martin, S. J., Goldstein, N. J., & Cialdini, R. B. (2015). The small BIG: Small changes that spark BIG influence. London, England: Profile Books.
- Oettingen, G. (2014). Rethinking positive thinking: Inside the new science of motivation. New York, NY: Current.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Aviation Policy, Institutions and Regulations

Module Code: DLBAMAPIR

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Jakob Funkenstein (Aviation Policy, Institutions and Regulations)

Contributing Courses to Module

- Aviation Policy, Institutions and Regulations (DLBAMAPIR01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Aviation and the Economy
- Aviation Policy as Competition Policy
- Market Failures
- Regulatory Options in Aviation
- Economics of Aviation Infrastructures
- Current International Regulations

Learning Outcomes

Aviation Policy, Institutions and Regulations

On successful completion, students will be able to

- discuss the impact of aviation on economic growth, transportation costs and trade.
- demonstrate knowledge on important economic key dimensions of aviation.
- analyze conditions for market failures and show their implications for economic policy.
- know the differences between major regulatory approaches and the corresponding incentives for efficiency and investment behavior.
- evaluate current regulatory approaches and propose policies with lower welfare losses.
- understand and evaluate different market structures and test them on aviation markets.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in thefield of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Aviation Policy, Institutions and Regulations

Course Code: DLBAMAPIR01

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

Course Description

In order to understand the specifics of aviation the course deals in its first part with the theoretical basics of aviation in economic theory and its contribution to the economy from different perspectives. The second part of the course deals with the reasons for regulatory interventions in aviation markets. The course objectives in this part is to discuss competition policy and market failures and their consequences for aviation. In addition, this part will study regulatory solutions and evaluate the impact of liberalization in air transport. The last part of the course will provide specific insights in aviation economics, in particular airport pricing and the optimal provision of aviation infrastructures. All parts will be accompanied by a discussion on current regulations.

Course Outcomes

On successful completion, students will be able to

- discuss the impact of aviation on economic growth, transportation costs and trade.
- demonstrate knowledge on important economic key dimensions of aviation.
- analyze conditions for market failures and show their implications for economic policy.
- know the differences between major regulatory approaches and the corresponding incentives for efficiency and investment behavior.
- evaluate current regulatory approaches and propose policies with lower welfare losses.
- understand and evaluate different market structures and test them on aviation markets.

Contents

1. Aviation and the Economy
   - 1.1 The Impact of Aviation on Economic Growth
   - 1.2 Aviation and Trade: The Impact of Aviation on Transportation Cost
   - 1.3 Aviation and Development
2. Aviation Policy as Competition Policy
   - 2.1 The Structure-Conduct-Performance Paradigm
   - 2.2 Different Market Structures and Outcomes and Their Relevance for Aviation
   - 2.3 Reasons for Regulation from the Competition Perspective: Ruinous Competition and the Empty Core Theorem
   - 2.4 Case Study: The Liberalization of Air Transport in the USA and in Europe.

3. Market Failures
   - 3.1 Natural Monopolies and Their Consequences for Public Policy
   - 3.2 Externalities in Aviation: Theory and Optimal Solutions
   - 3.3 Case Study: Airport Slots
   - 3.4 Case Study: Airport Noise

4. Regulatory Approaches
   - 4.1 Cost Based Regulation
   - 4.2 Price-Cap Regulation
   - 4.3 The Impact of the Regulatory Approach on Investment Behavior: Regulatory Risks
   - 4.4 Case Study: Airport Regulation in Europe

5. Optimal Airport Pricing Structures
   - 5.1 Current Airport Pricing Structures and Pricing Basics: Marginal Cost Pricing and the Deficit Problem
   - 5.2 Cost Based Pricing: Fully Distributed Costs
   - 5.3 Demand Based Pricing: Ramsey Prices and Peak-Load Pricing Approaches
   - 5.4 Non-Linear Pricing
   - 5.5 Case Study: The IATA and ICAO Positions in Airport Pricing

6. Privatization Tendencies in Aviation
   - 6.1 The Traditional Procurement in Airport Construction
   - 6.2 Advantages and Disadvantages of Privatization
   - 6.3 Privatization Options: Public-Private Partnerships and the Theory of Incomplete Contracts
   - 6.4 Case Study: The BAA Privatization

Literature

Compulsory Reading

Further Reading

- Baumol, W.J., Panzar J.C. and Willig R.D. (1982). Contestable markets and the theory of industry structure, Harcourt Brace Jovanovich.
- Braeutigam, R.R. (1989). Optimal policies for natural monopolies. In Schmalensee, R. and Willig, R. (eds.), Handbook of Industrial Organization, vol. 2 (pp. 1289-1346), Elsevier.
- Button, K.J. (1993). Transport Economics. Edward Elgar.
- Button, K. & Nijkamp, P. (1998). Economic Stability in network industries. Transportation Research Part E, 34(1), 13-24.
- Dewatripont, M. & Legros, P. (2005). Public-private partnerships: Contract design and risk transfer. EIB Papers, 10(1), 120-145.
- Doganis, R. (2005). The airport business. Routledge.
- Guthrie, G. (2006). Regulating Infrastructure: The Impact on Risk and Investment, Journal of Economic Literature, 44, 925-972. https://doi.org/10.1257/jel.44.4.925
- Romp, W, & De Haan, J. (2005). Public capital and economic growth: a critical survey. EIB Papers, 10(1), 40-71.
- Välilä, T. (2005). How expensive are cost savings? On the economics of public-private partnerships. EIB Papers, 10(1), 94-119.
- Viscusi, W.K., Harrington Jr., J.E. and Sappington D.E.M. (2018). Economics of Regulation and Antitrust (5th Ed.). MIT Press.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam or Advanced Workbook

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Muhammad Ashfaq (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 Study Format: Distance Learning Exam or Written Assessment: Written Assignment	

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 IU International University of Applied Sciences (IU)
This module is similar to other modules in the fields of Finance & Tax Accounting	All Bachelor Programmes in the Business & Management fields

Management Accounting

Course Code: DLBMAE01

Study Level	Language of Instruction	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

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	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

DLBMAE01

Aircraft Performance and Evaluation

Module Code: DLBAMAPE

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Jakob Funkenstein (Aircraft Performance and Evaluation)

Contributing Courses to Module

- Aircraft Performance and Evaluation (DLBAMAPE01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Aircraft Design Fundamentals and History
- Aircraft Weights, Payload and Range Capability
- Performance in Phases of Flight – Takeoff, Cruise, Landing
- Aircraft Performance and Economics
- Aircraft Systems and Design Philosophies
- Aircraft Selection Processes and Evaluation Models

Learning Outcomes

Aircraft Performance and Evaluation

On successful completion, students will be able to

- understand key performance parameters of aircraft: lift, thrust, drag and weight.
- understand the relationship between technical and economic performance.
- read and explain payload-range curves.
- understand the significance of takeoff and landing performance.
- obtain a general knowledge of aircraft systems, cabin design and cargo layouts.
- discuss financial models for evaluating aircraft fleet options.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Aircraft Performance and Evaluation

Course Code: DLBAMAPE01

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

Course Description

The aircraft evaluation and selection process is an integral part of airline and air cargo management. Apart from being the most visible part of the airline, the fleet it operates tells a lot about the management style and success potential of the airline.This course walks the student through that selection process, beginning with the fundamentals of aircraft design, payload-range and revenue generating capabilities. Aircraft performance is assessed at the holistic as well as the systems level. The connection between aircraft performance and economics is discussed in detail. And models for evaluating aircraft cost and revenue generation are presented.

Course Outcomes

On successful completion, students will be able to

- understand key performance parameters of aircraft: lift, thrust, drag and weight.
- understand the relationship between technical and economic performance.
- read and explain payload-range curves.
- understand the significance of takeoff and landing performance.
- obtain a general knowledge of aircraft systems, cabin design and cargo layouts.
- discuss financial models for evaluating aircraft fleet options.

Contents

1. Aircraft Design Fundamentals
   - 1.1 Fundamentals of Flight: Lift, Drag, Thrust, Weight
   - 1.2 History of Aircraft Design
   - 1.3 Regulation and Aircraft Design
   - 1.4 Aircraft Propulsion Design
2. Aircraft Weights and Performance
   - 2.1 Structural Weights
   - 2.2 Payload-Range Capability
   - 2.3 Fuel Limitations
   - 2.4 Alternative Fuels and Propulsion

3. The Importance of Ground and Flight Performance
   - 3.1 Airport Design, Runway Length, Altitude
   - 3.2 Maintenance and Aircraft Evaluation
   - 3.3 Flight and Ground Operations as Factors in Aircraft Operations

4. Aircraft Systems
   - 4.1 Wing Design and Components
   - 4.2 Engine Specifications and Auxiliary Power
   - 4.3 Hydraulics and Electrical Systems
   - 4.4 Environmental Control Systems and Cabin Filtration
   - 4.5 Cabin Design, In-Flight Entertainment and Connectivity

5. Fleet Evaluation Models
   - 5.1 Time Value of Money and Net Present Value
   - 5.2 Revenue Drivers
   - 5.3 Cost Drivers
   - 5.4 New vs. Used
   - 5.5 Lease vs. New

Literature

Compulsory Reading

Further Reading

- Clark, P. (2017). Buying the Big Jets: Fleet Planning for Airlines (3rd ed.). Routledge.
- Sforzy, P. (2014). Commercial Airplane Design Principles (1st ed.). Butterworth-Heinemann
- Wicks, R. (2017). A380 Owners' Workshop Manual: 2005 to Present. Haynes

Study Format Distance Learning

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

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam or Advanced Workbook

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

DLBAMAPE01

Organizational Behavior

Module Code: DLBBWOB_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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Karin Halbritter (Organizational Behavior)

Contributing Courses to Module

- Organizational Behavior (DLBBWOB01_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

- Relevance and Importance of Organizational Behavior
- Job Performance
- Commitment
- Organisational Mechanisms
- Group-Related Mechanisms
- Individual Mechanisms
- Individual Characteristics

Learning Outcomes

Organizational Behavior

On successful completion, students will be able to

- establish commitment and performance as the critical dependent variables.
- explain organizational, group-related and individual mechanisms in Organizational Behavior and describe their relation to commitment and performance.
- explain the influence of individual characteristics on individual mechanisms (such as satisfaction, stress, motivation, trust and decision-making).

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Human Resources	All Bachelor Programmes in the Human Resources field

Organizational Behavior

Course Code: DLBBWOB01_E

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

Course Description

Many decisions are not made solely on the basis of financial or revenue-based considerations, but due to personal agendas, personal preferences or internal competition. This course consequently aims to provide an accessible, theory-driven comprehension of behaviour, interactions and conflicts in organisations. The course deals intensively with the psychological, sociological and anthropological foundations and dynamics in organizations. Starting from the two most critical behavioral variables in the work context, performance and commitment, units and settings that have a significant influence on them are discussed. In detail, organizational, group-related and individual mechanisms as well as individual characteristics are explored as explanatory objects.The course continues with a discussion on corporate culture and organisational structure within the framework of the organisational mechanisms. In the context of group-related mechanisms, the course aims to identify aspects of leadership styles, power structures, negotiation strategies, group dynamics and heterogeneity. Individual mechanisms include job satisfaction, stress, motivation, fairness, trust and decision-making. The individual characteristics (abilities and personality) in turn have an effect on these aforementioned elements.

Course Outcomes

On successful completion, students will be able to

- establish commitment and performance as the critical dependent variables.
- explain organizational, group-related and individual mechanisms in Organizational Behavior and describe their relation to commitment and performance.
- explain the influence of individual characteristics on individual mechanisms (such as satisfaction, stress, motivation, trust and decision-making).

Contents

1. Introduction to Organizational Behavior
   - 1.1 Attitudes and Behavior as Determinants of Performance and Commitment
   - 1.2 Organizational Mechanisms
   - 1.3 Group-related Mechanisms
   - 1.4 Individual Characteristics
   - 1.5 Individual Mechanisms

2. Target Figures: Performance and Commitment
   - 2.1 Performance
   - 2.2 Commitment
3. Organizational Mechanisms
   - 3.1 Corporate Structure
   - 3.2 Corporate Culture
4. Group-Related Mechanisms
   - 4.1 Management Styles
   - 4.2 Power Structures
   - 4.3 Negotiation Strategies
   - 4.4 Team Dynamics
   - 4.5 Diversity
5. Individual Characteristics
   - 5.1 Skill and Intellect
   - 5.2 Personality
6. Individual Mechanisms
   - 6.1 Job Satisfaction
   - 6.2 Stress
   - 6.3 Motivation
   - 6.4 Trust
   - 6.5 Integrity
   - 6.6 Learning and Decision-Making

Literature

Compulsory Reading

Further Reading

- Colquitt, J., Lepine, J. A., & Wesson, M. J. (2018). Organizational behavior: Improving performance and commitment in the workplace (6th ed.). McGraw-Hill Irwin.
- Cross, C., & Carbery, R. (2016). Organizational behavior: An introduction. Macmillan Education.
- Luthans, F., Luthans, B. C., & Luthans, K. W. (2015). Organizational behavior: An evidence-based approach (13th ed.). Information Age Publishing.
- Robins, S. P., & Judge, T. A. (2016). Organizational behavior. Prentice Hall International.

Study Format myStudies

Study Format	Course Type
myStudies	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

3. Semester

Airport Management and Ground Services

Module Code: DLBAMAMGS

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Airport Management and Ground Services)

Contributing Courses to Module

- Airport Management and Ground Services (DLBAMAMGS01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Airport Development
- Airport Capacity and Slot Management
- Airport Ownership, Organization and Finance
- Ground Services
- Terminal and Passenger Management
- Other Topics (Airport Marketing, Crisis & Contingency Management, Safety and Security, Future Airport Trends, etc.)

Learning Outcomes

Airport Management and Ground Services

On successful completion, students will be able to

- understand all relevant aspects of modern airport management.
- understand the various processes and services involved in operating an airport.
- understand the current challenges and future developments of the airport business.
- understand the role of the various stakeholders involved in the development, operations and management of airports.
- understand the needs and expectations of airport customers and how to fulfill them.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Airport Management and Ground Services

Course Code: DLBAMAMGS01

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

Course Description

The course Airport Management and Ground Services is an introduction to airport business management, its infrastructure and the relevant framework. It is an advanced course for in-depth treatment of airport development, operations and services, incl. airport business models, capacity and slot management, ground services, terminal and passenger management as well as basic organizational and financial aspects. Recent trends and developments of the business will be incorporated in all parts of the course to give students a comprehensive outlook into the future of airports.

Course Outcomes

On successful completion, students will be able to

- understand all relevant aspects of modern airport management.
- understand the various processes and services involved in operating an airport.
- understand the current challenges and future developments of the airport business.
- understand the role of the various stakeholders involved in the development, operations and management of airports.
- understand the needs and expectations of airport customers and how to fulfill them.

Contents

1. Airport Development
   - 1.1 The Airport System
   - 1.2 Long Term Forecasting and Capacity Demand
   - 1.3 Airport Master Planning and Construction
   - 1.4 Airport Certification

2. Airport Capacity and Slot Management
   - 2.1 Introduction to Airport Capacities and Resources
   - 2.2 Airport Capacity Management
   - 2.3 Airport Slot Management and Coordination
   - 2.4 Airport Collaborative Decision Making A-CDM

3. Airport Ownership, Organization and Finance
   - 3.1 Airport Ownership and Privatization
   - 3.2 Airport Organization and Stakeholders
   - 3.3 Airport Financial Management
   - 3.4 Cost & Revenue Structures
   - 3.5 Airport Charges

4. Ground Services
   - 4.1 Basics of Ground Handling Services and Operations
   - 4.2 Ground Handling Markets and Business Plans
   - 4.3 Standard Ground Handling Agreement and Service Level Agreements
   - 4.4 Quality, Auditing and Controlling
   - 4.5 Future of the Ground Handling Business

5. Terminal and Passenger Management
   - 5.1 Passenger Processes and Services
   - 5.2 Baggage Processes
   - 5.3 Terminal Resource Management and Optimization
   - 5.4 Passenger Experience
   - 5.5 Airport Service Quality

6. Other Topics
   - 6.1 Airport Business Models and Market Segmentation
   - 6.2 Airport Marketing Options
   - 6.3 Crisis and Contingency Management
   - 6.4 Safety and Security
   - 6.5 Future Airport Trends

Literature
Compulsory Reading
Further Reading ▪ de Neufville, R., Odoni, A. (2013). Airport Systems Planning, Design and Management (2nd Edition). McGraw Hill Professional. ▪ Graham, A. (2018). Managing Airports: An International Perspective (5th Edition). Routledge. ▪ IATA (2018). ADRM Airport Development Reference Manual (10th or 11th Edition). International Air Transport Association. ▪ ICAO (2018). Annex 14 Aerodromes: Volume I Aerodrome Design and Operations (8th Edition). International Civil Aviation Organization. ▪ Prather, D. (2015). Airport Management. Aviation Supplies & Academics.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

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
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 IU International University of Applied Sciences (IU)**
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	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

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	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

DLBCFIE01

Digital Skills

Module Code: DLBDS_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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Anne-Kristin Langner (Digital Skills)

Contributing Courses to Module

- Digital Skills (DLBDS01_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Digital Transformation and Digital Communication
- Methods for Digital, Agile and Collaborative Working
- Social Media and Mobile
- Digital in the Enterprise: Selected Scenarios
- Selected Technologies
- Trends and Outlook

Learning Outcomes

Digital Skills

On successful completion, students will be able to

- apply and classify the acquired basic knowledge.
- apply methodical knowledge to control and accompany digital processes.
- apply the acquired deeper understanding of digital technologies in practice.
- classify the digital holistically and to design interfaces innovatively.
- apply the digital skills they have learned to their work and career environment and use them in a goal-oriented manner.
- develop a vision of what the development of Digital Skills will look like in the future and
- to decide for themselves how they want to gain further knowledge in this area.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Methods	All Bachelor Programs in the Business & Management field

Digital Skills

Course Code: DLBDS01_E

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

Course Description

Whether social work, marketing, management or nursing professions – the digital transformation as a megatrend determines a profound change that affects every individual and all levels of society. This course is about understanding the causes of change and change as such with its effects. From this understanding, skills – Digital Skills – are developed to deal with digitalization in different (professional) contexts. Fundamentally, aspects of digital transformation and digital communication are discussed and how the economy, society and communication have changed and are changing are presented. Among other things, this affects work and collaboration. Methods such as design thinking, tools such as Slack or content management systems such as WordPress have interdisciplinary relevance. Social media and mobile are an integral part of everyday life, shaping (media) socialization and digital marketing. Under the aspect "Digital in the enterprise", selected scenarios are considered, such as Digital HR or Digital and Social. A basic understanding of digital technologies such as cloud computing or big data is essential in order to be able to accompany and control digital processes and assess trends such as quantum computing.

Course Outcomes

On successful completion, students will be able to

- apply and classify the acquired basic knowledge.
- apply methodical knowledge to control and accompany digital processes.
- apply the acquired deeper understanding of digital technologies in practice.
- classify the digital holistically and to design interfaces innovatively.
- apply the digital skills they have learned to their work and career environment and use them in a goal-oriented manner.
- develop a vision of what the development of Digital Skills will look like in the future and
- to decide for themselves how they want to gain further knowledge in this area.

Contents

1. Digital Transformation
   - 1.1 Basics, Causes, Consequences
   - 1.2 Infrastructure and Technologies
   - 1.3 Implications for the Economy and Society
   - 1.4 Concepts

2. Digital communication
   - 2.1 Basics
   - 2.2 The Online Communication Process
   - 2.3 Communication Tools
   - 2.4 Bot Communication
   - 2.5 Text vs. Voice

3. Methods for Digital Work
   - 3.1 Agile Methods: Agile Basics, SCRUM, Kanban
   - 3.2 Design Thinking
   - 3.3 Game Thinking
   - 3.4 Lean Startup and Lean Management

4. Distributed and Collaborative Work
   - 4.1 Basics
   - 4.2 Tools and Systems
   - 4.3 (Green) Web Design and Content Management Systems
   - 4.4 Presentation Techniques

5. Social Media and Mobile
   - 5.1 Social Media and Social Media Marketing
   - 5.2 Social Media Channels
   - 5.3 Responsive Design and Mobile Websites
   - 5.4 Apps and Messengers
   - 5.5 QR Codes and Location-Based Services
   - 5.6 Mobile First and Mobile Only

6. Selected technologies
   - 6.1 Cloud Computing
   - 6.2 Big Data / Data Analytics
   - 6.3 AI / Machine Learning
   - 6.4 Internet of Things
   - 6.5 Application Programming Interfaces (APIs)
   - 6.6 Smart Services
   - 6.7 Robotics
   - 6.8 Blockchain
   - 6.9 Virtual and Augmented Reality
   - 6.10 3D / 4D Printing

7. Digital in the Enterprise: Selected Scenarios
   - 7.1 Digital Business
   - 7.2 Digital Marketing
   - 7.3 Digital Design
   - 7.4 Digital HR
   - 7.5 Digital and Social

8. Trends and Outlook
   - 8.1 Acquiring and Expanding Competencies for the Digital Age
   - 8.2 Trends and Outlook for Digital Communication, Social Media and Mobile
   - 8.3 Trends and Outlook for Distributed and Collaborative Working
   - 8.4 Trends and Outlook for Selected Technologies

Literature

Compulsory Reading

Further Reading

- Bergmann, F. (2019): New Work New Culture. Work we want and culture that strengthens us. Zero Books, Winchester.
- Diamandis, P. H./Kotler, S. (2020): The Future Is Faster Than You Think. How Converging Technologies Are Transforming Business, Industries, and Our Lives. Simon & Schuster, New York.
- Kretschmer, T./Khashabi, P. (2020): Digital Transformation and Organization Design. An Integrated Approach. In: California Management Review, Volume 62, Issue 4, pp. 86-104.
- Kupiek, M. (2021): Digital Leadership, Agile Change and the Emotional Organization. Emotion as a Success Factor for Digital Transformation Projects. Springer Nature, Wiesbaden [Future of Business and Finance]
- Rogers, D. L. (2016): The Digital Transformation Playbook. Rethink Your Business for the Digital Age. Columbia University Press, New York.
- Rowles, D. (2017): Mobile Marketing. How Mobile Technology is Revolutionizing Marketing, Communications and Advertising. 2nd edition, KoganPage, London.
- Schildt, H. (2020): The Data Imperative. How Digitalization is Reshaping Management, Organizing, and Work. Oxford University Press, Oxford.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Advanced Workbook (passed / not passed)

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

International Marketing

Module Code: DLBDSEIMB1

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Caterina Fox (International Marketing)

Contributing Courses to Module

- International Marketing (DLBDSEIMB01)

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

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

Learning Outcomes

International Marketing

On successful completion, students will be able to

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

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Marketing & Sales	All Bachelor Programmes in the Marketing & Communication fields

International Marketing

Course Code: DLBDSEIMB01

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

Course Description

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

Course Outcomes

On successful completion, students will be able to

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

Contents

1. Strategic International Marketing
   - 1.1 Internationalization
   - 1.2 Theoretical Foundations of International Market Entry Strategies
   - 1.3 Forms of International Market Entry
2. Cultural Differences as an Aspect of International Marketing
   - 2.1 Overview of Culture
   - 2.2 Cultural Model Based on Hofstede
   - 2.3 Cultural Model Based on Trompenaars

Literature
Compulsory Reading
Further Reading ▪ Armstrong, G., Kotler, P., & Opresnik, M. O. (2019). Marketing: An introduction (14th ed.). Pearson. ▪ Green, M. C., & Keegan, W. J. (2020). Global marketing (10th ed.). Pearson. ▪ Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). Cultures and organizations—Software of the mind: Intercultural cooperation and its importance for survival. McGraw-Hill. ▪ Hollensen, S. (2020). Global marketing (8th ed.). Pearson. ▪ Mooij, M. (2018). Global marketing and advertising: Understanding cultural paradoxes (5th ed.). Sage Publications.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBDSEIMB01

Airline and Air Cargo Management

Module Code: DLBAMAACM

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Airline and Air Cargo Management)

Contributing Courses to Module

- Airline and Air Cargo Management (DLBAMAACM01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Unique Industry Characteristics of Airline and Air Cargo Operation
- Organizational Structure of an Airline and Air Cargo Operator
- Responsibilities and KPIs of Core Divisions
- Quality Management
- Network and Fleet Planning
- Revenue Management
- Crisis Management and Communications

Learning Outcomes

Airline and Air Cargo Management

On successful completion, students will be able to

- understand the fundamental of airline and air cargo management with respect to commercial as well operational responsibilities.
- identify the major players in the airline and air cargo industries as well as their significance to the industry.
- differentiate between the challenges and opportunities facing airline operations as opposed to air cargo operations.
- gain a comprehensive understanding of the critical success factors in managing an airline or air cargo operator.
- understand the unique challenges with respect to air cargo, from the perspective of an airline engaging in air cargo activities (combination carrier) or a pure airfreight operator.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Airline and Air Cargo Management

Course Code: DLBAMAACM01

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

Course Description

The management of an airline and (or) an air cargo operator represents a very unique set of challenges and opportunities. Only with a well-rounded base of knowledge about the industry and the socioeconomic environment it operates in can the Airline or Air Cargo Manager successfully navigate these challenges. This course prepares students for a future career in the aviation industry, by focusing on all relevant processes of airline and air cargo management. The focus on strategic positioning and tactical processes prepares students for future leadership roles.

Course Outcomes

On successful completion, students will be able to

- understand the fundamental of airline and air cargo management with respect to commercial as well operational responsibilities.
- identify the major players in the airline and air cargo industries as well as their significance to the industry.
- differentiate between the challenges and opportunities facing airline operations as opposed to air cargo operations.
- gain a comprehensive understanding of the critical success factors in managing an airline or air cargo operator.
- understand the unique challenges with respect to air cargo, from the perspective of an airline engaging in air cargo activities (combination carrier) or a pure airfreight operator.

