Module Catalogue
for the Subject

Business Information Systems

as a Master’s with 1 major
with the degree "Master of Science"
(120 ECTS credits)

Examination regulations version: 2011
Responsible: Faculty of Business Management and Economics
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Content and Objectives of the Programme

The comprehension of conceptual ways of process functioning and process flows is today more important than ever before. Therefore professionals who are well grounded in this area are crucial for a national economy. The interdisciplinary course of studies »Business Information Systems« conveys knowledge on efficient and profitable business.

»Business Information Systems« comprises the two disciplines: business management und informatics, and at the same time it places special emphasis on the integration of economic processes and informational automatisation. The curriculum of the Bachelor of Science offers the students basic knowledge which is deepened and broadened in the consecutive Master programme.

The target of the programme is to learn academically grounded methods as well as up-to-date research methods. Practical applications are also part of the programme, for instance in the research project VULCAN. Here the students work as administrators, department heads or executive directors in an ERP-system of the model company LIVE PLC and act in a virtual world as a company. Within a mandatory internship students additionally build up capabilities for teamwork as well as planning, shaping, and implementing a project. Here skills such as analysis of business transactions, various approaches of problem solving and the independent work will be developed. Students have the freedom to develop creative and innovative concepts themselves and work on various solutions.

The specialized education and the training of social competences enable students to get insight into various fields of their future professional work. The students learn the basics in order to adapt themselves to the dynamic discipline in a quick and flexible manner.

The students should demonstrate in their written Master thesis and their previous academic papers that they are capable of working on a defined topic from the field of business information systems in limited time. Defining a theme, working on it by means of obtained academic methods as well as developing students' own ideas are crucial for the study. In this way they obtain the know-how and prerequisites necessary for a potential PhD qualification.
Abbreviations used

Course types: \( E = \) field trip, \( K = \) colloquium, \( O = \) conversatorium, \( P = \) placement/lab course, \( R = \) project, \( S = \) seminar, \( T = \) tutorial, \( Ü = \) exercise, \( V = \) lecture

Term: \( SS = \) summer semester, \( WS = \) winter semester

Methods of grading: \( \text{NUM} = \) numerical grade, \( B/NB = \) (not) successfully completed

Regulations: \( \text{(L)ASPO} = \) general academic and examination regulations (for teaching-degree programmes), \( \text{FSB} = \) subject-specific provisions, \( \text{SFB} = \) list of modules

Other: \( A = \) thesis, \( LV = \) course(s), \( PL = \) assessment(s), \( TN = \) participants, \( VL = \) prerequisite(s)

Conventions

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Notes

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should the module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with

the general regulations governing the degree subject described in this module catalogue:

\( \text{ASPO2009} \)

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

\( 23-\text{Feb-2012 (2011-118)} \)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.
Compulsory Courses
(50 ECTS credits)
Compulsory Courses Logistics
(10 ECTS credits)
### Module title
Operations Research

### Abbreviation
12-LM-112-m01

### Module coordinator
holder of the Chair of Business Management and Business Information Systems

### Module offered by
Faculty of Business Management and Economics

### ECTS
5

### Method of grading
numerical grade

### Only after succ. compl. of module(s)
--

### Duration
1 semester

### Module level
graduate

### Other prerequisites
--

### Contents
Content:
The module familiarises students with essential fundamentals, concepts and methods of logistics applications.

- Modelling
- Graph theory
- Network technology
- Flows in networks
- Touring / route planning
- From heuristics to optimisation
- Simulation

### Intended learning outcomes
The students
(i) have significant knowledge of the fundamentals, concepts and methods of logistical applications and
(ii) can recognize their economic importance and consequences.

### Courses
(type, number of weekly contact hours, language — if other than German)
V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment
(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

### Allocation of places
--

### Additional information
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### Referred to in LPO I
(examination regulations for teaching-degree programmes)
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<td>Business Integration Prof. Thome</td>
<td>Faculty of Business Management and Economics</td>
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**Contents**

This module discusses fundamental aspects and contemporary concepts of logistical tasks and processes.

**Intended learning outcomes**

Students will learn about the fundamental aspects and contemporary concepts of logistical tasks and processes especially in the field of Operations Management. Additionally students will be able to evaluate the business impacts of a better performance of logistical issues within a company.

**Courses** (type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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Compulsory Courses Business Information Systems
(30 ECTS credits)
Module title: Information Systems Analysis and Design
Abbreviation: 12-IS-111-m01

Module coordinator: holder of the Chair of Business Management and Business Information Systems
Module offered by: Faculty of Business Management and Economics

ECTS: 5
Method of grading: numerical grade
Only after succ. compl. of module(s): --

Duration: 1 semester
Module level: graduate
Other prerequisites: --

Contents:

(This course was discontinued and replaced by the course "IT-Management")

Content:
This course provides students with an in-depth overview of aims, tasks and appropriate methods of IT management.

Outline of syllabus:
1. Organisation and distinction
2. IT strategy
3. IT organisation
4. Management of IT systems
5. Enterprise Architecture Management
6. IT project management
7. IT security
8. IT law
9. IT controlling

Reading:
- Tiemeyer: Handbuch IT-Management, Munich.
- Hanschke: Strategisches Management der IT-Landschaft, Munich.

Intended learning outcomes:

After completing the course "IT Management", students will be able to
1. overview the different aspects to be considered regarding a purposeful IT management;
2. understand and apply appropriate methods and tools;
3. independently perform system search and selection in a team project (only after participation in the practice lessons).

Courses (type, number of weekly contact hours, language — if other than German)
V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Allocation of places
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Additional information
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## Module title

**Information Processing within Organizations**

### Abbreviation

12-IU-111-m01

## Module coordinator

holder of the Chair of Business Management and Business Information Systems

## Module offered by

Faculty of Business Management and Economics

## ECTS

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## Duration

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## Contents

**Content:**
This course provides students with an in-depth overview of the structure and the application areas of business management information systems in enterprises and public institutions.

**Outline of syllabus:**
1. What is software: concepts, categories, application
2. Software life cycle: duration, phases, steps
3. As-is analysis: tasks, problems
4. To-be concept: system design, data design, dialog design, function design
5. Object orientation: paradigm shift
6. Change management: meaning, methodologies, project management
7. Office automation: tasks, areas of application

## Intended learning outcomes

After completing the course "Integrated Information Processing", students will be able to
(i) understand the importance of integration in enterprises, especially in information systems;
(ii) assess the progress of development of a software project, estimate cycle costs, know and consider requirements, which brings a software implementation with;
(iii) select the correct procedures or practices in an as-is analysis and target conception and practically apply (with participation in the exercise);
(iv) understand the importance of change management and project management and know the appropriate methods for specific applications.

## Courses

(V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

## Allocation of places

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## Additional information

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## Referred to in LPO I

(examination regulations for teaching-degree programmes)

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Module title | Abbreviation
---|---
Advanced Seminar: Business Information Systems | 12-WI-Sem-111-m01

Module coordinator | Module offered by
---|---
holder of the Chair of Business Management and Business Information Systems | Faculty of Business Management and Economics

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<td>By way of exception, additional prerequisites are listed in the section on assessments.</td>
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In this course, students will acquire important knowledge and skills that will enable them to prepare a well-structured term paper and to present the results of their work with the help of relevant topics in the fields of information systems and enterprise systems.

Reading:

will vary according to topic

Intended learning outcomes

After completing the course, students will be able to
1. understand the fundamentals of scientific literature reviews;
2. integrate elaborated content in a scientific thesis;
3. create presentations independently.

Courses (type, number of weekly contact hours, language — if other than German)

This module has 2 components; information on courses listed separately for each component.

- 12-WI-Sem-1-111: S (no information on language and number of weekly contact hours available)
- 12-WI-Sem-2-111: S (no information on language and number of weekly contact hours available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

This module has the following 2 assessment components. To pass the module as a whole students must pass one of the two assessment components.

Assessment component to module component 12-WI-Sem-1-111: Seminar für Wirtschaftsinformatiker (BWL 6)

- 10 ECTS credits, method of grading: numerical grade
- term paper (approx. 20-25 pages) and presentation (approx. 20 minutes), weighted 2:1
- examination offered once a year, winter semester
- Other prerequisites: admission prerequisite to assessment: regular attendance (minimum 70%) of seminars.

Assessment component to module component 12-WI-Sem-2-111: Seminar für Wirtschaftsinformatiker (BWL10)

- 10 ECTS credits, method of grading: numerical grade
- term paper (approx. 20-25 pages) and presentation (approx. 20 minutes), weighted 2:1
- Other prerequisites: admission prerequisite to assessment: regular attendance (minimum 70%) of seminars.

Allocation of places

Number of places: 20. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respecti-
ve module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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## Module title
**Business Processes in different Lines of Business**  
Abbreviation: 12-GPU-072-m01

## Module coordinator
holder of the Chair of Business Management and Business Information Systems

## Module offered by
Faculty of Business Management and Economics

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## Contents

**Content:**
This module provides students with an overview of the structure of a business information system (SAP Business ByDesign) in depth.

**Outline of syllabus:**
1. Integrated information systems: integration, standard software, system architecture  
2. Working with standard business software  
3. Consulting in integrated information systems: project management, project organisation, presentation skills

**Description:**
The lecture will be accompanied by an exercise that will present students with an opportunity to access, in small groups, the enterprise resource planning system operated by the Chair in its ERP laboratory and to work with the software, dealing with a wide variety of business processes.

If you would like to register for this course, please submit an application to the consultants (cover letter, CV, certificates; please also specify your degree programme and student ID number).

## Intended learning outcomes

After completing the course "Business Software 1", students will be able to  
(i) understand an ERP system in its depth;  
(ii) understand the interaction of business processes;  
(iii) execute business tasks and processes in an ERP system independently (after participation in the practice lessons).

## Courses

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<td>term paper (approx. 20 pages) and presentation (approx. 20 minutes), weighted 2:1</td>
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## Allocation of places

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## Additional information

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## Referred to in LPO I
(examination regulations for teaching-degree programmes)

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## Module Catalogue for the Subject Business Information Systems

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<tr>
<td>holder of the Chair of Information Systems Engineering</td>
<td>Faculty of Business Management and Economics</td>
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### Contents

The lecture provides an overview of the relationships between the advent of web-based platforms (electronic markets, Web 2.0 etc.) and the strategic management of a company.

### Intended learning outcomes

The module provides students with knowledge of:

(i) Theoretical concepts of strategy development and implementation in e-business context;

(ii) The strengths and weaknesses of different frameworks and approaches as well as the conditions for their meaningful application;

(iii) Transfer of concepts to other situations of entrepreneurial studies or work.

