Module Catalogue
for the Subject
Economathematics
as a Bachelor’s with 1 major
with the degree "Bachelor of Science"
(180 ECTS credits)

Examination regulations version: 2015
Responsible: Institute of Mathematics
Responsible: Faculty of Business Management and Economics
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**Bachelor's with 1 major Economathematics (2015)**

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**JMU Würzburg • generated 21-Jan-2020 • exam. data record Bachelor (180 ECTS) Wirtschaftsmathematik • 2015**
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**Thesis Area**

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The subject is divided into

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Content and Objectives of the Programme
The Bachelor programme in Business Mathematics is offered by the Faculty of Mathematics and Computer Science, jointly with the Faculty of Economics.

At the end of this course of study, the student should be familiar with the main branches of mathematical and economical sciences. The mathematical aspects not only refer to the characteristic methods of mathematical reasoning and working, but also to a profound knowledge of special methods of applied mathematics and stochastics which are particularly important for applications to problems in economics. Concerning economical aspects, the student should be familiar with problems arising in market-oriented economical systems, as well as with the basic structures of economics and entrepreneurship. Moreover, the student in business mathematics should also acquire some knowledge in computer science. By means of a thorough training in mathematics, computer science, and economics, as well as through the development of analytical thinking, the students should acquire the competence of analyzing and solving problems they encounter later during their professional career. Through the course these skills which the students acquire provide the basic knowledge required for a consecutive Bachelor-Masters degree.

For the Bachelor thesis the students should prove that they master their field of specialization and are able to work on a thematic and temporally closely limited frame in order to carry out a mathematical task, using well-known procedures and scientific criteria under guidance but, to a large extent, independently. The exam enables the acquisition of a comparable, international degree in the field of business mathematics and provides the framework of a consecutive Bachelor-Masters degree as an initial professional qualification, which can be used as a means for entry into the working world or as preparation for further Masters study. The exam should ascertain whether the candidate overlooks the context of the basics in business mathematics and possesses the ability to apply the corresponding scientific methods, with regards to mathematics, computer science, and economics.
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: NUM = numerical grade, B/NB = (not) successfully completed

Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), FSB = subject-specific provisions, 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:

ASPO2015

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


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

(115 ECTS credits)
Subfield Analysis
(18 ECTS credits)
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<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<td>10-M-ANA1-152-m01</td>
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<th>Module coordinator</th>
<th>Module offered by</th>
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<tr>
<td>Dean of Studies Mathematik (Mathematics)</td>
<td>Institute of Mathematics</td>
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<table>
<thead>
<tr>
<th>ECTS</th>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tbody>
<tr>
<td>8</td>
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<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
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</thead>
<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</tbody>
</table>

**Contents**

Real numbers and completeness; basic topological notions; convergence and divergence of sequences and series; power series and Taylor series; basics in differential calculus in one variable; basics of integral calculus in one variable (Riemann integral and improper integral).

**Intended learning outcomes**

The student knows and masters the essential methods and notions of analysis. He/She is acquainted with the central proof methods in analysis and can employ them to solve easy problems. He/she is able to perform easy mathematical arguments independently and to express mathematical arguments precisely and clearly in written form.

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

V (4) + Ü (2)

**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. 90 to 180 minutes) and written exercises (approx. 12 exercise sheets with approx. 4 exercises each)

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

**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>Overview Analysis for Business Mathematics</td>
<td>10-M-ANB-Ü-152-m01</td>
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</tbody>
</table>

**Contents**

Real numbers and completeness, basic topological notions, convergence and divergence of sequences and series, differential and integral calculus in one variable, further topological considerations, differential calculus with a focus on functions in several variables.

**Intended learning outcomes**

The student knows and masters the essential methods and proof techniques of analysis and is able to apply them independently, He/She has an overview over the fundamental notions and concepts of analysis, their analytic background and geometric interpretation, and can interconnect them and express them adequately in written and oral form.

**Courses**

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

V (4) + Ü (2)

**Method of assessment**

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

oral examination of one candidate each (20 to 40 minutes)

Assessment will have reference to the contents of modules 10-M-ANA1 and 10-M-ANB-Ü.

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

**Referred to in LPO I**

(examination regulations for teaching-degree programmes)

--
Subfield Linear Algebra

(18 ECTS credits)
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
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<tbody>
<tr>
<td>8</td>
<td>(not) successfully completed</td>
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<tr>
<th>Duration</th>
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<tr>
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</tr>
</tbody>
</table>

**Contents**

Basic notions and structures; vector spaces, linear maps, systems of linear equations; theory of matrices and determinants.

**Intended learning outcomes**

The student knows and masters the basic notions and essential methods of linear algebra. He/She is acquainted with the central proof methods in linear algebra and can apply them to solve easy problems. He/She is able to perform simple mathematical arguments independently, and can present them adequately in written form.

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of weekly contact hours</th>
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<tbody>
<tr>
<td>V</td>
<td>4</td>
</tr>
<tr>
<td>Ü</td>
<td>2</td>
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</table>

**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. 90 to 180 minutes) and written exercises (approx. 12 exercise sheets with approx. 4 exercises each)

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

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<tbody>
<tr>
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<td>undergraduate</td>
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</table>

**Contents**

Basic notions and structures; vector spaces, linear maps and systems of linear equations; theory of matrices and determinants; eigenvalue theory; bilinear forms and Euclidean/unitary vector spaces; diagonalisability and Jordan normal form.

**Intended learning outcomes**

The student knows and masters the essential methods and proof techniques of linear algebra and is able to apply them independently. He/She has an overview over the fundamental notions and methods of linear algebra, knows about their algebraic and geometric background, is able to relate them to each other and can present them adequately in written and oral form.

**Courses**

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

V (4) + Ü (2)

**Method of assessment**

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

oral examination of one candidate each (20 to 40 minutes)
Assessment will have reference to the contents of modules 10-M-LNA1 and 10-M-LNB-Ü.
Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

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

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Subfield Stochastics and Financial Mathematics
(19 ECTS credits)
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<tr>
<td>1 semester</td>
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**Contents**

Combinatorics, Laplace models, selected discrete distributions, elementary measure and integration theory, continuous distributions: normal distribution, random variable, distribution function, product measures and stochastic independence, elementary conditional probability, characteristics of distributions: expected value and variance, limit theorems: law of large numbers, central limit theorem.

**Intended learning outcomes**

The student is acquainted with fundamental concepts and methods in stochastics, applies these methods to practical problems and knows about the typical fields of application.

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

V (4) + Ü (2)

**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. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English creditable for bonus

**Allocation of places**

--

**Additional information**

--

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

--
### Module title

**Introduction to Stochastic Financial Mathematics**

### Abbreviation

10-M-EFM-152-m01

### Module coordinator

Dean of Studies Mathematik (Mathematics)

### Module offered by

Institute of Mathematics

### ECTS

9

### Method of grading

Numerical grade

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

--

### Duration

1 semester

### Module level

Undergraduate

### Other prerequisites

--

### Contents

- Arbitrage and no-arbitrage, annuities and bonds, valuation of deterministic cash flows, actuarial present value, term structures and yield curves, forwards, payout profiles of options and other derivatives, fundamental theorem of asset pricing in the stochastic one-period model, risk neutral price measures, replication and completeness, stochastic multi-period models, valuation of European options in the binomial model, Black-Scholes formula.

### Intended learning outcomes

The student is acquainted with the fundamental concepts and methods of stochastic financial mathematics, can apply them to practical problems and knows about typical fields of application.

### Courses

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<th>Type</th>
<th>Number of Weekly Contact Hours</th>
<th>Language</th>
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</table>

### Method of assessment

- a) written examination (approx. 90 to 180 minutes, usually chosen) or
- b) oral examination of one candidate each (15 to 30 minutes) or
- c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English creditable for bonus

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

--
Subfield Computer Science
(25 ECTS credits)
## Module Catalogue for the Subject
### Economathematics
#### Bachelor's with 1 major, 180 ECTS credits

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<td>Dean of Studies Informatik (Computer Science)</td>
<td>Institute of Computer Science</td>
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<tr>
<td>1 semester</td>
<td>undergraduate</td>
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### Contents
Design and analysis of algorithms, recursion vs. iteration, sort and search methods, data structures, abstract data types, lists, trees, graphs, basic graph algorithms, programming in Java.

### Intended learning outcomes
The students are able to independently design algorithms as well as to precisely describe and analyse them. The students are familiar with the basic paradigms of the design of algorithms and are able to apply them in practical programs. The students are able to estimate the run-time behaviour of algorithms and to prove their correctness.

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

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<thead>
<tr>
<th>Type</th>
<th>Number of weekly contact hours</th>
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<td>V (4) + Ü (2)</td>
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### 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 to 120 minutes).

If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).

creditable for bonus

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

§ 49 I Nr. 1a
§ 69 I Nr. 1a
Module title | Abbreviation
---|---
Software Technology | 10-I-ST-152-m01

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

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

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

Contents
Object-oriented software development with UML, development of graphical user interfaces, foundations of databases and object-relational mapping, foundations of web programming (HTML, XML), software development processes, unified process, agile software development, project management, quality assurance.

Intended learning outcomes
The students possess a fundamental theoretical and practical knowledge on the design and development of software systems.

Courses (type, number of weekly contact hours, language — if other than German)
V (4) + Ü (2)

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 to 120 minutes).
If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). creditable for bonus

Allocation of places
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Additional information
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Referred to in LPO 1 (examination regulations for teaching-degree programmes)
§ 49 I Nr. 1b
§ 69 I Nr. 1b
Module title: Practical Course in Programming for Business Mathematics

Abbreviation: 10-I-PPW-152-m01

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

ECTS: 5
Method of grading: Only after successfully completed module(s)
Duration: 1 semester
Module level: undergraduate
Other prerequisites: --

Contents:
The programming language Java. Independent creation of small to middle-sized, high-quality Java programs.

Intended learning outcomes:
The students are able to independently develop small to middle-sized, high-quality Java programs.

Courses:
(P, 6)

Method of assessment:
written examination (approx. 60 to 120 minutes).
If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).

Allocation of places:
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Additional information:
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Referred to in LPO I:
(examination regulations for teaching-degree programmes)
--
Subfield Business Management and Economics
(35 ECTS credits)
Module title | Abbreviation
---|---
Supply, Production and Operations Management. An Introduction | 12-BPL-G-152-m01

Module coordinator

holder of the Chair of Business Management and Industrial Management

Module offered by

Faculty of Business Management and Economics

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Duration

1 semester

Module level

undergraduate

Other prerequisites

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Contents

This course will provide students with an overview of fundamental processes in procurement, production and logistics and the related corporate functions as well as a model-based introduction to related planning procedures.

Intended learning outcomes

The students will be able to describe and discuss the objectives and major processes in the domains of corporate procurement, production and logistics as well as their interdependencies. Furthermore, they are capable of developing and applying basic planning models in these fields.

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

V (2) + T (2)

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

620 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25% of places): lottery. (4) A waiting list will be maintained and places re-allocated by lot as they become available.

Additional information

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

--
**Module title** | **Abbreviation**
---|---
Introduction to Business Administration | 12-EBWL-G-152-m01

**Module coordinator**
holder of the Chair of Human Resource Management and Organisation

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

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**Contents**

This course will introduce students to relevant subject areas of business administration. Students will acquire an overview of the different perspectives and main points of view from which a theoretical examination of business enterprise may take place. The course will focus on what companies or other organisations are, how they behave and in what form they are organised. For this purpose, a study will be made of the economic subject's decision-making behaviour.

Reading list to be provided during lecture.

**Intended learning outcomes**

The aim of the lectures is to familiarise the students with the basic problem issues and perspectives within the field of business administration.

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

V (2) + T (2)

**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**

840 places. (1) No restrictions with regard to available places for Bachelor’s students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor’s students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

**Additional information**

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

--
### Module title
Introduction to Economics

### Abbreviation
12-EVWL-G-152-m01

### Module coordinator
holder of the Chair of Monetary Policy and International 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
Undergraduate

### Other prerequisites
--

### Contents
The course deals with the following topics:
1. Economics shows how markets function
2. The division of labour is the basis of our wealth
3. The market in action
4. Monopolies and cartels endanger market economies
5. The labour market and the role of unions
6. The government's role in a social market economy
7. Governmental redistribution guarantees the social balance in a market economy
8. Environmental policy and the government's allocation function
9. Objectives and agents in the macro economy
10. How do aggregate supply and demand come into equilibrium?
11. The role of fiscal policy
12. How does a central bank stabilise aggregate demand by setting interest rates?

### Intended learning outcomes
By completing this course, students receive a fundamental understanding of economics. Students are able to grasp microeconomic as well as macroeconomic subjects and to analyze them in theoretical models.

### Courses
(V (2) + T (2))

### Method of assessment
Written examination (approx. 60 minutes)

### Allocation of places
840 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

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

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Module title | Abbreviation
--- | ---
Investment and Finance. An Introduction | 12-I&F-G-152-m01

Module coordinator

holder of the Chair of Business Management, Banking and 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 | undergraduate | --

Contents

Content:
This course offers an introduction to principles of financial mathematics, several methods of capital budgeting and principles of financial economics.

Outline of syllabus:
1. Principles of financial mathematics
2. Fundamental concepts
3. Problems of investment and finance in one commodity world under certainty
4. Problems of investment and finance in one commodity world under uncertainty
5. Problems of investment and finance in many commodities world under uncertainty
6. Capital market and corporate financing in Germany

Intended learning outcomes

After completing the course "Principles of Investments and Finance", the students will be able
(i) to understand the fundamentals in financial mathematics and solve several problems, e.g. via the PV approach;
(ii) to address the central problems in intertemporal allocation given different capital market scenarios;
(iii) to budget and calculate the optimal useful life given static and dynamic investment approaches under the consideration of several other investment opportunities and the capital market scenario, especially the influence of taxes.