Contents

1. Airline Environment
   - 1.1 Historical Development of Airline and Air Cargo Performance
   - 1.2 Financial Analysis of Airlines
   - 1.3 Risk Structure of Airline Operations
   - 1.4 Regulatory and Operational Constraints of Airline Operations
2. Organizational Structure and Characteristics of Airline and Air Cargo Operators
   - 2.1 Functional Organizations and Responsibilities
   - 2.2 KPIs of Functional Organizations

3. The Value Proposition of Airlines and Air Cargo Operators
   - 3.1 Marketing and PR Strategies
   - 3.2 Total Distribution Cost Concept (Air Cargo)
   - 3.3 Flight and Ground Operations asFactors in Aircraft Operations

4. Crisis Management and Communications
   - 4.1 Major Crisis Events (Terrorism, Financial, Pandemics)
   - 4.2 Communication and PR in Crisis Situations
   - 4.3 Effective Management Strategies to Navigate through Crisis

5. Prospects for Airline and Air Cargo Industries
   - 5.1 Industry Forecasts for Growth
   - 5.2 Infrastructure Requirements for Growth

Literature

Compulsory Reading

Further Reading

- Doganis, R. (2010). Flying Off Course: Airline Economics and Marketing (4th ed.). Routledge
- Taneja, N. (2021). Airlines in a Post-Pandemic World: Preparing for Constant Turbulence Ahead. Ashgate.
- Taneja, N. (2020). Transforming Airlines: A flight Plan for Navigating Structural Changes. Ashgate

Study Format Distance Learning

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

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam or Advanced Workbook

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Statistics: Probability and Descriptive Statistics

Module Code: DLBDSSPDS

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Stefan Stöckl (Statistics: Probability and Descriptive Statistics)

Contributing Courses to Module

- Statistics: Probability and Descriptive Statistics (DLBDSSPDS01)

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

- Probability
- Random variables
- Joint distributions
- Expectation and variance
- Inequalities and limit theorems

Learning Outcomes

Statistics: Probability and Descriptive Statistics

On successful completion, students will be able to

- define probability, random variable, and probability distribution.
- understand the concept of Bayesian statistics.
- grasp the definition of joint and marginal distributions.
- calculate expectation values and higher moments.
- comprehend important inequality equations and limit theorems.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Methods	All Bachelor Programmes in the Business & Management fields

Statistics: Probability and Descriptive Statistics

Course Code: DLBDSSPDS01

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

Course Description

Statistical description and analysis are the foundations for data-driven analysis and prediction methods. This course introduces the fundamentals, beginning with a formal definition of probabilities and introduction to the concepts underlying Bayesian statistics.Random variables and probability density distributions are then discussed, as well as the concept of joint and marginal distributions. The importance of various discrete and continuous distributions and their applications is stressed.Characterizing distributions is an important aspect of describing the behavior of probability distributions. Students are familiarized with expectation values, variance, and covariance. The concepts of algebraic and central moments and moment-generating functions complement the characterization of probability distributions.Finally, this course focuses on important inequalities and limit theorems such as the law of large numbers or the central limit theorem.

Course Outcomes

On successful completion, students will be able to

- define probability, random variable, and probability distribution.
- understand the concept of Bayesian statistics.
- grasp the definition of joint and marginal distributions.
- calculate expectation values and higher moments.
- comprehend important inequality equations and limit theorems.

Contents

1. Probability
   - 1.1 Definitions
   - 1.2 Independent events
   - 1.3 Conditional probability
   - 1.4 Bayesian statistics
2. Random Variables
   - 2.1 Random Variables
   - 2.2 Distribution functions and probability mass functions
   - 2.3 Important discrete probability distributions
   - 2.4 Important continous probability distributions

3. Joint Distributions
   - 3.1 Joint distributions
   - 3.2 Marginal distributions
   - 3.3 Independent random variables
   - 3.4 Conditional distributions

4. Expectation and Variance
   - 4.1 Expectation of a random variable, conditional expectations
   - 4.2 Variance and covariance
   - 4.3 Expectations and variances of important probability distributions
   - 4.4 Algebraic and central moments
   - 4.5 Moment-generating functions

5. Inequalities and Limit Theorems
   - 5.1 Probability inequalities
   - 5.2 Inequalities for expectations
   - 5.3 The law of large numbers
   - 5.4 Central limit theorem

Literature

Compulsory Reading

Further Reading

- Downey, A.B. (2011). Think stats (2nd ed.). Sebastopol, CA: O'Reilly
- Kim, A. (2019). Exponential Distribution—Intuition, Derivation, and Applications. Available online.
- Wasserman, L. (2004). All of Statistics: A concise course in statistical inference. New York, NY: Springer

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

4. Semester

Global Sourcing

Module Code: DLBINTGS_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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Martin Barth (Global Sourcing)

Contributing Courses to Module

- Global Sourcing (DLBLOGC102_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

- Make-or-buy decisions, in- & outsourcing strategies
- Procurement concepts, strategies and processes
- Conducting negotiations in purchasing:
- Procurement market research & analysis
- Information and communication technology in purchasing and procurement
- optimization of interfaces between purchasing and other corporate functions
- Organizational aspects of procurement

Learning Outcomes

Global Sourcing

On successful completion, students will be able to

- describe basic strategies, concepts and processes of global procurement and analyze, evaluate and apply them with a regard to potential fields of application.
- identify central planning principles and methods of purchasing and evaluate them with regard to their fields of application in practice and their scientific and methodological foundation.
- explain the operational and strategic importance of purchasing and procurement for the entire supply chain.
- name and apply methods and applications that are necessary for the planning and execution of purchasing and procurement processes or that can be used as control levers.
- independently identify, collect, analyze and evaluate data and information for specific procurement tasks
- work on practical tasks in a goal-oriented and efficient manner.
- design and carry out further studies with a scientific orientation in the field of purchasing and procurement under guidance.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Business Administration & Management	All Bachelor Programs in the Business & Management fields

Global Sourcing

Course Code: DLBLOGC102_E

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

Course Description

Students learn the basic concepts and methods of global procurement and global purchasing. They will study the operation of globally connected supply and logistics networks. Another aspect is the discussion of cultural peculiarities and specificities focusing on negotiations in an international context.The topics considered in the course are dealt with at both the strategic and the operational level with a view to the specific handling processes, necessary information flows, as well as legal and formal frameworks.

Course Outcomes

On successful completion, students will be able to

- describe basic strategies, concepts and processes of global procurement and analyze, evaluate and apply them with a regard to potential fields of application.
- identify central planning principles and methods of purchasing and evaluate them with regard to their fields of application in practice and their scientific and methodological foundation.
- explain the operational and strategic importance of purchasing and procurement for the entire supply chain.
- name and apply methods and applications that are necessary for the planning and execution of purchasing and procurement processes or that can be used as control levers.
- independently identify, collect, analyze and evaluate data and information for specific procurement tasks
- work on practical tasks in a goal-oriented and efficient manner.
- design and carry out further studies with a scientific orientation in the field of purchasing and procurement under guidance.

Contents

1. Basics
   - 1.1 Procurement in the Context of Internationalization
   - 1.2 Importance of Purchasing and Procurement in the Company
   - 1.3 Trends and Goals of Purchasing and Procurement
   - 1.4 National, Regional and Global Supply Networks
   - 1.5 Legal Framework Conditions on a National and International Level

9. Optimization Interfaces Between Purchasing and Other Corporate Functions
   - 9.1 Overview of Organizational Models
   - 9.2 Organizational Forms of Purchasing

10. Organizational Aspects of Procurement
   - 10.1 Variants of the Organizational Structure
   - 10.2 Decision-Making Aids

Literature

Compulsory Reading

Further Reading

- Cateora, P.R./Gilly, M.C./Graham, J.L. (2016): International Marketing. 17th edition, the Mc Graw-Hill Companies, Inc., New York.
- Lewicki, R./Barry, B./Saunders, D. (2016) Essentials of Negotiations, 6th edition, McGraw-Hill Education, New York.
- Pooler V. H./Pooler, D. J./Farney, S. D. (2004): Global Purchasing and Supply Management: Fulfill the Vision. 2nd edition, Springer, Berlin, Heidelberg.
- Taderera, F. (2010): Principles of International Purchasing: International Procurement, Shipping, Logistics. LAP LAMBERT Academic Publishing, Riga.
- Weele, A. J. v. (2010): Purchasing and Supply Chain Management. 5th edition, Cengage Learning UK, Canada.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBLOGC102_E

International Contract Management

Module Code: DLBINTIWR_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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Georg Berkel (International Contract Management)

Contributing Courses to Module

- International Contract Management (DLBINTIWR01_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

- The Four Phases of Contract Management
- Phase I: Offer Preparation
- Phase II: Negotiation
- Phase III: Implementation
- Phase IV: Analysis

Learning Outcomes

International Contract Management

On successful completion, students will be able to

- identify and explain the four phases of contract management.
- describe essential elements of an international treaty.
- explain which contractual clauses are fundamental to the business model.
- understand which and how contractual risks can be quantified.
- distinguish how to negotiate different contractual clauses.
- show how revenue can be increased in the offer phase and processing phase.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Law	All Bachelor Programs in the Business & Management fields

International Contract Management

Course Code: DLBINTIWR01_E

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

Course Description

The internationalization of economic life has progressed steadily in recent decades. While business considerations often change little when borders are crossed, legal issues show quite a different pattern. After all, every country has its own legal system. By law, the rights and duties of those involved in economic life in different countries can vary or even contradict each other. However, the laws of the individual legal systems are primarily created for domestic situations. Also, questions arising in international economic transactions are largely answered by the individual states themselves, again quite independently and in their individual way. Often, only specialists in private international law are able to evaluate which rights and obligations apply by law. However, the acquisition of such special knowledge is neither practicable nor necessary for daily business practice. This course focuses on the subject area of contract management. Instead of submitting to an unclear legal situation, companies - even across national borders - can often determine their own binding rights and obligations. The means to achieve this is the contract. A contract is nothing more than the mutual promise of the parties to do something for each other. The questions to be answered follow the business logic of the transaction. If, for example, goods or services are purchased by payment, the parties must agree, for example, on when and where the goods are to be delivered, in which currency payment is to be made, and what is to be done in the event of a defect. Efficient contract management is therefore crucial for the success of the company, especially in an international context. In this course, its objectives, contents and methods will be presented. This course follows the chronological sequence of a project and identifies the four phases of contract management: proposal preparation, negotiation, execution and analysis. In each phase, contract management must face specific challenges. When preparing an offer, it is particularly important to transfer the business model into a contractually meaningful form. During negotiations, the practicability and profitability of the business model must be maintained. In the execution phase, the main focus is on securing and increasing results. Finally, the analysis enables "lessons learned" to be drawn for future business activities.

Course Outcomes

On successful completion, students will be able to

- identify and explain the four phases of contract management.
- describe essential elements of an international treaty.
- explain which contractual clauses are fundamental to the business model.
- understand which and how contractual risks can be quantified.
- distinguish how to negotiate different contractual clauses.
- show how revenue can be increased in the offer phase and processing phase.

Contents

Literature
Compulsory Reading
Further Reading ▪ Berkel, G. (2016). Contractmanagement.In M. Kleinaltenkamp, W. Plinke, & I. Geiger (Eds.), Business project management and marketing: Mastering business markets (pp. 159—206). Springer. ▪ Brett, J. M. (2014). Negotiating globally: How to negotiate deals, resolve disputes, and make decisions across cultural boundaries(3rd ed.). Jossey-Bass. ▪ Brunet, A., & Cesar, F. (2021). Contract management: Contractual performance, renegotiation, and claims: How to safeguard and increaseprofit margins. Springer.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBINTIWR01_E

Aviation Business Intelligence

Module Code: DLBAMABI

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Aviation Business Intelligence)

Contributing Courses to Module

- Aviation Business Intelligence (DLBAMABI01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Gaining Information
- Introduction to Databases and Database Management Systems
- Basic Aspects of Normalization
- Data Analytics
- KPI Reporting

Learning Outcomes

Aviation Business Intelligence

On successful completion, students will be able to

- apply functions and applications of data processing.
- understand data and information administration.
- create database management applications.
- apply functions and applications of communication systems.
- create visualizations of quantitative analyses.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Aviation Business Intelligence

Course Code: DLBAMABI01

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

Course Description

The main advantage of the aviation industry is at the same time its biggest handicap: the huge amount of available data. Available sources are providing details about word schedules, passenger numbers, movement data, etc. The field of Aviation Business Intelligence helps to identify the strategic value of these sources and to manage this data. With the right knowledge and tools the data can be processed further within meaningful analyses to derive relevant information. To achieve this purpose, insights into data management, data processing and data warehousing is a must.

Course Outcomes

On successful completion, students will be able to

- apply functions and applications of data processing.
- understand data and information administration.
- create database management applications.
- apply functions and applications of communication systems.
- create visualizations of quantitative analyses.

Contents

1. Gaining Information
   - 1.1 Difference between Data and Information
   - 1.2 Information as an Economical Good
2. Introduction to Databases and Database Management Systems
   - 2.1 Databases vs. Spreadsheets
   - 2.2 The Logical Data Model
   - 2.3 Setup of a Database
   - 2.4 Description of a Database Management System
3. Basic Aspects of Normalization
   - 3.1 First Normal Form
   - 3.2 Second Normal Form
   - 3.3 Third Normal Form

4. Data Analytics with Excel
   - 4.1 ADS-B Data
   - 4.2 Blocktime Data
   - 4.3 T100 Data
   - 4.4 Airline Schedule Data

5. The SSIM Schedule Format
   - 5.1 Description of Record Types 1-4
   - 5.2 Normalization of a SSIM Schedule

6. Data Analytics with a Database Management System
   - 6.1 Getting Started
   - 6.2 Importing Data
   - 6.3 Development of a KPI Reporting System

Literature

Compulsory Reading

Further Reading

- Nussbaumer Knaflic, C. (2015), Storytelling with Data: A Data Visualization Guide for Business Professionals (1st Edition), Wiley.
- Provost, F., Fawcett, T. (2013), Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking (1st Edition), O'Reilly Media.
- Sharda, R., Delen, D., Turban, E. (2017), Business Intelligence, Analytics, and Data Science: A Managerial Perspective (4th Edition), Pearson.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Exam or Advanced Workbook

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

DLBAMABI01

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Inga Schlömer (Agile Project Management)

Contributing Courses to Module

- 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

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 IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Computer Science & Software Development	All Bachelor Programmes in the IT & Technology fields

Agile Project Management

Course Code: DLBCSAPM01

Study Level	Language of Instruction	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

- Chovanova, H. et al. (2020). Agile Project Management – What is It?:IEEE. In 18th International Conference on Emerging eLearning Technologies and Applications (ICETA), Emerging eLearning Technologies and Applications (ICETA), 2020 18th International Conference.
- Douglass, B. P. (2016). Agile systems engineering. Morgan Kaufmann, p. 151-160
- 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. (URL: https://scrumguides.org/docs/scrumguide/v2020/2020-Scrum-Guide-US.pdf#zoom=100 [last accessed on 23.06.2021])
- Beck, K. et al. (2001). Manifesto for Agile Software Development. (URL: https://agilemanifesto.org/ [last accessed on 23.06.2021]).
- Dalton, Jeff (2019). Great Big Agile. An OS for Agile Leaders.
- Apress.Agile Alliance (2021). Subway Map to Agile Practices. (URL: https://www.agilealliance.org/agile101/subway-map-to-agile-practices/ [last accessed on 23.06.2021]).

Study Format myStudies

Study Format	Course Type
myStudies	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Network Planning and Yield Management

Module Code: BWLM2_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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Network Planning and Yield Management)

Contributing Courses to Module

- Network Planning and Yield Management (BWLM02_E)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

- Network Management
- Yield Management

Learning Outcomes

Network Planning and Yield Management

On successful completion, students will be able to

- assess the strategic importance and functioning of an airline's network management.
- apply basic techniques/control methods of network management of an airline.
- assess the strategic importance and functioning of an airline's yield management.
- apply basic techniques/control methods of the yield management of an airline.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Network Planning and Yield Management

Course Code: BWLM02_E

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

Course Description

The aviation industry is historically a fast-growing industry in both the passenger and cargo sector. The course covers organizational and regulatory frameworks as well as specific business applications and backgrounds. Based on the fundamentals, various network forms and the pricing policies of airlines are detailed here.

Course Outcomes

On successful completion, students will be able to

- assess the strategic importance and functioning of an airline's network management.
- apply basic techniques/control methods of network management of an airline.
- assess the strategic importance and functioning of an airline's yield management.
- apply basic techniques/control methods of the yield management of an airline.

Contents

1. Basics of Airline Network Planning
   - 1.1 Hub & Spoke Networks
   - 1.2 Point-to-Point Networks
   - 1.3 Network Strategies
2. Special Aspects of Network and Capacity Management for Airlines
   - 2.1 Capacity Planning
   - 2.2 Flight Planning
3. Yield Management Basics and Techniques
   - 3.1 Peculiarities of Air Transport Supply and Demand
   - 3.2 Price Differentiation in Air Traffic Through Yield Management
4. Yield Management for Network Airlines
   - 4.1 Tariff Structure
   - 4.2 Capacity Control
   - 4.3 Yield Management in Airline Networks

5. Yield Management for Low-Cost Airlines
   - 5.1 Special Features of Yield Management for Low-Cost Airlines
   - 5.2 Current Trends in Yield Management for Low-Cost Carriers

6. Selected Marketing Tools
   - 6.1 Product Policy
   - 6.2 Distribution Policy
   - 6.3 Customer Loyalty - Frequent Flyer Programs (FFP)

Literature

Compulsory Reading

Further Reading

- Goedeking, P. (2010): Networks in Aviation. Strategies and Structures. Springer, Berlin
- Vasigh, B.; Fleming, K., Humphreys, B. (2014): Foundations of Airline Finance. Routledge, New York
- Wald, A. [Ed. . ; F. C. [Ed. . ; G. R. [Ed. . (n.d.). Introduction to Aviation Management. Münster LIT 2014.

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

BWLM02_E

Global Corporations and Globalization

Module Code: DLBINTGUG_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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Martin Barth (Global Corporations and Globalization)

Contributing Courses to Module

- Global Corporations and Globalization (DLBLOGC101_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

- History and Development of Globalisation
- International Marketing
- International Operation
- International Personnel Management
- International Financing
- International Procurement and Distribution

Learning Outcomes

Global Corporations and Globalization

On successful completion, students will be able to

- present the history of globalisation and identify and explain significant stages of development.
- identify and classify current trends in globalisation and localisation.
- recall basic knowledge in the fields of business administration, marketing and human resources management and extend it to meet the special requirements in internationally operating companies .
- explain offshoring and outsourcing and outline the opportunities and risks of these placements .
- explain the particularities of international procurement and distribution and develop resulting possibilities and limits.
- identify cultural differences and assess their significance for operating in international business.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Business Administration & Management	All Bachelor Programmes in the Business & Management fields

Global Corporations and Globalization

Course Code: DLBLOGC101_E

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

Course Description

Students grasp the mechanisms that led to globalization and can classify current trends both towards globalization and, conversely, towards localization. Building on the basic knowledge that students have acquired in general business studies about the basic functions in a company, this course analyses and discusses the special requirements that a global engagement places on a company and its functions.

Course Outcomes

On successful completion, students will be able to

- present the history of globalisation and identify and explain significant stages of development.
- identify and classify current trends in globalisation and localisation.
- recall basic knowledge in the fields of business administration, marketing and human resources management and extend it to meet the special requirements in internationally operating companies .
- explain offshoring and outsourcing and outline the opportunities and risks of these placements .
- explain the particularities of international procurement and distribution and develop resulting possibilities and limits.
- identify cultural differences and assess their significance for operating in international business.

Contents

1. History and Development of Globalisation
   - 1.1 Globalization v1.0 according to Niall Ferguson
   - 1.2 History of Globalisation
   - 1.3 Influencing Factors of Economic and Cultural Globalization
   - 1.4 The Tension between Globalization and Localization
   - 1.5 Social Aspects of Globalisation and Corporate Responsibility

2. International Marketing
   - 2.1 International Consumer Behaviour
   - 2.2 Market Research
   - 2.3 Standardization and Adaptation
   - 2.4 International Branding
   - 2.5 Pricing Strategies
   - 2.6 International Marketing Communications

3. International Operation
   - 3.1 Offshoring and Outsourcing
   - 3.2 Global Production Networks
   - 3.3 Global Logistics

4. International Personnel Management
   - 4.1 Local and International Personnel Management
   - 4.2 Expatriate Management
   - 4.3 Localization of Personnel
   - 4.4 International Human Resources Development

5. International Financing
   - 5.1 Institutions in the International World of Finance
   - 5.2 International Financing and its Procedures

6. International Procurement
   - 6.1 Reasons and Strategies of Global Sourcing
   - 6.2 Risks of International Procurement
   - 6.3 International Distribution Policy

Literature
Compulsory Reading
Further Reading ▪ Ahlstrom, D., & Bruton, G. D. (2009): International management. Strategy and culture in the emerging world. Cengage, Mason. ▪ Bird, G. (2004): International finance and the developing economies. Palgrave Macmillan. ▪ Lasserre, P. (2012) Global strategic management (3rd ed.). Palgrave Macmillian. ▪ Peng, M. W. (2013): Global (2nd ed.). Cengage Learning. ▪ Torrington, D., Hall, L., Taylor, S., & Atkinson, C. (2011): Human resource management (8th ed.). Pearson Education. ▪ Usunier, J.-C., & Lee, J. A. (2009): Marketing across cultures (5th ed.). Prentice Hall, Financial Times

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBLOGC101_E

5. 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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Mario Boßlau (Digital Business Models)

Contributing Courses to Module

- Digital Business Models (DLBLODB01_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

- 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 IU International University of Applied Sciences (IU)**
This module is similar to other modules in the Business Administration and Management fields	All Bachelor Programmes in the Business & Management fields

Digital Business Models

Course Code: DLBLODB01_E

Study Level	Language of Instruction	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
   - 2.2 Value Chains
   - 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 DVC 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

- Brynjolfsson, E./Hu, Yu J./Smith, M. D. (2006): From Niches to Riches. Anatomy of the Long Tail. In: MIT Sloan Management Review, volume 47, Magazine 4, p. 67–71.
- Osterwalder, A./Pigneur, Y. (2010): Business Modell Generation. Wiley, Hoboken (NJ).

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Seminar: Current Issues in Aviation Management

Module Code: DLBAMSCIAM

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Seminar: Current Issues in Aviation Management)

Contributing Courses to Module

- Seminar: Current Issues in Aviation Management (DLBAMSCIAM01)

Module Exam Type

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

Weight of Module

see curriculum

Module Contents

This module introduces students to the most recent defining influences, challenges and trends within the aviation system. The choice of topics can be from industry-relevant developments stemming for example (but are not limited to) technical advances as well as regulatory, political, environmental, societal changes or trends.

Learning Outcomes

Seminar: Current Issues in Aviation Management

On successful completion, students will be able to

- organize the course and its deliverables as a project to be managed from the deadlines backward.
- analyze and understand the diverse natures of current issues in the aviation system from different actors' perspectives separately.
- create new insights in the form of a structured written paper conforming to high standards of academic writing.
- constructively exchange arguments about the different issues covered by the course with peers and faculty.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Seminar: Current Issues in Aviation Management

Course Code: DLBAMSCIAM01

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

Course Description

The aviation system is, compared to other industrial value creation systems, comparably young. It is also by its nature global and highly dynamic due to the rapid development of aircraft technology, information and communication technology, international political relations etc., to name but a few. This course aims at highlighting those defining issues in the aviation system that have the most profound impact on it both at the current moment as well as presumably in the future.

Course Outcomes

On successful completion, students will be able to

- organize the course and its deliverables as a project to be managed from the deadlines backward.
- analyze and understand the diverse natures of current issues in the aviation system from different actors' perspectives separately.
- create new insights in the form of a structured written paper conforming to high standards of academic writing.
- constructively exchange arguments about the different issues covered by the course with peers and faculty.

Contents

- The choice of topics can be from industry-relevant developments stemming for example (but are not limited to) technical advances as well as regulatory, political, environmental, societal changes or trends. Students are asked to explore in depth the current state of a pre-selected or self-chosen subject, using both academic and non-academic literature sources, press, visual media and e.g. own interviews. Students then compose an academic paper leading to their research findings in the form of an abbreviated Bachelor Thesis, using its standard structure. A major purpose is to strengthen the students' skills in terms of critical scientific research and analysis, academic content generation and writing as well as critical discussion of current and future development paths within the aviation industry system.

Literature
Compulsory Reading
Further Reading ▪ Abu-Rayash, A., & Dincer, I. (2020). Analysis of mobility trends during the COVID-19 coronavirus pandemic: Exploring the impacts on global aviation and travel in selected cities. Energy research & social science, 68, 101693. ▪ Allan, G., & Skinner, C. (Eds.). (2020). Handbook for research students in the social sciences. Routledge. ▪ Kondo, H., & Hegedűš, M. (2020). LETTER TO EDITOR CURRENT TRENDS AND CHALLENGES IN THE GLOBAL AVIATION INDUS-TRY. ACTA METALLURGICA SLOVACA, 26(4), 141-143. ▪ Lee, D. S., Fahey, D. W., Skowron, A., Allen, M. R., Burkhardt, U., Chen, Q., ... & Wilcox, L. J. (2021). The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. Atmospheric Environment, 244, 117834. ▪ Saunders, M., Lewis, P. H. I. L. I. P., & Thornhill, A. D. R. I. A. N. (2007). Research methods. Business Students 4th edition Pearson Education Limited, England.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Simulation: Airline Management

Module Code: DLBAMSAM

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator
N.N. (Simulation: Airline Management)

Contributing Courses to Module
▪ Simulation: Airline Management (DLBAMSAM01)

Module Exam Type	
Module Exam Study Format: Distance Learning Proof of participation in the simulation game, with a minimum score (passed / not passed)	**Split Exam**
Weight of Module see curriculum	

Module Contents

The module Airline Management Simulation has to be treated as a project and the students have to use the complete range of knowledge in order to find solutions for running an airline over ten periods. Therefore, the business game is not only focused on a special aviation topic but has the intention to upgrade the overall thinking and decision-making ability of the students. Upgrading teamwork and leadership skills as well as working under time pressure are very important training targets of this course. After attending the course, the participants should be able to apply their theoretical knowledge in managing projects and solving cross-functional requirements concerning the planning, realization, and evaluation of different types of projects. Additionally, students will have further shaped their social skills necessary for taking a role as a team member in a project team. This module prepares students for successfully achievements in leadership in the aviation business and delivers key qualifications in the field of methodological, strategical, social, inter-disciplinary and praxis-related competencies.