### Courses

(V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

The method of assessment will be specified at the beginning of each exercise. a) written examination (approx. 60 minutes) or b) presentation (approx. 20 minutes) with written elaboration (approx. 15 to 20 pages), weighted 1:2 or c) oral examination (one candidate each: approx. 10 to 15 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes) or c) completion of programming exercises (as specified)

### Allocation of places

--

### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)
Compulsory Courses Computer Science
(10 ECTS credits)
Module title | Abbreviation
--- | ---
Intelligent Systems | 10-I=IS-111-m01

Module coordinator | Module offered by
Dean of Studies Informatik (Computer Science) | Institute of Computer Science

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Duration | Module level | Other prerequisites
1 semester | graduate | By way of exception, additional prerequisites are listed in the section on assessments.

Contents
This course teaches the foundations of intelligent systems.

Intended learning outcomes
The students master the fundamentals of intelligent systems.

Courses
This module has 4 components; information on courses listed separately for each component.
- 10-I=IR-1-102, 10-I=EL-1-102, 10-I=KIWI1-1-111, and 10-I=KIWI2-1-111: V + Ü (no information on language and number of weekly contact hours available)

Method of assessment
This module has the following 4 assessment components. To pass the module as a whole students must pass two of the four assessment components.

Assessment in module component 10-I=IR-1-102: Information Retrieval, and in module component 10-I=EL-1-102: eLearning:
- 5 ECTS credits, numerical grading
- written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination may be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)
- Language of assessment: German; English if agreed upon with examiner(s)
- Additional prerequisites: where applicable, prerequisites as specified by the lecturer at the beginning of the course (e. g. completion of exercises).

Assessment in module component 10-I=KIWI1-1-111: Künstliche Intelligenz 1 für Wirtschaftsinformatiker (Artificial Intelligence 1 for Business Informatics), in module component 10-I=KIWI2-1-111: Künstliche Intelligenz 2 für Wirtschaftsinformatiker (Artificial Intelligence 2 for Business Informatics):
- 5 ECTS credits, numerical grading
- written examination (approx. 45 to 50 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination may be replaced by an oral examination of one candidate each (approx. 15 minutes) or an oral examination in groups (groups of 2: approx. 20 minutes, groups of 3: approx. 25 minutes).
- Language of assessment: German; English if agreed upon with examiner(s)
- Additional prerequisites: where applicable, prerequisites as specified by the lecturer at the beginning of the course (e. g. completion of exercises).

Allocation of places
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Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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Master's with 1 major Business Information Systems (2011)

JMU Würzburg • generated 17-Sep-2019 • exam. reg. data record Master (120 ECTS) Wirtschaftsinformatik - 2011
Compulsory Electives

(40 ECTS credits)
Compulsory Electives Business Management and Economics
(5 ECTS credits)
## Module title
International Marketing

### Abbreviation
12-M-IIM-102-m01

## Module coordinator
holder of the Chair of Business Management and Marketing

## Module offered by
Faculty of Business Management and Economics

## ECTS
5

## Method of grading
numerical grade

## Only after succ. compl. of module(s)
--

## Duration
1 semester

## Module level
graduate

## Other prerequisites
--

## Contents

### Description:
The module builds on the knowledge acquired during the Bachelor’s degree programme or the Grundstudium (stage I studies). It provides a systematic introduction to strategic marketing decisions in global and international contexts. These are explained mainly by Porter’s diamond and cluster models. Another focus is on internationalisation strategies, which require country analyses and decisions on the selection of national markets as well as a timing of the countries market development. In addition, the module discusses different strategies for market entry and market development.

### Outline of syllabus:
1. Internationalisation of the economy and regional integration processes
   - Globalisation
   - Competitiveness of countries, industries and companies in an international context
2. International strategic marketing decisions
   - Market entry forms
   - Market development strategies
   - Timing strategies
   - International organisation structures
3. Theories and strategies of internationalisation
   - Foreign trade theory
   - Multinational enterprise
   - Internationalisation strategies

### Reading:

### Intended learning outcomes
Students acquire in-depth skills in the field of strategic and operational management with particular attention to the international context. Students achieve particular expertise in the analysis, assessment and implementation of international business decisions and gain skills thus guiding the execution of marketing and management positions in globally-active companies.

### Courses

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<thead>
<tr>
<th>Type</th>
<th>Number of weekly contact hours</th>
<th>Language — if other than German</th>
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<td>V + Ü</td>
<td>(no information on SWS (weekly contact hours) and course language available)</td>
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### Method of assessment

- written examination (approx. 60 minutes)

### Allocation of places
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<th><strong>Additional information</strong></th>
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<td><strong>Referred to in LPO I</strong> (examination regulations for teaching-degree programmes)</td>
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</table>
### Module title

**Work and Information**

| Abbreviation | 12-ITA-111-m01 |

### Module coordinator

**holder of the Chair of Business Management and Business Information Systems**

### Module offered by

**Faculty of Business Management and Economics**

### ECTS

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<th>Method of grading</th>
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### Duration

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<tr>
<td>1 semester</td>
<td>graduate</td>
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### Contents

This module discusses relevant principles, concepts and applications of business information processing and its impact on organisational and process structures in today's business world.

### Intended learning outcomes

The expertise gained from other modules related to business management issues can be interpreted and classified in a certain way by participating in this module. For decisions in regards to human resources planning, investment, and a company's strategy, the students will get to know all the relevant concepts and interdependencies, which come with taking information processing into account as the so called “fourth” factor of production.

### Courses

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### Method of assessment

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<tr>
<td>a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)</td>
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### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

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Module title | Abbreviation
---|---
Advanced Microeconomics | 12-M-AM-111-m01

Module coordinator | Module offered by
holder of the Chair of Economics, Information and Contract Economics | Faculty of Business Management and Economics

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Contents

This course deals with essential microeconomic methods and problems at an advanced level (e.g. Mas-Colell, Whinston, Green: Microeconomic Theory). As this is a huge field, the course will concentrate on two or three topics such as

1. Game theory
2. Principal-agent models
3. Theory of auctions
4. General equilibrium theory
5. Mechanism design

Intended learning outcomes

After completing the course students are able to

1. explain essential findings of microeconomic theory,
2. apply the involved methods to given simple examples on their own,
3. recognize, in which real life situations and how the results can be applied.

Courses (type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 to 90 minutes) or b) written examination (questions concerning mathematical methodology; approx. 120 minutes) or c) term paper (approx. 15 pages) or d) case studies, project report or similar (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1 or e) presentation (approx. 30 to 45 minutes), presentations can be held by one candidate each or in groups

Allocation of places

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Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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## Module Catalogue for the Subject Business Information Systems
### Master's with 1 major, 120 ECTS credits

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Incentives in Organizations</td>
<td>12-M-AO-111-m01</td>
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<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
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<tbody>
<tr>
<td>holder of the Chair of Human Resource Management and Organisation</td>
<td>Faculty of Business Management and Economics</td>
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</table>

### Contents

The lecture "Anreize in Organisationen" ("Incentives in Organisations") is based on the principal agent theory. This theory will be used to develop financial and economic solutions to help overcome the conflict of interests between employers and employees. In addition to the most widely used theories, estimation techniques and empirical results are also introduced and discussed. Reading list to be provided in class.

### Intended learning outcomes

The aim of the lectures is to enable students to understand and apply advanced theories, estimation techniques and empirical results in organisation on the basis of scientific literature.

### Courses

(V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)
<table>
<thead>
<tr>
<th>Module title</th>
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<tbody>
<tr>
<td>Portfolio Selection and Capital Market Theory</td>
<td>12-M-B1a-111-m01</td>
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### Contents

**Content:**
This course deals with the fundamentals of individual investment decisions (portfolio selection), the capital market equilibrium and the resulting CAPM.

**Outline of syllabus:**
1. Fundamentals of decision theory
2. Portfolio selection
3. CAPM
4. Information efficiency and event analysis

### Intended learning outcomes

After completing the course "Portfolio Selection and Capital Market Theory", the students will be able
(i) to explain the optimal capital market position of an investor given the different investment opportunities and its individual utility function in theory and calculate it;
(ii) to understand the central propositions made by the CAPM and use the CAPM for valuating assets and firms.

### Courses

*V + Ü* (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

written examination (approx. 60 minutes)

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

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## Module Catalogue for the Subject
### Business Information Systems
#### Master's with 1 major, 120 ECTS credits

<table>
<thead>
<tr>
<th>Module title</th>
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<td>Agency Theory</td>
<td>12-M-B1b-111-m01</td>
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### Contents

Content:
This course deals with the fundamentals of agency theory and financial contracting with information symmetric and information asymmetric.

Outline of syllabus:
1. Agency theory
2. Financial contracting

### Intended learning outcomes

After completing the course "Agency Theory and Financial contracting", the students will be able
(i) to understand the fundamentals of agency theory and solve problems concerning optimal financial contracting given e.g. different capital endowments;
(ii) to understand the central problems of controlling work assignments in theory and solve basic case studies;
(iii) to generate and evaluate financial contracting given a non-trivial risk allocation and the resulting agency problems.

### Courses

(type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 60 minutes)

### Allocation of places

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### Additional information

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### Referred to in LPO I (examination regulations for teaching-degree programmes)

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Electronic Procurement

12-M-BE-111-m01

Electronic Procurement

Module coordinator
holder of the Chair of Business Management and Industrial Management

Module offered by
Faculty of Business Management and Economics

ECTS Method of grading Only after succ. compl. of module(s)
5 numerical grade --

Duration Module level Other prerequisites
1 semester graduate Admission prerequisite to assessment: successful completion of exercises as specified at the beginning of the course.

Contents

This course will develop the objectives, principles and structure of electronically supported procurement processes with a special focus on catalogue-based procurement systems, electronic tendering systems, electronic (reverse) auctions, e-marketplaces, supplier relationship management systems and eSupply chain management systems.

Intended learning outcomes

The students will be able to describe and evaluate both the potentials and goals of electronic supported procurement systems and will be able to design appropriate systems for real-life applications. Students will get insight into the essentials of operational procurement management, especially e-procurement with a focus on catalogue-based procurement systems, electronic tendering systems, electronic (reverse) auctions, e-marketplaces, supplier relationship management systems and eSupply chain management systems. After completing this module, students can define and analyze the related tasks and processes and show or develop theory-based and application-oriented possible solutions at a high professional level.

Courses

No information on SWS (weekly contact hours) and course language available.

Method of assessment

a) written examination (approx. 60 minutes) or b) written examination (approx. 40 minutes) and presentation (approx. 20 minutes), weighted 2:1 or c) written examination (approx. 40 minutes) with written elaboration (approx. 15 to 20 pages), weighted 2:1 or d) presentation (approx. 20 minutes) with written elaboration (approx. 15 to 20 pages), weighted 1:1

Allocation of places

Number of places: 20. Should the number of applications exceed the number of available places, 15 places will be set aside for Master’s students of Business Management and Economics and 5 places will be set aside for Master’s students of Business Information Systems. (1) Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (2) Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated as they become available.