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

V (2) + T (2)

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

620 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery. (4) A waiting list will be maintained and places re-allocated by lot 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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### Microeconomics 1

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### Contents

The lecture covers the following topics

**Theory of the household:**

1. Utility maximisation under constraints
2. Comparative statics
3. Income and substitution effects
4. Labour supply
5. Intertemporal consumption / savings decisions

**Theory of the firm:**

6. Production functions (technology)
7. Profit maximisation
8. Long run versus short run cost minimisation
9. Supply of goods

### Intended learning outcomes

Students are systematically trained in microeconomic methods relevant in household and firm theory. Accordingly, they will know how to solve optimization problems under constraints. These scientific methods will serve as useful in many fields of specialization in economics and business administration. In particular, students know analytically how to analyze the impact of changes in the economic environment, e.g., wages, interest rates, income on individual decision making.

### Courses

**Type, number of weekly contact hours, language — if other than German**

V (2) + T (2)

### 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)
Language of assessment: German and/or English

### Allocation of places

840 places. (1) No restrictions with regard to available places for Bachelor’s students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor’s students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) Quota 2 (25 % of places): number of subject semesters of the re-
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</table>
Module title | Abbreviation
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Macroeconomics 1 | 12-Mak1-G-152-m01

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

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Contents

Description:
This module covers basic macroeconomic relationships, the declaration of employment, production, interest, current and capital account, nominal and real exchange rate, prices and inflation - in the long run (with flexible wages and prices) and in the short term (with fixed wages and prices). The course will familiarise students with concepts which are of central importance in a globalised environment (e. g. interest rate arbitrage, foreign exchange risk, purchasing power parity). The explanations will be applied to current issues (e. g. current account balances in the global economy; questions related to the European monetary union and the global financial crisis).

Outline of syllabus:
1. Macroeconomic issues and characteristics
   - Issues of macroeconomics
   - The measurement of economic activity
2. Long-term relationships
   - The classic long-term model of the closed economy
   - Money and Inflation
   - The classic long-term model of a small open economy
   - Unemployment
3. Short and medium-term relationships
   - Fluctuations of economic activity: an introduction
   - The IS-LM model of a closed economy
   - The IS-LM model of an open economy
   - Aggregate supply and Phillips curve
   - Conclusion and outlook

Reading:
The latest editions of the following textbooks:
N. Gregory Mankiw: Macroeconomics [students are recommended to read the original English edition; they may also read the German translation]
Olivier Blanchard and David H. Johnson, Macroeconomics Prentice Hall; [a German-language edition of the book by Oliver Blanchard and Gerhard Illing is available from Pearson Studium].
Michael Burda and Charles Wyplosz: Macroeconomics. A European text.
To illustrate the lecture, case studies in particular will be developed in which more current sources are used.

Intended learning outcomes
This expertise enables the students to penetrate economically-intuitively and analytically macroeconomic interactions and problems in the course of advancing globalization and to deal with these arguments. Students learn to interpret on a scientific basis the impact of macroeconomic developments in individual economic actors (businesses, households, the state).

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

V (2) + T (2)
**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)
- Language of assessment: German and/or English

**Allocation of places**

- 840 places. (1) No restrictions with regard to available places for Bachelor’s students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor’s students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

**Additional information**

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

- --
**Module title**
Economic Principles of Risk Management

**Abbreviation**
12-Risk-152-m01

**Module coordinator**
holder of the Chair of Economics, Information and Contract Economics

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

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**Duration**
1 semester

**Module level**
graduate

**Other prerequisites**
--

**Contents**

- Rational decisions under uncertainty
- Measures of risk aversion
- Mean preserving spread
- Axiomatic foundations of the expected utility hypothesis (Neumann/Morgenstern, Savage)
- Insurance contracts
- Optimal portfolios
- Adverse selection
- Moral Hazard
- Experimental evidence and alternative approaches

**Intended learning outcomes**

After completing the course students are able to

- explain the results of the economic theory of decisions under risk,
- apply the involved methods to given simple examples on their own,
- recognise, 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 (2) + Ü (2)

**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)
Language of assessment: German and/or English creditable for bonus

**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

(35 ECTS credits)
Subfield Mathematics
(10 ECTS credits)
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<td>Numerical Mathematics 1 for Business Mathematics</td>
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**Contents**

Solution of systems of linear equations and curve fitting problems, nonlinear equations and systems of equations, interpolation with polynomials, splines and trigonometric functions, numerical integration.

**Intended learning outcomes**

The student is acquainted with the fundamental concepts and methods in numerical mathematics, applies them to practical problems and knows about their typical fields of application.

**Courses**

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

V (4) + Ü (2)

**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. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English creditable for bonus

**Allocation of places**

- -

**Additional information**

- -

**Referred to in LPO I**

(examination regulations for teaching-degree programmes)

- -
**Module title**  
Stochastics 2 for Business Mathematics

**Abbreviation**  
10-M-STB2-152-m01

**Module coordinator**  
Dean of Studies Mathematik (Mathematics)

**Module offered by**  
Institute of Mathematics

**ECTS**  
10

**Method of grading**  
Numerical grade

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

**Duration**  
1 semester

**Module level**  
Undergraduate

**Other prerequisites**  
--

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**Contents**

Elements of data analysis, statistics of data in normal and other distributions, elements of multivariate statistics.

**Intended learning outcomes**

The student is acquainted with fundamental concepts and methods in statistics, applies these methods to practical problems and knows about the typical fields of application.

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

V (4) + Ü (2)

**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. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English

**Allocation of places**  
--

**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>Advanced Analysis for Business Mathematics</td>
<td>10-M-VAB-152-m01</td>
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</table>

**Module coordinator**
Dean of Studies Mathematik (Mathematics)

**Module offered by**
Institute of Mathematics

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<th>ECTS</th>
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<td>numerical grade</td>
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</table>

**Duration**
1 semester

**Module level**
undergraduate

**Other prerequisites**
--

**Contents**
Continuation of analysis in several variables, integration theorems.

**Intended learning outcomes**
The student is acquainted with advanced topics in analysis. Taking the example of the Lesbegue integral, he or she is able to understand the construction of a complex mathematical concept.

**Courses**
(V (4) + Ü (2))

**Method of assessment**
(a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English

creditable for bonus

**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>
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<tr>
<td>Ordinary Differential Equations for Business Mathematics</td>
<td>10-M-DGB-152-m01</td>
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</table>

**Contents**

Existence and uniqueness theorem; continuous dependence of solutions on initial values, systems of linear differential equations, matrix exponential series, linear differential equations of higher order.

**Intended learning outcomes**

The student is acquainted with the fundamental concepts and methods of the theory of ordinary differential equations. He/she is able to apply these methods to practical problems.

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

V (4) + Ü (2)

**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. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate)

Language of assessment: German and/or English creditable for bonus

**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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<tr>
<td>Introduction to Functional Analysis for Business Mathematics</td>
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### Contents

Banach spaces and Hilbert spaces, bounded operators, principles of functional analysis.

### Intended learning outcomes

The student knows the fundamental concepts and methods of functional analysis as well as the pertinent proof methods, is able to apply methods from linear algebra and analysis to functional analysis, and realises the broad applicability of the theory to other branches of mathematics.

### Courses

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<td>V (4) + Ü (2)</td>
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### Method of assessment

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</table>

Language of assessment: German and/or English creditable for bonus

### Allocation of places

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### Additional information

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

--
Subfield Business Management and Economics
(25 ECTS credits)
Module Catalogue for the Subject
Economathematics
Bachelor's with 1 major, 180 ECTS credits

<table>
<thead>
<tr>
<th>Module title</th>
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<tr>
<td>Entrepreneurship, Competition and Strategy</td>
<td>12-U&amp;UF-F-152-m01</td>
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Contents

Description:
The module builds on the introductory course "Grundlagen marktorientierter Unternehmensführung" ("Fundamentals of Market-based Management"). It provides a systematic introduction to the approaches of corporate management (stakeholder and shareholder value approach) as well as an overview of market-oriented corporate governance. In addition, aspects of responsible leadership will be discussed.
The theory of Chester Barnard with the idea of creating a complex economic incentive contribution balance in the company will help students develop an in-depth understanding of typical management tasks. In addition, the course will focus on the development of business plans for the successful establishment and the continued existence of companies.

Outline of syllabus:
1. Business and strategy in economic theory
2. Business plan as a strategy concept
3. Stakeholder management and responsible leadership
4. Stakeholder value, shareholder value and creating shared value

Intended learning outcomes
Students will gain profound knowledge of basics in business as well as basics in different approaches in corporate management. Furthermore the students will get an overview of the main tools to create a business plan.

Courses (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

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
--

Additional information
--

Referred to in LPO I (examination regulations for teaching-degree programmes)
--
Introduction to Market-Oriented Management

Module title
Introduction to Market-Oriented Management

Abbreviation
12-Mark-G-152-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
undergraduate

Other prerequisites
--

Contents
Description
In this module, students will acquire the theoretical foundations of market-oriented management.

Content:
With the stakeholder approach as a starting point, the basic design of market-oriented management will be explained and exemplified in the 5 classical steps: situation analysis, objectives, strategies, tools and controlling. The course will focus not only on the behavioural approaches of consumer behaviour but also on industrial purchasing behaviour. A case study introducing students to the fundamental principles of market research based on a conjoint analysis will provide students with deeper insights into the topic.

Outline of syllabus:
1. Marketing, entrepreneurship and business management
2. Explanations of consumer behaviour
3. Fundamentals of market research
4. Strategic marketing; marketing tools
5. Corporate social responsibility versus creating shared value

Reading:

Intended learning outcomes
The students have a basic understanding of business management and are able to classify the knowledge systematically. In addition, they can use the acquired knowledge solve and identify the conventional problem fields of business management.

Courses
(type, number of weekly contact hours, language — if other than German)
V (2) + T (2)
### 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

620 places. (1) No restrictions with regard to available places for Bachelor’s students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor’s students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

### Additional information

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

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Module title
Supply, Production and Logistics Management. Material Requirements Planning

Abbreviation
12-BPL-F-152-m01

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

Module offered by
Faculty of Business Management and Economics

ECTS
5

Method of grading
Numerical grade

Duration
1 semester

Module level
Undergraduate

Other prerequisites
--

Contents
This module builds on the course "Beschaffung, Produktion und Logistik - Grundlagen" ("Procurement, Production and Logistics - Basics"). Selected tasks and processes, in particular in the area of materials management, will be analysed in detail and related planning and control models and methods will be developed.

Intended learning outcomes
The students are able to analyze the areas of responsibility of the functions of procurement, production and logistics as well as their interdependencies in an integrated perspective and evaluate concepts for their management. In addition, they are able to develop models in the domain of materials management and apply solution procedures to the planning problems.

Courses (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

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
--

Additional information
--

Referred to in LPO I (examination regulations for teaching-degree programmes)
--
### Module title
Seminar: Supply, Production and Logistics Management

### Abbreviation
12-BPL-FS-152-m01

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

### 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
undergraduate

### Other prerequisites
--

### Contents
The seminar will focus on special problems in the areas of procurement, production, logistics or business management. Students will independently work on the respective problem and write a seminar (term) paper. Usually, this will be largely literature based with students learning how to carry out structured literature analyses and prepare systematic evaluations. In individual cases, students may also conduct empirical research of their own or further develop formal models. Students will be required to deliver a talk on the subject in class.

### Intended learning outcomes
The students will be able to study advanced problems on their own and structure them in a (seminar) paper. They will learn to present the central results and discuss related issues in class.

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

S (2)

### 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) term paper (approx. 15 pages) and presentation (approx. 20 minutes), weighted 2:1 or b) term paper (approx. 20 to 25 pages)

Language of assessment: German and/or English

### Allocation of places
15 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

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

--
### Module title
Financial Accounting and Auditing 1 - Financial Statements (German GAAP, IFRS)

### Abbreviation
12-Wipr1-F-152-m01

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

### 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
undergraduate

### Other prerequisites
--

## Contents

Content: This module is based on introductory courses in the areas of financial and managerial accounting and includes essential aspects of corporate financial accounting. It delivers a systematic presentation and interpretation of financial reporting standards according to the Handelsgesetzbuch (German Commercial Code, HGB) and International Financial Reporting Standards (IFRS). In addition, it introduces students to financial statement analysis methods.

Outline of syllabus: Fundamentals of financial statements; purpose and basic assumptions of financial accounting; recognition, valuation and presentation of assets, liabilities and equity; financial statement analysis.

Reading:
Baetge, J./Kirsch, H.-J./Thiele, St.: Bilanzen, Düsseldorf.

## Intended learning outcomes

The students have a deeper understanding of business fundamentals in accounting according to national (HGB) and international (IFRS) principles. They can systematically arrange and play with the knowledge and apply the acquired knowledge, i.e. resolve accounting and financial statement analysis problems of medium difficulty.

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

V (2) + Ü (2)

## 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)

Language of assessment: German and/or English

## Allocation of places
--

## Additional information
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## Referred to in LPO I
(examination regulations for teaching-degree programmes)
--
# Module Catalogue for the Subject Economathematics

## Bachelor's with 1 major, 180 ECTS credits

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Financial Accounting and Auditing 2 - Consolidated Financial Statements (German GAAP, IFRS)</td>
<td>12-Wipr2-F-152-m01</td>
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## Contents

Outline of syllabus:
1. Fundamentals of group accounting
2. Legal obligations for group accounts
3. Consolidated companies
4. Capital consolidation
5. Debt consolidation
6. Consolidation of intercompany results
7. Consolidation of income and expenses
8. Equity method
9. Selected problems

Reading:
Baetge/Kirsch/Thiele: Konzernbilanzen, Düsseldorf. (most recent edition)

## Intended learning outcomes

After finishing this module "Konzernrechnungslegung nach HGB und IFRS", the students will be able
(i) to present the purposes of group accounting;
(ii) to identify and interpret central legal rules;
(iii) to apply consolidation methods on problems of moderate difficulty (in terms of capital, debt, interim results, expenses and income) and preparing the necessary entries for the group accounts;
(iv) to name central differences for group accounts according to the German Commercial Code (HGB) and IFRS and give reasons for the differences.