Learning Outcomes

Simulation: Airline Management

On successful completion, students will be able to

- build up a reasonable strategy for their airline in a team.
- get a sound understanding how business simulations are working.
- make decisions in a very practicable manner based on the existing theoretical knowledge.
- structure the decision process in a team by getting an idea how team work has to be organized.
- have a significant deepened knowledge on how to run an airline by combining the learned knowledge out of several courses together.
- understand the consequences of made decisions in the complex aviation industry and to react in an adequate way.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Simulation: Airline Management

Course Code: DLBAMSAM01

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

Course Description

The aviation industry is a very dynamic and worldwide acting industry. The environment changes very quickly; therefore, on a short-term basis a lot of actual topics are coming up which might have an influence on the future development of this business. Thus, it is necessary to give the students the chance to deal with such a topic on their own guided by the lecturer. The purpose of this course is to train the students to use the learned components of the aviation industry in an overall airline simulation game where it is necessary to think more strategically and to combine these components in the decision-making processes. The students should get used to decision making and to live with those decisions and the resulting consequences during the game. The simulation game leads to presentations and roundtable discussions between groups representing different players in the aviation community.

Course Outcomes

On successful completion, students will be able to

- build up a reasonable strategy for their airline in a team.
- get a sound understanding how business simulations are working.
- make decisions in a very practicable manner based on the existing theoretical knowledge.
- structure the decision process in a team by getting an idea how team work has to be organized.
- have a significant deepened knowledge on how to run an airline by combining the learned knowledge out of several courses together.
- understand the consequences of made decisions in the complex aviation industry and to react in an adequate way.

Contents

- This seminar is focussed on applied research on all facets of the aviation industry. Apart from practicing theoretical knowledge of market analysis in particular, the seminar should result in formulations of applicable suggestions and strategies with reference to the given subject. The students have to use their knowledge out of several courses in the semesters before, but they have to prepare themselves also by pre-reading the handbook of the seminar as well as looking at different videos explaining the simulation and the way the input has to be done. In this course the students act in a team as airline managers making typical decisions on fleet, staff, network, pricing, maintenance etc., inserting these decisions into several given input masks. After all the three groups inserted the decisions the period ends. The calculation tool of the trainer allocates the demand to the three airlines and the

teams receive financial and operational information like P&L account, cash flow statement, balance sheet etc. showing their performance. On this basis the teams make new decisions for the next period. All in all, the simulation runs over 10 periods. In between the teams have to handle unforeseeable situations like fuel price increases and negotiations with the unios. The course finishes with a presentation of each team convincing the investors about their airline.

Literature

Compulsory Reading

Further Reading

- Desel, U & Leibold, K. (latest edition). AMS – Airline Management Simulation, Students Handbook
- Doganis, R. (2019). Flying Off Course – Airline Economics and Marketing, Routledge Edition
- Morrell, P.S (2021). Airline Finance, Ashgate Publishing Company
- Wensveen, J.-G .(2016). Air Transportation – A Management Perspective, Routledge Edition

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

Information about the examination	
Examination Admission Requirements	**BOLK:** no **Course Evaluation:** no
Type of Exam	Proof of participation in the simulation game, with a minimum score (passed / not passed)

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

DLBAMSAM01

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Jürgen Matthias Seeler (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	

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 IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Business Administration & Management	All Bachelor Programs in the Business & Management fields

Intercultural and Ethical Decision-Making

Course Code: DLBCSIDM01

Study Level	Language of Instruction	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

- Boylan, M. (Eds.). (2014). Business ethics. (2nd ed.). Wiley-Blackwell.
- Thomas, A., Kinast, E. U., Schroll-Machl, S. (Eds.). (2010). Handbook of intercultural communication and cooperation. Basics and areas of application. Vandenhoeck & Ruprecht .

Study Format myStudies

Study Format	Course Type
myStudies	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Sustainability and Environment in Aviation

Module Code: DLBAMESEA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMESEA01	BA	10	300 h

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

Module Coordinator

N.N. (Seminar: Sustainability and Environment in Aviation) / N.N. (Project: Sustainability and Environment in Aviation)

Contributing Courses to Module

- Seminar: Sustainability and Environment in Aviation (DLBAMESEA01)
- Project: Sustainability and Environment in Aviation (DLBAMESEA02)

Module Exam Type

Module Exam	Split Exam
	Seminar: Sustainability and Environment in Aviation • Study Format "Distance Learning": Written Assessment: Research Essay Project: Sustainability and Environment in Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Seminar: Sustainability and Environment in Aviation

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. Besides the needed decarbonization of air transport this module gives an overview on the environmental impact of aviation and provides an introduction on strategies and initiatives for its green transformation.

Project: Sustainability and Environment in Aviation

In this course students will dive into more specific aspects of sustainability and environment in aviation during a dedicated project.

Learning Outcomes

Seminar: Sustainability and Environment in Aviation

On successful completion, students will be able to

- comprehensively understand the impact aviation has on the environment.
- understand the basic concept of sustainability and know the relevant goals and regulation.
- develop strategies and initiatives for airports and airlines to fulfill the sustainability goals and to mitigate environmental impacts.
- understand the political context and economic challenges for the aviation industry.
- include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Project: Sustainability and Environment in Aviation

On successful completion, students will be able to

- independently carry out and document project tasks on specific aspects of sustainability and environment in aviation and produce an appropriate result.
- define a suitable approach to a project and apply appropriate methods to fulfill the project goals.
- transfer acquired theoretical knowledge to a real-world project.
- understand the complexity of real-world projects on sustainability including the often diverging interests of the involved stakeholders.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Seminar: Sustainability and Environment in Aviation

Course Code: DLBAMESEA01

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

Course Description

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. Besides the needed decarbonization of air transport this course gives an overview on the environmental impact of aviation and provides an introduction on strategies and initiatives for its green transformation.

Course Outcomes

On successful completion, students will be able to

- comprehensively understand the impact aviation has on the environment.
- understand the basic concept of sustainability and know the relevant goals and regulation.
- develop strategies and initiatives for airports and airlines to fulfill the sustainability goals and to mitigate environmental impacts.
- understand the political context and economic challenges for the aviation industry.
- include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Contents

- In this course students will be able to acquire knowledge on various aspects regarding sustainability and the environment relevant for aviation. This includes the impact aviation has on the environment through noise, air pollution, energy consumption, waste production or land-use. The basic concept of sustainability and its relevant goals as well as existing regulation, policies and environmental laws will be introduced. Possible topics focus around strategies and initiatives for the decarbonization of air transport, the mitigation of environmental impacts or steps towards a circular economy in aviation. The economic challenges of a green transformation of the aviation industry will be discussed. Finally students can get insights on how to include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Literature
Compulsory Reading
Further Reading ▪ ACI EUROPE (2020). Sustainability Strategy for Airports (2nd Edition). ▪ Daley, B. (2010). Air Transport and the Environment. Routledge ▪ EUROCONTROL (2021). Aviation Intelligence Unit Think Paper #10 - Flying the 'perfect green flight': How can we make every journey as environmentally friendly as possible?. ▪ ICAO (2018). Doc 9184 – Airport Planning Manual Part II – Land Use and Environmental Management (4th Edition). International Civil Aviation Organization. ▪ NLR Royal Netherlands Aerospace Centre, SEO Amsterdam Economics (2021). Destination 2050 - A Route To Net Zero European Aviation.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Project: Sustainability and Environment in Aviation

Course Code: DLBAMESEA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMESEA01

Course Description

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. In this dedicated project students will dive into more specific aspects of sustainability and environment in aviation. The aim of this course is to apply and deepen the already acquired knowledge and skills in a practical, self-organized project.

Course Outcomes

On successful completion, students will be able to

- independently carry out and document project tasks on specific aspects of sustainability and environment in aviation and produce an appropriate result.
- define a suitable approach to a project and apply appropriate methods to fulfill the project goals.
- transfer acquired theoretical knowledge to a real-world project.
- understand the complexity of real-world projects on sustainability including the often diverging interests of the involved stakeholders.

Contents

- In this course students will be able to apply the acquired knowledge to a real-world project on specific aspects of sustainability and environment in aviation. All relevant project steps such as the project definition, its goals, the applied methodology, the involved real-world stakeholders with their roles and different interests, the ideas and outcomes as well as a critical reflection are to be documented. Possible topics could focus on strategies and initiatives to improve sustainability and to mitigate environmental impacts of aviation or could look at practical examples on the inclusion of environmental aspects in decision making in airline and airport management.

Literature
Compulsory Reading
Further Reading ▪ ACI EUROPE (2020). Sustainability Strategy for Airports (2nd Edition). ▪ Daley, B. (2010). Air Transport and the Environment. Routledge ▪ EUROCONTROL (2021). Aviation Intelligence Unit Think Paper #10 - Flying the 'perfect green flight': How can we make every journey as environmentally friendly as possible?. ▪ ICAO (2018). Doc 9184 – Airport Planning Manual Part II – Land Use and Environmental Management (4th Edition). International Civil Aviation Organization. ▪ NLR Royal Netherlands Aerospace Centre, SEO Amsterdam Economics (2021). Destination 2050 - A Route To Net Zero European Aviation.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Innovation and Digitalization in Aviation

Module Code: DLBAMEIDA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ DLBAMEIDA01 ▪ None	BA	10	300 h

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

Module Coordinator

N.N. (Innovation and Digitalization in Commercial Aviation) / N.N. (Project: Digitalization in Commercial Aviation)

Contributing Courses to Module

- Innovation and Digitalization in Commercial Aviation (DLBAMEIDA01)
- Project: Digitalization in Commercial Aviation (DLBAMEIDA02)

Module Exam Type

Module Exam	Split Exam
	Innovation and Digitalization in Commercial Aviation • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Digitalization in Commercial Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Innovation and Digitalization in Commercial Aviation

- Pathway of Digitalization
- Role of Innovation Management
- Corporate Innovation
- Product & Service Innovation
- User-Centric Approach: Design Thinking
- The Outlook of Digital Transformation at Airlines

Project: Digitalization in Commercial Aviation

Innovation of a digital product or service using design-thinking; description of the implementation; set the solution into context and provide an outlook.

Learning Outcomes

Innovation and Digitalization in Commercial Aviation

On successful completion, students will be able to

- name the pathway of digitalization.
- assess the digital business maturity.
- describe the role of innovation management.
- explain the management of corporate innovation.
- explain the product and service development.
- understand the design thinking process.
- use the method design thinking for innovating the digital transformation.
- apply expertise on user cases for commercial aviation.

Project: Digitalization in Commercial Aviation

On successful completion, students will be able to

- use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation.
- the design thinking framework by defining the problem-side and by developing user centric solutions.
- prototype and test initially the solution.
- describe the implementation of the solution.
- document the undertaken steps and describe the implementation in a project report.
- conclude the project by setting the solution into context and providing an outlook.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Innovation and Digitalization in Commercial Aviation

Course Code: DLBAMEIDA01

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

Course Description

Digitalization plays a key role in organizations to match the high expectations of customers on digital technology, to adapt to technological changes and to ensure a sustainable growth. A high degree of digitalization within organizations, enables innovation to drive change and to adapt to a fast-paced environment. In addition to the foundations of digitalization and innovation, this course provides a range of use cases in aviation, to understand the digitalization maturity and the role of innovation within corporate companies. To provide the students with the required knowledge to shape the digital transformation within organizations; the terminology, the digital business maturity assessment, the pillars, and the approach of digitalization are explained and underpinned by user cases from airlines. Building up an understanding for the role of innovation management, the management of corporate innovation, the product and service development are key to develop a competitive advantage. A range of user cases demonstrate how airlines apply innovation. Adding the approach of design thinking enables to meet the needs of customers by solving problems in a customer-centric manner. The course concludes with an outlook of digital transformation at airlines by focusing on trends in digitalization and disruptive models in aviation.

Course Outcomes

On successful completion, students will be able to

- name the pathway of digitalization.
- assess the digital business maturity.
- describe the role of innovation management.
- explain the management of corporate innovation.
- explain the product and service development.
- understand the design thinking process.
- use the method design thinking for innovating the digital transformation.
- apply expertise on user cases for commercial aviation.

Contents

1. Pathway of Digitalization
   - 1.1 Definition and Differentiation of Terms
   - 1.2 Digital Business Maturity Assessment
   - 1.3 Pillars of Digital Transformation
   - 1.4 Digitalization Approach
   - 1.5 User Cases for Digitalization at Airlines

2. Role of Innovation Management
   - 2.1 Foundations of Innovation Management
   - 2.2 Types of Innovation
   - 2.3 Dimensions of Innovation
   - 2.4 Models of Innovation
   - 2.5 Innovation Life Cycle

3. Corporate Innovation
   - 3.1 Intrapreneurship
   - 3.2 Strategic Alliance & Networks in Innovation
   - 3.3 Use Cases of Corporate Innovation at Airlines

4. Product & Service Innovation
   - 4.1 New Product and Service Development
   - 4.2 Product and Brand Strategy
   - 4.3 Development Process
   - 4.4 Use Cases for Product & Service Innovation in Airlines

5. User-Centric Approach: Design Thinking
   - 5.1 Elements of Design Thinking
   - 5.2 Design Thinking Process
   - 5.3 Use Cases for Applying Design Thinking in Aviation

6. The Outlook of Digital Transformation at Airlines
   - 6.1 Trends of Digitalization at Airlines
   - 6.2 Disrupting Models in Aviation

Literature

Compulsory Reading

Further Reading

- Fenton, A., Fletcher, G., & Griffiths, M. (2019). Strategic Digital Transformation: A Results-Driven Approach (1st edition). Routledge.
- Pressman, A. (2019). Design Thinking: A guide to creative problem solving for everyone (1stedition). Routledge.
- Tidd, J., & Bessant, J. B. (2020). Managing Innovation: Integrating Technological, Market and Organizational Change (5th edition). Wiley.
- Trott, P. (2021). Innovation Management and New Product Development (7th edition). Pearson.

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Digitalization in Commercial Aviation

Course Code: DLBAMEIDA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEIDA01

Course Description

The digitalization requires the ability to find quickly new solutions to meet the needs of customers. For this reason, the students use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation. The steps and outcome of the design thinking approach are documented, followed by a description of the implementation and by setting the solution into context and providing an outlook.

Course Outcomes

On successful completion, students will be able to

- use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation.
- the design thinking framework by defining the problem-side and by developing user centric solutions.
- prototype and test initially the solution.
- describe the implementation of the solution.
- document the undertaken steps and describe the implementation in a project report.
- conclude the project by setting the solution into context and providing an outlook.

Contents

- The students work on an innovation-design project by using the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation. The documentation first presents the project goal, followed by the topic and description of the context. Then the individual steps of the design thinking process should be described, starting with the first three steps of the problem-phase, and followed by the last three steps of the solution phase. A prototype is developed based on the proposed solution and is initially tested. Then the description of the solution follows, before the report concludes by setting the solution into context a by providing an outlook.

Literature
Compulsory Reading
Further Reading ▪ Brown, T. (2019). Change by Design, Revised and Updated: How Design Thinking Transforms Organizations and Inspires Innovation (2nd edition). HarperCollins. ▪ Nylén, D., Homström, J. (2015). Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation. Business Horizons. 58, 57-67. ▪ Wulfen, van G. (2011). Creating Innovative Products and Services: The Forth Innovation Method (1st edition). Gower.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Urban Air Mobility

Module Code: DLBAMEUAM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMEUAM01	BA	10	300 h

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

Module Coordinator

N.N. (Urban Air Mobility & Infrastructure Concepts) / N.N. (Project: Urban Air Mobility)

Contributing Courses to Module

- Urban Air Mobility & Infrastructure Concepts (DLBAMEUAM01)
- Project: Urban Air Mobility (DLBAMEUAM02)

Module Exam Type

Module Exam	Split Exam
	Urban Air Mobility & Infrastructure Concepts • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Urban Air Mobility • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Urban Air Mobility & Infrastructure Concepts

- Introduction into Urban Air Mobility
- Upcoming General Changes within Air Mobility
- Introduction into a New Generation of Aircraft
- Electrification within Different Aviation Business Models
- Future of UAV'S
- Airport Concepts within the Future

Project: Urban Air Mobility

Different Air Mobility concepts within different fields of operation defined within a project.

Learning Outcomes

Urban Air Mobility & Infrastructure Concepts

On successful completion, students will be able to

- receive a general knowledge about Urban Air Mobility.
- assess different Urban Air Mobility transportation vehicles.
- broaden picture of the future of aviation within different business aviation models.

Project: Urban Air Mobility

On successful completion, students will be able to

- fulfill an independent project, with complex aspects.
- receive a deepen knowledge of the Urban Mobility sector.
- combine various aspects of Urban Air Mobility into one presentation and written documentation.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Urban Air Mobility & Infrastructure Concepts

Course Code: DLBAMEUAM01

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

Course Description

Urban Air Mobility became more realistic and important within the entire aviation sector within the last past years. It describes the transport of persons or goods within high density areas. The course is aligned to receive a wider knowledge of the importance of the Urban Air Mobility including different mobility concepts, unmanned aerial vehicles, air taxis and the arising complications within this field.

Course Outcomes

On successful completion, students will be able to

- receive a general knowledge about Urban Air Mobility.
- assess different Urban Air Mobility transportation vehicles.
- broaden picture of the future of aviation within different business aviation models.

Contents

1. Introduction into Urban Air Mobility
   - 1.1 Definition of Urban Air Mobility
   - 1.2 History of Urban Air Mobility
   - 1.3 Current Projects
   - 1.4 Outlook
2. Upcoming General Changes within Air mobility
   - 2.1 Environmental Issues
   - 2.2 Development of New Aircraft Types
   - 2.3 Urbanization of Mega Cities
   - 2.4 Airspace Concept and Conflicts
3. Introduction into a New Generation of Aircraft
   - 3.1 Air Taxis
   - 3.2 Regional Aircraft
   - 3.3 EVTOL (Eltectrial Vertical Take – Off and Landing)
   - 3.4 Helicopters
   - 3.5 Volocopter

4. Electrification within Different Aviation Business Models
   - 4.1 Business and General Aviation
   - 4.2 Short Haul and Medium Market
   - 4.3 Environmental Impact

5. Future of UAV'S
   - 5.1 Defintion of UAV's
   - 5.2 Cargo Transportation of UAV's
   - 5.3 Military UAV's
   - 5.4 UAV's Used for Integrators i.g. DHL

6. Airport Concepts within the Future
   - 6.1 Concept of Future Airports
   - 6.2 Helipads/City Airports
   - 6.3 Importance of Regional Airports

Literature

Compulsory Reading

Further Reading

- Berger R., (2021) Urban Air Mobility USD 90 Billion of potential: How to capture a share of the passenger drone market.
- Reuter F. & Grimens R. (2021). The roadmap to scalable urban air mobility. Volocopter.
- Valavanos, K.(2014) Handbook of Unmanned Aerial Vehicles (Volume 4). Springer Netherlands.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Urban Air Mobility

Course Code: DLBAMEUAM02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEUAM01

Course Description

Since Urban Air Mobility (UAM) will be a significant field within the aviation industry the course combines all topics from the UAM module and will reflect all topics of different mega cities, new generation of aircraft models in combination with different business models within the future of Urban Air Mobility.

Course Outcomes

On successful completion, students will be able to

- fulfill an independent project, with complex aspects.
- receive a deepen knowledge of the Urban Mobility sector.
- combine various aspects of Urban Air Mobility into one presentation and written documentation.

Contents

- The student will work on different Urban Air Mobility case studies. This course includes to find independently for different mega cities within the world and remote areas, the ideal aircraft type, airport/helipad and business model. The results will be presented and written down in a documentation.

Literature

Compulsory Reading

Further Reading

- Berger R., (2021) Urban Air Mobility USD 90 Billion of potential: How to capture a share of the passenger drone market.
- Reuter F. & Grimens R. (2021). The roadmap to scalable urban air mobility. Volocopter.
- Valavanos, K.(2014) Handbook of Unmanned Aerial Vehicles (Volume 4). Springer Netherlands.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Aviation Entrepreneurship

Module Code: DLBAMEAE

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ DLBAMEAE01 ▪ None	BA	10	300 h

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

Module Coordinator

N.N. (Seminar: Aviation Business Plan Development) / N.N. (Project: Aviation Business Plan)

Contributing Courses to Module

- Seminar: Aviation Business Plan Development (DLBAMEAE01)
- Project: Aviation Business Plan (DLBAMEAE02)

Module Exam Type

Module Exam	Split Exam
	Seminar: Aviation Business Plan Development • Study Format "Distance Learning": Written Assessment: Research Essay Project: Aviation Business Plan • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Seminar: Aviation Business Plan Development

Entrepreneurship is a widely used concept in business. In the context of aviation there are many different forms of entrepreneurship as well. Every attempt at entrepreneurship begins with a plan that documents and communicates the vision and strategy of the undertaking. This module covers why and how to formulate a business plan for an airline, air cargo carrier, or other aviation related business undertaking.

Project: Aviation Business Plan

Entrepreneurship is a widely used concept in business. In the context of aviation there are many different forms of entrepreneurship as well. Every attempt at entrepreneurship begins with a plan that documents and communicates the vision and strategy of the undertaking. This module covers why and how to formulate a business plan for an airline, air cargo carrier, or other aviation related business undertaking.

Learning Outcomes

Seminar: Aviation Business Plan Development

On successful completion, students will be able to

- appreciate the significance of Entrepreneurship, particularly as it relates to commercial air transport.
- understand the importance and main components of a business plan.
- understand the audience for and intricacies of business plan development for an airline or air cargo operator.
- receive all of the tools for formulating a forward-looking business plan with a view towards attracting investment capital, which will be done in the subsequent project.

Project: Aviation Business Plan

On successful completion, students will be able to

- formulate a forward-looking business plan with a view towards attracting investment capital.
- obtain and internalize feedback regarding the business plan they have developed.
- provide potential employers or investors with a sample of work related to business plan development.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Seminar: Aviation Business Plan Development

Course Code: DLBAMEAE01

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

Course Description

The management of an airline is often focused on existing players or the “legacy carriers”. However, many of the success stories in the industry have been fairly recent entrants to the market. Those with a clear and well communicated vision and business plan are the ones most likely to succeed in this competitive industry.This course provides students with the tools for formulating a successful business plan for a commercial airline or air cargo operator. The fundamentals and specific elements of the business plan that are key to success in commercial aviation will be covered.

Course Outcomes

On successful completion, students will be able to

- appreciate the significance of Entrepreneurship, particularly as it relates to commercial air transport.
- understand the importance and main components of a business plan.
- understand the audience for and intricacies of business plan development for an airline or air cargo operator.
- receive all of the tools for formulating a forward-looking business plan with a view towards attracting investment capital, which will be done in the subsequent project.

Contents

- This course will cover the fundamentals of Entrepreneurship in the context of aviation, the need for a clear and well communicated business plan, the structure and main components of that business plan, as well as the potential pitfalls and mistakes commonly made in the creation of an aviation-related business plan.

Literature

Compulsory Reading

Further Reading

- Bygrave, W., & Zacharakis, A. (2017) Entrepreneurship, 4th Edition. Wiley.
- Swanson, L. (2017). Business Plan Development Guide. Openpress
- Taneja, N. (2016). Airline Industry: Poised for Disruptive Innovation? Ashgate

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Project: Aviation Business Plan

Course Code: DLBAMEAE02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEAE01

Course Description

This course provides students with an opportunity for formulating a successful business plan for a commercial airline or air cargo operator. Students will have an opportunity to develop their own business plan.

Course Outcomes

On successful completion, students will be able to

- formulate a forward-looking business plan with a view towards attracting investment capital.
- obtain and internalize feedback regarding the business plan they have developed.
- provide potential employers or investors with a sample of work related to business plan development.

Contents

- This course will provide students with an opportunity to formulate their own business plan for an airline, air cargo or other aviation related enterprise. This will include sections on Management Structure, Network and Fleet plan, Market Forecast, Financial and Cash-Flow projections, Organizational Structure and regulatory/certification plans. Feedback will be provided in the same way that a potential investor would assess a business plan.

Literature

Compulsory Reading

Further Reading

- Bygrave, W., & Zacharakis, A. (2017) Entrepreneurship, 4th Edition. Wiley.
- Swanson, L. (2017). Business Plan Development Guide. Openpress
- Taneja, N. (2016). Airline Industry: Poised for Disruptive Innovation? Ashgate

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Human Factors and Safety Management in Aviation

Module Code: DLBAMEHFSMA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMEHFSMA01	BA	10	300 h

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

Module Coordinator

N.N. (Human Factors and Safety Management in Commerical Aviation) / N.N. (Project: Human Factors and Safety Management in Aviation)

Contributing Courses to Module

- Human Factors and Safety Management in Commerical Aviation (DLBAMEHFSMA01)
- Project: Human Factors and Safety Management in Aviation (DLBAMEHFSMA02)

Module Exam Type

Module Exam	Split Exam
	Human Factors and Safety Management in Commerical Aviation • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Human Factors and Safety Management in Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Human Factors and Safety Management in Commerical Aviation

- Safety Management Fundamentals and Introduction to Safety Management Systems
- Aviation Safety Rules and Regulations
- Human Factors in Aviation
- Safety Risk Management in Aviation
- Aviation Accidents and Incidents

Project: Human Factors and Safety Management in Aviation

Development of a Safety Management System in form of a Safety Management Manual, Documentation, Organizational and Operational Processes, Risk Assessment, Mitigation Measures, Challenges to the Operation and to Management.

Learning Outcomes

Human Factors and Safety Management in Commerical Aviation

On successful completion, students will be able to

- name and understand fundamentals of safety management.
- describe the importance of risk management in aviation.
- apply the basic risk management process, using hazard identification, risk assessment and risk mitigation techniques based on methodological knowledge.
- explain what human factors in aviation are and what influence the human factor can have on aviation safety and other business functions.
- understand the consequences of insufficient safety management.

Project: Human Factors and Safety Management in Aviation

On successful completion, students will be able to

- understand the role of safety management in an organization and which organizational levels are involved.
- implement the basic risk management process.
- identify potential human error factors in an aviation operation.
- recognize and discuss challenges for the safety of an organization.
- understand and set-up basic Safety Management documentation by themselves.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Human Factors and Safety Management in Commerical Aviation

Course Code: DLBAMEHFSMA01

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

Course Description

The management of safety is a core business function and is the key for a reliable, efficient, and sustainable operation of an aviation organization. The aviation system, even though being highly reliable while operating in high-risk environments, must be continuously assessed and risks must be managed in reactive, proactive, and predictive ways. Aviation organizations failing to manage risks throughout their processes and organizational levels loose efficiency and reliability, produce high costs for damage to people and equipment, and ultimately loose customer confidence. Thus, accidents, incidents or occurrences in aviation can lead to high negative (financial & reputation) consequences for an organization. The human factor and human error are the primary causal and contributing factors to accidents and incidents in aviation and are therefore the key factors in the management of safety. Understanding human error factors, including social, psychological, safety and physiological factors, will allow the student to understand human contributions to accidents or incidents and other malfunctions in an organization, ultimately benefiting the aviation system understanding.