Additional information

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<table>
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<tr>
<th>Module title</th>
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<td>European Public Finance</td>
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<tbody>
<tr>
<td>holder of the Chair of Public Finance</td>
<td>Faculty of Business Management and Economics</td>
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<td>1 semester</td>
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**Contents**

**Description:**
In this course, students will acquire a basic understanding of the financial system of the European Union as well as selected aspects of European agricultural, tax and climate policy.

Reading: lecture notes provided by Chair.

**Outline of syllabus:**
1. The budget of the European Union
2. The Common Agricultural Policy (CAP)
3. The Stability and Growth Pact (SGP)
4. Tax competition or tax coordination in Europe?
5. Emissions trading and European climate policy

**Intended learning outcomes**
After completing the course "Europäische Finanzpolitik" students know the central revenues and expenditures of the budget of the European Union. They also know the most important instruments of the agricultural policy and the debt problem within the European currency union. Finally they will be able to discuss international tax policy and climate issues using simple partial equilibrium models.

**Courses**

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<th>type, number of weekly contact hours, language — if other than German</th>
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**Method of assessment**

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<tr>
<td>a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)</td>
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**Allocation of places**

Business Management Master’s and Economics Master’s: no restrictions. Applied Human Geography Master’s and Political and Social Sciences Master’s: 10 places. Places will be allocated by lot.

**Additional information**

|--|

**Referred to in LPO I** (examination regulations for teaching-degree programmes)

|--|
**Module title**  
European Macroeconomic Policy

**Abbreviation**  
12-M-EMP-111-m01

**Module coordinator**  
holder of the Chair of Monetary Policy and International Economics

**Module offered by**  
Faculty of Business Management and Economics

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**Duration**  
1 semester

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**Contents**

**Description:**
The course provides students with an overview of the macroeconomic conditions and consequences of European integration and monetary union. The course thus helps students gain a deeper understanding of the current crisis in the euro area as well as the debate on the future of European economic integration.

**Content:**
The first part of the course provides students with an overview of the history of European integration with a focus on economic and monetary integration. We then discuss the institutional framework of the European Monetary System, the predecessor of the euro area in the period from 1979 to 1998. Next, the criteria for admission to the European Monetary Union (EMU) and the monetary policy strategy of the European Central Bank will be presented and discussed. Building on the traditional Mundell-Fleming model, the course will make students familiar with the theory of the optimum monetary area and will then provide them with deeper insights into this theory on the basis of a simple New Keynesian model. Students will thus be able to make a well-founded assessment of the advantages and disadvantages of monetary union as well as the conditions under which monetary union can be successful. In the final part of the course, we analyse the coordination and incentive problems that arise for fiscal policy in a monetary union. In particular, we deal with the question of how these issues are addressed within the European Monetary Union. Current macroeconomic developments within the euro area as well as the causes and consequences of the euro crisis are discussed at various points in the course.

**Intended learning outcomes**
After completing this course students will have gained a profound understanding of the costs and benefits of monetary integration in general and specifically in the EMU. Thus, they will enhance their general macroeconomic understanding by applying it to real world problems. In addition, students will have knowledge of the institutions of common fiscal and monetary policy in Europe.

**Courses**
(V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**
a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

**Allocation of places**
Number of places: 30, thereof 10 places for Master’s students of Business Management and Master’s students of Economics assigned as described below and 10 places each for Master’s students of Applied Human Geography and Master’s students of Political and Social Sciences, assigned by lot. (1) Should the number of applicants exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (2) Pla-
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### Module Catalogue for the Subject

#### Business Information Systems

**Master's with 1 major, 120 ECTS credits**

<table>
<thead>
<tr>
<th>Module title</th>
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<td>European Economic Statistics</td>
<td>12-M-EWS-111-m01</td>
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<tbody>
<tr>
<td>holder of the Chair of Econometrics</td>
<td>Faculty of Business Management and Economics</td>
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### Contents

**Outline of syllabus:**
1. Subject and tasks of business and economic statistics
2. The European system of national accounting
3. The harmonised consumer price index
4. Structural indicators
5. Money and loans in the European monetary union
6. Data bases of EuroStat

### Intended learning outcomes

Students acquire comprehension on the most important indicators and accounting systems of the European and German business and economic statistics. They will be able to use these reporting systems for different macroeconomic questions.

### Courses

(V + Ü) (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

### Allocation of places

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### Additional information

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### Referred to in LPO (examination regulations for teaching-degree programmes)

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### Module Catalogue for the Subject

**Business Information Systems**

**Master's with 1 major, 120 ECTS credits**

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<td>Policy of Taxation</td>
<td>12-M-F1-111-m01</td>
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<th>Module offered by</th>
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<tbody>
<tr>
<td>holder of the Chair of Public Finance</td>
<td>Faculty of Business Management and Economics</td>
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<th>Contents</th>
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<tbody>
<tr>
<td>Description: In this module, students will acquire a basic understanding of the tax system and structure applied to households in Germany. In addition, the course will include simple tax incidence analyses of specific tax policies. Reading: lecture notes provided by Chair.</td>
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<thead>
<tr>
<th>Contents:</th>
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<tbody>
<tr>
<td>1. Fiscal harmonisation system in Germany</td>
</tr>
<tr>
<td>2. Mechanics and problems of the VAT system</td>
</tr>
<tr>
<td>3. Tax incidence analysis</td>
</tr>
<tr>
<td>4. Income tax code</td>
</tr>
<tr>
<td>5. Taxation of married couples and families</td>
</tr>
<tr>
<td>6. Progressive taxation and income leveling</td>
</tr>
<tr>
<td>7. Taxation and household decisions</td>
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<thead>
<tr>
<th>Intended learning outcomes</th>
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<tbody>
<tr>
<td>After completing the course &quot;Tax Policy&quot; students know the most important tax revenues in Germany and how they are divided between the Federation and the federal provinces. They are able to explain the incidence of specific taxes using simple case studies. Finally they can discuss tax induced distortions of individual decisions using simple partial equilibrium models.</td>
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<th>Courses (type, number of weekly contact hours, language — if other than German)</th>
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</table>
Public Debt  12-M-F2-111-m01

Module coordinator
holder of the Chair of Public Finance

Module offered by
Faculty of Business Management and Economics

ECTS  Method of grading  Only after succ. compl. of module(s)
5  numerical grade  --

Duration  Module level  Other prerequisites
1 semester  graduate  --

Contents

Description:
The module provides an introduction to some specific issues of public debt that are in the focus of the public and scientific debate.

Reading: lecture notes provided by Chair.

Outline of syllabus:
1. Measurement of public debt
2. Growth effects of public debt
3. Intergenerational effects of public debt
4. Public debt in open economies
5. Neutrality of public debt
6. Political economy of public debt
7. Theory of sovereign debtors

Intended learning outcomes

After completing the course "National Debt" students are able to distinguish and discuss the most important measurement concepts and problems of public debt. They can discuss the growth and distributional consequences using simple equilibrium models of closed and open economies. They can evaluate the relevance of Ricardian neutrality and know the political economy explanations of rising debt levels and debt overhangs in specific countries.

Courses

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Allocation of places

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Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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<tr>
<td>Social Insurance and the Welfare State</td>
<td>12-M-F3-111-m01</td>
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## Contents

**Description:**
This module discusses the economic justification for implementing social security systems in a market economy and provides students with deeper insights into this topic with the help of specific issues of public health and retirement policy.

**Reading:** lecture notes provided by Chair.

**Contents:**
1. Public intervention in insurance markets
2. The insurance function of social security
3. Social security and social morale
4. The optimal health insurance contract
5. Alternative financing schemes for public health in Germany
6. Why do we need a public pension system?
7. Funding vs pay-as-you-go financing of public pensions

## Intended learning outcomes

After completing the module "Theorie der Sozialversicherung" students are able to explain the theoretical foundation of the social security system in a market economy. Using simple partial equilibrium models they can discuss the financing and contract structure of the public health and pension system. Finally they are able to analyze the consequences of policy reforms.

## Courses

V + Ü (no information on SWS (weekly contact hours) and course language available)

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## Allocation of places

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## Additional information

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<tr>
<td>Coordination, Budgeting and Incentives in Enterprises</td>
<td>12-M-KOBO-111-m01</td>
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**Contents**

This module focuses on accounting-based instruments to control behaviour in decentralised enterprises. The course first discusses the role of accounting in the context of decision making and behavioural controlling as well as informational analyses. Afterwards, the most common instruments of behavioural controlling (budgeting, value-oriented management, transfer prices) are discussed with regard to theory and practice.

**Intended learning outcomes**

This module aims to provide knowledge in the context of behavioural controlling in enterprises. Knowledge about Requirements on instruments used for behavioral controlling are discussed and competencies for deployment, structure and development of coordination tools are provided.

**Courses** (type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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## Module Catalogue for the Subject

**Business Information Systems**

**Master's with 1 major, 120 ECTS credits**

<table>
<thead>
<tr>
<th>Module title</th>
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<tr>
<td>Management Methods</td>
<td>12-MM-111-m01</td>
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### Contents

**Description:**

The module familiarises students with relevant management methods.

**Content:**

- Principles of Management
- Corporate strategy and processes
- Determination of strategy
- Performance tasks within the company

### Intended learning outcomes

After completing the course "Managementmethoden", students

(i) have substantial knowledge in the application of relevant management methods and
(ii) recognize their economic importance and consequences;
(iii) succumbed to an idea of the scope of managers' activities;
(iv) recognize the challenges businesses to deal with and
(v) understand processes of an industrial company.

### Courses

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### Method of assessment

- a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

### Allocation of places

Number of places: 20. Should the number of applications exceed the number of available places, 15 places will be set aside for Master's students of Business Information Systems. (1) Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (2) Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated as they become available.

### Additional information

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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Module title: Marketing & Brand Management
Abbreviation: 12-M-MM-111-m01

Module coordinator: holder of the Chair of Business Management and Marketing
Module offered by: Faculty of Business Management and Economics

ECTS: 5
Method of grading: Numerical grade
Only after succ. compl. of module(s): --

Duration: 1 semester
Module level: Graduate
Other prerequisites: --

Contents:

Description:
At the beginning of the 21st century, marketing - until then interpreted as a market-oriented corporate management approach - was further developed to be seen as the entrepreneurial task of creating "shared value" for the organisation on the one hand and - broadly speaking - for society on the other hand. This idea leads to high requirements regarding the strategic sustainable positioning of the brand as well as brand management.