## Courses

V (2) + Ü (2)

## Method of assessment

written examination (approx. 60 minutes)
Language of assessment: German and/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)

--
### Module title
**Financial Accounting and Auditing 3 - Auditing**

### Abbreviation
12-Wipr3-F-152-m01

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

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

### ECTS
5

### Method of grading
numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
--

### Contents
**Content:**
This module builds on the introductory courses in the areas of Financial and Managerial Accounting and, in particular, on the course "Jahresabschluss und - analyse nach HGB und IFRS" ("Financial Accounting according to HGB and IFRS"). The module provides students with a systematic introduction to practical, methodical and theoretical aspects of business audits, i.e. financial statement audits.

**Outline of syllabus:**
1. Audits and audit-related services - introduction and overview
2. Audit process: functional aspects of economic examination
3. Audit institutions: institutional aspects of economic examination
4. Economical audit theory: the low-balling model of DeAngelo

**Reading:**

### Intended learning outcomes
The students have a deeper understanding of the basics of business (balance) checks. They can organize, play back and apply the systematically gained knowledge, i.e. solve simple problems of business (balance sheet) tests.

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

V (2) + Ü (2)

### 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)
Language of assessment: German and/or English

### Allocation of places
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### Additional information
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### Referred to in LPO I
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### Module title
Seminar: Financial Accounting und Auditing

### Abbreviation
12-Wipr-FS-152-m01

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### Contents
The module provides students with deeper insights into current problems of external accounting and auditing, usually with the help of textbooks or adequate scientific primary literature in English or German language.

### Intended learning outcomes
After completing this module, students are able to
(i) consolidate what they have learned and if necessary apply additional techniques of scientific work;
(ii) create and defend a qualification level relevant scientific work;
(iii) carry out scientific analysis of the results from other seminar participant;
(iv) ability to present and reflect solution-oriented the own performance considering communication aspects.

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

S (2)

### 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. 25 pages) and presentation (approx. 20 minutes), weighted 2:1
Language of assessment: German and/or English

### Allocation of places
15 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

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<td>Investment and Finance - Advanced Level</td>
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## Contents

Content:
This course discusses the fundamental principles of corporate valuation, optimal asset allocation and optimal financial structuring.

Outline of syllabus:
1. Choice under uncertainty
2. Portfolio selection
3. Main features of the capital market theory
4. Taxes and business financing
5. Agency theory and business financing

## Intended learning outcomes

After completion of the module "Investment and financing for advanced" students will be able
(i) to understand the basics of a rational investment and financing behavior under uncertainty;
(ii) to explain the optimal asset allocation in theory and to solve several case studies;
(iii) demonstrate an increased understanding of the fundamentals of the agency theory and the resulting problems of optimal financing structure.

## Courses

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

V (2) + Ü (2)

## 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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<table>
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</table>

**Contents**

This seminar deals with current topics of investments and finance. Students will be required to independently analyse a selected topic and to write a term paper. This term paper may be largely literature based or empirical or may be based on independent work with formal models. In addition, students will be required to deliver a talk on the topic.

**Intended learning outcomes**

After completing the seminar "Investments and Finance", the students acquired detailed knowledge of important fields of investments and finance. They are also able to process their research findings in a written assignment and to present their findings.

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

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**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 pages) and presentation (approx. 15 minutes), weighted 2:1** |

**Allocation of places**

15 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places reallocated by lot as they become available.

**Additional information**

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

--
Module title: Business Valuation between Financial Mathematics and Data on Capital Market

Abbreviation: 12-UBW-F-152-m01

Module coordinator: holder of the Chair of Business Management, Banking and Finance

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: undergraduate

Other prerequisites: --

Contents:

Content:
This course deals with the "objectified corporate valuation" of public companies, the components of the discount rate and the mathematical structure of the DCF methods.

Outline of syllabus:
1. Introduction
2. Uncertainty as the central problem in the valuation of a company
3. Estimation of surpluses: accuracy and consistency
4. Risk free rate: capitalised value under certainty applying different interest rate structures
5. The risk premium: identification of the relevant risk and its equivalence for valuation object and alternative investment
6. Different discounted cash flow valuation methods: formal foundations and economic principles

Intended learning outcomes:
After completion of the module "Business valuation between Financial Mathematics and capital market data" students can
(i) understand the modern process of objectified business valuation theory;
(ii) examine submitted reviews according to consistent application of these methods.

Courses (type, number of weekly contact hours, language — if other than German):
V (2) + Ü (2)

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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<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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</thead>
<tbody>
<tr>
<td>Business Taxation 1: An Introduction to Tax Law &amp; Tax Planning</td>
<td>12-St1-F-152-m01</td>
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<td>holder of the Chair of Business Taxation</td>
<td>Faculty of Business Management and Economics</td>
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<tr>
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</table>

**Contents**

This module will introduce students to the field of business taxation. It will provide an overview of German tax law and will analyse tax effects on economic decisions in standard models for investment and financing decisions.

**Intended learning outcomes**

Students get an overview of the German tax law and they acquire the ability to recognize and understand the effect of taxation in fundamental economic decisions. Therefore, the module is recommended also for students who don't want to specialize in finance and accounting but rather in management studies.

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

V (2) + Ü (2)

**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)
creditable for bonus

**Allocation of places**

--

**Additional information**

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

--
## Module Catalogue for the Subject Economathematics

**Bachelor's with 1 major, 180 ECTS credits**

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<thead>
<tr>
<th>Module title</th>
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<tr>
<td>Business Taxation 2: The Taxation of Income in Germany</td>
<td>12-St2-F-152-m01</td>
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### Contents

In this module, students will acquire an in-depth knowledge of the system of income taxation in Germany which consists of personal income tax, corporate income tax and trade tax, a special income tax on business income.

### Intended learning outcomes

Students acquire in-depth knowledge of the system of income taxation in Germany. They are able to solve practical problems of medium to high complexity in this field by means of the tax code, other legal texts and secondary literature.

### Courses

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

V (2) + Ü (2)

### 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)

creditable for bonus

### 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

**Business Taxation 3: Introduction to VAT**

### Abbreviation

12-St3-F-152-m01

## Module coordinator

holder of the Chair of Business Taxation

## Module offered by

Faculty of Business Management and Economics

## ECTS

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## Duration

1 semester

## Module level

undergraduate

## Other prerequisites

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## Contents

Introduction to German value added tax.

## Intended learning outcomes

Students acquire a thorough knowledge of German VAT law. They are able to solve VAT problems of low to medium complexity by using the tax code itself as well as related literature.

## Courses

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

V (2) + Ü (2)

## 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) oral examination (one candidate each: approx. 10 to 15 minutes, groups of 2: approx. 20 minutes, groups of 3: approx. 30 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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<td>Selected Topics in Business Taxation - Lecture</td>
<td>12-StAP-V-152-m01</td>
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**Contents**

This module deals with selected problems and issues of business taxation.

**Intended learning outcomes**

The students will be able to edit and solve selected problems and issues of business.

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

V (2) + Ü (2)

**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. 10 to 15 pages) and presentation (approx. 20 minutes), weighted 2:1 or c) oral examination (one candidate each: approx. 10 to 15 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes)

Assessment offered: Only when announced in the semester in which the courses are offered and in the subsequent semester

Language of assessment: German and/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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</table>

### Contents

This module deals with selected problems and issues of business taxation.

### Intended learning outcomes

The students will be able to edit and solve selected problems and issues of business taxation.

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

- S (2)

### 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. 10 to 15 pages) and presentation (approx. 20 minutes), weighted 2:1 or c) oral examination (one candidate each: approx. 10 to 15 minutes; groups of 2: approx. 20 minutes; groups of 3: approx. 30 minutes)
- Assessment offered: Only when announced in the semester in which the courses are offered and in the subsequent semester
- Language of assessment: German and/or English
- creditable for bonus

### Allocation of places

- 20 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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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Financial Accounting | 12-ExtUR-G-152-m01

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

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Contents

This course offers an introduction to the fundamentals of financial accounting, including the technique of double-entry book-keeping as well as the fundamentals of recognition, valuation and presentation of assets, liabilities and equity according to German commercial law.

Intended learning outcomes

Students acquire a basic understanding of the fundamentals of financial accounting. They are able to arrange, reproduce and apply this knowledge, i.e. they are able to solve simple accounting problems.

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

V (2) + T (2)

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

840 places. (1) No restrictions with regard to available places for Bachelor’s students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor’s students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

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>
<th>Module title</th>
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<tr>
<td>Managerial Accounting</td>
<td>12-IntUR-G-152-m01</td>
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### Contents

**Content:**
This course offers an introduction to aims and methods of managerial accounting (cost accounting).

**Outline of syllabus:**
1. Managerial accounting and financial accounting  
2. Managerial accounting: basic terms  
3. Different types of costs  
4. Cost centre accounting based on total costs  
5. Job costing based on total costs  
6. Cost centre accounting and job costing based on direct/variable costs  
7. Budgeting and cost-variance analysis  
8. Cost-volume-profit analysis  
9. Cost information and operating decisions

**Reading:**
Friedl/Hofmann/Pedell: Kostenrechnung. Eine entscheidungsorientierte Einführung. (most recent editions)

### Intended learning outcomes

After completing the course "Management Accounting and Control", the students will be able to
(i) set out the responsibilities of the company's internal accounting and control;  
(ii) define the central concepts of internal enterprise computing restriction and control and assign case studies the terms;  
(iii) apply the basic methods of internal corporate accounting and control on a full and cost base to idealized case studies of medium difficulty that calculate relevant costs and benefits and take on this basis a reasoned decision.

### Courses

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

V (2) + T (2)

### 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

840 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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 cre-
dits achieved, places will be allocated by lot. b) 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. c) Quota 3 (25 % of places): lottery. (4) A waiting list will be maintained and places re-allocated by lot as they become available.

Additional information

Refer to in LPO I (examination regulations for teaching-degree programmes)
Module title | Abbreviation
--- | ---
Integrated Business Processes | 12-GP-G-152-m01

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**Contents**

This course is aimed at students of Wirtschaftsinformatik (Business Information Systems) and Wirtschaftswissenschaft (Business Management and Economics) interested in the topic. The course is divided up into two parts. In the theoretical part, students will acquire the necessary theoretical knowledge that will serve as a basis for the practical part. The practical exercise will present students with an opportunity to apply their newly acquired knowledge by working with an SAP Business ByDesign system on case studies on the model company Almika. In this context, the human resources, purchasing, sales, service, project management and finance departments will be dealt with.

The course will introduce students to business processes of an ERP system (Enterprise Resource Planning) using the example of SAP Business ByDesign. In addition to the basic principles, students will also become familiar with the processes and functionalities.

**Intended learning outcomes**

After completing the course, the students will be able to

1. reflect technical principles and operational models of ERP systems,
2. understand the functionality of ERP systems and
3. perform and understand business processes within the ERP system SAP Business ByDesign.

**Courses**

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

V (2) + Ü (2)

**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) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1 creditable for bonus

**Allocation of places**

15 places. (1) The number of places is not restricted for students of the Bachelor’s degree subject Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits). (2) Additional places will be allocated to students of other subjects provided there is enough capacity. These additional places will be allocated by lot among all applicants irrespective of their subjects. (3) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (4) A waiting list will be maintained and places re-allocated by lot 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
---|---
Forward and Reverse Business Engineering | 12-FRBE-F-152-m01

Module coordinator | Module offered by
Business Integration Prof. Thome | Faculty of Business Management and Economics

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<th>ECTS</th>
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Duration | Module level |
1 semester | undergraduate |

Contents

"Business Engineering" refers to the method and model-based design theory for companies in the information age. "Forward" refers to design methods (such as situation analysis, requirements analysis and business process modelling) that help implement a new solution. "Reverse" refers to approaches (such as the use and process analysis) that make it possible to improve or re-design existing structures and processes. Market requirements and technological innovation potential are typical reasons for the continuous transformation of a company. The resulting change needs to be implemented into the organisational structure, business processes and information systems.

The course traces the implementation cycle of enterprise software from the point of view of a member of a project team. In addition to acquainting students with the theoretical basis of adaptation, the course will also discuss examples from practical projects.

Intended learning outcomes

The students know in detail the process of adaptation of business software libraries. They master the methods of Forward Engineering (such as situation analysis, requirement analysis, process modeling and business blueprint) and Reverse Engineering (Reverse Business Engineering) and their implementation in tools.

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

V (2) + Ü (2)

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) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1 creditable for bonus

Allocation of places

50 places. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Bachelor’s students of Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) 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 by lot among applicants from this group. (4) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (5) A waiting list will be maintained and places re-allocated by lot 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**
---|---
Seminar: Information Technologies | 12-Wiinf-FS-152-m01

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

**Contents**

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 "Wirtschaftsinformatik-Seminar", 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)

S (2)

**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 pages) and presentation (approx. 20 minutes), weighted 2:1
Language of assessment: German and/or English
creditable for bonus

**Allocation of places**

15 places. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Bachelor’s students of Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) 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 by lot among applicants from this group. (4) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (5) A waiting list will be maintained and places re-allocated by lot 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
Human Resource Management & Organizational Theory

### Abbreviation
12-P&O-F-152-m01

### Module coordinator
holder of the Chair of Human Resource Management and Organisation

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

### ECTS
5

### Method of grading
numerical grade

### Only after succ. compl. of module(s)
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### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
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## Contents
The lecture "Personal und Organisation" ("Human Resources Management and Organisation") presents and discusses basic theories, estimation techniques and empirical results from the area of personnel economics and organisation.