Course Outcomes

On successful completion, students will be able to

- name and understand fundamentals of safety management.
- describe the importance of risk management in aviation.
- apply the basic risk management process, using hazard identification, risk assessment and risk mitigation techniques based on methodological knowledge.
- explain what human factors in aviation are and what influence the human factor can have on aviation safety and other business functions.
- understand the consequences of insufficient safety management.

Contents

1. Introduction to Safety Management
   - 1.1 Definition of Key Terms
   - 1.2 What are Safety Management Systems?
   - 1.3 Safety Policy and Objectives

2. Aviation Safety Rules and Regulations
   - 2.1 International, Supranational, and National Rules and Regulations
   - 2.2 Other Aviation Safety Principles and Guidelines

3. Human Factors in Aviation
   - 3.1 What is the Human Factor?
   - 3.2 The Human Factors Dirty Dozen
   - 3.3 Situational Awareness
   - 3.4 Threat and Error Management
   - 3.5 Human Factors Analysis and Classification System (HFACS)
   - 3.6 An Introduction to Human Error Management in Aviation: Crew Resource Management (CRM), Team Resource Management (TRM), Maintenance Resource Management (MRM) and Ramp Resource Management (RRM)

4. Safety Risk Management
   - 4.1 Definition of Key Terms
   - 4.2 Basic Components of Safety Risk Management
   - 4.3 Hazard Identification
   - 4.4 Risk Assessment with the Risk Matrix
   - 4.5 Risk Mitigation

5. Aviation Accidents and Incidents
   - 5.1 Introduction to Key Terms: Accident, Incident, Occurrence, Near Miss
   - 5.2 Accident Analysis and Investigation

6. Safety Assurance
   - 6.1 Safety Surveys and Safety Audits
   - 6.2 Hazard Reporting and No-Blame Culture
   - 6.3 Change Management
   - 6.4 Leadership
   - 6.5 Safety and Quality Assurance

7. Safety Promotion
   - 7.1 Communication, Training and Education in Aviation
   - 7.2 Organizational Culture, Safety Culture, and Just Culture

8. Outlook: Innovation and New Challenges to Aviation Safety
   - 8.1 Innovations in Aviation and their Influence on Aviation Safety
   - 8.2 Potential Challenges to Aviation Safety: Unmanned Vehicles in the Air and on the Ground

Literature

Compulsory Reading

Further Reading

- Ericson II, C. A. (2015). Hazard Analysis Techniques for System Safety. (2nd Edition). Wiley.
- International Civil Aviation Organisation. (2018). ICAO Safety Management Manual. (4th Edition). https://www.skybrary.aero/bookshelf/books/5863.pdf
- Reason, J. (1997). Managing the Risk of Organizational Accidents. Ashgate Publishing Limited.
- Salas, E. & Maurino, D. (Eds.) (2010). Human Factors in Aviation. (2nd Edition). Academic Press.
- Strauch, B. (2017). Investigating Human Error: Incidents, Accidents, and Complex Systems. (1st Edition). Ashgate Publishing Limited.
- Wiegmann, D. A. & Shappell, S. A. (2003). A Human Error Approach to Aviation Accident Analysis: The Human Factors Analysis and Classification System. Routledge.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Human Factors and Safety Management in Aviation

Course Code: DLBAMEHFSMA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEHFSMA01

Course Description

The students will create a safety management system in form of a safety management manual and related documentation for a sample organization specified in the guidelines provided. This documentation includes the description of key components of a Safety Management Systems based on the sample organization, its processes, components, and specific challenges. The role of the human factor in the system will be emphasized, as well as the specific hazards and risks. With a safety management manual and related documentation, the students develop a concept for a reliable, safe, and efficient organization and highlight key measures to be implemented throughout organizational levels.

Course Outcomes

On successful completion, students will be able to

- understand the role of safety management in an organization and which organizational levels are involved.
- implement the basic risk management process.
- identify potential human error factors in an aviation operation.
- recognize and discuss challenges for the safety of an organization.
- understand and set-up basic Safety Management documentation by themselves.

Contents

- The students work on a project in the field of aviation safety and the necessary steps to build a safety management system for an organization. The related safety management manual will provide information based on a sample organization and related sample processes. The documentation is based on the basic safety management system components, such as Safety Policy and Objectives, Safety Risk Management, Safety Assurance, and Safety Promotion. The role of the human factor in the organization will be emphasized by the student throughout the documentation. This documentation first presents the project goal, topic, and context, afterwards the sample organization will be introduced followed by sections on the safety management components and how safety management principles were applied to the sample organization. Finally, the challenges for the sample organization in implementing, maintaining, and developing the Safety

Management System shall be described. Background information on the project requirements, basic components to be addressed, specific templates and other guidance material will be provided to the students.

Literature

Compulsory Reading

Further Reading

- European Union Aviation Safety Agency. (2013). EHEST Safety Management Toolkit for Complex Operators.
- International Civil Aviation Organisation. (2018). ICAO Safety Management Manual. (4th Edition).
- International Civil Aviation Organisation. (2016). ICAO Annex 19 to the Convention on International Civil Aviation: Safety Management.
- Reason, J. (1997). Managing the Risk of Organizational Accidents. Ashgate Publishing Limited.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

DLBAMEHFSMA02

6. Semester

Sustainability and Environment in Aviation

Module Code: DLBAMESEA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMESEA01	BA	10	300 h

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

Module Coordinator

N.N. (Seminar: Sustainability and Environment in Aviation) / N.N. (Project: Sustainability and Environment in Aviation)

Contributing Courses to Module

- Seminar: Sustainability and Environment in Aviation (DLBAMESEA01)
- Project: Sustainability and Environment in Aviation (DLBAMESEA02)

Module Exam Type

Module Exam	Split Exam
	Seminar: Sustainability and Environment in Aviation • Study Format "Distance Learning": Written Assessment: Research Essay Project: Sustainability and Environment in Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Seminar: Sustainability and Environment in Aviation

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. Besides the needed decarbonization of air transport this module gives an overview on the environmental impact of aviation and provides an introduction on strategies and initiatives for its green transformation.

Project: Sustainability and Environment in Aviation

In this course students will dive into more specific aspects of sustainability and environment in aviation during a dedicated project.

Learning Outcomes

Seminar: Sustainability and Environment in Aviation

On successful completion, students will be able to

- comprehensively understand the impact aviation has on the environment.
- understand the basic concept of sustainability and know the relevant goals and regulation.
- develop strategies and initiatives for airports and airlines to fulfill the sustainability goals and to mitigate environmental impacts.
- understand the political context and economic challenges for the aviation industry.
- include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Project: Sustainability and Environment in Aviation

On successful completion, students will be able to

- independently carry out and document project tasks on specific aspects of sustainability and environment in aviation and produce an appropriate result.
- define a suitable approach to a project and apply appropriate methods to fulfill the project goals.
- transfer acquired theoretical knowledge to a real-world project.
- understand the complexity of real-world projects on sustainability including the often diverging interests of the involved stakeholders.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Seminar: Sustainability and Environment in Aviation

Course Code: DLBAMESEA01

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

Course Description

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. Besides the needed decarbonization of air transport this course gives an overview on the environmental impact of aviation and provides an introduction on strategies and initiatives for its green transformation.

Course Outcomes

On successful completion, students will be able to

- comprehensively understand the impact aviation has on the environment.
- understand the basic concept of sustainability and know the relevant goals and regulation.
- develop strategies and initiatives for airports and airlines to fulfill the sustainability goals and to mitigate environmental impacts.
- understand the political context and economic challenges for the aviation industry.
- include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Contents

- In this course students will be able to acquire knowledge on various aspects regarding sustainability and the environment relevant for aviation. This includes the impact aviation has on the environment through noise, air pollution, energy consumption, waste production or land-use. The basic concept of sustainability and its relevant goals as well as existing regulation, policies and environmental laws will be introduced. Possible topics focus around strategies and initiatives for the decarbonization of air transport, the mitigation of environmental impacts or steps towards a circular economy in aviation. The economic challenges of a green transformation of the aviation industry will be discussed. Finally students can get insights on how to include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Literature
Compulsory Reading
Further Reading ▪ ACI EUROPE (2020). Sustainability Strategy for Airports (2nd Edition). ▪ Daley, B. (2010). Air Transport and the Environment. Routledge ▪ EUROCONTROL (2021). Aviation Intelligence Unit Think Paper #10 - Flying the 'perfect green flight': How can we make every journey as environmentally friendly as possible?. ▪ ICAO (2018). Doc 9184 – Airport Planning Manual Part II – Land Use and Environmental Management (4th Edition). International Civil Aviation Organization. ▪ NLR Royal Netherlands Aerospace Centre, SEO Amsterdam Economics (2021). Destination 2050 - A Route To Net Zero European Aviation.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Project: Sustainability and Environment in Aviation

Course Code: DLBAMESEA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMESEA01

Course Description

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. In this dedicated project students will dive into more specific aspects of sustainability and environment in aviation. The aim of this course is to apply and deepen the already acquired knowledge and skills in a practical, self-organized project.

Course Outcomes

On successful completion, students will be able to

- independently carry out and document project tasks on specific aspects of sustainability and environment in aviation and produce an appropriate result.
- define a suitable approach to a project and apply appropriate methods to fulfill the project goals.
- transfer acquired theoretical knowledge to a real-world project.
- understand the complexity of real-world projects on sustainability including the often diverging interests of the involved stakeholders.

Contents

- In this course students will be able to apply the acquired knowledge to a real-world project on specific aspects of sustainability and environment in aviation. All relevant project steps such as the project definition, its goals, the applied methodology, the involved real-world stakeholders with their roles and different interests, the ideas and outcomes as well as a critical reflection are to be documented. Possible topics could focus on strategies and initiatives to improve sustainability and to mitigate environmental impacts of aviation or could look at practical examples on the inclusion of environmental aspects in decision making in airline and airport management.

Literature
Compulsory Reading
Further Reading ▪ ACI EUROPE (2020). Sustainability Strategy for Airports (2nd Edition). ▪ Daley, B. (2010). Air Transport and the Environment. Routledge ▪ EUROCONTROL (2021). Aviation Intelligence Unit Think Paper #10 - Flying the 'perfect green flight': How can we make every journey as environmentally friendly as possible?. ▪ ICAO (2018). Doc 9184 – Airport Planning Manual Part II – Land Use and Environmental Management (4th Edition). International Civil Aviation Organization. ▪ NLR Royal Netherlands Aerospace Centre, SEO Amsterdam Economics (2021). Destination 2050 - A Route To Net Zero European Aviation.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Innovation and Digitalization in Aviation

Module Code: DLBAMEIDA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ DLBAMEIDA01 ▪ None	BA	10	300 h

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

Module Coordinator

N.N. (Innovation and Digitalization in Commercial Aviation) / N.N. (Project: Digitalization in Commercial Aviation)

Contributing Courses to Module

- Innovation and Digitalization in Commercial Aviation (DLBAMEIDA01)
- Project: Digitalization in Commercial Aviation (DLBAMEIDA02)

Module Exam Type

Module Exam	Split Exam
	Innovation and Digitalization in Commercial Aviation • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Digitalization in Commercial Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Innovation and Digitalization in Commercial Aviation

- Pathway of Digitalization
- Role of Innovation Management
- Corporate Innovation
- Product & Service Innovation
- User-Centric Approach: Design Thinking
- The Outlook of Digital Transformation at Airlines

Project: Digitalization in Commercial Aviation

Innovation of a digital product or service using design-thinking; description of the implementation; set the solution into context and provide an outlook.

Learning Outcomes

Innovation and Digitalization in Commercial Aviation

On successful completion, students will be able to

- name the pathway of digitalization.
- assess the digital business maturity.
- describe the role of innovation management.
- explain the management of corporate innovation.
- explain the product and service development.
- understand the design thinking process.
- use the method design thinking for innovating the digital transformation.
- apply expertise on user cases for commercial aviation.

Project: Digitalization in Commercial Aviation

On successful completion, students will be able to

- use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation.
- the design thinking framework by defining the problem-side and by developing user centric solutions.
- prototype and test initially the solution.
- describe the implementation of the solution.
- document the undertaken steps and describe the implementation in a project report.
- conclude the project by setting the solution into context and providing an outlook.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Innovation and Digitalization in Commercial Aviation

Course Code: DLBAMEIDA01

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

Course Description

Digitalization plays a key role in organizations to match the high expectations of customers on digital technology, to adapt to technological changes and to ensure a sustainable growth. A high degree of digitalization within organizations, enables innovation to drive change and to adapt to a fast-paced environment. In addition to the foundations of digitalization and innovation, this course provides a range of use cases in aviation, to understand the digitalization maturity and the role of innovation within corporate companies. To provide the students with the required knowledge to shape the digital transformation within organizations; the terminology, the digital business maturity assessment, the pillars, and the approach of digitalization are explained and underpinned by user cases from airlines. Building up an understanding for the role of innovation management, the management of corporate innovation, the product and service development are key to develop a competitive advantage. A range of user cases demonstrate how airlines apply innovation. Adding the approach of design thinking enables to meet the needs of customers by solving problems in a customer-centric manner. The course concludes with an outlook of digital transformation at airlines by focusing on trends in digitalization and disruptive models in aviation.

Course Outcomes

On successful completion, students will be able to

- name the pathway of digitalization.
- assess the digital business maturity.
- describe the role of innovation management.
- explain the management of corporate innovation.
- explain the product and service development.
- understand the design thinking process.
- use the method design thinking for innovating the digital transformation.
- apply expertise on user cases for commercial aviation.

Contents

1. Pathway of Digitalization
   - 1.1 Definition and Differentiation of Terms
   - 1.2 Digital Business Maturity Assessment
   - 1.3 Pillars of Digital Transformation
   - 1.4 Digitalization Approach
   - 1.5 User Cases for Digitalization at Airlines

2. Role of Innovation Management
   - 2.1 Foundations of Innovation Management
   - 2.2 Types of Innovation
   - 2.3 Dimensions of Innovation
   - 2.4 Models of Innovation
   - 2.5 Innovation Life Cycle

3. Corporate Innovation
   - 3.1 Intrapreneurship
   - 3.2 Strategic Alliance & Networks in Innovation
   - 3.3 Use Cases of Corporate Innovation at Airlines

4. Product & Service Innovation
   - 4.1 New Product and Service Development
   - 4.2 Product and Brand Strategy
   - 4.3 Development Process
   - 4.4 Use Cases for Product & Service Innovation in Airlines

5. User-Centric Approach: Design Thinking
   - 5.1 Elements of Design Thinking
   - 5.2 Design Thinking Process
   - 5.3 Use Cases for Applying Design Thinking in Aviation

6. The Outlook of Digital Transformation at Airlines
   - 6.1 Trends of Digitalization at Airlines
   - 6.2 Disrupting Models in Aviation

Literature

Compulsory Reading

Further Reading

- Fenton, A., Fletcher, G., & Griffiths, M. (2019). Strategic Digital Transformation: A Results-Driven Approach (1st edition). Routledge.
- Pressman, A. (2019). Design Thinking: A guide to creative problem solving for everyone (1stedition). Routledge.
- Tidd, J., & Bessant, J. B. (2020). Managing Innovation: Integrating Technological, Market and Organizational Change (5th edition). Wiley.
- Trott, P. (2021). Innovation Management and New Product Development (7th edition). Pearson.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Digitalization in Commercial Aviation

Course Code: DLBAMEIDA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEIDA01

Course Description

The digitalization requires the ability to find quickly new solutions to meet the needs of customers. For this reason, the students use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation. The steps and outcome of the design thinking approach are documented, followed by a description of the implementation and by setting the solution into context and providing an outlook.

Course Outcomes

On successful completion, students will be able to

- use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation.
- the design thinking framework by defining the problem-side and by developing user centric solutions.
- prototype and test initially the solution.
- describe the implementation of the solution.
- document the undertaken steps and describe the implementation in a project report.
- conclude the project by setting the solution into context and providing an outlook.

Contents

- The students work on an innovation-design project by using the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation. The documentation first presents the project goal, followed by the topic and description of the context. Then the individual steps of the design thinking process should be described, starting with the first three steps of the problem-phase, and followed by the last three steps of the solution phase. A prototype is developed based on the proposed solution and is initially tested. Then the description of the solution follows, before the report concludes by setting the solution into context a by providing an outlook.

Literature
Compulsory Reading
Further Reading ▪ Brown, T. (2019). Change by Design, Revised and Updated: How Design Thinking Transforms Organizations and Inspires Innovation (2nd edition). HarperCollins. ▪ Nylén, D., Homström, J. (2015). Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation. Business Horizons. 58, 57-67. ▪ Wulfen, van G. (2011). Creating Innovative Products and Services: The Forth Innovation Method (1st edition). Gower.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Urban Air Mobility

Module Code: DLBAMEUAM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMEUAM01	BA	10	300 h

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

Module Coordinator

N.N. (Urban Air Mobility & Infrastructure Concepts) / N.N. (Project: Urban Air Mobility)

Contributing Courses to Module

- Urban Air Mobility & Infrastructure Concepts (DLBAMEUAM01)
- Project: Urban Air Mobility (DLBAMEUAM02)

Module Exam Type

Module Exam	Split Exam
	Urban Air Mobility & Infrastructure Concepts • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Urban Air Mobility • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Urban Air Mobility & Infrastructure Concepts

- Introduction into Urban Air Mobility
- Upcoming General Changes within Air Mobility
- Introduction into a New Generation of Aircraft
- Electrification within Different Aviation Business Models
- Future of UAV'S
- Airport Concepts within the Future

Project: Urban Air Mobility

Different Air Mobility concepts within different fields of operation defined within a project.

Learning Outcomes

Urban Air Mobility & Infrastructure Concepts

On successful completion, students will be able to

- receive a general knowledge about Urban Air Mobility.
- assess different Urban Air Mobility transportation vehicles.
- broaden picture of the future of aviation within different business aviation models.

Project: Urban Air Mobility

On successful completion, students will be able to

- fulfill an independent project, with complex aspects.
- receive a deepen knowledge of the Urban Mobility sector.
- combine various aspects of Urban Air Mobility into one presentation and written documentation.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Urban Air Mobility & Infrastructure Concepts

Course Code: DLBAMEUAM01

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

Course Description

Urban Air Mobility became more realistic and important within the entire aviation sector within the last past years. It describes the transport of persons or goods within high density areas. The course is aligned to receive a wider knowledge of the importance of the Urban Air Mobility including different mobility concepts, unmanned aerial vehicles, air taxis and the arising complications within this field.

Course Outcomes

On successful completion, students will be able to

- receive a general knowledge about Urban Air Mobility.
- assess different Urban Air Mobility transportation vehicles.
- broaden picture of the future of aviation within different business aviation models.

Contents

1. Introduction into Urban Air Mobility
   - 1.1 Definition of Urban Air Mobility
   - 1.2 History of Urban Air Mobility
   - 1.3 Current Projects
   - 1.4 Outlook
2. Upcoming General Changes within Air mobility
   - 2.1 Environmental Issues
   - 2.2 Development of New Aircraft Types
   - 2.3 Urbanization of Mega Cities
   - 2.4 Airspace Concept and Conflicts
3. Introduction into a New Generation of Aircraft
   - 3.1 Air Taxis
   - 3.2 Regional Aircraft
   - 3.3 EVTOL (Eltectrial Vertical Take – Off and Landing)
   - 3.4 Helicopters
   - 3.5 Volocopter

4. Electrification within Different Aviation Business Models
   - 4.1 Business and General Aviation
   - 4.2 Short Haul and Medium Market
   - 4.3 Environmental Impact

5. Future of UAV'S
   - 5.1 Defintion of UAV's
   - 5.2 Cargo Transportation of UAV's
   - 5.3 Military UAV's
   - 5.4 UAV's Used for Integrators i.g. DHL

6. Airport Concepts within the Future
   - 6.1 Concept of Future Airports
   - 6.2 Helipads/City Airports
   - 6.3 Importance of Regional Airports

Literature

Compulsory Reading

Further Reading

- Berger R., (2021) Urban Air Mobility USD 90 Billion of potential: How to capture a share of the passenger drone market.
- Reuter F. & Grimens R. (2021). The roadmap to scalable urban air mobility. Volocopter.
- Valavanos, K.(2014) Handbook of Unmanned Aerial Vehicles (Volume 4). Springer Netherlands.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Urban Air Mobility

Course Code: DLBAMEUAM02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEUAM01

Course Description

Since Urban Air Mobility (UAM) will be a significant field within the aviation industry the course combines all topics from the UAM module and will reflect all topics of different mega cities, new generation of aircraft models in combination with different business models within the future of Urban Air Mobility.

Course Outcomes

On successful completion, students will be able to

- fulfill an independent project, with complex aspects.
- receive a deepen knowledge of the Urban Mobility sector.
- combine various aspects of Urban Air Mobility into one presentation and written documentation.

Contents

- The student will work on different Urban Air Mobility case studies. This course includes to find independently for different mega cities within the world and remote areas, the ideal aircraft type, airport/helipad and business model. The results will be presented and written down in a documentation.

Literature

Compulsory Reading

Further Reading

- Berger R., (2021) Urban Air Mobility USD 90 Billion of potential: How to capture a share of the passenger drone market.
- Reuter F. & Grimens R. (2021). The roadmap to scalable urban air mobility. Volocopter.
- Valavanos, K.(2014) Handbook of Unmanned Aerial Vehicles (Volume 4). Springer Netherlands.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Aviation Entrepreneurship

Module Code: DLBAMEAE

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ DLBAMEAE01 ▪ None	BA	10	300 h

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

Module Coordinator

N.N. (Seminar: Aviation Business Plan Development) / N.N. (Project: Aviation Business Plan)

Contributing Courses to Module

- Seminar: Aviation Business Plan Development (DLBAMEAE01)
- Project: Aviation Business Plan (DLBAMEAE02)

Module Exam Type

Module Exam	Split Exam
	Seminar: Aviation Business Plan Development • Study Format "Distance Learning": Written Assessment: Research Essay Project: Aviation Business Plan • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Seminar: Aviation Business Plan Development

Entrepreneurship is a widely used concept in business. In the context of aviation there are many different forms of entrepreneurship as well. Every attempt at entrepreneurship begins with a plan that documents and communicates the vision and strategy of the undertaking. This module covers why and how to formulate a business plan for an airline, air cargo carrier, or other aviation related business undertaking.

Project: Aviation Business Plan

Entrepreneurship is a widely used concept in business. In the context of aviation there are many different forms of entrepreneurship as well. Every attempt at entrepreneurship begins with a plan that documents and communicates the vision and strategy of the undertaking. This module covers why and how to formulate a business plan for an airline, air cargo carrier, or other aviation related business undertaking.

Learning Outcomes

Seminar: Aviation Business Plan Development

On successful completion, students will be able to

- appreciate the significance of Entrepreneurship, particularly as it relates to commercial air transport.
- understand the importance and main components of a business plan.
- understand the audience for and intricacies of business plan development for an airline or air cargo operator.
- receive all of the tools for formulating a forward-looking business plan with a view towards attracting investment capital, which will be done in the subsequent project.

Project: Aviation Business Plan

On successful completion, students will be able to

- formulate a forward-looking business plan with a view towards attracting investment capital.
- obtain and internalize feedback regarding the business plan they have developed.
- provide potential employers or investors with a sample of work related to business plan development.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Seminar: Aviation Business Plan Development

Course Code: DLBAMEAE01

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

Course Description

The management of an airline is often focused on existing players or the “legacy carriers”. However, many of the success stories in the industry have been fairly recent entrants to the market. Those with a clear and well communicated vision and business plan are the ones most likely to succeed in this competitive industry.This course provides students with the tools for formulating a successful business plan for a commercial airline or air cargo operator. The fundamentals and specific elements of the business plan that are key to success in commercial aviation will be covered.

Course Outcomes

On successful completion, students will be able to

- appreciate the significance of Entrepreneurship, particularly as it relates to commercial air transport.
- understand the importance and main components of a business plan.
- understand the audience for and intricacies of business plan development for an airline or air cargo operator.
- receive all of the tools for formulating a forward-looking business plan with a view towards attracting investment capital, which will be done in the subsequent project.

Contents

- This course will cover the fundamentals of Entrepreneurship in the context of aviation, the need for a clear and well communicated business plan, the structure and main components of that business plan, as well as the potential pitfalls and mistakes commonly made in the creation of an aviation-related business plan.

Literature

Compulsory Reading

Further Reading

- Bygrave, W., & Zacharakis, A. (2017) Entrepreneurship, 4th Edition. Wiley.
- Swanson, L. (2017). Business Plan Development Guide. Openpress
- Taneja, N. (2016). Airline Industry: Poised for Disruptive Innovation? Ashgate

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Project: Aviation Business Plan

Course Code: DLBAMEAE02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEAE01

Course Description

This course provides students with an opportunity for formulating a successful business plan for a commercial airline or air cargo operator. Students will have an opportunity to develop their own business plan.

Course Outcomes

On successful completion, students will be able to

- formulate a forward-looking business plan with a view towards attracting investment capital.
- obtain and internalize feedback regarding the business plan they have developed.
- provide potential employers or investors with a sample of work related to business plan development.

Contents

- This course will provide students with an opportunity to formulate their own business plan for an airline, air cargo or other aviation related enterprise. This will include sections on Management Structure, Network and Fleet plan, Market Forecast, Financial and Cash-Flow projections, Organizational Structure and regulatory/certification plans. Feedback will be provided in the same way that a potential investor would assess a business plan.

Literature

Compulsory Reading

Further Reading

- Bygrave, W., & Zacharakis, A. (2017) Entrepreneurship, 4th Edition. Wiley.
- Swanson, L. (2017). Business Plan Development Guide. Openpress
- Taneja, N. (2016). Airline Industry: Poised for Disruptive Innovation? Ashgate

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Human Factors and Safety Management in Aviation

Module Code: DLBAMEHFSMA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMEHFSMA01	BA	10	300 h

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

Module Coordinator

N.N. (Human Factors and Safety Management in Commerical Aviation) / N.N. (Project: Human Factors and Safety Management in Aviation)

Contributing Courses to Module

- Human Factors and Safety Management in Commerical Aviation (DLBAMEHFSMA01)
- Project: Human Factors and Safety Management in Aviation (DLBAMEHFSMA02)

Module Exam Type

Module Exam	Split Exam
	Human Factors and Safety Management in Commerical Aviation • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Human Factors and Safety Management in Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Human Factors and Safety Management in Commerical Aviation

- Safety Management Fundamentals and Introduction to Safety Management Systems
- Aviation Safety Rules and Regulations
- Human Factors in Aviation
- Safety Risk Management in Aviation
- Aviation Accidents and Incidents

Project: Human Factors and Safety Management in Aviation

Development of a Safety Management System in form of a Safety Management Manual, Documentation, Organizational and Operational Processes, Risk Assessment, Mitigation Measures, Challenges to the Operation and to Management.