Outline of syllabus:
1. Brand leadership and brand assessment
2. Brand leadership, identity and relevance according to David Aaker's approach
3. Brand strategies
4. Consumer behaviour
5. Market research methods and the development of brand strategies
6. Market research methods

Intended learning outcomes:
Based on the theories of Meffert and Aaker, students will gain a profound understanding for brand leadership, which will be deepened by many practical implications and examples. Provided by cases studies and market research tools, it's the defined goal of this lecture to convey an in-depth knowledge for consumer behavior and sustainable brand management.

Courses (type, number of weekly contact hours, language — if other than German)
V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
Written examination (approx. 40 minutes) and group presentation (approx. 20 minutes), weighted 2:1

Allocation of places:
Number of places: 35. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

Additional information:
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<tbody>
<tr>
<td>Multinational Enterprises</td>
<td>12-M-MNE-111-m01</td>
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**Contents**

This module will be discontinued, no courses are offered currently or will be offered in future.

This may be due to one of the following reasons:

- the module belongs to a version of the examination regulations that no longer has any enrolled students
- the lecturer who offered the course is no longer employed at the University of Würzburg
- the contents are no longer taught and were substituted with comparable offers

For more information, please contact the Office of the Dean of Studies of the Faculty of Business Management and Economics.

**Intended learning outcomes**

Due to the lack of relevance, no learning outcomes description is available because no courses are held for this module.

**Courses** (type, number of weekly contact hours, language — if other than German)

V (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 120 minutes) or b) oral examination (approx. 15 minutes)

Assessment offered: once a year, summer semester

Language of assessment: English

**Allocation of places**

Business Management Master's and Economics Master's: no restrictions. Applied Human Geography Master's: 10 places. Places will be allocated by lot.

**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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<table>
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<tr>
<td>Strategic Management of Innovation and Growth</td>
<td>12-M-MWT-111-m01</td>
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**Module coordinator**
holder of the Chair of Entrepreneurship and Management

**Module offered by**
Faculty of Business Management and Economics

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**Contents**

In this course, students will acquire an overview of the strategic aspects of innovation management. They will acquire the knowledge necessary to understand the range, scope and complexity of the issues and problems related to the strategic management of innovations. The lecture will focus on innovation teams and the different roles in the innovation process. It will also discuss how users can be involved in the innovation process. In addition, the course will address the concepts of open innovation, lean innovation and crowdsourcing and will discuss how platform strategies can be used for the new product development process as well as what market entry strategies and patent management strategies are currently used. Practical examples and case studies will be used to provide students with a better understanding of the theoretical concepts.

**Intended learning outcomes**

At the end of the module students are able to understand:

- The tasks of the strategic innovation management
- The state of the art and importance of innovations
- The current trends in strategic innovation management
- The importance of patent strategies
- The market entry strategies
- Concepts of the marketing mix

**Courses**

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**

a) one assessment during lecture period (e.g. take-home case, term paper or presentation with slides (approx. 10 pages), term paper or talk (10 minutes)) and written examination (approx. 50 minutes), weighted 4:1 or b) written examination (approx. 60 minutes)

Assessment offered: once a year, summer semester

Language of assessment: English or German

**Allocation of places**

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**Additional information**

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Module title  | Abbreviation
---|---
Econometrics 1 | 12-M-OE1-111-m01

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<tbody>
<tr>
<td>holder of the Chair of Econometrics</td>
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Duration | Module level |
---|---|
1 semester | graduate |

Contents

Description:
This module deals with the basic concept and methodology of the ordinary least squares (OLS) regression model. In particular, model assumptions and properties are discussed and formally motivated. In addition, the module examines linear restrictions on the models explanatory variables as well as dummy variables and introduces tests to verify simple and multiple linear restrictions.

Linear algebra is used as formal aid.

Outline of syllabus:
1. Random variables
2. Important distributions
3. Point estimates
4. Simple linear regression model
5. Model assumptions
6. Model properties
7. Simple hypothesis tests
8. Multiple linear regression model
9. Linear restrictions
10. Dummy variables
11. Multiple hypothesis tests

Intended learning outcomes

The students acquire knowledge of the basics, concepts and methods used in the classical linear regression model and understand the role of econometrics in science and data analysis. In particular, they learn how to analytically derive, calculate and interpret the coefficients, standard errors and p-values of a classic regression output of the multiple regression model. Furthermore, they are able to state and motivate formally the assumptions and properties of OLS and know how to deal with transformed and dummy variables. Additionally, students are able to test multiple linear restrictions on the parameters and are able to apply these tests to real economic, business and social science questions.

The competences acquired in this course serve as a prerequisite for "Econometrics II", "Econometrics III", "Micro-econometrics" und "Financial Econometrics".

Courses

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Allocation of places

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Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module title | Abbreviation
---|---
Principles of European Regulation | 12-M-PRE-111-m01

| Module coordinator | Module offered by |
---|---
holder of the Chair of Industrial Economics | Faculty of Business Management and Economics |

| ECTS | Method of grading | Only after succ. compl. of module(s) |
---|---|---|
5 | numerical grade | -- |

| Duration | Module level | Other prerequisites |
---|---|---|
1 semester | graduate | -- |

Contents

Description:
This module examines the regulation of traditional network industries (railroads, electricity, telecommunication) in Europe: theory and practice

Outline of syllabus:
1. Overview of the regulation of railroads in Germany and Europe in practice
2. Overview of the regulation of the electricity industry in Germany and Europe in practice
3. Overview of the regulation of the telecommunications industry in Germany and Europe in practice
4. Political economy of regulation
5. Natural monopoly and price regulation under ideal conditions
6. Price regulation under realistic circumstances
7. Procurement: advantages and disadvantages
8. Network access regulation

Intended learning outcomes

After successfully completing this module, students will be able to
(i) describe central problems in regulation of the traditional network industries;
(ii) identify and apply the appropriate results from Industrial Organization;
(iii) assess the advantages and disadvantages of existing regulatory mechanisms by using results from the industrial organization theory.

Courses (type, number of weekly contact hours, language — if other than German)

V (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 to 90 minutes) or b) written examination (questions concerning mathematical methodology; approx. 120 minutes) or c) term paper (approx. 15 pages) or d) case studies, project report or similar (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1 or e) presentation (approx. 30 to 45 minutes), presentations can be held by one candidate each or in groups

Allocation of places

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Additional information

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<td>Project Management and Controlling</td>
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**Contents**

The module focuses on the discussion and critical examination of instruments and methods used in the context of project management and controlling within enterprises. It covers characteristic features and structures of projects, their possible success factors, methods and instruments of the controlling and management of projects in various project phases as well as approaches to multi-project management. The theoretical basis as well as potential applications of these instruments are discussed.

**Intended learning outcomes**

Initially knowledge about fundamental requirements concerning instruments of project management and controlling is acquired. What is more the module conveys knowledge about strengths and weaknesses and therefore fields of application and limits of commonly used instruments and methods of practitioners. Competences within the configuration and development of the project management and controlling are obtained as well as skills within the practical use of the project management software MS Project.

**Courses**

(type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

**Allocation of places**

--

**Additional information**

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**Referred to in LPO I**

(examination regulations for teaching-degree programmes)

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Module title: Financial Reporting and Risk Management
Abbreviation: 12-M-RM1-111-m01

Module coordinator:
holder of the Chair of Business Management and Accounting

Module offered by:
Faculty of Business Management and Economics

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Contents:

Content: This module analyses the presentation of opportunities and risks in financial reports, i.e. annual or interim reports, in conjunction with selected value-based management and profitability analysis approaches.

Outline of syllabus:
1. Basics of financial reporting and risk management;
2. Practice of risk reporting;
3. Profitability analysis according to Penman;
4. Value-based management and risk management;
5. Residual income and business valuation;
6. Analysis of equity risk;
7. Analysis of credit risk;
8. Risk management monitoring by audit committees and auditors.

Reading list to be provided in class.

Intended learning outcomes:

After completing the course, the students will be able
1. to present the relation between risk management and financial reporting;
2. to analyze and solve independently complex problems with respect to the presentation of opportunities and risk in financial reports based on national and international standards;
3. to identify the relation between risks and value-based management;
4. to evaluate independently selected research results concerning risk reporting and designing own research- or practice-oriented projects.

Courses:
This module comprises 2 module components. Information on courses will be listed separately for each module component.
- 12-M-RM1-1-111: V (no information on SWS (weekly contact hours) and course language available)
- 12-M-RM1-2-111: V (no information on SWS (weekly contact hours) and course language available)

Method of assessment:
Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.

Assessment in module component 12-M-RM1-1-111: Financial Reporting and Risk Management
- 2 ECTS, Method of grading: numerical grade
  - a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)
  - Assessment offered: once a year, winter semester


• 3 ECTS, Method of grading: numerical grade
• a) written examination (approx. 60 to 90 minutes) or b) term paper (approx. 15 pages) and presentation (approx. 20 minutes), weighted 2:1
• Assessment offered: once a year, winter semester

**Allocation of places**

Number of places: 30. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Strategic Supply Management</td>
<td>12-M-SBM-111-m01</td>
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<tr>
<td>holder of the Chair of Business Management and Industrial Management</td>
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<td>Admission prerequisite to assessment: successful completion of exercises as specified at the beginning of the course.</td>
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</table>

**Contents**

The course addresses central issues of strategic supply management. The supply function of the company (purchasing, materials management, procurement logistics) and its strategic importance is analysed and basic methods are developed that are relevant in this area.

**Intended learning outcomes**

Students learn the principles of performance-oriented optimization of all procurement activities to develop long-term, competitively sensitive potential for success. After completion of the module students are able to prepare structured, to goal-oriented analyze and to respond to performance-oriented issues of strategic procurement based on key instruments. Students are able to accurately classify the tasks of the procurement and to describe and discuss their strategic importance and dominate essential methods and procedures used in this area to apply.

**Courses** (type, number of weekly contact hours, language — if other than German)

S (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) written examination (approx. 40 minutes) and presentation (approx. 15 to 20 pages), weighted 2:1 or c) written examination (approx. 40 minutes) with written elaboration (approx. 15 to 20 pages), weighted 2:1 or d) presentation (approx. 20 minutes) with written elaboration (approx. 15 to 20 pages), weighted 1:1

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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### Module Catalogue for the Subject
**Business Information Systems**

**Master's with 1 major, 120 ECTS credits**

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<td><strong>Economics of Tax Planning</strong></td>
<td>12-M-SP-111-m01</td>
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<td>holder of the Chair of Business Taxation</td>
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### Contents

This course deals with tax effects on fundamental economic decisions. Taxes are integrated into standard models for investment decisions, financing decisions, firm valuation, dividend policy and remuneration of employees. Therefore, the interaction of corporate and personal income taxes is analysed. A reading list in English is available on request.