Reading list to be provided during lecture

## Intended learning outcomes
The aim of the lecture is to enable students to understand and apply basic theories, estimation techniques and empirical results in the area personnel economics and organisation on the basis of text books and scientific literature.

## Courses
(V (2) + Ü (2))

## 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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<td>Seminar: Human Resource Management &amp; Organizational Theory</td>
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**Contents**

Students will write a seminar paper on, deliver a talk on and discuss current issues in the field of human resources management and organisation in class.

**Intended learning outcomes**

The students learn to handle, formulate in own words, present, and discuss current research literature.

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

| S        | (2)                         |

**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. 15 pages) and presentation (approx. 20 minutes), weighted 2:1
Assessment offered: Once a year, winter semester
Language of assessment: German and/or English

**Allocation of places**

15 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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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<tr>
<th>Module title</th>
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<tr>
<td>Innovation Management</td>
<td>12-IM-152-m01</td>
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<th>Module coordinator</th>
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<tbody>
<tr>
<td>holder of the Chair of Entrepreneurship and Management</td>
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**Contents**

The course will provide students with an overview of essential topics of innovation management. Particular emphasis will be on the application of theoretical concepts to practical examples and cases. The course will develop the innovation process starting with the idea and ending with the market entry of an innovation. The course will consist of two core elements: 1. "Creating Value": how can companies create something new? and 2. "Profiting from Value": how can companies profit from innovations? The course will use practical examples from numerous industries such as world-class restaurants, music, consumer goods, electricity or the software industry.

**Intended learning outcomes**

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

- The importance of innovations
- The sources of innovations
- The New Product Development process
- The roles in the innovation process
- The importance of intellectual property rights
- How innovations diffuse in the market

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

V (2) + Ü (2)

**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)
Language of assessment: German and/or English

**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
Entrepreneurship

### Abbreviation
12-EPS-152-m01

### Module coordinator
holder of the Chair of Entrepreneurship and Management

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

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<th>ECTS</th>
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### Duration
1 semester

### Module level
undergraduate

### Other prerequisites
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### Contents

**Description:**
The course introduces students to the basics of entrepreneurial self-employment. In addition to discussing theoretical concepts covering the definition, creation and performance of new ventures, the course will also discuss methods and instruments for a potential entrepreneurial career. Several content areas of start-up planning are being covered during the course of the lecture including team compilation, business model creation and financing.

**Contents of the course:**
1. Introduction to entrepreneurship
2. Human resources in start-ups
3. Opportunity analysis
4. Business modelling
5. Entrepreneurship in the digital industry
6. Business planning
7. Finance
8. Marketing in start-ups

### Intended learning outcomes
After completing the module "Entrepreneurship", the students should be able to
(i) describe and problematize the concept of entrepreneurship and the entrepreneurial perspective;
(ii) describe and analyze the entrepreneurial process, its drivers, characteristics and context;
(iii) apply theories within the entrepreneurship field to real life situations;
(iv) take initiatives and independently develop a business idea and use knowledge gained from earlier courses in business administration in order to develop this idea in a business plan sketch;
(v) plan human resources and marketing in a start-up.

### Courses
V (2) + Ü (2)

**Method of assessment**
written examination (approx. 60 minutes)

Language of assessment: German and/or English

### Allocation of places
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### Additional information
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<tr>
<td>Cost Accounting for Decision Making and Control</td>
<td>12-KR-152-m01</td>
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<td>holder of the Chair of Business Management, Controlling and Accounting</td>
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### Contents

First, this module will discuss basic principles of accounting such as full and direct costing as well as cost and performance accounting in the context of decision making. The course will then focus on decision-making processes (break-even analysis, short-term production planning and pricing decisions) and internal control calculations (the role of controls; deviation analyses).

### Intended learning outcomes

This module provides competences in order to apply systems of full- and direct costing, cost and performance accounting with regard to decision-making and internal control processes. The goal is to promote analytical thinking and problem-solving abilities by analyses of complex problem structures.

### 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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<th>type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus</th>
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<td>written examination (approx. 60 minutes)</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
---|---
Aspects of Managerial Accounting and Control | 12-AAC-152-m01

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**Contents**

In this course, students will acquire important knowledge and skills that will enable them to prepare a well-structured paper and to present the results of their work with the help of relevant topics in the field of the focuses of module "Entscheidungs- und Kontrollrechnung" ("Management Accounting: Decision Making and Control").

**Intended learning outcomes**

After completing the controlling bachelor seminar, students will be able to

(i) understand and apply the fundamentals of scientific literature reviews;

(ii) use elaborated content to write scientific papers;

(iii) create presentations and lectures independently.

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

S (2)

**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. 12 pages) and presentation (approx. 20 minutes), weighted 2:1

**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 title | Abbreviation
---|---
eBusiness | 12-Ebus-F-152-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 | undergraduate | --

Contents

E-business is a comprehensive, digital processing of business transactions between private and public enterprises as well as institutions and their clients on global public and private networks such as the internet. Precisely because euphoria for e-business has waned considerably in recent years, a lot of emphasis is now being placed on introducing such solutions in a user-oriented way. This lecture will first discuss the supporting economic theories and will then describe and analyse individual solutions such as e-procurement, e-shop, e-marketplace and e-community in detail.

Intended learning outcomes

The module provides students with knowledge about:
(i) E-Procurement
(ii) E-Shop
(iii) E-Marketplace
(iv) E-Community

Courses (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

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) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1
Language of assessment: German and/or English

Allocation of places

Additional information

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

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### Module title

**E-Business Project**

### Abbreviation

12-EBP-152-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

undergraduate

### Other prerequisites

--

### Contents

In this course, students will acquire the technical, organisational and social skills necessary for a real e-business. The principal distinguishing feature of this course is its high practical relevance. The project work - evolving from the conceptual design to status presentations and final report - will be completed in small groups.

### Intended learning outcomes

After completion of the module students are able

(i) to understand challenges of real e-business companies;
(ii) to apply the acquired knowledge to solve a specific, real problem;
(iii) to present developed results;
(iv) to collect experience in the field of search engine optimization.

### Courses

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

V (2) + Ü (2)

### 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. 20 pages) or c) term paper (approx. 10 to 20 pages) and presentation (approx. 15 minutes), weighted 2:1 or d) entirely or partly computerised written examination (approx. 60 minutes)

Language of assessment: German and/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
Seminar: Information Systems

| Abbreviation | 12-INS-FS-152-m01 |

### Module coordinator
holder of the Chair of Information Systems Engineering

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

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### Contents
This course will provide students with an overview of the applications and usage of corporate information systems. The first part of the course will introduce systems for the classification of different information systems. The course will then move on to acquaint students with industry-specific as well as industry-neutral information systems for specific business functions and processes. With the help of examples, the course will also introduce information systems for inter-company collaboration and e-business.

### Intended learning outcomes
Drawing on current cutting-edge research, students are enabled to critically and independently analyze current research questions and to learn and apply research methods. The seminar style of the course teaches them to present their own seminar papers and research both in written and in oral form. Students are enabled to critically analyze and discuss the work of their peers.

### Courses
(type, number of weekly contact hours, language — if other than German)
S (2)

### 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 pages) and presentation (approx. 20 minutes), weighted 2:1
Language of assessment: German and/or English

### Allocation of places
15 places. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Bachelor’s students of Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) 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 by lot among applicants from this group. (4) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (5) A waiting list will be maintained and places re-allocated by lot 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
Supply Chain Management

### Abbreviation
12-SCM-F-152-m01

### Module coordinator
holder of the Chair of Logistics and Quantitative Methods in Business Administration

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

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### Duration
1 semester 

### Module level
undergraduate

### Other prerequisites
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### Contents
The seminar "Supply Chain Management" will introduce students to tactical and operational planning problems of supply chain management. It will discuss the wording of these as formal models and, with the help of a continuous case study, will acquaint students with the implementation of these models in SAP APO.

### Intended learning outcomes
After completing this seminar students can
1. apply selected and applied quantitative models for procurement, production, sales and supply chain management;
2. face the practical problems when using real data to feed models;
3. understand the challenges to reach a coordinated decision in a company.

### Courses (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

### 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) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1
Assessment offered: Once a year, summer semester
Language of assessment: German and/or English

### Allocation of places
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### Additional information
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<td>Seminar: Logistics &amp; Supply Chain Management</td>
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**Contents**

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

**Intended learning outcomes**

After completing this module students can

1. understand mathematical models to solve practical problems in logistics and supply chain management,
2. evaluate and critique the results of such models, and
3. understand, describe, and evaluate the limits of such models.

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

S (2)

**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 elaboration (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1
Assessment offered: Once a year, winter semester
Language of assessment: German and/or English

**Allocation of places**

20 places. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Applicants who have already achieved a total of 90 ECTS credits or more will be given preferential consideration. (2) When places are allocated in accordance with (1) and the number of applications exceeds the number of available places, places will be allocated according to the average grade of assessments taken so far; among applicants with the same average grade, places will be allocated by lot.

**Additional information**

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**Referred to in LPO 1** (examination regulations for teaching-degree programmes)

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Module title

Toyota Supply Chain Management

Abbreviation

12-MDM-152-m01

Module coordinator

holder of the Chair of Logistics and Quantitative Methods in Business Administration

Module offered by

Faculty of Business Management and Economics

ECTS

5

Method of grading

only after succe. compl. of module(s)

Duration

1 semester

Module level

undergraduate

Other prerequisites

--

Contents

Toyota is still considered to be a pioneer in the field of automobile production although it has recently had to cope with difficulties (e.g. recalls, production shortfalls caused by natural disasters) and had lost its dominant position in the automotive market to General Motors and Volkswagen—at least temporarily. The development of concepts, such as Lean Manufacturing, Total Quality Management, Kaizen, Kanban, etc. can be attributed completely or at least partially to Toyota. These concepts integrated in the so-called Toyota Production System (TPS) are now considered standard elements of modern production systems and are standard repertoire in business management. However, with a focus on the management of production systems, they only represent one of the cornerstones of the successful Toyota model. Toyota currently operates extremely efficient global supply chains with international production sites (in Japan, USA, France, Brazil, Argentina, Malaysia, Pakistan, etc.), globally distributed suppliers and a worldwide dealer network. Toyota implemented not only efficient production (with TPS), but also sustained efficient design and coordination of globally distributed value-added activities. To accomplish this, Toyota has consistently developed its management philosophy and the principles underlying TPS and integrated these in the "Toyota supply chain". While we were able to learn from Toyota in the past as to how production systems can be designed, today we can learn from Toyota as to how complex global supply chains in the automotive industry—but also in other industries—should be designed and coordinated. Notably its planning principles are—despite the greater complexity—easy to understand, simple to implement and are based on simple 'ground rules'. The aim of this seminar is to learn from the Toyota supply chain.

Intended learning outcomes

Drawing on current cutting-edge research, students are enabled to critically and independently analyze current research questions and to learn and apply research methods. The seminar style of the course teaches them to present their own seminar papers and research both in written and in oral form. Students are enabled to critically analyze and discuss the work of their peers.

Courses

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

S (2)

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 elaboration (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1

Assessment offered: Once a year, summer semester

Language of assessment: German and/or English

Allocation of places

20 places. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Applicants who have already achieved a total of 90 ECTS credits or more will be given preferential consideration. (2) When places are allocated in accordance with (1) and the number of applications exceeds the number of available places, places will be allocated according to the average grade of assessments taken so far; among applicants with the same average grade, 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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<thead>
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<td>European Monetary Policy</td>
<td>12-EuGP-F-152-m01</td>
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<tbody>
<tr>
<td>holder of the Chair of Monetary Policy and International Economics</td>
<td>Faculty of Business Management and Economics</td>
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### Contents

The course discusses the following questions:
1. Why is price stability the main objective of the ECB?
2. How can the ECB control interest rates and the creation of credit? Why did the financial crisis happen?
3. How does interest rate policy influence macroeconomic objectives (price stability and full employment)?
4. Why is it important for monetary policy to be independent?
5. How does the ECB know, how to set interest rates? (strategies of monetary policy)
6. Why did central banks engage in unconventional monetary policy during the last years?

### Intended learning outcomes

By completing this course, students receive a profound understanding of theory and practice of monetary policy. Next to a profound knowledge of monetary policy in general, students are able to form a critical opinion about the conduct of monetary policy by the European Central Bank and in part about the policy of other central banks.

### Courses

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

V (2) + Ü (2)

### 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)

--
# Module Title

**Business Cycle Analysis**

**Abbreviation**

12-Konj1-F-152-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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## Contents

The course will introduce students to the theory of business cycle dynamics. Capitalist based economies are subject to pronounced cycles of economic booms and busts. In this course, we will find out why! Kicking off the lecture, we will look at some stylised empirical facts of business cycles. Afterwards, we will give a structural interpretation, focusing in particular on housing and asset markets and their role for the business cycle. We will also take a closer look at investment, one of the main cycle-makers. Afterwards, we will ask the question of how monetary and fiscal policy can safeguard the business cycle. Special attention will be given to the euro area. We will also invite an expert to give a practical introduction to business cycle indicators.

## Intended Learning Outcomes

The course offers an introduction into a vast array of analytical tools. Students
(i) are exposed to 1st and 2nd order difference equations and learn how to solve them;
(ii) learn how business cycle indicators are constructed;
(iii) are supplied with up to date knowledge on the interaction of business cycles, asset markets and economic policy which enables them to critically access contemporaneous policy.

## Courses

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

V (2) + Ü (2)

## 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. 40 pages, to be prepared in groups of 3 candidates) and presentation (approx. 40 minutes, to be prepared and delivered in groups of 3 candidates), weighted 3:2 or c) 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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### Seminar: Economic Policy

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### Contents
Acquiring an in-depth understanding of specific problems of macroeconomics.