Learning Outcomes

Human Factors and Safety Management in Commerical Aviation

On successful completion, students will be able to

- name and understand fundamentals of safety management.
- describe the importance of risk management in aviation.
- apply the basic risk management process, using hazard identification, risk assessment and risk mitigation techniques based on methodological knowledge.
- explain what human factors in aviation are and what influence the human factor can have on aviation safety and other business functions.
- understand the consequences of insufficient safety management.

Project: Human Factors and Safety Management in Aviation

On successful completion, students will be able to

- understand the role of safety management in an organization and which organizational levels are involved.
- implement the basic risk management process.
- identify potential human error factors in an aviation operation.
- recognize and discuss challenges for the safety of an organization.
- understand and set-up basic Safety Management documentation by themselves.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Human Factors and Safety Management in Commerical Aviation

Course Code: DLBAMEHFSMA01

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

Course Description

The management of safety is a core business function and is the key for a reliable, efficient, and sustainable operation of an aviation organization. The aviation system, even though being highly reliable while operating in high-risk environments, must be continuously assessed and risks must be managed in reactive, proactive, and predictive ways. Aviation organizations failing to manage risks throughout their processes and organizational levels loose efficiency and reliability, produce high costs for damage to people and equipment, and ultimately loose customer confidence. Thus, accidents, incidents or occurrences in aviation can lead to high negative (financial & reputation) consequences for an organization. The human factor and human error are the primary causal and contributing factors to accidents and incidents in aviation and are therefore the key factors in the management of safety. Understanding human error factors, including social, psychological, safety and physiological factors, will allow the student to understand human contributions to accidents or incidents and other malfunctions in an organization, ultimately benefiting the aviation system understanding.

Course Outcomes

On successful completion, students will be able to

- name and understand fundamentals of safety management.
- describe the importance of risk management in aviation.
- apply the basic risk management process, using hazard identification, risk assessment and risk mitigation techniques based on methodological knowledge.
- explain what human factors in aviation are and what influence the human factor can have on aviation safety and other business functions.
- understand the consequences of insufficient safety management.

Contents

1. Introduction to Safety Management
   - 1.1 Definition of Key Terms
   - 1.2 What are Safety Management Systems?
   - 1.3 Safety Policy and Objectives

2. Aviation Safety Rules and Regulations
   - 2.1 International, Supranational, and National Rules and Regulations
   - 2.2 Other Aviation Safety Principles and Guidelines

3. Human Factors in Aviation
   - 3.1 What is the Human Factor?
   - 3.2 The Human Factors Dirty Dozen
   - 3.3 Situational Awareness
   - 3.4 Threat and Error Management
   - 3.5 Human Factors Analysis and Classification System (HFACS)
   - 3.6 An Introduction to Human Error Management in Aviation: Crew Resource Management (CRM), Team Resource Management (TRM), Maintenance Resource Management (MRM) and Ramp Resource Management (RRM)

4. Safety Risk Management
   - 4.1 Definition of Key Terms
   - 4.2 Basic Components of Safety Risk Management
   - 4.3 Hazard Identification
   - 4.4 Risk Assessment with the Risk Matrix
   - 4.5 Risk Mitigation

5. Aviation Accidents and Incidents
   - 5.1 Introduction to Key Terms: Accident, Incident, Occurrence, Near Miss
   - 5.2 Accident Analysis and Investigation

6. Safety Assurance
   - 6.1 Safety Surveys and Safety Audits
   - 6.2 Hazard Reporting and No-Blame Culture
   - 6.3 Change Management
   - 6.4 Leadership
   - 6.5 Safety and Quality Assurance

7. Safety Promotion
   - 7.1 Communication, Training and Education in Aviation
   - 7.2 Organizational Culture, Safety Culture, and Just Culture

8. Outlook: Innovation and New Challenges to Aviation Safety
   - 8.1 Innovations in Aviation and their Influence on Aviation Safety
   - 8.2 Potential Challenges to Aviation Safety: Unmanned Vehicles in the Air and on the Ground

Literature

Compulsory Reading

Further Reading

- Ericson II, C. A. (2015). Hazard Analysis Techniques for System Safety. (2nd Edition). Wiley.
- International Civil Aviation Organisation. (2018). ICAO Safety Management Manual. (4th Edition). https://www.skybrary.aero/bookshelf/books/5863.pdf
- Reason, J. (1997). Managing the Risk of Organizational Accidents. Ashgate Publishing Limited.
- Salas, E. & Maurino, D. (Eds.) (2010). Human Factors in Aviation. (2nd Edition). Academic Press.
- Strauch, B. (2017). Investigating Human Error: Incidents, Accidents, and Complex Systems. (1st Edition). Ashgate Publishing Limited.
- Wiegmann, D. A. & Shappell, S. A. (2003). A Human Error Approach to Aviation Accident Analysis: The Human Factors Analysis and Classification System. Routledge.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Human Factors and Safety Management in Aviation

Course Code: DLBAMEHFSMA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEHFSMA01

Course Description

The students will create a safety management system in form of a safety management manual and related documentation for a sample organization specified in the guidelines provided. This documentation includes the description of key components of a Safety Management Systems based on the sample organization, its processes, components, and specific challenges. The role of the human factor in the system will be emphasized, as well as the specific hazards and risks. With a safety management manual and related documentation, the students develop a concept for a reliable, safe, and efficient organization and highlight key measures to be implemented throughout organizational levels.

Course Outcomes

On successful completion, students will be able to

- understand the role of safety management in an organization and which organizational levels are involved.
- implement the basic risk management process.
- identify potential human error factors in an aviation operation.
- recognize and discuss challenges for the safety of an organization.
- understand and set-up basic Safety Management documentation by themselves.

Contents

- The students work on a project in the field of aviation safety and the necessary steps to build a safety management system for an organization. The related safety management manual will provide information based on a sample organization and related sample processes. The documentation is based on the basic safety management system components, such as Safety Policy and Objectives, Safety Risk Management, Safety Assurance, and Safety Promotion. The role of the human factor in the organization will be emphasized by the student throughout the documentation. This documentation first presents the project goal, topic, and context, afterwards the sample organization will be introduced followed by sections on the safety management components and how safety management principles were applied to the sample organization. Finally, the challenges for the sample organization in implementing, maintaining, and developing the Safety

Management System shall be described. Background information on the project requirements, basic components to be addressed, specific templates and other guidance material will be provided to the students.

Literature

Compulsory Reading

Further Reading

- European Union Aviation Safety Agency. (2013). EHEST Safety Management Toolkit for Complex Operators.
- International Civil Aviation Organisation. (2018). ICAO Safety Management Manual. (4th Edition).
- International Civil Aviation Organisation. (2016). ICAO Annex 19 to the Convention on International Civil Aviation: Safety Management.
- Reason, J. (1997). Managing the Risk of Organizational Accidents. Ashgate Publishing Limited.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

DLBAMEHFSMA02

Sustainability and Environment in Aviation

Module Code: DLBAMESEA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMESEA01	BA	10	300 h

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

Module Coordinator

N.N. (Seminar: Sustainability and Environment in Aviation) / N.N. (Project: Sustainability and Environment in Aviation)

Contributing Courses to Module

- Seminar: Sustainability and Environment in Aviation (DLBAMESEA01)
- Project: Sustainability and Environment in Aviation (DLBAMESEA02)

Module Exam Type

Module Exam	Split Exam
	Seminar: Sustainability and Environment in Aviation • Study Format "Distance Learning": Written Assessment: Research Essay Project: Sustainability and Environment in Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Seminar: Sustainability and Environment in Aviation

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. Besides the needed decarbonization of air transport this module gives an overview on the environmental impact of aviation and provides an introduction on strategies and initiatives for its green transformation.

Project: Sustainability and Environment in Aviation

In this course students will dive into more specific aspects of sustainability and environment in aviation during a dedicated project.

Learning Outcomes

Seminar: Sustainability and Environment in Aviation

On successful completion, students will be able to

- comprehensively understand the impact aviation has on the environment.
- understand the basic concept of sustainability and know the relevant goals and regulation.
- develop strategies and initiatives for airports and airlines to fulfill the sustainability goals and to mitigate environmental impacts.
- understand the political context and economic challenges for the aviation industry.
- include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Project: Sustainability and Environment in Aviation

On successful completion, students will be able to

- independently carry out and document project tasks on specific aspects of sustainability and environment in aviation and produce an appropriate result.
- define a suitable approach to a project and apply appropriate methods to fulfill the project goals.
- transfer acquired theoretical knowledge to a real-world project.
- understand the complexity of real-world projects on sustainability including the often diverging interests of the involved stakeholders.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Seminar: Sustainability and Environment in Aviation

Course Code: DLBAMESEA01

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

Course Description

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. Besides the needed decarbonization of air transport this course gives an overview on the environmental impact of aviation and provides an introduction on strategies and initiatives for its green transformation.

Course Outcomes

On successful completion, students will be able to

- comprehensively understand the impact aviation has on the environment.
- understand the basic concept of sustainability and know the relevant goals and regulation.
- develop strategies and initiatives for airports and airlines to fulfill the sustainability goals and to mitigate environmental impacts.
- understand the political context and economic challenges for the aviation industry.
- include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Contents

- In this course students will be able to acquire knowledge on various aspects regarding sustainability and the environment relevant for aviation. This includes the impact aviation has on the environment through noise, air pollution, energy consumption, waste production or land-use. The basic concept of sustainability and its relevant goals as well as existing regulation, policies and environmental laws will be introduced. Possible topics focus around strategies and initiatives for the decarbonization of air transport, the mitigation of environmental impacts or steps towards a circular economy in aviation. The economic challenges of a green transformation of the aviation industry will be discussed. Finally students can get insights on how to include environmental aspects in decision making in the fields of airline and airport management, operations, planning or marketing.

Literature
Compulsory Reading
Further Reading ▪ ACI EUROPE (2020). Sustainability Strategy for Airports (2nd Edition). ▪ Daley, B. (2010). Air Transport and the Environment. Routledge ▪ EUROCONTROL (2021). Aviation Intelligence Unit Think Paper #10 - Flying the 'perfect green flight': How can we make every journey as environmentally friendly as possible?. ▪ ICAO (2018). Doc 9184 – Airport Planning Manual Part II – Land Use and Environmental Management (4th Edition). International Civil Aviation Organization. ▪ NLR Royal Netherlands Aerospace Centre, SEO Amsterdam Economics (2021). Destination 2050 - A Route To Net Zero European Aviation.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Project: Sustainability and Environment in Aviation

Course Code: DLBAMESEA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMESEA01

Course Description

The aviation industry needs to reinvent itself to become carbon neutral by 2050, to fulfill the UN sustainable development goals and to positively respond to the Fridays for Future movement. In this dedicated project students will dive into more specific aspects of sustainability and environment in aviation. The aim of this course is to apply and deepen the already acquired knowledge and skills in a practical, self-organized project.

Course Outcomes

On successful completion, students will be able to

- independently carry out and document project tasks on specific aspects of sustainability and environment in aviation and produce an appropriate result.
- define a suitable approach to a project and apply appropriate methods to fulfill the project goals.
- transfer acquired theoretical knowledge to a real-world project.
- understand the complexity of real-world projects on sustainability including the often diverging interests of the involved stakeholders.

Contents

- In this course students will be able to apply the acquired knowledge to a real-world project on specific aspects of sustainability and environment in aviation. All relevant project steps such as the project definition, its goals, the applied methodology, the involved real-world stakeholders with their roles and different interests, the ideas and outcomes as well as a critical reflection are to be documented. Possible topics could focus on strategies and initiatives to improve sustainability and to mitigate environmental impacts of aviation or could look at practical examples on the inclusion of environmental aspects in decision making in airline and airport management.

Literature
Compulsory Reading
Further Reading ▪ ACI EUROPE (2020). Sustainability Strategy for Airports (2nd Edition). ▪ Daley, B. (2010). Air Transport and the Environment. Routledge ▪ EUROCONTROL (2021). Aviation Intelligence Unit Think Paper #10 - Flying the 'perfect green flight': How can we make every journey as environmentally friendly as possible?. ▪ ICAO (2018). Doc 9184 – Airport Planning Manual Part II – Land Use and Environmental Management (4th Edition). International Civil Aviation Organization. ▪ NLR Royal Netherlands Aerospace Centre, SEO Amsterdam Economics (2021). Destination 2050 - A Route To Net Zero European Aviation.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Innovation and Digitalization in Aviation

Module Code: DLBAMEIDA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ DLBAMEIDA01 ▪ None	BA	10	300 h

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

Module Coordinator

N.N. (Innovation and Digitalization in Commercial Aviation) / N.N. (Project: Digitalization in Commercial Aviation)

Contributing Courses to Module

- Innovation and Digitalization in Commercial Aviation (DLBAMEIDA01)
- Project: Digitalization in Commercial Aviation (DLBAMEIDA02)

Module Exam Type

Module Exam	Split Exam
	Innovation and Digitalization in Commercial Aviation • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Digitalization in Commercial Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Innovation and Digitalization in Commercial Aviation

- Pathway of Digitalization
- Role of Innovation Management
- Corporate Innovation
- Product & Service Innovation
- User-Centric Approach: Design Thinking
- The Outlook of Digital Transformation at Airlines

Project: Digitalization in Commercial Aviation

Innovation of a digital product or service using design-thinking; description of the implementation; set the solution into context and provide an outlook.

Learning Outcomes

Innovation and Digitalization in Commercial Aviation

On successful completion, students will be able to

- name the pathway of digitalization.
- assess the digital business maturity.
- describe the role of innovation management.
- explain the management of corporate innovation.
- explain the product and service development.
- understand the design thinking process.
- use the method design thinking for innovating the digital transformation.
- apply expertise on user cases for commercial aviation.

Project: Digitalization in Commercial Aviation

On successful completion, students will be able to

- use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation.
- the design thinking framework by defining the problem-side and by developing user centric solutions.
- prototype and test initially the solution.
- describe the implementation of the solution.
- document the undertaken steps and describe the implementation in a project report.
- conclude the project by setting the solution into context and providing an outlook.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Innovation and Digitalization in Commercial Aviation

Course Code: DLBAMEIDA01

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

Course Description

Digitalization plays a key role in organizations to match the high expectations of customers on digital technology, to adapt to technological changes and to ensure a sustainable growth. A high degree of digitalization within organizations, enables innovation to drive change and to adapt to a fast-paced environment. In addition to the foundations of digitalization and innovation, this course provides a range of use cases in aviation, to understand the digitalization maturity and the role of innovation within corporate companies. To provide the students with the required knowledge to shape the digital transformation within organizations; the terminology, the digital business maturity assessment, the pillars, and the approach of digitalization are explained and underpinned by user cases from airlines. Building up an understanding for the role of innovation management, the management of corporate innovation, the product and service development are key to develop a competitive advantage. A range of user cases demonstrate how airlines apply innovation. Adding the approach of design thinking enables to meet the needs of customers by solving problems in a customer-centric manner. The course concludes with an outlook of digital transformation at airlines by focusing on trends in digitalization and disruptive models in aviation.

Course Outcomes

On successful completion, students will be able to

- name the pathway of digitalization.
- assess the digital business maturity.
- describe the role of innovation management.
- explain the management of corporate innovation.
- explain the product and service development.
- understand the design thinking process.
- use the method design thinking for innovating the digital transformation.
- apply expertise on user cases for commercial aviation.

Contents

1. Pathway of Digitalization
   - 1.1 Definition and Differentiation of Terms
   - 1.2 Digital Business Maturity Assessment
   - 1.3 Pillars of Digital Transformation
   - 1.4 Digitalization Approach
   - 1.5 User Cases for Digitalization at Airlines

2. Role of Innovation Management
   - 2.1 Foundations of Innovation Management
   - 2.2 Types of Innovation
   - 2.3 Dimensions of Innovation
   - 2.4 Models of Innovation
   - 2.5 Innovation Life Cycle

3. Corporate Innovation
   - 3.1 Intrapreneurship
   - 3.2 Strategic Alliance & Networks in Innovation
   - 3.3 Use Cases of Corporate Innovation at Airlines

4. Product & Service Innovation
   - 4.1 New Product and Service Development
   - 4.2 Product and Brand Strategy
   - 4.3 Development Process
   - 4.4 Use Cases for Product & Service Innovation in Airlines

5. User-Centric Approach: Design Thinking
   - 5.1 Elements of Design Thinking
   - 5.2 Design Thinking Process
   - 5.3 Use Cases for Applying Design Thinking in Aviation

6. The Outlook of Digital Transformation at Airlines
   - 6.1 Trends of Digitalization at Airlines
   - 6.2 Disrupting Models in Aviation

Literature

Compulsory Reading

Further Reading

- Fenton, A., Fletcher, G., & Griffiths, M. (2019). Strategic Digital Transformation: A Results-Driven Approach (1st edition). Routledge.
- Pressman, A. (2019). Design Thinking: A guide to creative problem solving for everyone (1stedition). Routledge.
- Tidd, J., & Bessant, J. B. (2020). Managing Innovation: Integrating Technological, Market and Organizational Change (5th edition). Wiley.
- Trott, P. (2021). Innovation Management and New Product Development (7th edition). Pearson.

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Digitalization in Commercial Aviation

Course Code: DLBAMEIDA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEIDA01

Course Description

The digitalization requires the ability to find quickly new solutions to meet the needs of customers. For this reason, the students use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation. The steps and outcome of the design thinking approach are documented, followed by a description of the implementation and by setting the solution into context and providing an outlook.

Course Outcomes

On successful completion, students will be able to

- use the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation.
- the design thinking framework by defining the problem-side and by developing user centric solutions.
- prototype and test initially the solution.
- describe the implementation of the solution.
- document the undertaken steps and describe the implementation in a project report.
- conclude the project by setting the solution into context and providing an outlook.

Contents

- The students work on an innovation-design project by using the design-thinking approach to innovate a digital product or service in the customer journey of commercial aviation. The documentation first presents the project goal, followed by the topic and description of the context. Then the individual steps of the design thinking process should be described, starting with the first three steps of the problem-phase, and followed by the last three steps of the solution phase. A prototype is developed based on the proposed solution and is initially tested. Then the description of the solution follows, before the report concludes by setting the solution into context a by providing an outlook.

Literature
Compulsory Reading
Further Reading ▪ Brown, T. (2019). Change by Design, Revised and Updated: How Design Thinking Transforms Organizations and Inspires Innovation (2nd edition). HarperCollins. ▪ Nylén, D., Homström, J. (2015). Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation. Business Horizons. 58, 57-67. ▪ Wulfen, van G. (2011). Creating Innovative Products and Services: The Forth Innovation Method (1st edition). Gower.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Urban Air Mobility

Module Code: DLBAMEUAM

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMEUAM01	BA	10	300 h

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

Module Coordinator
N.N. (Urban Air Mobility & Infrastructure Concepts) / N.N. (Project: Urban Air Mobility)

Contributing Courses to Module
▪ Urban Air Mobility & Infrastructure Concepts (DLBAMEUAM01) ▪ Project: Urban Air Mobility (DLBAMEUAM02)

Module Exam Type	
Module Exam	**Split Exam** <u>Urban Air Mobility & Infrastructure Concepts</u> • Study Format "Distance Learning": Exam or Written Assessment: Case Study <u>Project: Urban Air Mobility</u> • Study Format "Distance Learning": Written Assessment: Project Report
Weight of Module see curriculum	

Module Contents

Urban Air Mobility & Infrastructure Concepts

- Introduction into Urban Air Mobility
- Upcoming General Changes within Air Mobility
- Introduction into a New Generation of Aircraft
- Electrification within Different Aviation Business Models
- Future of UAV'S
- Airport Concepts within the Future

Project: Urban Air Mobility

Different Air Mobility concepts within different fields of operation defined within a project.

Learning Outcomes

Urban Air Mobility & Infrastructure Concepts

On successful completion, students will be able to

- receive a general knowledge about Urban Air Mobility.
- assess different Urban Air Mobility transportation vehicles.
- broaden picture of the future of aviation within different business aviation models.

Project: Urban Air Mobility

On successful completion, students will be able to

- fulfill an independent project, with complex aspects.
- receive a deepen knowledge of the Urban Mobility sector.
- combine various aspects of Urban Air Mobility into one presentation and written documentation.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Urban Air Mobility & Infrastructure Concepts

Course Code: DLBAMEUAM01

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

Course Description

Urban Air Mobility became more realistic and important within the entire aviation sector within the last past years. It describes the transport of persons or goods within high density areas. The course is aligned to receive a wider knowledge of the importance of the Urban Air Mobility including different mobility concepts, unmanned aerial vehicles, air taxis and the arising complications within this field.

Course Outcomes

On successful completion, students will be able to

- receive a general knowledge about Urban Air Mobility.
- assess different Urban Air Mobility transportation vehicles.
- broaden picture of the future of aviation within different business aviation models.

Contents

1. Introduction into Urban Air Mobility
   - 1.1 Definition of Urban Air Mobility
   - 1.2 History of Urban Air Mobility
   - 1.3 Current Projects
   - 1.4 Outlook
2. Upcoming General Changes within Air mobility
   - 2.1 Environmental Issues
   - 2.2 Development of New Aircraft Types
   - 2.3 Urbanization of Mega Cities
   - 2.4 Airspace Concept and Conflicts
3. Introduction into a New Generation of Aircraft
   - 3.1 Air Taxis
   - 3.2 Regional Aircraft
   - 3.3 EVTOL (Eltectrial Vertical Take – Off and Landing)
   - 3.4 Helicopters
   - 3.5 Volocopter

4. Electrification within Different Aviation Business Models
   - 4.1 Business and General Aviation
   - 4.2 Short Haul and Medium Market
   - 4.3 Environmental Impact

5. Future of UAV'S
   - 5.1 Defintion of UAV's
   - 5.2 Cargo Transportation of UAV's
   - 5.3 Military UAV's
   - 5.4 UAV's Used for Integrators i.g. DHL

6. Airport Concepts within the Future
   - 6.1 Concept of Future Airports
   - 6.2 Helipads/City Airports
   - 6.3 Importance of Regional Airports

Literature

Compulsory Reading

Further Reading

- Berger R., (2021) Urban Air Mobility USD 90 Billion of potential: How to capture a share of the passenger drone market.
- Reuter F. & Grimens R. (2021). The roadmap to scalable urban air mobility. Volocopter.
- Valavanos, K.(2014) Handbook of Unmanned Aerial Vehicles (Volume 4). Springer Netherlands.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Urban Air Mobility

Course Code: DLBAMEUAM02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEUAM01

Course Description

Since Urban Air Mobility (UAM) will be a significant field within the aviation industry the course combines all topics from the UAM module and will reflect all topics of different mega cities, new generation of aircraft models in combination with different business models within the future of Urban Air Mobility.

Course Outcomes

On successful completion, students will be able to

- fulfill an independent project, with complex aspects.
- receive a deepen knowledge of the Urban Mobility sector.
- combine various aspects of Urban Air Mobility into one presentation and written documentation.

Contents

- The student will work on different Urban Air Mobility case studies. This course includes to find independently for different mega cities within the world and remote areas, the ideal aircraft type, airport/helipad and business model. The results will be presented and written down in a documentation.

Literature

Compulsory Reading

Further Reading

- Berger R., (2021) Urban Air Mobility USD 90 Billion of potential: How to capture a share of the passenger drone market.
- Reuter F. & Grimens R. (2021). The roadmap to scalable urban air mobility. Volocopter.
- Valavanos, K.(2014) Handbook of Unmanned Aerial Vehicles (Volume 4). Springer Netherlands.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Aviation Entrepreneurship

Module Code: DLBAMEAE

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ DLBAMEAE01 ▪ None	BA	10	300 h

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

Module Coordinator

N.N. (Seminar: Aviation Business Plan Development) / N.N. (Project: Aviation Business Plan)

Contributing Courses to Module

- Seminar: Aviation Business Plan Development (DLBAMEAE01)
- Project: Aviation Business Plan (DLBAMEAE02)

Module Exam Type

Module Exam	Split Exam
	Seminar: Aviation Business Plan Development • Study Format "Distance Learning": Written Assessment: Research Essay Project: Aviation Business Plan • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Seminar: Aviation Business Plan Development

Entrepreneurship is a widely used concept in business. In the context of aviation there are many different forms of entrepreneurship as well. Every attempt at entrepreneurship begins with a plan that documents and communicates the vision and strategy of the undertaking. This module covers why and how to formulate a business plan for an airline, air cargo carrier, or other aviation related business undertaking.

Project: Aviation Business Plan

Entrepreneurship is a widely used concept in business. In the context of aviation there are many different forms of entrepreneurship as well. Every attempt at entrepreneurship begins with a plan that documents and communicates the vision and strategy of the undertaking. This module covers why and how to formulate a business plan for an airline, air cargo carrier, or other aviation related business undertaking.

Learning Outcomes

Seminar: Aviation Business Plan Development

On successful completion, students will be able to

- appreciate the significance of Entrepreneurship, particularly as it relates to commercial air transport.
- understand the importance and main components of a business plan.
- understand the audience for and intricacies of business plan development for an airline or air cargo operator.
- receive all of the tools for formulating a forward-looking business plan with a view towards attracting investment capital, which will be done in the subsequent project.

Project: Aviation Business Plan

On successful completion, students will be able to

- formulate a forward-looking business plan with a view towards attracting investment capital.
- obtain and internalize feedback regarding the business plan they have developed.
- provide potential employers or investors with a sample of work related to business plan development.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Seminar: Aviation Business Plan Development

Course Code: DLBAMEAE01

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

Course Description

The management of an airline is often focused on existing players or the “legacy carriers”. However, many of the success stories in the industry have been fairly recent entrants to the market. Those with a clear and well communicated vision and business plan are the ones most likely to succeed in this competitive industry.This course provides students with the tools for formulating a successful business plan for a commercial airline or air cargo operator. The fundamentals and specific elements of the business plan that are key to success in commercial aviation will be covered.