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### Intended learning outcomes

This course enables students to
(i) combine their knowledge of tax law with microeconomic analyses in the areas of corporate and personal finance;
(ii) understand the effect of taxes on fundamental economic decisions, e.g. investment and financing decisions, evaluation of investment, financial assets, forms of remuneration for employees including managing and assessing;
(iii) read and discuss primary scientific literature.

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### Courses

**V + Ü (no information on SWS (weekly contact hours) and course language available)**

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### Method of assessment

**written examination (approx. 60 minutes)**

Language of assessment: German, English

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### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

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<table>
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<td>Strategic Production Management</td>
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### Contents
This module will discuss contents and procedures of strategic production management and, in particular, planning and control concepts.

Students will become familiar with the essentials of strategic production management. Theoretical and analytical models will be used for analysing both economic and ecological issues. In addition, the module will discuss principles of value structure optimisation and will develop competences regarding the development of integrated mathematical models.

### Intended learning outcomes
After completion of the module students are able to process, to analyze and answer questions of operations strategy structured and goal-oriented in a global context using appropriate methods. Furthermore, they know the main strategic tasks and objectives in production management and evaluate and apply planning and control concepts for the production in realistic application situations.

### Courses
(type, number of weekly contact hours, language — if other than German)
S (no information on SWS (weekly contact hours) and course language available)

### Method of assessment
(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)  

a) written examination (approx. 60 minutes) or b) written examination (approx. 40 minutes) and presentation (approx. 20 minutes), weighted 2:1 or c) written examination (approx. 40 minutes) with written elaboration (approx. 15 to 20 pages), weighted 2:1 or d) presentation (approx. 20 minutes) with written elaboration (approx. 15 to 20 pages), weighted 1:1

### Allocation of places
Number of places: 20. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

### Additional information
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<table>
<thead>
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<td>Theory of Industrial Organization 1</td>
<td>12-M-TI1-111-m01</td>
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### Contents

Theory of industrial organisation:
- 1. Monopoly pricing
  - Nonlinear pricing and mechanism design
  - Dynamic pricing: experience goods, durable goods
- 2. Oligopoly pricing
  - Static price and quantity competition in homogeneous and differentiated goods markets
  - Comparative statics
  - Equilibrium market structure
- 3. Dynamic competition in oligopoly markets
  - Repeated games and collusion
  - Markov perfect equilibrium and models of dynamic competition
- 4. Strategic behaviour by incumbent firms
  - Entry deterrence and predation
  - Signalling and reputation
- 5. Auctions
  - Second price auctions
  - First price auctions
- 6. Advertising and product design

The course will be taught in English.

### Intended learning outcomes

Students which complete this class will acquire a working knowledge of advanced theoretical models of competition in oligopoly markets as well as sophisticated pricing techniques in monopoly markets. They will learn the conditions under which the predictions of these models are valid. They will become familiar with applications of advanced game theoretic tools, such as dynamic models of competition and auction theory, for studying interactions between firms in markets. By means of comprehensive exercises, they will apply the methods they learn in class to practically relevant problems. They will be in a position to read academic papers on related topics, assess the strengths and weaknesses of approach, summarize and comment on these papers and suggest possible extensions.

### Courses

(type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

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### Allocation of places

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### Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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## Module title
Financial Statement Analysis and Business Valuation

**Abbreviation**  
12-M-UA-111-m01

### Module coordinator
holder of the Chair of Business Management and Accounting

### Module offered by
Faculty of Business Management and Economics

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### Contents

**Content:**
Underlying value is referred to as fundamental value, the analysis of information about fundamental value is referred to as fundamental analysis. This module discusses fundamental analysis. Fundamental analysis was developed as a matter of appropriate financial statement analysis.

**Outline of syllabus:**
1. Introduction: investing, valuation and financial statements  
2. How financial statements are used in valuation  
4. Viewing business through the financial statement lens  
5. Analysis of the balance sheet and income statement  
6. Analysis of the cash flow statement  
7. Analysis of profitability  
8. The value of operations and the evaluation of enterprise price-to-book-ratios and price-earnings-ratios

**Reading:**

### Intended learning outcomes

The students should be able to analyze financial statements and to value businesses and business strategies using the best technologies available. They should be able to sort out what are good methods, i.e. practical as well as conceptually sound, and what are poor ones. They should demonstrate their knowledge in applying the methods on real cases.

### Courses
(type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment
(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 to 90 minutes) or b) term paper (approx. 15 pages) and presentation (approx. 20 minutes), weighted 2:1

Language of assessment: German or English

### Allocation of places
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### Additional information
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### Referred to in LPO I (examination regulations for teaching-degree programmes)
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Module title | European Competition Policy
---|---
Abbreviation | 12-M-WPE-111-m01

Module coordinator | holder of the Chair of Industrial Economics
Module offered by | Faculty of Business Management and Economics

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Contents
Outline of syllabus:
1. Legal environment, competition laws
2. Market definition
   - Qualitative methods
   - Simple quantitative methods
   - Hypothetical monopoly test
3. Horizontal agreements and collusion: repeated games and factors affecting likelihood of collusion
4. Horizontal mergers and collusion
   - Economic theory
   - Efficiency effects
   - Coordinated effects
5. Vertical relations and contracts
   - Economic analysis of contracts
   - "More economic approach"
6. Abuse of dominant position
   - Classification of abusive conduct
   - Economic analysis of abusive conduct and theory of harm

The course will be taught in English.

Intended learning outcomes
After completion of the module students can use the advanced concepts introduced in the lecture of competition policy, including the legal framework, the trace models and methods for the study of competition policy issues, as well as understand the approach of European competition policy in high profile cases. When they are confronted with practical problems, they can refer to these cases, and the same logic to practical examples apply by draining the relevant economic theories that identify variables to be measured and methodologies for assessing, and based on that adequate conclusions for appropriate cases. They will sufficiently understand the subject in order to open up that build upon literature in journals and being able to think critically.

Courses (type, number of weekly contact hours, language — if other than German)
V (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
a) written examination (approx. 60 to 90 minutes) or b) written examination (questions concerning mathematical methodology; approx. 120 minutes) or c) term paper (approx. 15 pages) or d) case studies, project report or similar (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1 or e) presentation (approx. 30 to 45 minutes), presentations can be held by one candidate each or in groups

Allocation of places
Business Management Master’s and Economics Master’s: no restrictions. Applied Human Geography Master’s and Political and Social Sciences Master’s: 10 places. Places will be allocated by lot.

Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module title | Abbreviation
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Stochastic Models for Risk Analysis | 12-RM-RA-102-m01

Module coordinator | Module offered by
Dean of the Faculty of Business Management and Economics | Faculty of Business Management and Economics

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Duration | Module level | Other prerequisites
1 semester | graduate | --

Contents

Point and interval estimation for the value at risk Point and interval estimation for the conditional value at risk Prediction of value at risk in time series Risk of forecasts in time series, in particular exponential smoothing under covariates Conditional heteroscedasticity: ARCH, GARCH, EGARCH, DVEC, BEKK, DCC Aggregated losses and their empirical analysis Empirical analysis of statistical distributions Nonparametric bounds for the value at risk and conditional value at risk Empirical estimation of nonparametric bounds for value at risk and conditional value at risk Market model: definition, derivation, parameters, empirical analysis Capital asset pricing model: definition, parameters, empirical analysis Asset portfolios: definition, theory, numerical analysis

Intended learning outcomes

The student is able to estimate risk measures and the parameters of risk models from data. In particular, the student knows software packages and routines which enable empirical risk evaluation in a business context.

Courses (type, number of weekly contact hours, language — if other than German)

Ü + V (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 60 minutes)

Allocation of places

Number of places: 30. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Master's students of Wirtschaftsinformatik (Business Information Systems) will be given preferential consideration. (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (1) and (2) and the number of applications exceeds the number of available places, places will be allocated among applicants from this group according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. (4) Within the groups according to (1) and (2), applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (5) Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. (6) A waiting list will be maintained and places re-allocated as they become available.

Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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### Management and Leadership in Organizations

**Module title**: Management and Leadership in Organizations  
**Abbreviation**: 12-MFO-111-m01

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<th>Module offered by</th>
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<tr>
<td>holder of the Chair of Business Management and Business Information Systems</td>
<td>Faculty of Business Management and Economics</td>
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### Contents

**Part I:**
The complexity of the modern work environment and the constantly changing organisational structures of companies lead to a demand for young managers with a high diversity of expertise that are able to play their part in managing the organisational world. The lecture will provide students with an insight into the characteristics, tasks and instruments as well as the challenges of management in organisations and situations that are becoming ever more complex.

Outline of syllabus:
- Introduction -- Power in the daily management routine
- Fundamentals of management in complex organisations
- Tasks and instruments of management
- Leadership in an intercultural context
- Assurance of employability
- Conclusion -- Management of supervisors and colleagues

**Part II:**
Today's world of work is characterised by continuous change in a global context. Mergers, integrations and acquisitions - these are key terms in this context. The majority of change processes does not have the desired effect or even fails. This is not least due to the fact that not enough attention is paid to the complexity of these processes and to employees.

The support and integration of successful change processes is a central responsibility of managers as well as a complex and central task that requires sound preparation.

Outline of syllabus:
- Introduction - typical change scenarios
- Psychological basics and concepts
- Approaches and control in change projects
- Measures and instruments of change management
- The role of management
- Conclusion - example of application acquisitions and cases

### Intended learning outcomes

**Part I:** Course objectives:
- Provide a widespread insight into the current status of theory and practice regarding management in complex organizations
- Introduction of essential tasks and instruments of managers and their apply to authentic cases.
- To illustrate and reflect the tensions of management in complex situations and international context

**Part II:** Course objectives:
- Provide a widespread insight into the current status of theory and practice regarding changes
- Introduction, suitability of daily use and critical reflection of essential concepts, models and methods
- Foster the understanding for the necessity, complexity of changes as well as their constraints and barriers.

### Courses

This module comprises 2 module components. Information on courses will be listed separately for each module component.