### Intended learning outcomes
After the seminar, students can
(i) consolidate acquired knowledge and if necessary apply additional techniques of scientific work;
(ii) create, present and defend a scientific paper;
(iii) deal with the working papers of other participants;
(iv) prepare better for the processing of the bachelor thesis.

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

| S (2) |

### 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. 15 pages) and presentation (approx. 25 minutes), weighted 2:1

### Allocation of places
15 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

### Additional information
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(examination regulations for teaching-degree programmes)
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**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. Cost minimisation
2. Profit maximisation and the supply function
3. Short-run market equilibrium
4. Long-run market equilibrium
5. Government interventions
6. Monopoly
7. Pricing strategies with market power
8. Introduction to game theory
9. Strategic interaction and oligopoly

**Intended learning outcomes**

The aim of the course is to understand how markets work. We will investigate the behavior of a company in different market structures; namely perfectly competitive markets, monopoly markets and all forms in between, the so-called oligopoly markets. Ultimately, we are interested in whether the market results from a social point of view is desirable. Using our models, we will also try to analyze the consequences of different government interventions. The knowledge that students gain in this course will be in their future course of studies of benefits to them. In almost all business and economics lectures markets play a role. It also discussed in detail how economic actors make their decisions. Students will thus learn the important building blocks of economic thought. This knowledge will also be useful in the workplace and even in their private lives.

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

V (2) + T (2)

**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)
Language of assessment: German and/or English

**Allocation of places**

620 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

**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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International Economics | 12-IntÖk-152-m01

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

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**Contents**

**Description:**
The course starts with an introduction to the current trends of the real side of globalisation. The main part of the course deals with explanations of international trade (comparative advantage, economies of scale, product variety) and for international factor movements (migration, foreign direct investment and multinational companies, intertemporal trade). Current issues and controversies (e.g. globalisation and labour; globalisation and the environment; migration within the European Union) are analysed against this background.

**Outline of syllabus:**
1. International economics -- trends and current developments
2. International trade
   - Ricardian theory: labour productivity and comparative advantage
   - Heckscher-Ohlin-factor proportion theory and the general neoclassical model
   - New trade theory: product differentiation, scale economies, firm heterogeneity
3. International factor movements

**Reading:**
There is no single textbook that covers this course. The best general reference is:
The course develops case studies that use additional references.

**Intended learning outcomes**
The students acquire the ability to critically understand trends and developments concerning the real side of the world economy: Trade flows and international factor movements. They can penetrate the causes and consequences of real economic globalization economically-intuitively and analytically formulate and defend arguments and they acquire the expertise to critically evaluate a scientific basis current controversy posed by the real economic globalization.

**Courses** (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

**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)
Language of assessment: German and/or English

**Allocation of places**
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**Additional information**
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**Contents**

Content:
The course examines current topics in international economics (e.g. outsourcing, offshoring and multinational firms; competition of locations, jurisdictions and systems; globalisation and the environment; trade, multinational firms and labour markets; triumph of the city).

Reading:
Recent articles from international journals and/or monographs.

**Intended learning outcomes**

Drawing on current cutting-edge research, students are enabled to critically and independently analyze current research questions and to learn and apply research methods. The seminar style of the course teaches them to present their own seminar papers and research both in written and in oral form. Students are enabled to critically analyze and discuss the work of their peers.

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

S (2)

**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. 15 pages) and presentation (approx. 30 minutes), weighted 3:1
Language of assessment: German and/or English

**Allocation of places**

10 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

**Additional information**

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**Contents**

I A brief revision of econometrics: OLS and fixed effects regression  
II Geographical agglomeration of economic activity  
III Firm heterogeneity and the exporter wage premium  
IV A brief revision of econometrics: Instrumental variables regression  
V German local labour markets and "the Rise of the East"

**Intended learning outcomes**

This course focuses on the empirical analysis of current topics in international and regional economics. After reviewing some theoretical background and empirical methods, students learn to comprehend empirical studies, recognize possible pitfalls and conduct their own analyses using statistical software packages and authentic datasets. A strong focus is put on the identification of causal effects. Students should already have basic knowledge in econometric analysis and international trade theory.

The lecture starts with a revision of basic empirical methods. The first application is to analyse if and why (and to what magnitude) firms benefit from being located in agglomerations such as the Silicon Valley. Next, we analyse the role of firms in international trade. What distinguishes exporters from non-exporters and are employees of exporters better off? Returning to a regional perspective, we then discuss several recent research papers on the adjustment of local labor markets to increasing trade with China and Eastern Europe.

In a complementary lab tutorial (Übung) students learn to conduct empirical analyses by themselves. In hands-on exercises, they first practice how to obtain and prepare datasets and how to use summary statistics to find general patterns in the data. We then apply our theoretical knowledge from the lecture to devise empirical strategies and to interpret our results.

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

V (2) + Ü (2)

**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. 10 pages) including empirical analysis prepared by candidates

Language of assessment: German and/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 | Abbreviation
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Competition and Strategy 1 | 12-S&W1-F-152-m01

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

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

Contents

Outline of syllabus:
1. Static games with complete information
   - Concept of a game
   - Solution concepts and the Nash equilibrium
   - Continuous strategy sets
   - Nash equilibrium in mixed strategies
2. Dynamic games with complete information
   - Subgame perfect Nash equilibrium
   - Repeated games
3. Static games with incomplete information: Bayesian Nash equilibrium
4. Dynamic games with incomplete information
   - Perfect Bayesian Nash equilibrium
   - Signaling games

Intended learning outcomes

Students which complete this course will be able to
(i) explain different equilibrium concepts (Nash equilibrium, subgame perfect equilibrium, bayesian equilibrium, perfect bayesian equilibrium);
(ii) explain for which kind of strategic situation each of these equilibrium concepts were developed;
(iii) apply these concepts to simple realistic strategic situations;
(iv) choose the appropriate equilibrium concept which fits best to a given strategic situation.

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

V (2) + Ü (2)

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)
Language of assessment: German and/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** | **Abbreviation**
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Competition and Strategy 2 | 12-S&W2-F-152-m01

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**Contents**

**Content:**
German and European Competition Policy illustrated by real world cases of the Competition Protection Office.

**Outline of syllabus:**
1. History of economic thought on competition and mission statements
2. Overview of German and European competition law
3. Fundamentals of industrial economics
4. Classic cartels
5. Tacit collusion
6. Horizontal mergers
7. Joint ventures
8. Abuse of dominant positions: price level
9. Abuse of dominant positions: price discrimination
10. Vertical restraints
11. Vertical mergers

**Reading:**
Schulz: Wettbewerbspolitik, Tübingen.

**Intended learning outcomes**

After completing the course students are able to
(i) recognize the potential of lessening competition due to certain practices by firms;
(ii) argue by using results from industrial economics why certain practices hinder competition;
(iii) understand decisions of the Bundeskartellamt and of the European Commission and evaluate such decisions from an economic point of view.

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

V (3) + Ü (2)

**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. 10 pages) and presentation (approx. 15 minutes), weighted 2:1

Language of assessment: German and/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 | Abbreviation
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Competition and Strategy 3 | 12-S&W3-F-152-m01

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

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Contents

Outline of syllabus:
1. Repetition of micro skills
   - Definitions and basic concepts
   - Market analysis
2. Introduction to regulation theory
   - The regulatory process
   - The natural monopoly
   - Optimal pricing of natural monopoly
   - Privatisation
3. Practice of economic regulation
   - Past and recent experience in Europe and around the world
   - Analysis of selected naturally monopolistic markets

This course will be taught in English.

Intended learning outcomes

The aim of this course is to provide the students with an understanding of the economic analysis that underpins competition policy and regulatory policy towards network utilities and to provide them with some institutional background.

Upon successful completion of this module the students will
(i) acquire an understanding of the underlying reasons why some markets cannot be made competitive;
(ii) acquire a knowledge of the economic principles that lie behind the application of competition policy and utility regulation;
(iii) develop an understanding of the ways in which economic analysis can positively inform competition policy and utility regulation, and the limitations of economic analysis in this context;
(iv) learn from the practical experiences of market regulation and deregulation of the last 20-30 years.

Courses (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

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 (approx. 120 minutes) or c) term paper (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1
Language of assessment: German and/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

**Seminar: Competition and Strategy**

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### Contents

This course covers selected topics from the field of industrial economics. Students will be expected to independently work on a topic, submit a written piece of work and present their findings orally.

### Intended Learning Outcomes

Students are able to independently investigate and classify scientific publications on their relevance to a given theme. In addition, they are able to present the results orally and in writing by conventional scientific standards.

### Courses

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**Method of assessment**

Term paper (approx. 15 pages) and presentation (approx. 20 minutes), weighted 2:1

Language of assessment: German and/or English

### Allocation of places

15 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

### Additional information

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**Contents**

Description:
The lecture provides an introduction to long run or dynamic issues of macroeconomic theory and policy.

Contents:
1. Phillips curve and dynamic model
2. Growth theory and policy
3. Microeconomic foundations of macroeconomics
4. Macroeconomic policy

Lecture notes to be provided by Chair.

**Intended learning outcomes**

After completing the course "Makroökonomie 2" students are familiar with the most important concepts of growth theory, they know the microeconomic foundations of modern macroeconomic theory and understand the intertemporal budget constraint of the government. Therefore they are able to discuss the growth and distributional consequences of policy reforms by applying simple economic models.

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

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**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)
Language of assessment: German and/or English

**Allocation of places**

620 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

**Additional information**

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

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Bachelor's with 1 major Economathematics (2015)

JMU Würzburg • generated 21-Jan-2020 • exam. reg. data record Bachelor (180 ECTS) Wirtschaftsmathematik - 2015
### Module title

**Business Strategy for Information and Network Industries**

### Abbreviation

12-BSINI-152-m01

---

### Module coordinator

holder of the Chair of Industrial Economics

### Module offered by

Faculty of Business Management and Economics

### ECTS

5

### Method of grading

numerical grade

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

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### Duration

1 semester

### Module level

undergraduate

### Other prerequisites

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### Contents

**Outline of syllabus:**

1. Pricing of information goods
   - market segmentation methods
   - digital rights management and piracy
   - alternative monetisation strategies
2. Network effects
   - consumer demand in markets with network effects, rational expectations
   - monopoly pricing
   - competition in markets with network effects
   - compatibility and multi-homing: dynamic competition
3. Competition in markets with switching costs
4. Two (multi)-sided markets and platforms
   - monopoly pricing in platform markets
   - competition in platform markets: non-price strategies

The course will be taught in English.

---

### Intended learning outcomes

After successful completion of this class, the students should be familiar with issues arising in many of the increasingly important hi-tech industries. They will be able to comment on emerging selling mechanisms for books, music and video. They will be able to explain the underlying logic for observed pricing patterns for software products, social media sites and the services found in the so called sharing economy. They will not only be able to understand observed behavior in information goods markets, industries which exhibit network effects and platform markets but will be able argue for new strategies in light of the specific features a market/product may exhibit.

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

V (2) + Ü (2)

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### 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. 120 minutes) or c) term paper (approx. 10 pages) and presentation (approx. 15 minutes), weighted 2:1

Language of assessment: German and/or 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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### Module title
Introduction to Industrial Organization

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### Module coordinator
holder of the Chair of Industrial Economics

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

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### Duration
1 semester

### Contents

#### Description:
The purpose of this course is to provide an introduction to the main concepts and analytical tools of the theory of industrial organisation. Industrial organisation studies examine how firms interact and compete with each other in the market. The focus is predominantly on markets characterised by imperfect competition (so-called oligopoly competition), i.e. markets where firms can exercise market power.

#### Outline of syllabus:
1. Games and strategy
2. Oligopoly
3. Product differentiation
4. Dynamic and repeated games
5. Collusion
6. Market structure, entry and exit
7. Mergers
8. Vertical relations
9. Strategic behaviour by incumbent firms

This course will be taught in English.

### Intended learning outcomes
The purpose of this course is to provide an introduction to the main concepts and analytical tools of the theory of industrial organization. Industrial organization studies how firms interact and compete with each other in the market. The focus is predominantly on markets characterized by imperfect competition, i.e. markets where firms can exercise market power. Students who complete this course will be able to comprehend and use simple game theoretic models of oligopoly competition. By using these models, they will be able to understand and suggest managerial policies. They will be able to comment on governmental remedies in case of market failure within the context of the existing competition laws.

This course will be taught in English.

### Courses

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### Allocation of places
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### Additional information
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<td>12-Integ-F-152-m01</td>
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**Contents**

The course analyses the impacts the proceeding economic integration in Europe has on goods and factor markets. Several models are presented to illustrate the subsequent changes. During exercises, students will consolidate the knowledge they acquired in the lecture.

**Intended learning outcomes**

The students understand the impacts of the European Integration and of globalization in general. They are able to illustrate these impacts using the models presented in the lecture and to evaluate them in an economic manner.

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

| V (2) + Ü (2) |

**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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**Module title** | **Abbreviation**  
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Labor Market Economics and Social Policy | 12-A&S-F-152-m01  

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**Contents**

**Description:**
This course offers an introduction to labour economics and social policy.

**Outline of syllabus:**
1. Worlds of welfare capitalism  
2. Labour economics  
3. Social policy

**Basic reading:**

**Intended learning outcomes**

The students analyze the function of the labor market and get an impression of relevant aspects in social policy. The students are able to illustrate the underlying theoretical models, can interpret them economically and apply to the current situation.

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

- V (2) + Ü (2)

**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)  
--
### Module title

**Introduction to Economic Policy**

### Abbreviation

12-WiPo-G-152-m01

### Module coordinator

holder of the Chair of Economic Order and Social Policy

### Module offered by

Faculty of Business Management and Economics

### ECTS

5

### Method of grading

numerical grade

### Duration

1 semester

### Module level

undergraduate

### Other prerequisites

--

### Contents

**Description:**

The course consists of six chapters. The first chapter illustrates what economists have in mind when referring to the term "economic policy" and discusses its objectives, means and institutions. The following chapters deal with the objectives that are set out in the German "Gesetz zur Förderung der Stabilität und des Wachstums der Wirtschaft" ("Law for Promoting Stability and Growth of the Economy") of 1967. Each chapter uses current macroeconomic data to evaluate the degree to which the particular objective is achieved, discusses the reasons of possible problems and demonstrates actions the government may take to cure the problems.