Course Outcomes

On successful completion, students will be able to

- appreciate the significance of Entrepreneurship, particularly as it relates to commercial air transport.
- understand the importance and main components of a business plan.
- understand the audience for and intricacies of business plan development for an airline or air cargo operator.
- receive all of the tools for formulating a forward-looking business plan with a view towards attracting investment capital, which will be done in the subsequent project.

Contents

- This course will cover the fundamentals of Entrepreneurship in the context of aviation, the need for a clear and well communicated business plan, the structure and main components of that business plan, as well as the potential pitfalls and mistakes commonly made in the creation of an aviation-related business plan.

Literature

Compulsory Reading

Further Reading

- Bygrave, W., & Zacharakis, A. (2017) Entrepreneurship, 4th Edition. Wiley.
- Swanson, L. (2017). Business Plan Development Guide. Openpress
- Taneja, N. (2016). Airline Industry: Poised for Disruptive Innovation? Ashgate

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Seminar

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Project: Aviation Business Plan

Course Code: DLBAMEAE02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEAE01

Course Description

This course provides students with an opportunity for formulating a successful business plan for a commercial airline or air cargo operator. Students will have an opportunity to develop their own business plan.

Course Outcomes

On successful completion, students will be able to

- formulate a forward-looking business plan with a view towards attracting investment capital.
- obtain and internalize feedback regarding the business plan they have developed.
- provide potential employers or investors with a sample of work related to business plan development.

Contents

- This course will provide students with an opportunity to formulate their own business plan for an airline, air cargo or other aviation related enterprise. This will include sections on Management Structure, Network and Fleet plan, Market Forecast, Financial and Cash-Flow projections, Organizational Structure and regulatory/certification plans. Feedback will be provided in the same way that a potential investor would assess a business plan.

Literature

Compulsory Reading

Further Reading

- Bygrave, W., & Zacharakis, A. (2017) Entrepreneurship, 4th Edition. Wiley.
- Swanson, L. (2017). Business Plan Development Guide. Openpress
- Taneja, N. (2016). Airline Industry: Poised for Disruptive Innovation? Ashgate

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Human Factors and Safety Management in Aviation

Module Code: DLBAMEHFSMA

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ None ▪ DLBAMEHFSMA01	BA	10	300 h

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

Module Coordinator

N.N. (Human Factors and Safety Management in Commerical Aviation) / N.N. (Project: Human Factors and Safety Management in Aviation)

Contributing Courses to Module

- Human Factors and Safety Management in Commerical Aviation (DLBAMEHFSMA01)
- Project: Human Factors and Safety Management in Aviation (DLBAMEHFSMA02)

Module Exam Type

Module Exam	Split Exam
	Human Factors and Safety Management in Commerical Aviation • Study Format "Distance Learning": Exam or Written Assessment: Case Study Project: Human Factors and Safety Management in Aviation • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Human Factors and Safety Management in Commerical Aviation

- Safety Management Fundamentals and Introduction to Safety Management Systems
- Aviation Safety Rules and Regulations
- Human Factors in Aviation
- Safety Risk Management in Aviation
- Aviation Accidents and Incidents

Project: Human Factors and Safety Management in Aviation

Development of a Safety Management System in form of a Safety Management Manual, Documentation, Organizational and Operational Processes, Risk Assessment, Mitigation Measures, Challenges to the Operation and to Management.

Learning Outcomes

Human Factors and Safety Management in Commerical Aviation

On successful completion, students will be able to

- name and understand fundamentals of safety management.
- describe the importance of risk management in aviation.
- apply the basic risk management process, using hazard identification, risk assessment and risk mitigation techniques based on methodological knowledge.
- explain what human factors in aviation are and what influence the human factor can have on aviation safety and other business functions.
- understand the consequences of insufficient safety management.

Project: Human Factors and Safety Management in Aviation

On successful completion, students will be able to

- understand the role of safety management in an organization and which organizational levels are involved.
- implement the basic risk management process.
- identify potential human error factors in an aviation operation.
- recognize and discuss challenges for the safety of an organization.
- understand and set-up basic Safety Management documentation by themselves.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field of Transportation & Logistics	All Bachelor Programs in the Transport & Logistics field

Human Factors and Safety Management in Commerical Aviation

Course Code: DLBAMEHFSMA01

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

Course Description

The management of safety is a core business function and is the key for a reliable, efficient, and sustainable operation of an aviation organization. The aviation system, even though being highly reliable while operating in high-risk environments, must be continuously assessed and risks must be managed in reactive, proactive, and predictive ways. Aviation organizations failing to manage risks throughout their processes and organizational levels loose efficiency and reliability, produce high costs for damage to people and equipment, and ultimately loose customer confidence. Thus, accidents, incidents or occurrences in aviation can lead to high negative (financial & reputation) consequences for an organization. The human factor and human error are the primary causal and contributing factors to accidents and incidents in aviation and are therefore the key factors in the management of safety. Understanding human error factors, including social, psychological, safety and physiological factors, will allow the student to understand human contributions to accidents or incidents and other malfunctions in an organization, ultimately benefiting the aviation system understanding.

Course Outcomes

On successful completion, students will be able to

- name and understand fundamentals of safety management.
- describe the importance of risk management in aviation.
- apply the basic risk management process, using hazard identification, risk assessment and risk mitigation techniques based on methodological knowledge.
- explain what human factors in aviation are and what influence the human factor can have on aviation safety and other business functions.
- understand the consequences of insufficient safety management.

Contents

1. Introduction to Safety Management
   - 1.1 Definition of Key Terms
   - 1.2 What are Safety Management Systems?
   - 1.3 Safety Policy and Objectives

2. Aviation Safety Rules and Regulations
   - 2.1 International, Supranational, and National Rules and Regulations
   - 2.2 Other Aviation Safety Principles and Guidelines

3. Human Factors in Aviation
   - 3.1 What is the Human Factor?
   - 3.2 The Human Factors Dirty Dozen
   - 3.3 Situational Awareness
   - 3.4 Threat and Error Management
   - 3.5 Human Factors Analysis and Classification System (HFACS)
   - 3.6 An Introduction to Human Error Management in Aviation: Crew Resource Management (CRM), Team Resource Management (TRM), Maintenance Resource Management (MRM) and Ramp Resource Management (RRM)

4. Safety Risk Management
   - 4.1 Definition of Key Terms
   - 4.2 Basic Components of Safety Risk Management
   - 4.3 Hazard Identification
   - 4.4 Risk Assessment with the Risk Matrix
   - 4.5 Risk Mitigation

5. Aviation Accidents and Incidents
   - 5.1 Introduction to Key Terms: Accident, Incident, Occurrence, Near Miss
   - 5.2 Accident Analysis and Investigation

6. Safety Assurance
   - 6.1 Safety Surveys and Safety Audits
   - 6.2 Hazard Reporting and No-Blame Culture
   - 6.3 Change Management
   - 6.4 Leadership
   - 6.5 Safety and Quality Assurance

7. Safety Promotion
   - 7.1 Communication, Training and Education in Aviation
   - 7.2 Organizational Culture, Safety Culture, and Just Culture

8. Outlook: Innovation and New Challenges to Aviation Safety
   - 8.1 Innovations in Aviation and their Influence on Aviation Safety
   - 8.2 Potential Challenges to Aviation Safety: Unmanned Vehicles in the Air and on the Ground

Literature

Compulsory Reading

Further Reading

- Ericson II, C. A. (2015). Hazard Analysis Techniques for System Safety. (2nd Edition). Wiley.
- International Civil Aviation Organisation. (2018). ICAO Safety Management Manual. (4th Edition). https://www.skybrary.aero/bookshelf/books/5863.pdf
- Reason, J. (1997). Managing the Risk of Organizational Accidents. Ashgate Publishing Limited.
- Salas, E. & Maurino, D. (Eds.) (2010). Human Factors in Aviation. (2nd Edition). Academic Press.
- Strauch, B. (2017). Investigating Human Error: Incidents, Accidents, and Complex Systems. (1st Edition). Ashgate Publishing Limited.
- Wiegmann, D. A. & Shappell, S. A. (2003). A Human Error Approach to Aviation Accident Analysis: The Human Factors Analysis and Classification System. Routledge.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
100 h	0 h	25 h	25 h	0 h	150 h

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

Project: Human Factors and Safety Management in Aviation

Course Code: DLBAMEHFSMA02

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	DLBAMEHFSMA01

Course Description

The students will create a safety management system in form of a safety management manual and related documentation for a sample organization specified in the guidelines provided. This documentation includes the description of key components of a Safety Management Systems based on the sample organization, its processes, components, and specific challenges. The role of the human factor in the system will be emphasized, as well as the specific hazards and risks. With a safety management manual and related documentation, the students develop a concept for a reliable, safe, and efficient organization and highlight key measures to be implemented throughout organizational levels.

Course Outcomes

On successful completion, students will be able to

- understand the role of safety management in an organization and which organizational levels are involved.
- implement the basic risk management process.
- identify potential human error factors in an aviation operation.
- recognize and discuss challenges for the safety of an organization.
- understand and set-up basic Safety Management documentation by themselves.

Contents

- The students work on a project in the field of aviation safety and the necessary steps to build a safety management system for an organization. The related safety management manual will provide information based on a sample organization and related sample processes. The documentation is based on the basic safety management system components, such as Safety Policy and Objectives, Safety Risk Management, Safety Assurance, and Safety Promotion. The role of the human factor in the organization will be emphasized by the student throughout the documentation. This documentation first presents the project goal, topic, and context, afterwards the sample organization will be introduced followed by sections on the safety management components and how safety management principles were applied to the sample organization. Finally, the challenges for the sample organization in implementing, maintaining, and developing the Safety

Management System shall be described. Background information on the project requirements, basic components to be addressed, specific templates and other guidance material will be provided to the students.

Literature

Compulsory Reading

Further Reading

- European Union Aviation Safety Agency. (2013). EHEST Safety Management Toolkit for Complex Operators.
- International Civil Aviation Organisation. (2018). ICAO Safety Management Manual. (4th Edition).
- International Civil Aviation Organisation. (2016). ICAO Annex 19 to the Convention on International Civil Aviation: Safety Management.
- Reason, J. (1997). Managing the Risk of Organizational Accidents. Ashgate Publishing Limited.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

DLBAMEHFSMA02

Digital Product Development

Module Code: DLBINTEEDPD

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Marian Benner-Wickner (Introduction to the Internet of Things) / Prof. Dr. Marian Benner-Wickner (Product Development in Industry 4.0)

Contributing Courses to Module

- Introduction to the Internet of Things (DLBINGEIT01_E)
- Product Development in Industry 4.0 (DLBINGPE01_E)

Module Exam Type

Module Exam	Split Exam
	Introduction to the Internet of Things • Study Format "Distance Learning": Exam, 90 Minutes • Study Format "myStudies": Exam, 90 Minutes Product Development in Industry 4.0 • Study Format "Distance Learning": Exam, 90 Minutes • Study Format "myStudies": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Introduction to the Internet of Things

- Internet of Things Fundamentals
- Social and Economic Significance
- Communication Standards and Technologies
- Data Storage and Processing
- Design and Development
- Applicability

Product Development in Industry 4.0

- 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

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.

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 IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Computer Science & Software Development and Engineering	All Bachelor Programs in the IT & Technology fields

Introduction to the Internet of Things

Course Code: DLBINGEIT01_E

Study Level	Language of Instruction	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 Architecture Styles and Patterns of 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.
- Fleisch, E. (Hrsg.) (2005): Internet der dinge. Ubiquitous Computing und RFID in der Praxis. Springer, Berlin.
- Gilchrist, A. (2016): Industry 4.0. The industrial internet of things. Apress, New York, NY.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Product Development in Industry 4.0

Course Code: DLBINGPE01_E

Study Level	Language of Instruction	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. ▪ Kahn, K. B. (2004): The PDMA handbook of new product development. John Wiley & Sons, Inc, Hoboken, NJ. ▪ Levy, J. (2015): UX strategy: How to devise innovative digital products that people want. 1st edition, O'Reilly Media, Inc., Sebastopol, CA. ▪ Olsen, D. (2015): The Lean product playbook: How to innovate with minimum viable products and rapid customer feedback. Wiley, Hoboken, NJ. ▪ Reinertsen, D. G. (2009): The principles of product development flow: Second generation Lean product development. Celeritas, Redondo Beach, CA. ▪ Stark, J. (2011): Product lifecycle management: 21st century paradigm for product realisation. Springer, London. ▪ Ulrich, K. T./Eppinger, S. D. (2015): Product design and development. 6th edition, Mc-Graw Hill, New York, NY.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Online and Social Media Marketing

Module Code: DLBMSM-01_E

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Joesphine Zhou-Brock (Online Marketing) / Prof. Dr. Joesphine Zhou-Brock (Social Media Marketing)

Contributing Courses to Module

- Online Marketing (DLBMSM01-01_E)
- Social Media Marketing (DLBMSM02-01_E)

Module Exam Type

Module Exam	Split Exam
	Online Marketing • Study Format "Distance Learning": Written Assessment: Written Assignment Social Media Marketing • Study Format "Distance Learning": Advanced Workbook (passed / not passed)

Weight of Module

see curriculum

Module Contents

Online Marketing

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

Social Media Marketing

- Basics of Social-Media-Marketing
- Social-Media-Marketing in the overall Marketing Mix
- Social Media Map
- Social Media Strategy Development
- Social Media in Innovation Management
- Operational Social Media Marketing
- Legal framework of Social Media
- Developments in Social-Media-Marketing

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.

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	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Online & Social Media Marketing	All Bachelor Programmes in the Marketing & Communication fields

Online Marketing

Course Code: DLBMSM01-01_E

Study Level	Language of Instruction	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 German Data Protection Ordinance (DSGVO) 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. Basics of Online Marketing
   - 1.1 Development and concept of Online Marketing
   - 1.2 The online communication process
   - 1.3 Added value of Online Marketing
   - 1.4 The role of Online Marketing in the Marketing Mix
   - 1.5 The electronic added value
   - 1.6 Electronic business concepts and platforms
   - 1.7 Current developments and trends

2. Forms and channels of Online Marketing
   - 2.1 Overview of the forms of Online Marketing
   - 2.2 Affiliate and Search Engine Marketing
   - 2.3 Display advertising and E-mail Marketing
   - 2.4 Social Media and Influencer Marketing
   - 2.5 Content Marketing and Storytelling
   - 2.6 Viral Marketing and Word-of-Mouth
   - 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 Setting goals and creating a basis
   - 3.2 The Customer Journey
   - 3.3 The adequate channel mix
   - 3.4 Define and analyze KPIs

4. Media planning online
   - 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 M-Commerce
   - 6.1 Basics and classification of Mobile Marketing
   - 6.2 Responsive design vs. Apps vs. Mobile Web
   - 6.3 App and QR Code Marketing
   - 6.4 Location-based Services
   - 6.5 Mobile Advertising Media
   - 6.6 Mobile Commerce - definition and development
   - 6.7 Mobile Payment
   - 6.8 Success factors of mobile campaigns

7. Online law
   - 7.1 Legal aspects of Online Marketing
   - 7.2 Copyright law and the handling of user-generated content
   - 7.3 The right to your own image
   - 7.4 Basic Data Protection Ordinance (DSGVO)

8. Online Customer Retention and Service
   - 8.1 The AIDA model - extensions for Online Marketing
   - 8.2 Customer acquisition and customer retention in Online Marketing
   - 8.3 Online customer retention in the customer relationship life cycle
   - 8.4 Online customer service
   - 8.5 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./Smith, P. (2017): Digital Marketing Excellence. Planning, Optimizing and Integrating Online Marketing. 5th edition, Routledge, New York.
- Charlesworth, A. (2018): Digital Marketing. A Practical Approach. Routledge, New York.
- Grigsby, M. (2018): Marketing Analytics. A Practical Guide to Improving Consumer Insights Using Data Techniques. 2nd edition, Kogan Page, London.
- Kingnorth, S. (2019): Digital Marketing Strategy. An integrated approach to online marketing. 2nd edition, KoganPage, New York.
- Yakob, F. (2015): Paid Attention: Innovative Advertising for a Digital World. Kogan Page, London.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Social Media Marketing

Course Code: DLBMSM02-01_E

Study Level	Language of Instruction	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

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 Framework of Social Media
   - 7.1 Legal Framework of Social Media
   - 7.2 Basic Data Protection Ordinance (DSGVO)
   - 7.3 User-generated Content
   - 7.4 The Facebook Pixel

8. Developments in Social-Media-Marketing
   - 8.1 Social Media in the Digital Change - New Forms of Consumption
   - 8.2 Social Products and Brands
   - 8.3 Social Commerce and Social Selling
   - 8.4 Messengers and Bots
   - 8.5 The terms "Postfactual" and "Postdigital"
   - 8.6 Open Leadership - Dealing with loss of control

Literature

Compulsory Reading

Further Reading

- Barker, M. et al. (2016): Social Media Marketing. A strategic approach. 2nd edition, Cengage Learning, Boston.
- Butow, E. et al. (2020): Ultimate Guide to Social Media Marketing. Entrepreneur Press, Irvine.
- Hollensen, S. et al. (2020): Social Media Marketing. A Practioner Guide. 4th edition, Opresnik Management Consulting, Lübeck.
- Kingnorth, S. (2019): Digital Marketing Strategy. An integrated approach to online marketing. 2nd edition, KoganPage, New York.
- The Art of Service (2020): Paid Social Media Strategies. A Complete Guide – 2021 Edition. N. p.

Study Format Distance Learning

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

Information about the examination	
Examination Admission Requirements	**BOLK:** yes **Course Evaluation:** no
Type of Exam	Advanced Workbook (passed / not passed)

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Big Data and Data Protection

Module Code: DLBINTEEBDDP

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Data Analytics and Big Data) / Prof. Dr. Ralf Kneuper (Introduction to Data Protection and Cyber Security)

Contributing Courses to Module

- Data Analytics and Big Data (DLBINGDABD01_E)
- Introduction to Data Protection and Cyber Security (DLBCSIDPITS01)

Module Exam Type

Module Exam	Split Exam
	Data Analytics and Big Data • Study Format "myStudies": Written Assessment: Case Study • Study Format "Distance Learning": Written Assessment: Case Study Introduction to Data Protection and Cyber Security • Study Format "Distance Learning": Exam, 90 Minutes • Study Format "myStudies": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Data Analytics and Big Data

- 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

Introduction to Data Protection and Cyber Security

- Fundamentals of IT Security
- Data Protection
- IT Security Management
- Network and Communication Security

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.

Introduction to Data Protection and Cyber Security

On successful completion, students will be able to

- explain the terms and concepts of IT security and know the typical procedures and techniques which exist in each area.
- cite the legal regulations on data protection and explain their implementation.
- discuss in-depth IT security management and suitable measures for implementation.
- use their overview knowledge of activities and strategies for IT security in software and system development.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the fields of Engineering and Computer Science & Software Development	All Bachelor Programs in the IT & Technology fields

Data Analytics and Big Data

Course Code: DLBINGDABD01_E

Study Level	Language of Instruction	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 ▪ Gandomi, A./Haider, M. (2015): Beyond the hype. Big data concepts, methods, and analytics. In: International Journal of Information Management, 35. Jg.,Journal 2, p. 137–144. ▪ Provost, F./Fawcett, T. (2013): Data science for business. What You Need to Know About Data Mining and Data-Aalytic Thinking. O'Reilly, Sebastopol (CA).

Study Format myStudies

Study Format	Course Type
myStudies	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Case Study

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
110 h	0 h	20 h	20 h	0 h	150 h

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

Introduction to Data Protection and Cyber Security

Course Code: DLBCSIDPITS01

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

Course Description

In this course, the students are familiarized with important concepts from the field of IT security. Basic terms are introduced and discussed, and typical application fields, areas of IT security application, and typical procedures and techniques are introduced and described.

Course Outcomes

On successful completion, students will be able to

- explain the terms and concepts of IT security and know the typical procedures and techniques which exist in each area.
- cite the legal regulations on data protection and explain their implementation.
- discuss in-depth IT security management and suitable measures for implementation.
- use their overview knowledge of activities and strategies for IT security in software and system development.

Contents

1. Fundamentals of Data Protection and Cyber Security
   - 1.1 Conceptual Bases, Protection Goals
   - 1.2 Attacks and Threats
   - 1.3 Security Strategy
   - 1.4 Legal Regulations
2. Data Protection
   - 2.1 Data Protection as a Personal Right
   - 2.2 Basic Principles of Data Protection
   - 2.3 EU General Data Protection Regulation
   - 2.4 Further International Regulations on Data Protection
   - 2.5 Cross-Border Data Flow
   - 2.6 Data Protection in Everyday Life

3. Basic Functions of Cyber Security and Their Implementation
   - 3.1 Identification and Authentication
   - 3.2 Rights Management
   - 3.3 Rights Check
   - 3.4 Preservation of Evidence

4. Cyber Security Management
   - 4.1 Basic Concepts and Standards in Cyber Security Management
   - 4.2 Series of Standards ISO 2700x

5. Cyber Security Management in Everyday Life
   - 5.1 Password Management
   - 5.2 Data Backup
   - 5.3 Email Security
   - 5.4 Protection Against Viruses and Other Malware
   - 5.5 Protection Against Social Engineering Attacks

6. Network and Communication Security
   - 6.1 Firewall Technology
   - 6.2 Network Separation
   - 6.3 Security in WLAN, Mobile Networks, Bluetooth, and NFC

7. Cyber Security in the Development of Software and Systems
   - 7.1 Protection of the Development Environment
   - 7.2 Secure Development
   - 7.3 Common Criteria

Literature

Compulsory Reading

Further Reading

- Arnold, R. (2017). Cybersecurity: A business solution. An executive perspective on managing cyber risk. Threat Sketch.
- Mattord, H., & Whitman, M. (2017). Management of information security. Cengage.
- European Parliament and Council of the European Union. (2016). EU General Data Protection Regulation (GDPR): Regulation 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). Official Journal of the European Union. Chapters 1—3

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Applied Sales

Module Code: DLBDSEAS

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Patrick Geus (Applied Sales I) / Prof. Dr. Patrick Geus (Applied Sales II)

Contributing Courses to Module

- Applied Sales I (DLBDSEAS01)
- Applied Sales II (DLBDSEAS02)

Module Exam Type

Module Exam	Split Exam
	Applied Sales I • Study Format "Distance Learning": Exam Applied Sales II • Study Format "Distance Learning": Exam

Weight of Module

see curriculum

Module Contents

Applied Sales I

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

Applied Sales II

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

Learning Outcomes

Applied Sales I

On successful completion, students will be able to

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

Applied Sales II

On successful completion, students will be able to

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

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Marketing & Sales	All Bachelor Programmes in the Marketing & Communication fields

Applied Sales I

Course Code: DLBDSEAS01

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

Course Description

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

Course Outcomes

On successful completion, students will be able to

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

Contents

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

2. The Distribution System
   - 2.1 Forms of Sales
   - 2.2 Sales Organisation
   - 2.3 Key Account Management
   - 2.4 Multi-Channel Distribution

3. Personal Sales
   - 3.1 The "New Sellers"
   - 3.2 Requirements for Sales Personalities
   - 3.3 The Key Account Manager
   - 3.4 Task of Sales Managers

4. Sales Plan
   - 4.1 Tasks and Objectives of Sales Management
   - 4.2 Observation of Competition in the Context of Sales Management
   - 4.3 Potential Analyses and Sales Planning
   - 4.4 Sales Control and Visit Strategies

5. New Customer Acquisition
   - 5.1 Identification of New Customer Potential
   - 5.2 Customer Relationship Management and Customer Acquisition
   - 5.3 Trade Fairs and Events
   - 5.4 Networking

6. The Sales Visit
   - 6.1 Frequency and Preparation of Visits
   - 6.2 Conduct of a Visit
   - 6.3 Visit Reports and Follow-Up
   - 6.4 Aftercare and Follow-Up

7. Conversational Tactics
   - 7.1 Structured Conversation Preparation
   - 7.2 Goal-Oriented Conversation: The D.A.L.A.S Model
   - 7.3 Questioning Techniques

8. Conducting Negotiations
   - 8.1 Psychology of Negotiation
   - 8.2 Negotiation Structure
   - 8.3 Objection Handling
   - 8.4 Price Negotiations

9. Other Sales Channels
   - 9.1 Telemarketing
   - 9.2 Catalogue and Brochure Sales
   - 9.3 Internet and E-Commerce

Literature

Compulsory Reading

Further Reading

- Jobber, D./Lancaster, G./Le Meunier-Fitzhugh, K. (2019): Selling and Sales Management, 11th Ed.; Pearson
- Johnston, M.W./Marshall (2021): Sales Force Management: Leadership, Innovation, Technology; Routledge
- Jordan, J./Vazzana, M. (2011): Cracking the Sales Management Code: The Secrets to Measuring and Managing Sales Performance; 13th Ed.; McGraw Hill
- Kumar, V./Reinartz, W. (2018): Customer Relationship Management: Concept, Strategy, and Tools; 3rd Ed.; Springer Texts in Business and Economics
- Marcos, J./Davies, M. (2019): Implementing Key Account Management: Designing Customer-Centric Processes for Mutual Growth; KoganPage
- Peppers, D./Rogers, M. (2011): Managing Customer Relationships : A Strategic Framework; 2nd Ed.; Wiley

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Applied Sales II

Course Code: DLBDSEAS02

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

Course Description

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

Course Outcomes

On successful completion, students will be able to

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

Contents

8. Case Study in IQ Media Marketing
   - 8.1 The Market Situation
   - 8.2 The Marketing Situation
   - 8.3 IQ Media Marketing and IQ Digital Media Marketing

Literature

Compulsory Reading

Further Reading

- Jobber, D./Lancaster, G./Le Meunier-Fitzhugh, K. (2019): Selling and Sales Management, 11th Ed.; Pearson
- Johnston, M.W./Marshall (2021): Sales Force Management: Leadership, Innovation, Technology; Routledge
- Jordan, J./Vazzana, M. (2011): Cracking the Sales Management Code: The Secrets to Measuring and Managing Sales Performance; 13th Ed.; McGraw Hill
- Kumar, V./Reinartz, W. (2018): Customer Relationship Management: Concept, Strategy, and Tools; 3rd Ed.; Springer Texts in Business and Economics
- Marcos, J./Davies, M. (2019): Implementing Key Account Management: Designing Customer-Centric Processes for Mutual Growth; KoganPage
- Peppers, D./Rogers, M. (2011): Managing Customer Relationships : A Strategic Framework; 2nd Ed.; Wiley

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Innovative Technologies and Sustainability

Module Code: DLBEPWITN_E

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Mirko Bendig (Circular Economy) / Prof. Dr. Lars Meinecke (Sustainable Technologies)

Contributing Courses to Module

- Circular Economy (DLBEPWITN01_E)
- Sustainable Technologies (DLBEPWITN02_E)

Module Exam Type

Module Exam	Split Exam
	Circular Economy • Study Format "Distance Learning": Exam, 90 Minutes Sustainable Technologies • Study Format "Distance Learning": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Circular Economy

- Origin and Definition of the Circular Economy
- Drivers of the Circular Economy
- The "R-framework of circularity" - the 7 "Rs" and their application
- Requirements of the Circular Economy
- Transformation towards a Circular Economy
- Examples of Approaches and Business Models of the Circular Economy

Sustainable Technologies

- Energy technologies
- Water technologies
- Raw material and material technologies
- Urban technologies
- Transport technologies
- Evaluation of sustainable technologies

Learning Outcomes

Circular Economy

On successful completion, students will be able to

- understand which origins and reasons make a reshape and restructure of the current linearly organized economy towards a circular economy necessary.
- describe the most important drivers of the circular economy.
- explain important concepts and deductions of the Circular Economy and their impact on organizational forms, business models, production and technologies as well as economic activity, and to evaluate their advantages and disadvantages.
- understand and learn to shape the transformation process from a currently linearly organized economy to a circular economy.