- 12-MFO-1-111: V (no information on SWS (weekly contact hours) and course language available)
- 12-MFO-2-111: V (no information on SWS (weekly contact hours) and course language available)
<table>
<thead>
<tr>
<th>Assessment in module component <strong>12-MFO-1-111</strong>: General Management - Key Skills for Young Professionals</th>
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</thead>
<tbody>
<tr>
<td>• 3 ECTS, Method of grading: numerical grade</td>
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<tr>
<td>• written examination (approx. 60 minutes)</td>
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<thead>
<tr>
<th>Assessment in module component <strong>12-MFO-2-111</strong>: Managing Change</th>
</tr>
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<tbody>
<tr>
<td>• 2 ECTS, Method of grading: numerical grade</td>
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<tr>
<td>• written examination (approx. 60 minutes)</td>
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<tr>
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Module Catalogue for the Subject
Business Information Systems
Master’s with 1 major, 120 ECTS credits

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tr>
<td>Selected Topics in Business Management and Economics 1</td>
<td>12-M-APW1-111-m01</td>
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<th>Module offered by</th>
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<tr>
<td>Dean of the Faculty of Business Management and Economics</td>
<td>Faculty of Business Management and Economics</td>
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<td>numerical grade</td>
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<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 semester</td>
<td>graduate</td>
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</tr>
</tbody>
</table>

Contents

This module serves the purpose of transferring credits from

- courses taken at other German or non-German universities
- additional courses offered on a short-term basis
- courses offered by new Chairs that are yet to be included in the FSB (subject-specific provisions)

The holders of the respective Chairs will ensure that the courses are eligible for credit transfer.

Intended learning outcomes

As a result of accrediting multiple kinds of modules, a description of acquired skills cannot be given.

Courses (type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 to 90 minutes) or b) written examination (questions concerning mathematical methodology; approx. 120 minutes) or c) term paper (approx. 15 pages) or d) case studies, project report or similar (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1 or e) presentation (approx. 30 to 45 minutes), presentations can be held by one candidate each or in groups

Assessment offered: in the semester in which the course is offered

Allocation of places

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Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

--
### Module title

**Selected Topics in Business Management and Economics 2**

### Abbreviation

12-M-APW2-111-m01

### Module coordinator

Dean of the Faculty of Business Management and Economics

### Module offered by

Faculty of Business Management and Economics

### ECTS

5

### Method of grading

Only after succ. compl. of module(s)

### Duration

1 semester

### Module level

graduate

### Other prerequisites

--

## Contents

This module serves the purpose of transferring credits from

- courses taken at other German or non-German universities
- additional courses offered on a short-term basis
- courses offered by new Chairs that are yet to be included in the FSB (subject-specific provisions)

The holders of the respective Chairs will ensure that the courses are eligible for credit transfer.

## Intended learning outcomes

As a result of accrediting multiple kinds of modules, a description of acquired skills cannot be given.

## Courses

V + Ü (no information on SWS (weekly contact hours) and course language available)

## Method of assessment

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 to 90 minutes) or b) written examination (questions concerning mathematical methodology; approx. 120 minutes) or c) term paper (approx. 15 pages) or d) case studies, project report or similar (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1 or e) presentation (approx. 30 to 45 minutes), presentations can be held by one candidate each or in groups

Assessment offered: in the semester in which the course is offered

## Allocation of places

--

## Additional information

--

## Referred to in LPO I

(examination regulations for teaching-degree programmes)

--
Module title
Selected Topics in Business Management and Economics 3

Abbreviation
12-M-APW3-111-m01

Module coordinator
Dean of the Faculty of Business Management and Economics

Module offered by
Faculty of Business Management and Economics

ECTS
5

Method of grading
numerical grade

Only after succ. compl. of module(s)
--

Duration
1 semester

Module level
graduate

Other prerequisites
--

Contents
This module serves the purpose of transferring credits from

• courses taken at other German or non-German universities
• additional courses offered on a short-term basis
• courses offered by new Chairs that are yet to be included in the FSB (subject-specific provisions)

The holders of the respective Chairs will ensure that the courses are eligible for credit transfer.

Intended learning outcomes
As a result of accrediting multiple kinds of modules, a description of acquired skills cannot be given.

Courses
V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment
a) written examination (approx. 60 to 90 minutes) or b) written examination (questions concerning mathematical methodology; approx. 120 minutes) or c) term paper (approx. 15 pages) or d) case studies, project report or similar (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1 or e) presentation (approx. 30 to 45 minutes), presentations can be held by one candidate each or in groups

Assessment offered: in the semester in which the course is offered

Allocation of places
--

Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
--
Module title: Selected Topics in Business Management and Economics 4

Abbreviation: 12-M-APW4-111-m01

Module coordinator: Dean of the Faculty of Business Management and Economics

Module offered by: Faculty of Business Management and Economics

ECTS: 5

Method of grading: numerical grade

Only after succ. compl. of module(s): --

Duration: 1 semester

Module level: graduate

Other prerequisites: --

Contents:

This module serves the purpose of transferring credits from:

- courses taken at other German or non-German universities
- additional courses offered on a short-term basis
- courses offered by new Chairs that are yet to be included in the FSB (subject-specific provisions)

The holders of the respective Chairs will ensure that the courses are eligible for credit transfer.

Intended learning outcomes:

As a result of accrediting multiple kinds of modules, a description of acquired skills cannot be given.

Courses (type, number of weekly contact hours, language — if other than German):

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus):

a) written examination (approx. 60 to 90 minutes) or b) written examination (questions concerning mathematical methodology; approx. 120 minutes) or c) term paper (approx. 15 pages) or d) case studies, project report or similar (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1 or e) presentation (approx. 30 to 45 minutes), presentations can be held by one candidate each or in groups

Assessment offered: in the semester in which the course is offered

Allocation of places: --

Additional information: --

Referred to in LPO I (examination regulations for teaching-degree programmes): --
Module title | Abbreviation
---|---
Advanced Seminar: Logistics | 12-LogSem-111-m01

Module coordinator | Module offered by
holder of the Chair of Logistics and Quantitative Methods in Business Administration | Faculty of Business Management and Economics

ECTS | Method of grading | Only after succ. compl. of module(s)
---|---|---
10 | numerical grade | --

Duration | Module level | Other prerequisites
---|---|---
1 semester | graduate | Admission prerequisite to assessment: regular attendance (minimum 70%) of seminar.

Contents
In this seminar, students will learn, on a case-by-case basis, how companies have successfully implemented quantitative planning methods to optimise their processes in logistics and supply chain management.

Intended learning outcomes
After the seminar, students
(i) recognize complex problems of logistics and understand mathematical model formulation to solve practical problems;
(ii) understand, evaluate and scrutinize critically the results of such models;
(iii) recognize, describe and assess the limitations of formal models in a practical context.

Courses (type, number of weekly contact hours, language — if other than German)
S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
term paper (approx. 20 to 25 pages) and presentation (approx. 20 minutes), weighted 2:1
Assessment offered: once a year, winter semester

Allocation of places
Number of places: 20. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
--
Stochastic Models for Risk Assessment

Module title: Stochastic Models for Risk Assessment

Abbreviation: 12-RM-RW-102-m01

Module coordinator: Dean of the Faculty of Business Management and Economics

Module offered by: Faculty of Business Management and Economics

ECTS: 5

Method of grading: Only after succ. compl. of module(s)

Duration: 1 semester

Module level: graduate

Contents:
- Etymological background of the risk concept
- Definitions of risk
- Basic concepts and terminology of stochastic risk modelling: risk phenomenon, risk object, risk variable, risk source, risk factor, risk cause, direct peril, indirect peril, loss under risk, profit under risk, loss variable, profit variable, risk distribution, risk indicator, risk parameter
- Classification of business risks
- Risk policy, risk management
- Risk analysis: risk identification, risk description, risk exploration, risk-relevant measurements, risk evaluation, risk assessment, risk modelling
- Risk management: risk minimisation, risk protection, risk avoidance, risk mitigation, bearing of risk, risk prevention
- Risk control, risk monitoring
- Risk matrix, risk diagram
- Score diagram
- Stochastic risk parameters and risk measures as distribution parameters
- Probability distributions: Gaussian, Laplace, Student’s t, extreme value, logistic, exponential, Weibull, gamma, negative Gaussian, Burr, hyperbolic, generalised hyperbolic
- Elementary stochastic risk measures: variance, standard deviation, signal-to-noise ratio, coefficient of variation, Sharpe ratio, nonconformance probability, expected shortfall, shortfall probability, risk parameters under reference values, Stone family Value at Risk and Conditional Value at Risk: definition, formal representations, values under special probability distributions
- Axioms of risk measures: distribution invariance, subadditivity, superadditivity, additivity, comonotonous additivity, nonnegative homogeneity, translation invariance, convexity, continuity, coherence

Intended learning outcomes:
The student knows the schemes and concepts of risk analysis, risk assessment, risk measurement, and the theoretical background. The student knows the concepts of advanced stochastic risk modeling. In a practical business situation, the student is able to identify an appropriate scheme of risk assessment and corresponding meaningful risk measures.

Courses:
- V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment:
- written examination (approx. 60 minutes)

Allocation of places:
- Number of places: 30. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Master’s students of Wirtschaftsinformatik (Business Information Systems) will be given preferential consideration. (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (1) and (2) and the number of applications exceeds the number of available places, places will be allocated among applicants from this group according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. (4) Within the groups according to (1) and (2), applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (5) Places on all courses of the module component
with a restricted number of places will be allocated in the same procedure. (6) A waiting list will be maintained and places re-allocated as they become available.

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<tr>
<td>Module title</td>
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<tr>
<td>Aspects of Logistics 2</td>
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<th>Module offered by</th>
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<tr>
<td>holder of the Chair of Business Management and Business Information Systems</td>
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<th>Other prerequisites</th>
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<tbody>
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<td>1 semester</td>
<td>graduate</td>
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**Contents**

This course is a dummy module, e.g. for courses in the area of logistics taken abroad.

**Intended learning outcomes**

The competences depend on the individual module, which has been taken to transfer these credits to the University of Wuerzburg.

**Courses** (type, number of weekly contact hours, language — if other than German)

V (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Assessment offered: in the semester in which the course is offered and in the subsequent semester

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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**Contents**

This course is a dummy module, e.g. for courses in the area of logistics taken abroad.

**Intended learning outcomes**

The competences depend on the individual module, which has been taken to transfer these credits to the University of Wuerzburg.

**Courses** (type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Assessment offered: in the semester in which the course is offered and in the subsequent semester

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

--
Compulsory Electives Business Information Systems

(ECTS credits)
Module title: Adaption and Continuous System Engineering  
Abbreviation: 12-ACSE-111-m01

Module coordinator:  
Module offered by: holder of the Chair of Business Management and Business Information Systems  
Faculty of Business Management and Economics

ECTS: 5  
Method of grading: numerical grade  
Only after succ. compl. of module(s): --

Duration: 1 semester  
Module level: graduate  
Other prerequisites: --

Contents:

Business Suite: The constantly changing environment with its organisational and IT-oriented developments forces companies to adapt their standard business software solutions. With the help of dynamic adaptation (Continuous System Engineering), this process of change can be supported effectively and efficiently. This module discusses both the systematic implementation of adaptation steps (so-called customising) using the example of the mySAP Business Suite and the concept of Continuous System Engineering using various practical examples.