**Outline of syllabus:**

1. Introduction
   - What is "Economic Policy"?
   - Objectives of economic policy
   - Instruments of economic policy
   - Institutions of economic policy
2. Full employment
   - Empirics: The status quo of the labour market
   - Reasons for unemployment
   - Cure for labour market problems
3. Price level stability
   - Empirics: Inflation, deflation or price stability?
   - Reasons for inflation and deflation
   - Cure for price instability
   - The contradicting relationship between full employment and stable prices
4. Business cycles and economic growth
   - Empirics: current situation of the world economy and long-term economic growth
   - Reasons for cyclical fluctuations and determinants of economic growth
   - Cure for macroeconomic instabilities and means to facilitate economic growth
5. Balance in foreign trade
   - Empirics: balances of payments of Germany, Europe and the World
   - Reasons for macroeconomic imbalances
   - Cure for instabilities in foreign trade
6. Income distribution
   - Empirics: the distribution of incomes and its historical development
   - Reasons for an increase in income inequality
   - Cure for inequality and redistribution

### Intended learning outcomes

The students gain a basic understanding of the role of the state in national and international economies. Based on a number of macroeconomic models (AS/AD, IS/LM, phillips curve, labor market equilibria, Solow model, Beveridge curve, etc.), students study the ability of the state to influence national and global economies. Students learn to assess in which situations such influence can be welfare-enhancing and under which circumstances governmental interventions may be harmful. After successful completion of the course, students are able to analyze concrete economic situations and to develop policy options of the state. In addition, students have learned to
assess the situation of a country on the basis of empirical macroeconomic data and to explain the particular problems based on different models.

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### Allocation of places

620 places. (1) No restrictions with regard to available places for Bachelor’s students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor’s students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) 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. b) 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. c) Quota 3 (25 % of places): lottery.

### 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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Microeconomics 3 | 12-Mik3-F-152-m01

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

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<td>undergraduate</td>
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Contents

**Description:**
This lecture deals with the allocative tasks of the government in a market economy. In this context, the lecture will first develop the theory of market failure and will then describe the positive effects government activities have on such market allocations.

**Outline of syllabus:**
1. Allocative foundations of welfare economics
2. External effects
3. Public goods

**Intended learning outcomes**
After completing the course "Microeconomics 3" students know the concept of efficiency and when a market economy satisfies these conditions. They are able to discuss the central role of government in a market economy and to apply these arguments to specific public policies (i.e. environmental policy). Of course, students should also be aware of the limitations of government interventions.

**Courses** (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

**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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Module title | Abbreviation
---|---
Computational Economics | 12-CE-152-m01

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

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Contents

This module introduces students to the numerical implementation of economic models. It consists of three main parts:

1. The programming language FORTRAN 90
2. Numerical solution methods
3. Economic applications:
   - The static general equilibrium model
   - Topics in finance and risk management
   - Life cycle model
   - Overlapping generations model

Intended learning outcomes

After finishing this module students are able to

1. implement simple economic models on the computer using Fortran 90
2. using MonteCarlo techniques to find optimal portfolio structures and option prices
3. quantify the risks of portfolios of banks and insurance companies
4. simulate simple reforms of the tax and transfer system
5. interpret the simulation results economically.

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

P (2)

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

project: term paper and programming a model (approx. 10 pages total)

Allocation of places

20 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

Additional information

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

--
**Module title**  
Seminar: Public Finance

**Abbreviation**  
12-Fiwi-FS-152-m01

**Module coordinator**  
holder of the Chair of Public Finance

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

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**Duration**  
1 semester

**Module level**  
undergraduate

**Contents**

In this course, students will acquire an in-depth understanding of specific problems discussed in "Makroökonomik II" ("Macroeconomics II") and "Mikroökonomik III" ("Microeconomics III"). The course will use scientific economic journal articles in German and English language.

**Intended learning outcomes**

After completing this module, students
(i) consolidate what they have learned and if necessary apply additional techniques of scientific work;
(ii) create, present and defend a research paper;
(iii) deal with the working papers of other participants;
(iv) are better prepared for the processing of the bachelor thesis.

**Courses**

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

S (2)

**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. 15 pages) and presentation (approx. 25 minutes), weighted 2:1

**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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**Contents**

This module builds on the lectures "Grundlagen der Statistik" ("Descriptive Statistics and Introduction to Probability") and "Grundlagen der QWF" ("Introduction to Statistical Inference and Regression Analysis"). It introduces students to the simulation of different distributions and the application of linear regression analysis.

In the first part of the course, different distributions are introduced, simulated with Excel and their theoretical moments are estimated. In the second part, linear regression analysis is introduced, different specifications are estimated and interpreted and potential pitfalls are pointed out.

**Intended learning outcomes**

After finishing this course students acquired several skills. They
(i) get an overview of several distributions;
(ii) know how to simulate those distributions in MS Excel and are able to estimate and interpret the related theoretical moments;
(iii) can perform smaller simulations in Excel;
(iv) get to know a variety of different Excel commands which are important for statistical working;
(v) are introduced to the linear regression analysis, can perform it in Excel and Gretl, and know how to interpret the results.

**Courses**

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

P (2)

**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. 10 pages) and presentation (approx. 20 minutes), weighted 2:1

**Allocation of places**

20 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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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**Contents**

This module will take the form of a seminar. Participants will independently work on a subdomain of applied quantitative economics, either theoretically or applying the techniques they have acquired in an empirical study.

**Intended learning outcomes**

Students acquire the ability to work independently on a given topic in applied quantitative economics, write a summary, and present it to and discuss it with other seminar participants.

**Courses**

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

S (2)

**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. 15 pages) and presentation (approx. 25 minutes), weighted 2:1

**Allocation of places**

15 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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**
Time Series Analysis

**Abbreviation**
12-Konj2-F-152-m01

**Module coordinator**
holder of the Chair of Econometrics

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

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</tbody>
</table>

**Duration**
1 semester

**Module level**
undergraduate

**Other prerequisites**
--

**Contents**
In this module, students will become familiar with basic methods for describing, analysing and forecasting economic time series. Filter and component models, ARIMA and spectral analytic methods will be discussed.

Note: This module is not offered on a regular basis.

**Intended learning outcomes**
Students acquire comprehension on the key methods of time-series analysis. They will be able to analyze and forecast economic time-series competently.

**Courses** (type, number of weekly contact hours, language — if other than German)
V (2) + Ü (2)

**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**
20 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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>
</tr>
</thead>
<tbody>
<tr>
<td>Practice of Data Analysis</td>
<td>12-PD-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>holder of the Chair of Econometrics</td>
<td>Faculty of Business Management and Economics</td>
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<tr>
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<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</tbody>
</table>

**Contents**

As part of the data analysis, statistical methods for the collection of numerical data are taught and applied to practical examples.

**Intended learning outcomes**

Students able to apply statistical methods to collect numerical data.

**Courses**

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

V (2) + Ü (2)

**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. 10 pages) and presentation (approx. 20 minutes), weighted 2:1

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

**Referred to in LPO I**

(examination regulations for teaching-degree programmes)

--
### Contents

Asymmetric information makes insurance markets different from common goods markets. Research questions and methods thus have to take these special features into account. Typical subjects covered in the course:

1. Demand for insurance
2. Supply of insurance
3. Adverse selection in insurance markets
4. Moral hazard in insurance markets
5. Empirical assessment of information problems
6. Informal insurance schemes
7. Insurance and bounded rationality

### Intended learning outcomes

After completing the course students are able to

1. explain the essential results of the economic analysis of insurance markets,
2. apply the involved methods to given simple examples on their own,
3. recognise, in which real life situations and how the results can be applied,
4. analyse the impact of certain insurance contracts on market outcomes.

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

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<tr>
<th>Type</th>
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</table>

### 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

- --

### Additional information

- --

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

- --
Module title | Abbreviation
---|---
Economics of Information | 12-IÖ-152-m01

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

<table>
<thead>
<tr>
<th>ECTS</th>
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<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</table>

Contents

Information economics deals with the consequences of asymmetric information on market outcomes. Typical subjects covered in the course:

1. Adverse selection
2. Moral hazard
3. Auctions

Intended learning outcomes

After completing the course students are able to

1. explain the essential results of information economics,
2. apply the involved methods to given simple examples on their own,
3. recognise, 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 (2) + Ü (2)

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

--

Additional information

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

--
### Module title

**Incentives and Organizations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>12-IAO-152-m01</th>
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</thead>
</table>

### Module coordinator

**holder of the Chair of Economics, Information and Contract 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

undergraduate

### Other prerequisites

--

### Contents

This seminar covers the following special topics in organisational economics:

- Hidden costs of control - theory and evidence
- Reciprocity and incentives - experimental evidence
- Task meaning, respect, and performance effects - experimental evidence
- Leadership - theory and evidence

### Intended learning outcomes

Drawing on current cutting-edge research, students are enabled to critically and independently analyze current research questions and to learn and apply research methods. The seminar style of the course teaches them to present their own seminar papers and research both in written and in oral form. Students are enabled to critically analyze and discuss the work of their peers.

### Courses

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

S (2)

### 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. 10 pages) and presentation (approx. 20 minutes), weighted 2:1

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

--
### Challenges of China's Economic Rise

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenges of China's Economic Rise</td>
<td>12-CCER-152-m01</td>
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#### Module coordinator
Dean of the Faculty of Business Management and Economics

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

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</table>

#### Duration
1 semester

#### Other prerequisites
undergraduate

### Contents
This course will be taught in English. Over the last 30 years, China has experienced an unprecedented economic growth period. This economic success is awesome and challenging at the same time. Within this seminar we take a look at a selection of challenges resulting from China’s economic rise. We look into challenges arising within China, but also into selected international ones. We approach the challenges by first looking at how they have been discussed in Western media. Starting from there we look 'behind the curtain' to analyse the topics and debates more in-depth in the context of China's economic rise and relevant economic theories. To attend this class you do not need ex ante knowledge about China. You should, however, be willing to read texts, also academic texts, in English language. Apart from reading, participants of the seminar are expected to prepare inputs for the seminar and to participate in class discussion. The seminar ends with a written examination.

### Intended learning outcomes
Students of the seminar gain knowledge about China and its global relevance. In addition they learn how the experiences of an emerging markets at times defy mainstream economic theory.

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

| V (2) |

#### 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 to 20 pages) and presentation (approx. 10 to 15 minutes), weighted 2:1
- Assessment offered: Once a year, summer semester
- Language of assessment: English

### Allocation of places
20 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

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

--
Module title | Abbreviation
---|---
Selected Topics of Business Management and Economics 1 | 12-APW1-152-m01

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

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 (2) + Ü (2)

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. 10 to 15 pages) and presentation (approx. 20 minutes), weighted 2:1 or c) oral examination (approx. 20 minutes)

Assessment offered: Only when announced in the semester in which the courses are offered and in the subsequent semester

Allocation of places

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Additional information

--

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

--
### Module Catalogue for the Subject Economathematics

**Bachelor's with 1 major, 180 ECTS credits**

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Topics of Business Management and Economics 2</td>
<td>12-APW2-152-m01</td>
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</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean of the Faculty of Business Management and Economics</td>
<td>Faculty of Business Management and Economics</td>
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<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
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</thead>
<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
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#### 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 (2) + Ü (2)

#### 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. 10 to 15 pages) and presentation (approx. 20 minutes), weighted 2:1 or c) oral examination (approx. 20 minutes)

Assessment offered: Only when announced in the semester in which the courses are offered and in the subsequent semester

#### Allocation of places

--

#### Additional information

--

#### Referred to in LPO I

(examination regulations for teaching-degree programmes)

--
Key Skills Area

(20 ECTS credits)
General Key Skills
(5 ECTS credits)

In addition to the modules listed below, students may also take modules offered by JMU as part of the pool of general transferable skills (ASQ).
General Key Skills (subject-specific)

(ECTS credits)
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise tutor or proof-reading in Mathematics</td>
<td>10-M-TuKo-152-m01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean of Studies Mathematik (Mathematics)</td>
<td>Institute of Mathematics</td>
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<tr>
<th>ECTS</th>
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<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
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</thead>
<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
<td>Please direct application to teaching coordinator Mathematics, he/she will select participants.</td>
</tr>
</tbody>
</table>

**Contents**

Tutoring or grading homework for one of the basic courses in the Bachelor’s or teaching degree programmes under supervision of the respective lecturer or exercise supervisor.

**Intended learning outcomes**

The student is able to support the acquisition of mathematical skills and knowledge. He/She helps to identify mistakes in mathematical proof exercises and to find possible solutions.

**Courses**

<table>
<thead>
<tr>
<th>(type, number of weekly contact hours, language — if other than German)</th>
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</table>

**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 of tutoring activities or correcting work by supervising lecturers or exercise supervisors (1 to 2 teaching units or approx. 5 pieces of correcting work)

**Allocation of places**

--

**Additional information**

--

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

§ 22 II Nr. 3 f)
### Module Catalogue for the Subject

#### Economathematics

**Bachelor’s with 1 major, 180 ECTS credits**

<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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</thead>
<tbody>
<tr>
<td>E-Learning and Blended Learning Mathematics 1</td>
<td>10-M-VHB1-152-m01</td>
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</table>

<table>
<thead>
<tr>
<th>Module coordinator</th>
<th>Module offered by</th>
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<tbody>
<tr>
<td>Dean of Studies Mathematik (Mathematics)</td>
<td>Institute of Mathematics</td>
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<tr>
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<th>Module level</th>
<th>Other prerequisites</th>
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<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</tbody>
</table>

#### Contents

Becoming familiar with and reflecting techniques in e-learning and blended learning in mathematics.