Sustainable Technologies

On successful completion, students will be able to

- remember the definition and concepts of the term sustainability,
- understand different systems and their interactions as well as the social significance of sustainable technologies,
- remember the areas of use and possible applications of sustainable technologies,
- analyze, evaluate and compare sustainable technologies based on objective criteria.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the fields of Qualityand Sustainability Management and Natural Sciences	All Bachelor Programs in the Transport & Logistics and IT & Technology fields

Circular Economy

Course Code: DLBEPWITN01_E

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

Course Description

In contrast to the currently predominant principle of linear economy in industrial production and economy, the approach of the circular economy represents a regenerative system. Theobjective of the Circular Economy is to lower the use of resources and to reduce waste production, emissions and energy waste by slowing down, reducing and closing energy and material cycles. The course provides an overview of the origins, the framework conditions and the requirements of a Circular Economy. In addition, the students receive an insight into the economic transformation processes and adjustments in terms of production, technologies, supply chain, forms of organization and business models.

Course Outcomes

On successful completion, students will be able to

- understand which origins and reasons make a reshape and restructure of the current linearly organized economy towards a circular economy necessary.
- describe the most important drivers of the circular economy.
- explain important concepts and deductions of the Circular Economy and their impact on organizational forms, business models, production and technologies as well as economic activity, and to evaluate their advantages and disadvantages.
- understand and learn to shape the transformation process from a currently linearly organized economy to a circular economy.

Contents

1. Origin and Definition of the Circular Economy
   - 1.1 Background, history and definition
   - 1.2 Climate Crisis
   - 1.3 Waste of resources
   - 1.4 Negative externalities

2. Drivers of the Circular Economy
   - 2.1 Legal framework in Germany
   - 2.2 International framework conditions - Paris Climate Treaty, UN Sustainable Development Goals
   - 2.3 Technological and economic drivers, such as Sharing Economy
   - 2.4 Social and political drivers, such as Zero Waste Vision, coal exit

3. The "R-framework of circularity" - the 7 "Rs" and their application
   - 3.1 "Rethink"
   - 3.2 "Reduce"
   - 3.3 "Re-use" and "Repair”
   - 3.4 "Refurbish" and "Recover"
   - 3.5 "Recycle"

4. Requirements of the Recycling Economy
   - 4.1 Other forms and demands for raw materials
   - 4.2 Critical and scarce raw materials
   - 4.3 Example: Renewable Energies

5. Transformation towards a Circular Economy
   - 5.1 Substitution and design strategies
   - 5.2 Political and economic strategies
   - 5.3 Transformation of the production and supply chain
   - 5.4 Transformation of the "throwaway” culture

6. Examples for Approaches and Business Models of the Circular Economy
   - 6.1 Waste Management
   - 6.2 Energy Industry

Literature

Compulsory Reading

Further Reading

- Lacy, P./Long, J./Spindler, W. (2020): The Circular Economy Handbook: Realizing the Circular Advantage, Palgrave Macmillan, Basingstoke, UK.
- Webster, Ken (2017): The Circular Economy: A Wealth of Flows, 2nd Edition, Lightning Source, LaVergne, USA.
- Gallaud, D./Laperche, B. (2016): Circular Economy, Industrial Ecology and Short Supply Chain: Towards Sustainable Territories, Innovation, Entrepreneurship, Management: Smart Innovation Set, Band 4, John Wiley & Sons, New York, USA.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Sustainable Technologies

Course Code: DLBEPWITN02_E

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

Course Description

Sustainable technologies differ significantly from conventional technologies, which often cause ecological and social problems due to their dependence on conventional primary energy sources (fossil or nuclear) and/or their emissions. In the course, students get an overview of the areas and applications of sustainable technologies and gain insight into methods of evaluating and comparing them based on objective criteria.

Course Outcomes

On successful completion, students will be able to

- remember the definition and concepts of the term sustainability,
- understand different systems and their interactions as well as the social significance of sustainable technologies,
- remember the areas of use and possible applications of sustainable technologies,
- analyze, evaluate and compare sustainable technologies based on objective criteria.

Contents

1. Sustainable technologies: Introduction and context
   - 1.1 Characteristics of sustainable technologies
   - 1.2 Systems and interdependencies
   - 1.3 Social relevance
   - 1.4 Economic aspects of sustainable technologies
   - 1.5 Technical challenges of sustainable technologies
2. Energy Technologies
   - 2.1 Energy forms
   - 2.2 Conventional primary energy sources
   - 2.3 Regenerative primary energy sources
   - 2.4 Energy storage technology
   - 2.5 Energy conversion technologies and conversion efficiency
   - 2.6 Energy supply grids

3. Water Technologies
   - 3.1 Water treatment and conditioning
   - 3.2 Water systems

4. Raw material and material technologies
   - 4.1 Material efficiency
   - 4.2 Optimization of material functionalities
   - 4.3 Recycling

5. Urban Technologies
   - 5.1 Building technology
   - 5.2 Supply and disposal
   - 5.3 Synergy potentials in urban centers

6. Transport Technologies
   - 6.1 Sustainable transport systems
   - 6.2 Fuels
   - 6.3 Material reduction

7. Evaluation of sustainable technologies
   - 7.1 Upstream and downstream energy chains
   - 7.2 Material flow analyses
   - 7.3 Life cycles, obsolescence and recyclability, life cycle assessment
   - 7.4 Comparisons based on individual criteria
   - 7.5 Technology impact assessment

Literature
Compulsory Reading
Further Reading ▪ Benetto, E./ Gericke, K. (Eds.). (2018): Designing Sustainable Technologies, Products and Policies: From Science to Innovation. Springer International Publishing; Springer. ▪ Mino, T./ Shogo, K. (Eds.). (2020): Framing in Sustainability Science: Theoretical and Practical Approaches. Science for Sustainable Societies. Springer Singapore. ▪ Kamran, M./ Fazal, M. (2021). Fundamentals of Renewable Energy Systems: Technologies, design and operation. Elsevier Academic Press. ▪ Hüttl, R. F./ Bens, O./ Bismuth, C.,/ Hoechstetter, S. (Eds.). (2016). Water Resources Development and Management. Society - Water - Technology: A Critical Appraisal of Major Water Engineering Projects. Springer International Publishing; Springer. ▪ Riggs, W. (Ed.). (2020). Disruptive transport: Driverless cars, transport innovation and the sustainable city of tomorrow. Routledge.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBEPWITN02_E

Organizational Development and Change Management

Module Code: DLBWPOCM_E

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Dirk Steffens (Organizational Development) / Dirk Steffens (Change Management)

Contributing Courses to Module

- Organizational Development (DLBWPOCM01_E)
- Change Management (DLBDBCM01_E)

Module Exam Type

Module Exam	Split Exam
	Organizational Development • Study Format "Distance Learning": Exam, 90 Minutes Change Management • Study Format "Distance Learning": Exam, 90 Minutes • Study Format "myStudies": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Organizational Development

- Organizational Development
- Framework conditions for organizational change Concepts of organizational development Organizations in transition
- New forms of organization
- Organizational design
- Problem areas and intervention techniques
- Evaluation of success and transfer

Change Management

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

Learning Outcomes

Organizational Development

On successful completion, students will be able to

- explain the basic principles of organizational development.
- name the human relation theories in organizational development.
- explain points of criticism of organizational development.
- name the implications of Systemic Organizational Development.
- outline the importance and design of corporate culture within organizational development.
- name the characteristics of a learning organization.
- show possible development paths towards the learning organization.

Change Management

On successful completion, students will be able to

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

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the field(s) of Business Administration & Management	All Bachelor Programs in the Business & Management field(s)

Organizational Development

Course Code: DLBWPOCM01_E

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

Course Description

To remain competitive, all organizations are subject to constant change. To shape this change positively is a key function of the responsible managers and a sign of successful management. Frequently, reasons such as the discontinuation or the development of new business fields, mergers and relocations are decisive, but also continuous company growth; technological improvements and social changes are reasons for partly far-reaching measures for the further development of organizations. This knowledge is of central importance for implementing changes. This course shows the most important human relation theories that serve as a basis for organizational development. Since the corporate culture is a central component of organizational development, both the analysis and the development of the corporate culture are presented. It also discusses the most important aspects of learning organization.

Course Outcomes

On successful completion, students will be able to

- explain the basic principles of organizational development.
- name the human relation theories in organizational development.
- explain points of criticism of organizational development.
- name the implications of Systemic Organizational Development.
- outline the importance and design of corporate culture within organizational development.
- name the characteristics of a learning organization.
- show possible development paths towards the learning organization.

Contents

1. Organizational Understanding of Organizational Development
   - 1.1 Organization concept
   - 1.2 Development of organizational theory approaches
   - 1.3 Organizational principles and forms of organization
2. Basics of Organizational Development
   - 2.1 Definition and delimitations
   - 2.2 Historical origins of organizational development
   - 2.3 Criticism of the concept of organizational development

3. Model Assumptions of Organizational Development
   - 3.1 Human relation theories in organizational development
   - 3.2 Phase models
   - 3.3 Organizational burn-out and organizational resilience

4. Systemic Organizational Development
   - 4.1 Theoretical basics
   - 4.2 Implications for systemic organizational development

5. Development of Corporate Culture
   - 5.1 Theoretical basics
   - 5.2 Culture Analysis
   - 5.3 Cultural Development

6. Development of Organizational Learning
   - 6.1 Basic ideas and definitions
   - 6.2 Learning levels: How do organizations learn?
   - 6.3 Development of the learning organization

Literature

Compulsory Reading

Further Reading

- Cummings, T. G. (2009): Handbook of Organization Development. Sage Pub, Thousand Oaks.
- Kozlowski, S. W. J./Salas, E. (2010): Learning, training, and development in organizations. Routledge, New York.
- Laloux, F. (2015): Reinventing Organizations. An Illustrated Innovation to Join the Conversation on Next-Stage Organizations. Nelson Parker.
- Simons, R. (2005): Levers of Organization: How Managers uns Accountability Systems for Greater Performance and Commitment. Boston Harvard Business School Publishing, Boston.
- Tolbert, P. S./Hall, R. H. (2016): Organizations – Structures, Processes, and Outcomes. 10th Edt. Routledge, New York.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Change Management

Course Code: DLBDBCM01_E

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

Course Description

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

Course Outcomes

On successful completion, students will be able to

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

Contents

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

3. The company as an Obstacle to Change
   - 3.1 Obstacles at Organizational Level
   - 3.2 Collective Obstacles
   - 3.3 Economic Obstacles

4. Resistance at Individual Level
   - 4.1 Manifestations of Individual Resistance
   - 4.2 Causes and Triggers of Individual Resistance
   - 4.3 Actions towards Resistance

5. Change as a Management Task
   - 5.1 Success Factors of Change Management
   - 5.2 Management Tasks in Change
   - 5.3 Change Management Activity Plans

6. Leading Change
   - 6.1 Success Factor: Leadership and Manager
   - 6.2 Leadership Roles and Functions
   - 6.3 Change Communication

7. Management of Change Projects
   - 7.1 Change Management Models
   - 7.2 Organization of Change Management
   - 7.3 Controlling and Evaluation of Change Projects

Literature

Compulsory Reading

Further Reading

- Burke, W. W. (2011): Organization Change. 3rd edition, Corwin Press, Thousand Oaks.
- Carnall, C. (2014): Managing Change in Organizations. 6th edition, Pearson, Harlow.
- Hughes, M. (2016): The Leadership of Organizational Change. Routledge, New York.
- Laloux, F. (2014): Reinventing organizations: a guide to creating organizations inspired by thenext stage of human consciousness. Nelson Parker, Brussels.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Managing People and Fundamentals of Business Psychology

Module Code: DLBBAEMPFB_E

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Introduction to New Work) / N.N. (Business Psychology)

Contributing Courses to Module

- Introduction to New Work (DLBNWENW01_E)
- Business Psychology (DLBMPS01_E)

Module Exam Type

Module Exam	Split Exam
	Introduction to New Work • Study Format "Distance Learning": Exam (50) Business Psychology • Study Format "Distance Learning": Exam (50)

Weight of Module

see curriculum

Module Contents

Introduction to New Work

- 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

Business Psychology

- General Theories of Business Psychology
- Psychology of Microeconomic Processes
- Psychology of Macroeconomic Processes
- Psychology of Change
- The Learning Organization

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.

Business Psychology

On successful completion, students will be able to

- describe central economic assumptions and their influencing factors and critically question them in relation to concrete action and decision making.
- discuss important theories in the field of motivation, cognition and interaction and explain their significance for economic tasks and contexts.
- explain fundamental psychological conditioning factors and explanatory models of macroeconomic processes and phenomena and apply them to central economic issues.
- present the importance of work and essential influencing factors from a psychological perspective and derive operational possibilities for shaping work.
- differentiate essential psychological models and concepts for describing and influencing human behavior in organizations and groups.
- assess the possibilities and limits of the targeted development of organizations on the basis of central psychological theories and models and to develop behavioral recommendations.
- discuss basic psychological concepts of the learning organization and design measures for everyday working life.

Links to other Modules within the Study Program	Links to other Study Programs of IU International University of Applied Sciences (IU)
This module is similar to other modules in the fields of Human Resources and Psychology	All Bachelor Programmes in the Human Resources and Social Sciences fields

Introduction to New Work

Course Code: DLBNWENW01_E

Study Level	Language of Instruction	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

Literature
Compulsory Reading
Further Reading ▪ Bernstein, E. et al. (2016): Beyond the Holacracy Hype. Harvard Business Review, Harvard. ▪ Bergmann, F. (2019): New Work, New Culture: Work We Want and a Culture That Strengthens Us. Zero Books, Washington, S. 7–19. ▪ Carson, J. B./Tesluk, P. E./Marrone, J. A. (2007): Shared leadership in teams: An investigation of antecedent conditions and performance. In: Academy of management Journal, Journal 50 .„Magazine 5, p. 1217–1234. ▪ Felin, T./Powell, T. C. (2016): Designing organizations for dynamic capabilities. In: California Management Review, Journal 58, Magazine 4, p. 78–96. ▪ 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. ▪ Maitland, A./Thomson, P. (2011): Future work: How businesses can adapt and thrive in the new world of work. Springer, Berlin.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Business Psychology

Course Code: DLBMPS01_E

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

Course Description

Decisions in complex situations do not follow the rules of logic, but are determined by the features of market participants' behavior. In order to better understand this behavior and to make reliable forecasts based on it, economics is recommended to include discoveries in the field of psychology.After an introduction to business psychology and its influencing factors, students are familiarized with the various theories on motivation, cognition and interaction. This course then looks into business psychology at the macro- and microeconomic level. Students learn about the psychological view on the development of countries and societies as well as the psychology of organizations and groups. In addition, the psychology of work in relation to human resources in general and job satisfaction in particular is examined.Students learn about and understand the importance of change in organizations and the principle of the learning organization. The ability to learn faster than the competition is one of the most important competitive factors. Learning organizations promote joint and individual learning and increase employee motivation towards work.

Course Outcomes

On successful completion, students will be able to

- describe central economic assumptions and their influencing factors and critically question them in relation to concrete action and decision making.
- discuss important theories in the field of motivation, cognition and interaction and explain their significance for economic tasks and contexts.
- explain fundamental psychological conditioning factors and explanatory models of macroeconomic processes and phenomena and apply them to central economic issues.
- present the importance of work and essential influencing factors from a psychological perspective and derive operational possibilities for shaping work.
- differentiate essential psychological models and concepts for describing and influencing human behavior in organizations and groups.
- assess the possibilities and limits of the targeted development of organizations on the basis of central psychological theories and models and to develop behavioral recommendations.
- discuss basic psychological concepts of the learning organization and design measures for everyday working life.

Contents

8. The Learning Organization
   - 8.1 Systemic Thinking
   - 8.2 Personal Mastery
   - 8.3 Mental Models
   - 8.4 Visions
   - 8.5 Team Learning

Literature

Compulsory Reading

Further Reading

- Kirchler, E. (2011): Wirtschaftspsychologie. Individuen, Gruppen, Märkte, Staat. 4. Auflage, Hogrefe, Göttingen.
- Moser, K. (2007): Wirtschaftspsychologie. Springer, Berlin.
- Senge, P. (2011): Die Fünfte Disziplin. Kunst und Praxis der lernenden Organisation. 11. Auflage, Schäffer-Poeschel, Stuttgart.
- Wiswede, G. (2012): Einführung in die Wirtschaftspsychologie. 5. Auflage, UTB, Stuttgart.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBMPS01_E

Supply Chain Management

Module Code: DLBDSESCM

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Hubert Vogl (Supply Chain Management I) / N.N. (Supply Chain Management II)

Contributing Courses to Module

- Supply Chain Management I (DLBDSESCM01)
- Supply Chain Management II (DLBDSESCM02)

Module Exam Type

Module Exam	Split Exam
	Supply Chain Management I • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Supply Chain Management II • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes (-)

Weight of Module

see curriculum

Module Contents

Supply Chain Management I

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

Supply Chain Management II

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

Learning Outcomes

Supply Chain Management I

On successful completion, students will be able to

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

Supply Chain Management II

On successful completion, students will be able to

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

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Logistics & Transportation	All Bachelor Programmes in the Transport & Logistics fields

Supply Chain Management I

Course Code: DLBDSESCM01

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

Course Description

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

Course Outcomes

On successful completion, students will be able to

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

Contents

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

Literature

Compulsory Reading

Further Reading

- Bookbinder, J. H. (2013). Handbook of global logistics: Transportation in international supply chains. International series in operations research & management science: Bd. 181. Springer.
- Chopra, S (2019). Supply Chain Management: Strategy, Planning, and Operation, EBook, Global Edition, Pearson Education, Limited. ProQuest Ebook Central.
- Chopra, S. & Meindl, P. (2016). Supply chain management: Strategy, planning, and operation. Always learning. Pearson.
- Christopher, M. (2016). Logistics & supply chain management (Fifth edition). Pearson.
- Ganesan, R. (2015). The profitable supply chain: A practitioner's guide. Apress.
- Grant, D. B. (2012). Logistics management. Pearson.
- Kurbel, K. (2013). Enterprise resource planning and supply chain management: Functions, business processes and software for manufacturing companies. Progress in IS. Springer.
- Pawar, K. S., Rogers, H., Potter, A. & Naim, M. (2015). Developments in Logistics and Supply Chain Management: Past, Present and Future. Palgrave Macmillan.
- Piotrowicz, W. & Cuthbertson, R. (Hrsg.). (2015). Supply chain design and management for emerging markets: Learning from countries and regions. Springer International Publishing.
- Scott, C., Lundgren, H. & Thompson, P. (2018). Guide to Supply Chain Management: An end to end perspective. Management for professionals. Springer.
- Sindi, S. & Roe, M. (2017). Strategic supply chain management: The development of a diagnostic model. Palgrave Macmillan.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Supply Chain Management II

Course Code: DLBDSESCM02

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

Course Description

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

Course Outcomes

On successful completion, students will be able to

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

Contents

1. Strategic Aspects of SCM
   - 1.1 Strategic Thinking and Action: General Information
   - 1.2 Competition Focus and SCM
   - 1.3 Competition Location and SCM
   - 1.4 Competition Rules and SCM

2. SCM Practice: Core Process Planning
   - 2.1 General Preliminary Considerations
   - 2.2 Collaborative Planning, Forecasting, and Replenishment
   - 2.3 Order Promoting
   - 2.4 Kanban
   - 2.5 Integration of X-PL Logistics Service Providers

3. SCM Practice: Core Process Procurement
   - 3.1 General Preliminary Considerations
   - 3.2 Production Synchronous Procurement
   - 3.3 Sourcing Concepts
   - 3.4 Supplier Relations Management

4. SCM Practice: Core Process Production
   - 4.1 Selected Aspects of the Problem Background
   - 4.2 Collaborative Engineering
   - 4.3 Postponement Strategies
   - 4.4 Value Added Partnership

5. SCM Practice: Core Process Distribution
   - 5.1 Basic Information on the Distribution Problem
   - 5.2 Efficient Consumer Response (ECR)
   - 5.3 Consignment Warehouse

Literature
Compulsory Reading
Further Reading

- Bookbinder, J. H. (2013). Handbook of global logistics: Transportation in international supply chains. International series in operations research & management science: Bd. 181. Springer.
- Chopra, S (2019). Supply Chain Management: Strategy, Planning, and Operation, EBook, Global Edition, Pearson Education, Limited. ProQuest Ebook Central.
- Chopra, S. & Meindl, P. (2016). Supply chain management: Strategy, planning, and operation. Always learning. Pearson.
- Christopher, M. (2016). Logistics & supply chain management (Fifth edition). Pearson.
- Ganesan, R. (2015). The profitable supply chain: A practitioner's guide. Apress.
- Grant, D. B. (2012). Logistics management. Pearson.
- Kurbel, K. (2013). Enterprise resource planning and supply chain management: Functions, business processes and software for manufacturing companies. Progress in IS. Springer.
- Pawar, K. S., Rogers, H., Potter, A. & Naim, M. (2015). Developments in Logistics and Supply Chain Management: Past, Present and Future. Palgrave Macmillan.
- Piotrowicz, W. & Cuthbertson, R. (Hrsg.). (2015). Supply chain design and management for emerging markets: Learning from countries and regions. Springer International Publishing.
- Scott, C., Lundgren, H. & Thompson, P. (2018). Guide to Supply Chain Management: An end to end perspective. Management for professionals. Springer.
- Sindi, S. & Roe, M. (2017). Strategic supply chain management: The development of a diagnostic model. Palgrave Macmillan.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBDSESCM02

Business Intelligence

Module Code: DLBCSEBI

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

Prof. Dr. Sebastian Werning (Business Intelligence) / Prof. Dr. Sebastian Werning (Project: Business Intelligence)

Contributing Courses to Module

- Business Intelligence (DLBCSEBI01)
- Project: Business Intelligence (DLBCSEBI02)

Module Exam Type

Module Exam	Split Exam
	Business Intelligence • Study Format "Distance Learning": Exam, 90 Minutes Project: Business Intelligence • Study Format "Distance Learning": Written Assessment: Project Report

Weight of Module

see curriculum

Module Contents

Business Intelligence

- Basics of mobile software development
- Android system architecture
- Development environment
- Core components of an Android app
- Interaction between application components
- Advanced techniques

Project: Business Intelligence

Conception, implementation, and documentation of small, mobile applications on the basis of a concrete task.

Learning Outcomes

Business Intelligence

On successful completion, students will be able to

- explain the motivation, use cases, and basics of Business Intelligence.
- identify and explain techniques and methods for providing and modeling data, as well as types of data relevant to BI, differentiating between them.
- explain techniques and methods for the generation and storage of information and independently select suitable methods on the basis of concrete requirements.

Project: Business Intelligence

On successful completion, students will be able to

- independently design a solution to a practical problem in the field of Business Intelligence in order to then implement a prototype and document the results.
- identify and explain typical problems and challenges in the design and practical implementation of small BI solutions.

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

Business Intelligence

Course Code: DLBCSEBI01

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

Course Description

Business Intelligence (BI) is used to obtain information from company data that is relevant for targeted corporate management and the optimization of business activities. This course introduces and discusses techniques, procedures, and models for data provision, information generation, and analysis, as well the distribution of the information obtained. You will then be able to explain the various subject areas of data warehousing and independently select methods and techniques to meet specific requirements.

Course Outcomes

On successful completion, students will be able to

- explain the motivation, use cases, and basics of Business Intelligence.
- identify and explain techniques and methods for providing and modeling data, as well as types of data relevant to BI, differentiating between them.
- explain techniques and methods for the generation and storage of information and independently select suitable methods on the basis of concrete requirements.

Contents

1. Motivation and Conceptualization
   - 1.1 Motivation and Historical Development
   - 1.2 BI as a Framework
2. Data Provision
   - 2.1 Operative and Dispositive Systems
   - 2.2 The Data Warehouse Concept
   - 2.3 Architectural Variations
3. Data Warehouse
   - 3.1 ETL Process
   - 3.2 DWH and Data Mart
   - 3.3 ODS and Metadata

4. Modelling of Multidimensional Data Spaces
   - 4.1 Data Modeling
   - 4.2 OLAP Cubes
   - 4.3 Physical Storage
   - 4.4 Star and Snowflake Scheme
   - 4.5 Historicization
5. Analysis Systems
   - 5.1 Free Data Research and OLAP
   - 5.2 Reporting Systems
   - 5.3 Model-Based Analysis Systems
   - 5.4 Concept-Oriented Systems
6. Distribution and Access
   - 6.1 Information Distribution
   - 6.2 Information Access

Literature

Compulsory Reading

Further Reading

- Grossmann, W., & Rinderle-Ma, S. (2015). Fundamentals of business intelligence. Springer.
- Kolb, J. (2013). Business intelligence in plain language: A practical guide to data mining and business analytics. Createspace.
- Sharda, R., Delen, D., & Turban, E. (2014). Business intelligence and analytics: Systems for decision support. Pearson.
- Sherman, R. (2014). Business intelligence guidebook: From data integration to analytics. Morgan Kaufmann.
- Vaisman, A., & Zimányi, E. (2016). Data warehouse systems: Design and implementation. Springer.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Project: Business Intelligence

Course Code: DLBCSEBI02

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

Course Description

Using well-known methods and techniques from the field of Business Intelligence, students will work independently on a practical question in this course.At the end of the course you will be able to independently design and prototype Business Intelligence applications based on concrete requirements.