Business Apps: The course combines theory and practice in the area of cloud computing and ERP. Participants gain an insight into the architecture of the ByDesign platform and are presented with an opportunity to gain practical experience working with the corresponding software development kit.

Content:
- Fundamentals of cloud computing
- Cloud business solutions
- Architecture of the SAP Business ByDesign platform
- Platform adaption and extensibility
- Basics of software development in SAP Cloud Applications Studio
- Hands-on SDK: independently designing and developing a demo app

Intended learning outcomes:

Business Suite: Students learn about the various ways of adapting a standard business software solution to the special requirements of a company. They also develop a fundamental understanding of the dynamic adaptation of business software libraries. Based on selected examples from the SAP Business Suite that the acquired knowledge will be deepened by using case studies.

Business Apps: The course imparts knowledge and delivers skills in cloud computing for businesses, ERP systems architecture and software development at the example of the SAP Business ByDesign platform. The independent planning, implementation and documentation of a business app trains important core competencies of technology-oriented Business Informatics.

Courses:

This module has 2 components; information on courses listed separately for each component.
- 12-ACSE-1-111: V + Ü (no information on language and number of weekly contact hours available)
- 12-ACSE-2-111: V + Ü (no information on language and number of weekly contact hours available)

Method of assessment:

This module has the following 2 assessment components. To pass the module as a whole students must pass one of the two assessment components.

Assessment component to module component 12-ACSE-1-111: Adaption and Continuous System Engineering - Business Suite
- 5 ECTS credits, method of grading: numerical grade
  a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Assessment component to module component 12-ACSE-2-111: Adaption and Continuous System Engineering - Business Apps
- 5 ECTS credits, method of grading: numerical grade
  a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)
Allocation of places

Information on the allocation of places listed separately for each module component.

- **12-ACSE-1-111**: Number of places: 20. Should the number of applications exceed the number of available places, 15 places will be set aside for Master's students of Business Information Systems. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

- **12-ACSE-2-111**: Number of places: 10. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module title: Business Intelligence
Abbreviation: 12-BI-111-m01

Module coordinator: holder of the Chair of Information Systems Engineering
Module offered by: Faculty of Business Management and Economics

ECTS: 5
Method of grading: numerical grade
Duration: 1 semester
Module level: graduate
Other prerequisites: --

Contents:
The course provides an overview of the structure and applications of analytical information systems. A special focus is on individual quantitative methods of data analysis. A basic knowledge of statistics and data modelling is a prerequisite for participation in this module.

Intended learning outcomes:
The module provides students with knowledge of:
(i) Data Warehousing & OLAP
(ii) Operational application areas and methods of data analysis

Courses:
V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment:
a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Allocation of places:
Number of places: 20. Should the number of applications exceed the number of available places, 15 places will be set aside for Master's students of Business Information Systems. (1) Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (2) Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated as they become available.

Additional information:
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Referred to in LPO I (examination regulations for teaching-degree programmes)
--
## Module title
Adaptive Business Platforms 1

## Abbreviation
12-BSA-111-m01

### Module coordinator
holder of the Chair of Business Management and Business Information Systems

### Module offered by
Faculty of Business Management and Economics

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### Duration
1 semester

### Module level
graduate

### Other prerequisites
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## Contents
A next generation of enterprise systems called business service platforms is emerging using new disruptive technologies such as cloud computing, big data and mobility. These business service platforms apply the concept of product platforms to software. They will
1. be services based
2. be offered as a service in the cloud
3. address new classes of users and types of business especially in the service business
4. allow for a high degree of business adaptability and extensibility.
5. be supplemented by a broad offer of partner add-ons supporting accelerated innovation.

These new business service platforms will play a key role in the digital transformation of the software industry.

### Intended learning outcomes
Be aware of the big business productivity progress enabled by BIS in the last 50 years. Understand the limitations of these systems in spite of the digital transformation of the software industry ahead. Be able to critically assess the business potential of new IC technologies. Understand the business demand for change. Understand the necessary organizational learning needed to leverage new technology for business change management.

### Courses
(type, number of weekly contact hours, language — if other than German)
V (no information on SWS (weekly contact hours) and course language available)

### Method of assessment
(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
a) written examination (approx. 60 to 70 minutes) or b) written examination (approx. 60 minutes) and management report (approx. 6 pages), weighted 2:1

### Allocation of places
Number of places: 40. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

### Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
--
Introduction to Logistical Process Design

Module title

Abbreviation

Introduction to Logistical Process Design

12-GLP-111-m01

Module coordinator

holder of the Chair of Business Management and Business Information Systems

Module offered by

Faculty of Business Management and Economics

ECTS

Method of grading

Only after succ. compl. of module(s)

5

numerical grade

--

Duration

Module level

Other prerequisites

1 semester

graduate

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Contents

ERP systems have become key elements of successful companies. Business processes in companies can no longer be managed without using such ERP systems. In financial departments of companies, such systems have been used for a long time, but business processes e. g. for logistical tasks have so far not been supported by ERP solutions. This module explains how this issue could be resolved as well as what constraints and what dependencies have to be considered.

Intended learning outcomes

After completing this module, students should be able to
(i) know about actual business processes in companies;
(ii) understand selected problems in the organization and design of logistical business processes and work out solutions;
(iii) know and design basic data structures and data flows of an ERP system;
(iv) map business processes within an ERP system;
(v) consider the specifics of a certain industry (e. g. the process industry) when organizing business processes;
(vi) map the core business processes within an ERP system.

Courses

(type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Allocation of places

Number of places: 20. Should the number of applications exceed the number of available places, 15 places will be set aside for Master’s students of Business Information Systems. (1) Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (2) Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated as they become available.

Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module title | Abbreviation
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Process and System Modelling | 12-PSM-111-m01

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Contents

The course familiarises students with relevant principles, concepts and methods of process and system modelling. It is divided up into two parts:

Part A: Introduction to business process management

Contents Part A:

- Purpose of business process management
- How are business processes modelled?
- What is business process management?
- Strategic Management

Part B: Simulation

Contents Part B:

- Simulation
- Theoretical foundations
- Petri nets
- Smalltalk inscription language

Intended learning outcomes

The students have

1. substantial knowledge of the basic principles, concepts and methods of process and system modeling and
2. recognize their economic importance and consequences.

Courses (type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Allocation of places

Number of places: 20. Should the number of applications exceed the number of available places, 15 places will be set aside for Master's students of Business Information Systems. (1) Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the re-
spective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. (2) Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated as they become available.

Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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Module title | Abbreviation
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Risk Management - Concepts and Systems | 12-RM-KS-111-m01

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<th>Module offered by</th>
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<tbody>
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<td>holder of the Chair of Business Management and Accounting</td>
<td>Faculty of Business Management and Economics</td>
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Contents

**Concepts:** The course will provide students with an overview of the main goals, contents, methods and instruments of opportunity and risk management in industrial and commercial enterprises. **Systems:** The course will provide students with an overview of the design and functionality of essential information systems for risk management.

Intended learning outcomes

**Concepts:** After completion of the module students have a sound understanding of basic concepts, processes, methods and tools of risk management. They are able to justify the duties and functions of risk management in the company in theory and practice. They can also evaluate proposed solutions for the design of a risk management system, analyze selected issues of risk management and building on that, develop their own solutions. **Systems:** After completing this module, students can

(i) judge legal, organizational and methodological requirements for the implementation of risk management processes in a risk management information system (RMIS);
(ii) understand the technical basis for RMIS;
(iii) estimate the different characteristics of various information systems for the RM;
(iv) understand the workings of RMIS.

Courses (type, number of weekly contact hours, language — if other than German)

This module comprises 2 module components. Information on courses will be listed separately for each module component.

- 12-RM-KS-1-111: V (no information on SWS (weekly contact hours) and course language available)
- 12-RM-KS-2-111: V (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.

**Assessment in module component 12-RM-KS-1-111: Risk Management Concepts**

- 3 ECTS, Method of grading: numerical grade
  - a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

**Assessment in module component 12-RM-KS-2-111: Risk Managements Systems**

- 2 ECTS, Method of grading: numerical grade
  - a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Allocation of places

Number of places: 25. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respecti-
Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module title | Abbreviation
---|---
Adaptive Business Platforms 2 | 12-AGP2-111-m01

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Contents

The next generation of business service platforms leads to a transformation of traditional industrial enterprises into service businesses that generate a large proportion of value in developed economies. New ICT technologies such as cloud computing, the Internet of Things and semantic technologies will contribute to the success of these businesses in a similar way as ERP contributed to the success of industrial enterprises. But we are still at the beginning of the evolution of business service platforms, which will have to become more adaptable to support special business models and allow differentiating customer service processes.

The course will discuss different case studies on services businesses. The digital transformation of the software industry into a service industry is the most prominent of these case.

Intended learning outcomes

Be aware of the growing economic importance of the service sector. Understand that services businesses in are facing a special productivity problem, which could not be adressed by the same processes applied in the manufacturing industries. Understand the new ICT technologies we have at hand today to deliver smart solutions for this problem. Be aware of the diversity of services business today where we have no evidence that a general standard can be found applicable to most subsectors similar to the standardization achieved for the manufacturing industries after twenty years of research.

Courses (type, number of weekly contact hours, language — if other than German)

V (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 to 70 minutes) or b) written examination (approx. 60 minutes) and management report (approx. 6 pages), weighted 2:1

Allocation of places

Number of places: 40. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. In this procedure, applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module title: Decision Support Systems
Abbreviation: 12-M-DSS-102-m01

Module coordinator: holder of the Chair of Information Systems Engineering
Module offered by: Faculty of Business Management and Economics

ECTS: 5
Method of grading: numerical grade
Only after succ. compl. of module(s): --

Duration: 1 semester
Module level: graduate
Other prerequisites: --

Contents:
The course discusses advanced approaches for modelling and solving decision problems in business settings. The acquired insights are used to design and implement decision support systems using standard software tools.

Intended learning outcomes:
After successfully completing the course, students should be able to

- Understand the structure of classic business decision problems
- Isolate key elements from general problem descriptions and convert them to quantitative decision models
- Solve different classes of optimization problems (linear, network, integer, multi-objective, non-linear, stochastic)
- Implement spreadsheet-based decision support systems

Courses:
V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment:
The method of assessment will be specified at the beginning of each exercise. a) written examination (approx. 60 minutes) or b) presentation (approx. 20 minutes) with written elaboration (approx. 15 to 20 pages), weighted 1:2 or c) oral examination (one candidate each: approx. 10 to 15 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes) or c) completion of programming exercises (as specified)

Allocation of places:
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Additional information:
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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Module title | Information Systems Research
---|---
Abbreviation | 12-M-ISR-102-m01

| Module coordinator | Module offered by |
---|---|
holder of the Chair of Information Systems Engineering | Faculty of Business Management and Economics

| ECTS | Method of grading | Only after succ. compl. of module(s) |
---|---|---|
5 | numerical grade | -- |

| Duration | Module level | Other prerequisites |
---|---|---|
1 semester | graduate | -- |

Contents

The course provides an overview of theoretical scientific foundations, theories, research topics and methods of international research in business informatics.