#### Intended learning outcomes

The student is able to employ basic methods of e-learning and blended learning in mathematics.

#### Courses

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of weekly contact hours</th>
<th>Language</th>
<th>Course type: eLearning, mostly Virtuelle Hochschule Bayern (vhb)</th>
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</thead>
<tbody>
<tr>
<td>Ü</td>
<td>2</td>
<td></td>
<td>mostly Virtuelle Hochschule Bayern (vhb)</td>
</tr>
</tbody>
</table>

**Method of assessment**

- Project (web-based, 15 to 20 hours)
- Assessment offered: Once a year, winter semester

**Allocation of places**

--

**Additional information**

--

**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>
</tr>
</thead>
<tbody>
<tr>
<td>E-Learning und Blended Learning Mathematik 2</td>
<td>10-M-VHB2-152-m01</td>
</tr>
</tbody>
</table>

**Module coordinator**

Dean of Studies Mathematik (Mathematics)

**Module offered by**

Institute of Mathematics

**ECTS** | **Method of grading** | **Only after succ. compl. of module(s)** |
----------|-----------------------|-----------------------------------------|
2         | (not) successfully completed | --                                      |

**Duration**: 1 semester  
**Module level**: undergraduate  
**Other prerequisites**: --

**Contents**

Becoming familiar with and reflecting techniques in e-learning and blended learning in mathematics.

**Intended learning outcomes**

The student is able to employ advanced methods of e-learning and blended learning in mathematics-

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

Ü (2)

Course type: eLearning, mostly Virtuelle Hochschule Bayern (vhb)

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

project (web-based, 15 to 20 hours)  
Assessment offered: Once a year, summer semester

**Allocation of places**

--

**Additional information**

--

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

--
Subject-specific Key Skills
(15 ECTS credits)
Subject-specific Key Skills, Compulsory Courses
(12 ECTS credits)
Module title: Basic Notions and Methods of Mathematical Reasoning
Abbreviation: 10-M-GBM-152-m01

Module coordinator: Dean of Studies Mathematik (Mathematics)
Module offered by: Institute of Mathematics
ECTS: 2
Method of grading: Only after succ. compl. of module(s)
Duration: 2 (not) successfully completed
Module level: undergraduate
Other prerequisites: --

Contents:
Introduction to the basic notions and proof techniques in mathematics: approach to sets, formal logic and maps.

Intended learning outcomes:
The student gets acquainted with the basic working techniques which are prerequisites for the further courses in the Bachelor's degree study programme.

Courses (type, number of weekly contact hours, language — if other than German):
V (1) + Ü (1)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus):
project (10 to 15 pages)
Language of assessment: German and/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):
§ 22 II Nr. 1 h)
§ 22 II Nr. 2 f)
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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</thead>
<tbody>
<tr>
<td>Reasoning and Writing in Mathematics</td>
<td>10-M-ASM-152-m01</td>
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</table>

**Module coordinator**
Dean of Studies Mathematik (Mathematics)

**Module offered by**
Institute of Mathematics

**ECTS** | **Method of grading** | **Only after succ. compl. of module(s)** |
--- | --- | --- |
2 | (not) successfully completed | -- |

**Duration** | **Module level** | **Other prerequisites** |
--- | --- | --- |
1 semester | undergraduate | -- |

**Contents**
Introduction to fundamental methods of thinking and proving, basic techniques in mathematics as well as mathematical writing; insight into examples of abstract concepts in mathematics; approach to axiomatic and deduction.

**Intended learning outcomes**
The student is acquainted with the basic proof methods and techniques in mathematics. He/She is able to perform easy mathematical arguments independently and present them adequately and reasonably in written and oral form.

**Courses**
(V (1) + Ü (1))

**Method of assessment**
(project (10 to 20 pages))
Language of assessment: German and/or English

**Allocation of places**
--

**Additional information**
--

**Referred to in LPO I**
(examination regulations for teaching-degree programmes)
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<table>
<thead>
<tr>
<th><strong>Module title</strong></th>
<th><strong>Abbreviation</strong></th>
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<tbody>
<tr>
<td>External Internship Business Mathematics</td>
<td>10-M-EPW-152-m01</td>
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<th><strong>Module coordinator</strong></th>
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<td>Institute of Mathematics</td>
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<th><strong>Duration</strong></th>
<th><strong>Module level</strong></th>
<th><strong>Other prerequisites</strong></th>
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<tbody>
<tr>
<td>1 semester</td>
<td>undergraduate</td>
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</table>

**Contents**

The module consists of a placement of approximately six weeks at a company or another organisation related to business mathematics and the subsequent presentation of the placement report.

**Intended learning outcomes**

The student has practical experience in the relevant fields and is able to apply the skills obtained in his/her studies.

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

Ü (2)

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

report on practical course (10 to 20 pages) and oral presentation thereof (approx. 20 minutes)

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

--
Subject-specific Key Skills, Compulsory Electives

(3 ECTS credits)
Module title
Computational Mathematics

Abbreviation
10-M-COM-152-m01

Module coordinator
Dean of Studies Mathematik (Mathematics)

Module offered by
Institute of Mathematics

ECTS
4

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

Duration
1 semester

Module level
undergraduate

Other prerequisites
--

Contents
Introduction to modern mathematical software for symbolic computation (e.g. Mathematica or Maple) and numerical computation (e.g. Matlab) to supplement the basic modules in analysis and linear algebra (10-M-ANA-G and 10-M-LNA-G). Computer-based solution of problems in linear algebra, geometry, analysis, in particular differential and integral calculus; visualisation of functions.

Intended learning outcomes
The student learns the use of advanced modern mathematical software packages, and is able to assess their fields of application to solve mathematical problems.

Courses (type, number of weekly contact hours, language — if other than German)
V (1) + Ü (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
project in the form of programming exercises (approx. 20 to 25 hours)
Assessment offered: Once a year, winter semester
Language of assessment: German and/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)
§ 22 II Nr. 3 f)
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Programming course for students of Mathematics and other subjects</td>
<td>10-M-PRG-152-m01</td>
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</table>

**Module coordinator**
Dean of Studies Mathematik (Mathematics)

**Module offered by**
Institute of Mathematics

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**Duration**
1 semester

**Module level**
undergraduate

**Other prerequisites**
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**Contents**
Basics of a modern programming language (e.g. C).

**Intended learning outcomes**
The student is able to work independently on small programming exercises and standard programming problems in mathematics.

**Courses** (type, number of weekly contact hours, language — if other than German)
P (2)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
project in the form of programming exercises (approx. 20 to 25 hours)
Assessment offered: Once a year, summer semester
Language of assessment: German and/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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<thead>
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<td>Student Teaching Assistant 1</td>
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<td>Dean of the Faculty of Business Management and Economics</td>
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### Contents

This module includes tutoring activities in a tutorial offered by a Chair at the Faculty of Business Management and Economics.

### Intended learning outcomes

Students have the ability to guide a group, to present content understandable and to develop training materials.

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

Ä (2)

### 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 elaboration (approx. 15 to 25 pages) and presentation (approx. 90 minutes), weighted 1:1

### Allocation of places

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### Additional information

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<td>Professional Apply</td>
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**Contents**

In this course, students will learn how to be professional when applying and interviewing for jobs. **Part 1: Application documents** Topic 1: Cover letter Topic 2: Curriculum vitae Topic 3: Certificates and other documents **Part 2: Job interview** Topic 1: Preparation Topic 2: Typical structure Topic 3: Appearance and behaviour

**Intended learning outcomes**

Students are able to write a professional motivational letter, as well as an ideal CV, related on their professional field. They are also familiar with the typical process of a job interview and have skills to appear properly.

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

| S (2) |

**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 elaboration (approx. 5 to 10 pages) and presentation (approx. 15 minutes), 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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### Contents

In this course, students will acquire professional presentation skills. Topic 1: structuring a presentation Topic 2: visual representation (PPP) Topic 3: professional appearance Topic 4: moderating discussions

### Intended learning outcomes

Students are able to structure presentations useful and to illustrate them visually. Furthermore, they have the necessary rules for professional demeanor and appearance. They are able to moderate (critical) discussions professionally.

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

S (2)

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

presentation (approx. 15 to 30 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 title

**Scientific Work**

### Abbreviation

12-WA-152-m01

### Module coordinator

Dean of the Faculty of Business Management and Economics

### Module offered by

Faculty of Business Management and Economics

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### Duration

1 semester

### Module level

undergraduate

### Other prerequisites

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### Contents

The following topics will be covered:

- Introduction to the subject: explanation of terms, purpose and benefits of academic writing and research
- Stages of academic writing and research:
  - Stage 1: orientation and planning
  - Stage 2: collecting and evaluating material
  - Stage 3: writing a draft
  - Stage 4: revision and submission
- Time management
- Presentation

### Intended learning outcomes

Students acquire knowledge of scientific methods. Many chairs and departments of the faculty recommend to participate or expect successful participation ahead of the application process for the bachelor thesis.

### Courses

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

S (2)

### Method of assessment

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

presentation (approx. 20 to 30 minutes) and contributions to the discussion (approx. 10 to 15 minutes)
Language of assessment: German and/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)

--
Module title | Abbreviation
---|---
Sales Controlling & Management | 12-VeCo-152-m01

Module coordinator
holder of the Chair of Chair of Business Management, Controlling and Accounting

Module offered by
Faculty of Business Management and Economics

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Contents
The focus of the lecture is the support of sales management by controlling. The course covers the positioning of sales and sales management with a special emphasis on B2B sales of IT companies and the position of sales controlling as a subset of overall controlling in different business organisations. The course discusses basic requirements of an ideal support of sales by controlling as well as possible elements with which this support function can be realised, such as management information systems, target management and customer relationship management.

Intended learning outcomes
Knowledge about the practice of working in sales management and the associated sales is acquired. By displaying theoretical tools to support sales management by the controlling and the balance with the reality in companies, participants further acquire skills to evaluate the possible use of sales management tools in practice.

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

V (2)

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
40 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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

Economic and Business Ethics

### Abbreviation

12-WUE-152-m01

### Module coordinator

holder of the Chair of Business Management and Accounting

### Module offered by

Faculty of Business Management and Economics

### ECTS

5

### Method of grading

numerical grade

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

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### Duration

1 semester

### Module level

undergraduate

### Other prerequisites

--

### Contents

The aim of the seminar is to provide students with an overview of business ethics. First, basic philosophical terms are clarified and important philosophical theories such as utilitarianism or discourse ethics are introduced. The course discusses how business ethics can be justified and what purpose it can serve. The seminar focuses on the question of what ethical challenges companies face and to what extent companies are moral agents and should include ethical considerations in their actions. Afterwards, the seminar discusses the relationship between the free market and morality and the role of the state for the frame order.

### Intended learning outcomes

After finishing this course, the student should be able by using common scientific methods to write a seminar paper dealing with a selected ethical problem in business. They should be able to present a complex problem in an clear and understandable way and they should discuss the own position with convincing arguments with other participants in the class.

### Courses

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

S (2)

### 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) presentation (approx. 20 minutes) and written elaboration (approx. 15 to 20 pages), weighted 1:2

### 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
DATEV - Introduction to DATEV-Software for Tax Accounting

Abbreviation
12-DAT-152-m01

Module coordinator
holder of the Chair of Business Taxation

Module offered by
Faculty of Business Management and Economics

ECTS
3

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

Duration
1 semester

Module level
undergraduate

Other prerequisites
--

Contents
The module will introduce students to processes regarding accounting, taxation, financial statements and the audit of these using the DATEV software. DATEV is one of the standard systems used by tax consultants and accountants. Students will not only become familiar with the basics, they will also acquire insights into the processes and functionalities. In the theoretical part, students will acquire the necessary skills that will serve as a basis for the practical part. This practical part will present students with an opportunity to apply their newly acquired knowledge by working with a DATEV system on case studies on the model company Müller & Thurgau GmbH.

Intended learning outcomes
Students acquire practical knowledge in using the DATEV software package for daily book-keeping and for producing annual reports.

Courses
V (2)

Method of assessment
written examination (approx. 60 minutes)

Allocation of places
10 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

Additional information
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Referred to in LPO I
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<td>SAP ERP Human Capital Management</td>
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**Module coordinator**

holder of the Chair of Human Resource Management and Organisation

**Module offered by**

Faculty of Business Management and Economics

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**Duration**

1 semester

**Module level**

undergraduate

**Other prerequisites**

--

**Contents**

This course will familiarise students not only with basic concepts but also with the processes and functions of SAP Enterprise Resource Planning Human Capital Management. In the theoretical part of the course, students will first acquire the knowledge and skills that will serve as a basis for the practical part. This practical part will then present students with an opportunity to apply what they have learned by working with an ERP system on case studies on the model company LIVE AG.

**Intended learning outcomes**

Goal of this course is to give students insights in the practical application and the possibilities and limits of SAP Enterprise Resource Planning Human Capital Management covering several human capital and organisation topics.

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

V (2)

**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**

20 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

**Additional information**

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

--
Module title: Management Case Studies

Abbreviation: 12-P&Ocase-F-152-m01

Module coordinator: holder of the Chair of Entrepreneurship and Management

Module offered by: Faculty of Business Management and Economics

ECTS: 5

Method of grading: numerical grade

Duration: 1 semester

Module level: undergraduate

Other prerequisites: --

Contents:
The module will focus on equipping students with the skills necessary for solving a variety of case studies. These case studies will focus on the practical application of theoretical knowledge for the solution of practical problems and will provide students with an opportunity to apply the management tools they were taught. A particular emphasis will be on equipping students with skills in the areas of strategic thinking and the operational implementation of strategies. Participants will be issued a certificate of attendance.