Course Outcomes

On successful completion, students will be able to

- independently design a solution to a practical problem in the field of Business Intelligence in order to then implement a prototype and document the results.
- identify and explain typical problems and challenges in the design and practical implementation of small BI solutions.

Contents

- Implementation and documentation of practical questions regarding the use of Business Intelligence applications. Typical scenarios are, for example, “Management of BI projects”, “Design of multidimensional data models” and “Prototypical implementation of small BI applications”.

Literature

Compulsory Reading

Further Reading

- Christoph Meinel, Hasso Plattner, Larry Leifer (2011): Design Thinking: Understand – Improve – Apply; Springer Berlin Heidelberg
- Jeanne Liedtka (2018): Why Design Thinking Works. In: Havard Business Review, Issue: 2018/09, pp.72–79
- Christoph Meinel, Larry J. Leifer (2021): Design Thinking Research: Interrogating the Doing; Springer International Publishing

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Project

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Working environment 4.0

Module Code: DLBPUMWAW_E

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Leadership 4.0) / N.N. (Project: New Work)

Contributing Courses to Module

- Leadership 4.0 (DLBWPLS01_E)
- Project: New Work (DLBPEPNW01_E)

Module Exam Type

Module Exam	Split Exam
	Leadership 4.0 • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Project: New Work • Study Format "Distance Learning": Portfolio

Weight of Module

see curriculum

Module Contents

Leadership 4.0

- 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

Project: New Work

The course deals with the managerial, organizational and workplace changes affecting companies as a result of megatrends.

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.

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 IU International University of Applied Sciences (IU)
This module is similar to other modules in the fields of Business Administration & Management and Human Recources	All Bachelor Programs in the Business & Management and Human Recources fields

Leadership 4.0

Course Code: DLBWPLS01_E

Study Level	Language of Instruction	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

Literature
Compulsory Reading
Further Reading ▪ Au, C. v. (eds.) (2017): Characteristics and competencies of leaders. Mindfulness, self-reflection, soft skills and competence systems. Springer, Wiesbaden. ▪ Creusen, U./Eschemann, N. -R./Joahnn, T. (2010): Positive leadership. Psychology of successful leadership. Advanced strategies for the application of the grid model. Gabler, Wiesbaden. ▪ Evans, M. (1995): Leadership Theories - Way-Destination Theory. In: Kieser, A./Reber, G./Wunderer, R. (eds.): Handwörterbuch der Führung. 2nd edition, Schäffer-Poeschel, Stuttgart, pp. 1075 -1091. ▪ Furtner, M. R. (2017): Empowering Leadership. With self-responsible employees to innovation and top performance. Springer Gabler, Wiesbaden. ▪ Furtner, M. R./Baldegger, U. (2016): Self-Leadership and Leadership. Theories, models and practical implementation. Second edition, Springer Gabler, Wiesbaden. ▪ Manager Magazine Publishing Company (ed.) (2015): Harvard Business Manager Special: Leadership. How does leadership work in the age of digital transformation? A booklet about management in change. 37th year ▪ Hofer, S. (2016): More agile leadership. Simple measures for better teamwork, better performance and higher creativity. Springer Gabler, Wiesbaden. ▪ Kauffeld, S. (Hrsg.) (2014): Work, Organizational and Personnel Psychology for Bachelor. 2nd edition, Springer, Berlin. ▪ Maxwell, J. C. (2016): Leadership. The 21 most important management principles. 8th edition, fountain, pouring. ▪ Wilber, K. (2012): Integral Psychology. Mind, consciousness, psychology, therapy. Arbor, Freiburg.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Project: New Work

Course Code: DLBPEPNW01_E

Study Level	Language of Instruction	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	**BOLK:** no **Course Evaluation:** no
Type of Exam	Portfolio

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
120 h	0 h	30 h	0 h	0 h	150 h

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

Business Ethics and Sustainability

Module Code: DLBEPWWEN_E

Module Type	Admission Requirements	Study Level	CP	Student Workload
see curriculum	▪ none ▪ keine	BA	10	300 h

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

Module Coordinator

N.N. (Sustainability and Quality Management) / N.N. (Business Ethics)

Contributing Courses to Module

- Sustainability and Quality Management (DLBLONQM01_E)
- Business Ethics (BETH01_E)

Module Exam Type

Module Exam	Split Exam
	Sustainability and Quality Management • Study Format "Distance Learning": Exam, 90 Minutes Business Ethics • Study Format "Distance Learning": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Sustainability and Quality Management

- Fundamentals of Sustainability
- Sustainability in three Dimensions
- Sustainability in Practice
- 4 Tools and Methods of Sustainability Management
- Quality of Products, Processes and Services
- Processes, Methods and Quality Tools
- Quality Management Systems

Business Ethics

- Fundamentals of Business Ethics
- Ethics Theories at a glance
- Context of Business Ethics in the Western World
- Business Ethics Problems in Companies
- Business Ethics Concepts for Companies
- Practical Integration of Business Ethics in the Company

Learning Outcomes

Sustainability and Quality Management

On successful completion, students will be able to

- know the principles of sustainability and quality management and their significance for the company and society.
- know procedures and instruments and to implement sustainability and quality concepts in practice.
- scientifically classify the entire subject area, on the basis of the contents of the courses and with the help of supplementary scientific literature, and place it in relation to each other and evaluate it with regard to its significance for practice.
- reflect on the subject of sustainability and quality management against the background of corporate responsibility.
- know methods and applications for the realization of sustainability concepts under consideration of economic, ecological and social aspects and to apply them professionally in practice and to use them for the development of problem solutions based on sustainability criteria.
- apply quality management procedures and instruments in practice.
- present the developed solution approaches in an argumentatively well-founded and comprehensible way. Students are able to assess the role of sustainably operating companies and institutions, especially from a system perspective.
- know the legal and normative framework for sustainability and quality management.

Business Ethics

On successful completion, students will be able to

- identify conflicting interests between profit making and ethical behavior.
- name the different ethical problem situations in the daily business.
- understand business ethics theories and concepts.
- systematically integrate aspects of business ethics in daily business routine.
- use instruments of business ethics in order to sanction misconduct and to encourage ethicaldecision-making.

Links to other Modules within the Study Program	**Links to other Study Programs of IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Quality & Sustainability Management and Economics.	All Bachelor Programs in the Transportation & Logistics and Business & Management field(s).

Sustainability and Quality Management

Course Code: DLBLONQM01_E

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

Course Description

The students learn the basics and the operational concepts of sustainability and quality management and can contribute to the implementation in practice. The importance of sustainability and quality as a corporate task is discussed from the perspective of personal, corporate and social responsibility, among other things. Methods and systems of implementation in companies are presented and critically examined.

Course Outcomes

On successful completion, students will be able to

- know the principles of sustainability and quality management and their significance for the company and society.
- know procedures and instruments and to implement sustainability and quality concepts in practice.
- scientifically classify the entire subject area, on the basis of the contents of the courses and with the help of supplementary scientific literature, and place it in relation to each other and evaluate it with regard to its significance for practice.
- reflect on the subject of sustainability and quality management against the background of corporate responsibility.
- know methods and applications for the realization of sustainability concepts under consideration of economic, ecological and social aspects and to apply them professionally in practice and to use them for the development of problem solutions based on sustainability criteria.
- apply quality management procedures and instruments in practice.
- present the developed solution approaches in an argumentatively well-founded and comprehensible way. Students are able to assess the role of sustainably operating companies and institutions, especially from a system perspective.
- know the legal and normative framework for sustainability and quality management.

Contents

1. Fundamentals of Sustainability
   - 1.1 Basic understanding and definitions
   - 1.2 Ethical aspects and social responsibility of companies
   - 1.3 Learning from nature: Role models for business processes

2. Sustainability in three Dimensions
   - 2.1 Historical developments
   - 2.2 Developments in the natural environment
   - 2.3 Economic trends
   - 2.4 Social developments and social environment

3. Sustainability in Practice
   - 3.1 Politics and State
   - 3.2 Companies
   - 3.3 Civil Society

4. Tools and Methods of Sustainability Management
   - 4.1 System Dynamics and Technology Assessment
   - 4.2 Environmental Law
   - 4.3 Sustainability and environmental management systems
   - 4.4 Life cycle assessment and CO2 footprint

5. Quality of Products, Processes and Services
   - 5.1 Definitions and terms
   - 5.2 Developments and trends
   - 5.3 Specifics of service quality
   - 5.4 Metrics and key figure systems

6. Processes, Methods and Quality Tools
   - 6.1 Continuous improvement
   - 6.2 Failure Mode and Effects Analysis (FMEA)
   - 6.3 7Q - the seven quality tools
   - 6.4 Audits and certifications

7. Quality Management Systems
   - 7.1 Quality management according to DIN EN ISO 9000ff.
   - 7.2 Total Quality Management

Literature
Compulsory Reading
Further Reading ▪ Crane, A./Matten, D. (2019): Business ethics. Managing corporate citizenship and sustainability in the age of globalization. 5th Edition, Oxford University Press, Oxford. ▪ Diran, D.R. (2016): Total Quality Management: Key Concepts and Case Studies. Butterworth-Heinemann, Amsterdam et al. ▪ Goetsch, D.L./Davis, S. (2016): Qualitiy Management for Organizational Excellence. Introduction to Total Quality. 8th Edition, Pearson, New Jersey. ▪ Meadows, D./Meadows, D./RANDERS, J. (2004): Limits to Growth: the 30-Year Update. White River Junction, VT Chelsea Green. ▪ Nassos, G. P./Avlonas, N. (2020): Practical Sustainability Strategies - How to Gain a Competitive Advantage. 2nd Edition. John Wiley & Sons, Hoboken.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Business Ethics

Course Code: BETH01_E

Study Level	Language of Instruction	Contact Hours	CP	Admission Requirements
BA	English		5	keine

Course Description

Business Ethics deals with the application of ethical principles to business activities. The actions of individuals and companies are thus integrated into a context of social and ethical responsibility. Business Ethics derives its legitimacy from the effects that all economic activities have on other people, institutions and the environment. Social justice and sustainability are therefore among the most important norms of Business Ethics and are explained and described in the course. The aim of the course is providing general guidance on how to arrive at ethical decisions, rather than offering general solutions. In that sense, students are enabled to develop moral judgment in an informed manner and then make ethical decisions accordingly.

Course Outcomes

On successful completion, students will be able to

- identify conflicting interests between profit making and ethical behavior.
- name the different ethical problem situations in the daily business.
- understand business ethics theories and concepts.
- systematically integrate aspects of business ethics in daily business routine.
- use instruments of business ethics in order to sanction misconduct and to encourage ethicaldecision-making.

Contents

1. Fundamentals of Business Ethics
   - 1.1 Business and ethics - an overview
   - 1.2 Important terms and definitions
   - 1.3 Developments and perspectives in ethics
2. Ethics Theories at a glance
   - 2.1 The benefits of ethics theories
   - 2.2 Categorization of ethics theories
   - 2.3 Business Ethical Concepts

3. Context of Business Ethics in the Western World
   - 3.1 The importance of the context for business ethics
   - 3.2 Discussion of various contextual factors
   - 3.3 The relevance of company size on business ethics

4. Business Ethics Problems in Companies
   - 4.1 Categories of business ethicsl problems in companies
   - 4.2 Factors that make unethical behaviour more likely
   - 4.3 Case studies for ethics problems in companies

5. Business Ethics Concepts for Companies
   - 5.1 Corporate Social Responsibility
   - 5.2 Stakeholder Theory
   - 5.3 Business ethics in an international context

6. Practical Integration of Business Ethics in the Company
   - 6.1 Corporate Governance Codes
   - 6.2 Codes of Conduct/Codes of Ethics
   - 6.3 Whistleblowing
   - 6.4 Other instruments for implementing ethics in business practice

Literature

Compulsory Reading

Further Reading

- Boylan, M. (2014): Business Ethics: Vol. 2nd ed. Wiley-Blackwell.
- Crane, A., & Matten, D. (2016): Business Ethics: Managing Corporate Citizenship and Sustainability in the Age of Globalization. Oxford Oxford University Press .
- Ferrell, O. C./Ferrell, L., & Fraedrich, J. (2015): Business Ethics, 10th Ed. : Ethical Decision Making and Cases. Stamford [USA].
- Rossouw, D. & van Vuuren, L. (2017): Business Ethics 6e: Vol. 6th edition. Oxford University Press Southern Africa.
- Tricker, G., & Tricker, R. I. (2014): Business Ethics : a Stakeholder, Governance and Risk Approach. London Routledge.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

International Brand Management and Corporate Communication

Module Code: DLBAMEIBMCC

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (International Brand Management) / N.N. (Corporate Communication)

Contributing Courses to Module

- International Brand Management (DLBDSEIMB02)
- Corporate Communication (DLBPRWCCPR01_E)

Module Exam Type

Module Exam	Split Exam
	International Brand Management • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Module Exam (50) Corporate Communication • Study Format "Distance Learning": Exam, 90 Minutes • Study Format "myStudies": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

International Brand Management

- Basics of Brand Management
- Framework Conditions for Brands in International Markets
- Strategies and Concepts of international Brands
- Brand Architectures and Brand Extension Options
- Brand Management and Communication
- Brand Management According to the Stakeholder Concept
- Brand Control and Protection

Corporate Communication

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

Learning Outcomes

International Brand Management

On successful completion, students will be able to

- recognize the significance of a brand and the general conditions under which brands operate, as well as the associated tasks of brand management.
- describe the components of a brand and its management.
- explain the positioning of brands on regional, national and international markets.
- understand the role of brand evaluation and compare the most common measurement techniques.
- give an overview of the importance of trademark protection and suggest strategies for preventing counterfeiting.
- conceive of brand strategies and measures for the avoidance or occurrence of brand crises.

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 IU International University of Applied Sciences (IU)
This module is similar to other modules in the fields of Marketing & Sales and Public Relations Management	All Bachelor Programmes in the Marketing & Communication fields

International Brand Management

Course Code: DLBDSEIMB02

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

Course Description

The aim of this course is to deepen and expand the knowledge acquired in the introductory elective course International Marketing. The value of a brand is a decisive competitive advantage for companies in international business. Brands create long-term and profitable customer relationships. Brands are therefore valuable assets for companies and organizations. Students learn the basics of brand management before moving on to the concepts and success factors of international brand management. Students also become familiar with the structure of brand architectures and the possibilities of brand extensions. The fact that different stakeholder groups must be taken into account in brand management is communicated to the students on the basis of the stakeholder concept. In addition, the students get to know the various methods for measuring brand value and brand controlling. The aspects of trademark protection that are particularly important in an international environment will be dealt with conclusively.

Course Outcomes

On successful completion, students will be able to

- recognize the significance of a brand and the general conditions under which brands operate, as well as the associated tasks of brand management.
- describe the components of a brand and its management.
- explain the positioning of brands on regional, national and international markets.
- understand the role of brand evaluation and compare the most common measurement techniques.
- give an overview of the importance of trademark protection and suggest strategies for preventing counterfeiting.
- conceive of brand strategies and measures for the avoidance or occurrence of brand crises.

Contents

1. Basics of Brand Management
   - 1.1 Brand Significance and Brand Understanding
   - 1.2 Market Conditions
   - 1.3 Tasks and Goals of Brand Management

2. Brand Identity, Brand Positioning, and Brand Personality
   - 2.1 Brand Identity as the Basis of Brand Management
   - 2.2 Brand Positioning
   - 2.3 Brand Image
   - 2.4 Brand Personality

3. Brand Strategies
   - 3.1 The Challenges for Brand Strategies
   - 3.2 Brand Strategies for New Products
   - 3.3 Trademark Licensing

4. International Branding
   - 4.1 Importance of Branding for International Companies
   - 4.2 Brand Concepts for International Brands
   - 4.3 Factors for Successful International Brands

5. Brand Architectures and Types of Branding
   - 5.1 Brand Hierarchies
   - 5.2 Co-branding and Ingredient Branding

6. Brand Management and Communication
   - 6.1 Classic Brand Communication
   - 6.2 Brand Communication on the Internet

7. Brand Expansion
   - 7.1 Basics of Brand Extension
   - 7.2 Opportunities and Risks of Brand Extension
   - 7.3 Ideal Typical Sequence of the Brand Extension Process

8. Brand Management According to the Stakeholder Concept
   - 8.1 Basics of Brand Management According to the Stakeholder Principle
   - 8.2 Stakeholder Groups: Consumer Stakeholder Groups
   - 8.3 Stakeholder Groups: Shareholders and Financial Investors
   - 8.4 Stakeholder Groups: Employees
   - 8.5 Stakeholder Groups: Suppliers and the Public

9. Brand Control
   - 9.1 Basics of Brand Controlling
   - 9.2 Importance and Measurement of Brand Value (Brand Status Analyses)
   - 9.3 Practical Methods for Measuring Brand Value

10. Trademark Protection
   - 10.1 Object of Trademark Protection
   - 10.2 Origin of Trademark Protection
   - 10.3 Trademark Infringements

Literature

Compulsory Reading

Further Reading

- Gelder, S. v. (2003): Global Brand Strategy. Unlocking Brand Potential Across Countries, Cultures and Markets. Kogan Page, London.
- Keller, K. L. (2007): Strategic Brand Management. Building, Measuring and Managing Brand Equity. 3. Auflage, Prentice Hall International, Edinburgh.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Corporate Communication

Course Code: DLBPRWCCPR01_E

Study Level	Language of Instruction	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 Corporate Communication as a Sub-discipline 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 Invisual Branding: Corporate Identity

5. Corporate Philosophy as a Means of Corporate Management
   - 5.1 Corporate Soul
   - 5.2 Corporate Language
   - 5.3 Corporate Culture

6. Corporate Communication and Digitalization
   - 6.1 Challenges of Multi-Channel Communication
   - 6.2 Outlook: Trends and Developments in the Age of Digitalization

Literature

Compulsory Reading

Further Reading

- Barbera, K. M. (2014): The Oxford handbook of organizational climate and culture. Oxford University Press, Oxford.
- Carroll, C. E. (Ed.). (2015): The handbook of communication and corporate reputation. John Wiley & Sons, Hoboken, NJ.
- Groysberg, B. et al (2018): The leader's guide to corporate culture. Harvard Business Review, 96(1), 44-52.
- Peltokorpi, V. (2015): Corporate language proficiency and reverse knowledge transfer in multinational corporations: Interactive effects of communication media richness and commitment to headquarters. Journal of International Management, 21(1), 49-62.
- Piekkari, R./Oxelheim, L./Randøy, T. (2015): The silent board: How language diversity may influence the work processes of corporate boards. Corporate governance: An international review, 23(1), 25-41.
- Pinho, J. C./Rodrigues, A. P./Dibb, S. (2014): The role of corporate culture, market orientation and organisational commitment in organisational performance. Journal of Management Development.
- Sanden, G. R./Lønsmann, D. (2018): Discretionary power on the front line: A bottom-up perspective on corporate language management. European Journal of International Management, 12(1-2), 111-137.

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Intercultural Psychology and CRM

Module Code: DLBIHMEIPCRM

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
see curriculum	Minimum 1 semester	WiSe/SoSe	English

Module Coordinator

N.N. (Intercultural Psychology) / N.N. (Customer Relationship Management)

Contributing Courses to Module

- Intercultural Psychology (DLBWPIPS01_E)
- Customer Relationship Management (DLBCRM01_E)

Module Exam Type

Module Exam	Split Exam
	Intercultural Psychology • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes Customer Relationship Management • Study Format "myStudies": Exam, 90 Minutes • Study Format "Distance Learning": Exam, 90 Minutes

Weight of Module

see curriculum

Module Contents

Intercultural Psychology

- Introduction to intercultural psychology and cultural psychology
- Intercultural Management
- Diversity Management as a scope of application of intercultural management
- Values in the context of intercultural management
- Intercultural communication
- Intercultural marketing
- Intercultural trainings

Customer Relationship Management

- Theoretical explanatory approaches of CRM
- Customer life and customer relationship cycle
- Customer satisfaction and loyalty
- Customer Loyalty Management
- Customer value and customer portfolio management
- Strategies and instruments of CRM
- Implementation and controlling of CRM

Learning Outcomes

Intercultural Psychology

On successful completion, students will be able to

- take a differentiated view of the concept of culture.
- explain the methodological approaches to intercultural psychology and cultural psychology.
- deal with culture-specific behavior in a reflective manner and to react to it adequately.
- take into account the increasing importance of considering intercultural differences in a globalized world of work and life in their everyday professional life.
- understand both your own and foreign cultures.
- analyze communication and marketing messages as well as training programs for their intercultural meaning and impact.
- explain and justify the importance of a value-oriented corporate alignment.

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 IU International University of Applied Sciences (IU)**
This module is similar to other modules in the fields of Psychology and Marketing & Communication	All Bachelor Programs in the Social Sciences and Marketing & Sales fields

Intercultural Psychology

Course Code: DLBWPIPS01_E

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

Course Description

In a globalized working world, international meetings, cooperation and activities have become a matter of course. In most cases, these encounters between culturally different people are successful and satisfying for both sides. However, it is not uncommon for critical situations to arise in which the behavior of the other person is seen as threatening, inappropriate or useless and does not meet one's own expectations.In this course, students learn to understand and react appropriately to cultural differences and to deal with them in situations relevant to their jobs. The areas of intercultural differences, specifics and cooperation in intercultural teams and organizations are addressed, as well as the orientation of advertising communication in different cultural contexts.After a presentation of the different approaches of psychology as Intercultural Psychology, Cultural Psychology and Cultural Psychology and the culture-specific research, practice-relevant topics such as Intercultural Management, Intercultural Marketing and Intercultural Training will be addressed.Particular attention is paid to the areas of diversity management and value management in the corporate environment.

Course Outcomes

On successful completion, students will be able to

- take a differentiated view of the concept of culture.
- explain the methodological approaches to intercultural psychology and cultural psychology.
- deal with culture-specific behavior in a reflective manner and to react to it adequately.
- take into account the increasing importance of considering intercultural differences in a globalized world of work and life in their everyday professional life.
- understand both your own and foreign cultures.
- analyze communication and marketing messages as well as training programs for their intercultural meaning and impact.
- explain and justify the importance of a value-oriented corporate alignment.

Contents

1. Introduction to Intercultural Psychology and Cultural Psychology
   - 1.1 Definition and Classification of the Concept of Culture
   - 1.2 Goals of Comparative Cultural Psychology
   - 1.3 Demarcation of Different Subject Areas
   - 1.4 Cultural Psychological Models and Research Approaches

2. Intercultural Management
   - 2.1 Role, Influencing Factors and Requirements of Intercultural Management
   - 2.2 Corporate Culture

3. Diversity Management as a Field of Application of Intercultural Management
   - 3.1 Definition and Objectives
   - 3.2 Significance and Spheres of Influence

4. Values in the Context of Intercultural Management
   - 4.1 Role and Meaning of Values
   - 4.2 Values in an Organizational Context

5. Intercultural Communication
   - 5.1 Communication Models and Problems
   - 5.2 Intercultural Specifics of Communication
   - 5.3 Characteristics of Different National Communication and Behavior Styles

6. Intercultural Marketing
   - 6.1 Definition and Cultural Foundations
   - 6.2 Influencing Factors
   - 6.3 Standardization vs. Differentiation of Messages

7. Intercultural Trainings
   - 7.1 Development of Content for Intercultural Training
   - 7.2 Implementation of Intercultural Training

Literature

Compulsory Reading

Further Reading

- Guimarães, D. S. (2020): Dialogical Multiplication - Principles for an Indigenous Psychology. Springer Nature, Cham.
- Matsumoto, D./ Juang, L. (2020): Culture and Psychology. 6th edition, Cengage Learning, Boston, MA.
- Wen Li, W./ Darrin Hodgetts, D. /Koong Hean Foo, K. (Eds.) (2019): Asia-Pacific Perspectives on Intercultural Psychology. Routledge, New York City, NY.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Online Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Customer Relationship Management

Course Code: DLBCRM01_E

Study Level	Language of Instruction	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
2. Theoretical explanatory approaches of CRM
3. Customer life and customer relationship cycle
4. Customer satisfaction and loyalty
5. Customer Loyalty Management

6. Customer value and customer portfolio management
7. Strategies and instruments of CRM
8. Implementation and controlling of CRM

Literature
Compulsory Reading
Further Reading ▪ Buttle, F. A./Maklan, S. (2019): Customer relationship management: Concepts and technologies. 4th edition, Routledge, London. ▪ Kumar, V./Reinartz, W. J. (2018): Customer relationship management: Concept, strategy, and tools. 3rd edition, Springer, Berlin. ▪ Palmatier, R. W./Steinhoff, L. (2019): Relationship marketing in the digital age. Routledge, London.

Study Format myStudies

Study Format	Course Type
myStudies	Lecture

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

Study Format Distance Learning

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

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
90 h	0 h	30 h	30 h	0 h	150 h

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

DLBCRM01_E

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
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": Written Assessment: Bachelor Thesis • Study Format "Distance Learning": Written Assessment: Bachelor Thesis Colloquium • Study Format "myStudies": Presentation: Colloquium • Study Format "Distance Learning": Presentation: 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 IU International University of Applied Sciences (IU)
All modules in the bachelor program	All bachelor programs in distance learning

Bachelor Thesis

Course Code: DLBBT01

Study Level	Language of Instruction	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 ▪ Turabian, K. L. (2013). A Manual for Writers of Research Papers, theses, and dissertations (8th ed.). University of Chicago Press. ▪ 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. ▪ Selection of literature according to topic

Study Format myStudies

Study Format	Course Type
myStudies	Thesis

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
270 h	0 h	0 h	0 h	0 h	270 h

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Thesis

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
270 h	0 h	0 h	0 h	0 h	270 h

Instructional Methods

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

Colloquium

Course Code: DLBBT02

Study Level	Language of Instruction	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 Defense

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
30 h	0 h	0 h	0 h	0 h	30 h

Instructional Methods

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

Study Format Distance Learning

Study Format	Course Type
Distance Learning	Thesis Defense

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

Student Workload					
Self Study	**Presence**	**Tutorial**	**Self Test**	**Practical Experience**	**Hours Total**
30 h	0 h	0 h	0 h	0 h	30 h

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