Intended learning outcomes

The module provides students with knowledge of:
(i) Exploration of classical themes of WI / IS research;
(ii) Getting to know the relevant paradigms, theories and methods;
(iii) Recognition of the interfaces to other areas of business administration and management practice;
(iv) Gain experience in finding and evaluation of scientific literature.

| Courses | (type, number of weekly contact hours, language — if other than German) |
---|---|
V + Ü (no information on SWS (weekly contact hours) and course language available) |

Method of assessment

The method of assessment will be specified at the beginning of each exercise. a) written examination (approx. 60 minutes) or b) presentation (approx. 20 minutes) with written elaboration (approx. 15 to 20 pages), weighted 1:2 or c) oral examination (one candidate each: approx. 10 to 15 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes) or c) completion of programming exercises (as specified)

Allocation of places

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Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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### Module title

**Mobile and Ubiquitous Systems**

**Abbreviation**

12-M-MUS-102-m01

### Module coordinator

holder of the Chair of Information Systems Engineering

### Module offered by

Faculty of Business Management and Economics

### ECTS

5

### Method of grading

Only after succ. compl. of module(s)

### Duration

1 semester

### Module level

graduate

### Other prerequisites

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### Contents

The course will provide students with an overview of basic technologies and business applications of mobile and ubiquitous computing. Exercises running in parallel to lectures will present students with an opportunity to gain experience with mobile development platforms.

Prerequisite for participation in this module: knowledge of the basics of e-business; basic experience with software development tools would be an asset for exercises.

### Intended learning outcomes

The module provides students with knowledge of:

(i) Mobile Infrastructure

(ii) Mobile Business

(iii) The Auto-ID technologies

(iv) Smart Metering

(v) Sensor networks and localization systems

### Courses

(V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

The method of assessment will be specified at the beginning of each exercise. a) written examination (approx. 60 minutes) or b) presentation (approx. 20 minutes) with written elaboration (approx. 15 to 20 pages), weighted 1:2 or c) oral examination (one candidate each: approx. 10 to 15 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes) or c) completion of programming exercises (as specified)

### Allocation of places

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### Additional information

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### Referred to in LPO I

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### Contents

This course is a dummy module, e.g. for courses in the area of business informatics taken abroad.

### Intended learning outcomes

The competences depend on the individual module, which has been taken to transfer these credits to the University of Wuerzburg.

### Courses

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Assessment offered: in the semester in which the course is offered and in the subsequent semester

### Allocation of places

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### Additional information

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### Allocation of places

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### Additional information

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**Contents**

Content:
In small project teams of 4 to 10 members, students will spend several months actively working on a specific and realistic problem with practical relevance. They will progress through several project stages including as-is analysis, to-be conception and implementation of an IS solution. The project teams will be required to work independently and will only receive advice and minor support from research assistants.

Reading:
will vary according to topic

**Intended learning outcomes**

After completing the course "Projektseminar", students will be able to
1. analyze business tasks and requirements and generate fitting IS solutions;
2. apply project management methods;
3. internalize stress, time and conflict management by means of practical teamwork.

**Courses** (type, number of weekly contact hours, language — if other than German)

This module has 2 components; information on courses listed separately for each component.
- 12-WI-Prak-1-111: P (no information on language and number of weekly contact hours available)
- 12-WI-Prak-2-111: P (no information on language and number of weekly contact hours available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

This module has the following 2 assessment components. To pass the module as a whole students must pass one of the two assessment components.

**Assessment component to module component 12-WI-Prak-1-111: Wirtschaftsinformatik Praktikum**
- 10 ECTS credits, method of grading: numerical grade
- term paper (approx. 20-25 pages) and presentation (approx. 10 minutes)

**Assessment component to module component 12-WI-Prak-2-111: Fortgeschrittenen Praktikum Informatik**
- 10 ECTS credits, method of grading: numerical grade
- a) term paper (approx. 20-25 pages) and presentation (approx. 10 minutes) or b) term paper (approx. 5-10 pages) with program and presentation (approx. 10 minutes)

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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Compulsory Electives Computer Science

(ECTS credits)
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<tr>
<td>Dean of Studies Informatik (Computer Science)</td>
<td>Institute of Computer Science</td>
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<tr>
<td>1 semester</td>
<td>graduate</td>
<td>Where applicable, prerequisites as specified by the lecturer at the beginning of the course (e.g. completion of exercises).</td>
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</table>

### Contents

IR models (e.g. Boolean and vector space model, evaluation), processing of text (tokenising, text properties), data structures (e.g. inverted index), query elements (e.g. query operations, relevance feedback, query languages and paradigms, structured queries), search engine (e.g. architecture, crawling, interfaces, link analysis), methods to support IR (e.g. recommendation systems, text clustering and classification, information extraction).

### Intended learning outcomes

The students possess theoretical and practical knowledge in the area of information retrieval and have acquired the technical know-how to create a search engine.

### Courses

- **V + Ü** (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

- written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)
- Language of assessment: German, English if agreed upon with the examiner

### Allocation of places

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### Additional information

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### Referred to in LPO I

- (examination regulations for teaching-degree programmes)
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<tbody>
<tr>
<td>holder of the Chair of Computer Science VI</td>
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<th>Duration</th>
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</table>

**Contents**

Learning paradigms, learning system types, author systems, learning platforms, standards for learning systems, intelligent tutoring systems, student models, didactics, problem-oriented learning and case-based training systems, adaptive tutoring systems, computer-supported cooperative learning, evaluation of learning systems.

**Intended learning outcomes**

The students possess a theoretical and practical knowledge about eLearning and are able to assess possible applications.

**Courses** (type, number of weekly contact hours, language — if other than German)

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)

Language of assessment: German, English if agreed upon with the examiner

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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<table>
<thead>
<tr>
<th>Module title</th>
<th>Databases II</th>
<th>Abbreviation</th>
<th>10-I=DB2-102-m01</th>
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<tbody>
<tr>
<td>Module coordinator</td>
<td>Dean of Studies Informatik (Computer Science)</td>
<td>Institute of Computer Science</td>
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**Contents**

Data warehouses and data mining; XML databases; web databases; introduction to Datalog.

**Intended learning outcomes**

The students have advanced knowledge about relational databases, XML and data mining.

**Courses**

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**

written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examina-tion date, the written examination can be replaced by an oral examination of one candidate each or an oral ex-amination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)

Language of assessment: German, English if agreed upon with the examiner

**Allocation of places**

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<tr>
<td>Program Design and Analysis</td>
<td>10-I=PA-102-m01</td>
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<tbody>
<tr>
<td>holder of the Chair of Computer Science II</td>
<td>Institute of Computer Science</td>
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**Contents**

Program analysis, model creation in software engineering, program quality, test of programs, process models.

**Intended learning outcomes**

The students are able to analyse programs, to use testing frameworks and metrics as well as to judge program quality.

**Courses**

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**

written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)

Language of assessment: German, English if agreed upon with the examiner

**Allocation of places**

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**Additional information**

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(examination regulations for teaching-degree programmes)

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<td>Artificial Intelligence 1 for Business Informatics</td>
<td>10-I=KIWi1-111-m01</td>
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<tr>
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**Contents**

Intelligent agents, uninformed and heuristic search, constraint problem solving, search with partial information, propositional and predicate logic and inference, knowledge representation.

**Intended learning outcomes**

The students possess theoretical and practical knowledge about artificial intelligence in the area of agents, search and logic and are able to assess possible applications.

**Courses**

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**

written examination (approx. 45 to 50 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each (approx. 15 minutes) or an oral examination in groups (groups of 2: approx. 20 minutes, groups of 3: approx. 25 minutes)

Language of assessment: German, English if agreed upon with the examiner

**Allocation of places**

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**Additional information**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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<tr>
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</table>

**Module coordinator**

holder of the Chair of Computer Science VI

**Module offered by**

Institute of Computer Science

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**Duration**

1 semester

**Module level**

graduate

**Other prerequisites**

Where applicable, prerequisites as specified by the lecturer at the beginning of the course (e.g., completion of exercises).

**Contents**

Planning, probabilistic closure and Bayesian networks, utility theory and decidability problems, learning from observations, knowledge while learning, neural networks and statistical learning methods, reinforcement learning, processing of natural language.

**Intended learning outcomes**

The students possess theoretical and practical knowledge about artificial intelligence in the area of probabilistic closure, learning and language processing and are able to assess possible applications.

**Courses**

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment**

written examination (approx. 45 to 50 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each (approx. 15 minutes) or an oral examination in groups (groups of 2: approx. 20 minutes, groups of 3: approx. 25 minutes)

Language of assessment: German, English if agreed upon with the examiner

**Allocation of places**

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**Additional information**

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**Referred to in LPO I**

(examination regulations for teaching-degree programmes)

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Thesis
(30 ECTS credits)
Module title: Master Thesis Business Information Systems
Abbreviation: 12-WI-MA-111-m01

Module coordinator: Dean of the Faculty of Business Management and Economics
Module offered by: Faculty of Business Management and Economics

ECTS: 30
Method of grading: numerical grade
Only after succ. compl. of module(s): --
Duration: 1 semester
Module level: graduate
Other prerequisites: --

Contents:
Students will complete their degree with a Master’s thesis in which they will be required to independently research and write on a topic in the area of business management and economics, drawing on the subject-specific knowledge they have acquired and adhering to the principles of good scientific practice. This thesis may either take the form of an analysis and structured presentation of the existing literature on a certain topic or may, as is often the case, also include a presentation of the students’ own original achievements, e.g. new algorithms developed by students, surveys, the prototypical demonstration of a concept they developed or the application and (further) development of a theoretical model.

Intended learning outcomes:
In the master thesis students prove that they can plan and carry out a science-based work to solve a particular problem within a specified period autonomously and to document the results in accordance with the professional scientific standards in writing. Students are able to understand relevant contributions to research and professional practice, critically analyze and assess the relevance to their own specific questions. They can assess and recognize major lines of development and dynamics of the subject and therefore also the need to retrain continuously.

Courses:
no courses assigned

Method of assessment:
written thesis (usually 60 pages)
Language of assessment: German or English

Allocation of places:
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Additional information:
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Referred to in LPO I:
(examination regulations for teaching-degree programmes)
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