Intended learning outcomes:
German intended learning outcomes available but not translated yet.

Courses:
S (2)

Method of assessment:
written elaboration (approx. 5 to 10 pages) and presentation (approx. 20 to 30 minutes), weighted 1:1
Language of assessment: German and/or English

Allocation of places:
16 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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**
Project Management

**Abbreviation**
12-PM-F-152-m01

**Module coordinator**
Business Integration Prof. Thome

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

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**Contents**

Description:
This module will acquaint students with basic concepts and methods of project management and project planning with a special focus on IT projects.

The following contents will be covered:
- Organisational forms in projects
- Project management tasks
- Project team and project responsibilities
- Project planning (structure, schedule, capacity, time and cost planning)
- Project phases (project initiation, project planning, project execution, project close, project control)
- Project management tools
- Critical path methods (CPM, MPM, PERT)
- Risk analysis
- Project management software

**Intended learning outcomes**
The students recognize the economic potential of a consistent project planning and the influence on compliance of project objectives such as deadlines and costs. The students are familiar with methods and tools of project planning and may use them in work.

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

V (2) + Ü (2)

**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) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes), weighted 2:1 or d) project (approx. 20 hours)

Language of assessment: German and/or English creditable for bonus

**Allocation of places**
35 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places reallocated by lot 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**  
Managerial Problem Solving

**Abbreviation**  
12-MPS-152-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**  
undergraduate

**Other prerequisites**  
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**Contents**

The course offers an introduction to computer-based techniques for modelling and solving quantitative business problems. We will use Excel and R software packages.

**Intended learning outcomes**

- Prepare, visualize and analyze data sets using Excel and R
- Select and forecast different time series problems
- Understand simple, multiple and dummy regressions
- Implement and solve linear optimization problems using the Excel Solver

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

- V (2) + Ü (2)

**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) portfolio: completion of exercises (approx. 12 exercise sheets, approx. 3 pages each)

Language of assessment: German and/or English

**Allocation of places**

40 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

**Additional information**

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<td>Global Systems and Intercultural Competences - Economic Aspects of Globalization. An Introduction</td>
<td>12-EinGS-152-m01</td>
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**Contents**

This module introduces students to the topic of "Global Systems" from an economic point of view. In addition to imparting factual knowledge about global connections, the course also focuses on issues of intercultural management.

**Intended learning outcomes**

Students have acquired a basic understanding of the underlying processes of globalization and are able to recognize the resulting requirements for individuals and companies. In particular, the students are sensitized of the importance and the influence of cultural differences in the business world.

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

S (2)

**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) and presentation (approx. 15 minutes), weighted 2:1 or c) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or d) term paper (approx. 20 pages)

**Allocation of places**

10 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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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# Global Systems and Intercultural Competences - Economic Aspects of Globalization - Advanced Level

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## Contents

Building on introductory courses, this module will provide students with more in-depth insights into the topic of #Global Systems# from an economic point of view. Students will prepare a term paper exploring a topic in more depth and will present the contents during the seminar.

## Intended learning outcomes

The students have gained a deeper understanding of specific issues of globalization and will be able to communicate this verbally and in writing.

## Courses

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

S (2)

## 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) term paper (approx. 15 pages) and presentation (approx. 15 minutes), weighted 2:1 or b) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or c) term paper (approx. 20 pages)

## Allocation of places

10 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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

**Economic Power China**

| Abbreviation | 12-IBL-SG-152-m01 |

### Module coordinator

holder of the Chair of Business Management and Industrial Management

### Module offered by

Faculty of Business Management and Economics

### ECTS

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### Contents

This module will discuss reasons as well as implications of the globalisation of our society, both from the point of view of private persons and from the point of view of companies. Current examples from the media will be used to illustrate the impact of globalisation on everyday life.

### Intended learning outcomes

The students will know how globalization influences both, the private life of people as well as the conditions under which companies can perform their businesses. Accordingly, they will be able to discuss the issue of globalization based on advanced knowledge.

### Courses

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

S (2)

### 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) and presentation (approx. 15 minutes), weighted 2:1 or c) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or d) term paper (approx. 20 pages)

### Allocation of places

30 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

--
### Module Catalogue for the Subject
Economathematics
Bachelor's with 1 major, 180 ECTS credits

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<thead>
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<td>12-EinCCM-152-m01</td>
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### Contents

**Description:**
This course provides students with the necessary background knowledge and an overall understanding of culture and prepares them for the course "Wenn Kulturen aufeinander treffen - Führen zwischen den Kulturen" ("When Cultures Collide -- Leading Across Cultures"). The series of courses is taught on the basis of the context of daily international business and is filled with many international business scenarios, simulations and case studies.

**Outline of syllabus:**
1. Culture and its origins - the roots and routes of culture
2. How culture is influenced by climate and religion
3. Cultural black holes
4. Culture and globalisation
5. Life after September 11th
6. The categorisation of cultures

### Intended learning outcomes
Students have gained a deeper understanding and background of what culture is and where culture comes from. They have learned about their culture in order to gain insight into their own individual cultural make-up.

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

S (2)

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Language of assessment: German and/or English

### Allocation of places
35 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places reallocated by lot as they become available.

### Additional information
--

**Referred to in LPO I** (examination regulations for teaching-degree programmes)
--
Module title
Cross-Cultural Management 2 - Leading Across Cultures

Abbreviation
12-VerCCM-152-m01

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

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
undergraduate

Other prerequisites
-

Contents

Description:
This is the intermediate module of the Cross-Cultural Management series. On the surface, communication appears to be a relatively simple operation requiring two basic components -- a speaker and a listener. This module focuses mainly on the world of business and tackles head on the issues and problems of international exchanges. The series is taught on the basis of the context of daily international business and is filled with many international business scenarios, simulations and case studies. Reading includes the texts "Wenn Kulturen aufeinander treffen - Führung zwischen Kulturen" ("When Cultures Collide -- Leading Across Cultures") and "Cross-Cultural Communication - Ein visueller Ansatz" ("Cross-Cultural Communication -- A visual Approach"). "For a German and a Finn, the truth is the truth. In Japan and Britain, it is all right if it doesn't rock the boat. In China, there is no absolute truth. In Italy, it is negotiable." The course will look at the link between values and communication and at how cultural messages unconsciously filter through into the language we use to influence others and how our words may have a different impact than intended which often times can lead to misunderstanding and a loss of trust and business.

Outline of syllabus:
1. Brief review of the origins of culture
2. Status, leadership & organisation
3. Team building & horizons
4. Motivating people & trust
5. Business meetings
6. Introduction to 80 cultures in 8 regions of the world

Intended learning outcomes
Students have continued to deepen their understanding of culture including their own personal cultural background. Students have gained a heightened awareness of the importance of cross-cultural competence and the dangers of relying on culturally bound intuitions.

Courses (type, number of weekly contact hours, language — if other than German)
S (2)

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) and presentation (approx. 15 minutes), weighted 2:1 or c) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or d) term paper (approx. 20 pages)

Language of assessment: German and/or English

Allocation of places
20 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places reallocated by lot as they become available.

Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
### Module title
Intercultural Business Competence

### Abbreviation
12-IKG-152-m01

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

### 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
undergraduate

### Other prerequisites
--

### Contents
This lecture discusses challenges of globalisation from an economic point of view. Based on a basic overview of leadership in a global world, the topic of multiculturality in a business context is discussed in detail. Simulations, case studies and exercises are used to illustrate relevant issues.

### Intended learning outcomes
Students have gained a comprehensive understanding of relevant topics regarding globalization in the business context. In addition, students have learned how to interact with colleagues and business partners in a cross-cultural environment.

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

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### Allocation of places
30 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

### Additional information
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### Contents

This module will provide students with more in-depth insights into selected topics in intercultural management from an economic point of view. Students will prepare a term paper, exploring a topic in more detail.

### Intended learning outcomes

The students have gained a deeper understanding of specific issues of intercultural management and will be able to communicate this verbally and in writing.

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

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### 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) term paper (approx. 15 pages) and presentation (approx. 15 minutes), weighted 2:1 or b) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or c) term paper (approx. 20 pages)

### Allocation of places

10 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot as they become available.

### Additional information

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### Contents

This module offers an introduction to intercultural management. It will sensitize students to the international world of business, in which an awareness of cultural differences is essential, and will thus prepare them for entering an international labour market. Having discussed globalisation as a context of justification and having put intercultural management in the context of international management, the course will introduce students to different concepts of culture and will investigate how international operations affect corporate culture. In addition, the course will discuss special forms of international cooperation, such as sending employees abroad. The course will not only equip students with the theoretical basics of intercultural management but will also provide them with an opportunity to apply the theories in practice, working on case studies and team exercises.

Outline of syllabus:

1. Multiculturalism: a phenomenon in a global(ised) economy
2. The phenomenon of culture
3. Cultural dimensions
4. Corporate culture
5. Typical application situations

### Intended learning outcomes

German intended learning outcomes available but not translated yet.

Die Studierenden können die wichtigsten Begriffe, Theorien und Modelle des Interkulturellen Managements einordnen, haben ein vertieftes Verständnis für eigene und fremde kulturelle Prägungen entwickelt und verstehen wie Kultur die Perzeption individuell und kollektiv beeinflusst und damit auch die Wahrnehmungsprozesse in der Arbeitswelt prägt. Insbesondere wurden die eigenen interkulturellen Handlungskompetenzen gestärkt.

### Courses

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

| S (2) |

### 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) and presentation (approx. 15 minutes), weighted 2:1 or c) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or d) term paper (approx. 20 pages)

### Allocation of places

30 places. (1) Should the number of applications exceed the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (2) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (3) A waiting list will be maintained and places re-allocated by lot 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
--- | ---
Business Location India | 12-WSI-152-m01

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

Contents
This module introduces students to the economic development as well as economic policy in India. In addition, the course will discuss the general conditions for business investments and activities in India. To illustrate the topic and provide students with more in-depth insights, the course will also address current economic issues and their backgrounds.

Intended learning outcomes
The students will be able to discuss and evaluate the economic structures of India. They will have the abilities to analyze the development of the South-Asian economy by applying adequate methods and theories. Furthermore, students will gain a good understanding of the Indian culture and its influence on business relationships.

Courses (type, number of weekly contact hours, language — if other than German)
S (2)

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) and presentation (approx. 15 minutes), weighted 2:1 or c) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or d) term paper (approx. 20 pages)

Allocation of places
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Additional information
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**Contents**

1. Introduction  
2. Development of supply networks  
3. Structural and methodical deficits of classic order processing  
4. Collaborative networks  
5. Supply network models  
6. Five steps towards a collaborative network  
7. Demands on SNM solutions  
8. Architecture of SNM solutions  
9. Integration of SNM, ERP and CRM

**Intended learning outcomes**

This course provides the bases in the area Supply of Networks (SN) for students of the economic informatics and the economics.

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

V (2) + Ü (2)

**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) and presentation (approx. 15 minutes), weighted 2:1 or c) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or d) term paper (approx. 20 pages)

Language of assessment: German and/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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**Contents**

1. Execution of SCM projects  
2. Critical factors for success in SCM projects  
3. Effects of SCM on business processes  
4. Supply chain performance management/measurement  
5. Supply chain risk management  
6. New demands on firms and networks

**Intended learning outcomes**

This course advances students of the economic informatics and economics which already orders of grounding in the area Supply of Networks (cf. moreover the basis course "bases of the Supply Network"), to the management of Supply Networks and the duties linked with it and effects.

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

V (2) + Ü (2)

**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) and presentation (approx. 15 minutes), weighted 2:1 or c) presentation (approx. 45 minutes) and term paper (approx. 10 pages), weighted 1:1 or d) term paper (approx. 20 pages)

Language of assessment: German and/or English

**Allocation of places**

--

**Additional information**

--

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

--
Module title | Abbreviation
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General Management 1 | 12-GM1-152-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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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 (2) + Ü (2)

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. 10 to 15 pages) and presentation (approx. 20 minutes), weighted 2:1 or c) oral examination (approx. 20 minutes)

Assessment offered: Only when announced in the semester in which the courses are 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)

--
### Module title
| General Management 2 |

### Abbreviation
| 12-GM2-152-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
| (not) successfully completed |

### Only after succ. compl. of module(s)
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### Duration
| 1 semester |

### Module level
| undergraduate |

### 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 (2) + Ü (2) |

### 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. 10 to 15 pages) and presentation (approx. 20 minutes) or c) oral examination (approx. 20 minutes)

Assessment offered: Only when announced in the semester in which the courses are 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 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 (2) + Ü (2) |

### 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. 10 to 15 pages) and presentation (approx. 20 minutes), weighted 2:1 or c) oral examination (approx. 20 minutes)

Assessment offered: Only when announced in the semester in which the courses are 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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Module title | Abbreviation
---|---
General Management 4 | 12-GM4-152-m01

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

| ECTS | Method of grading | Only after succ. compl. of module(s) |
---|---|---|
3 | (not) successfully completed | -- |

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

**Contents**

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**Intended learning outcomes**

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

V (2) + Ü (2)

**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. 10 to 15 pages) and presentation (approx. 20 minutes) or c) oral examination (approx. 20 minutes)

Assessment offered: Only when announced in the semester in which the courses are 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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Thesis Area
(10 ECTS credits)

Students may write their theses in Mathematik (Mathematics), Wirtschaftsmathematik (Mathematics for Economics) or Informatik (Computer Science) or may write an interdisciplinary thesis within these three subjects.
<table>
<thead>
<tr>
<th>Module title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis Business Mathematics</td>
<td>10-M-BAW-152-m01</td>
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**Module coordinator**

<table>
<thead>
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<th>Module offered by</th>
</tr>
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<tbody>
<tr>
<td>Dean of Studies Mathematik (Mathematics)</td>
<td>Institute of Mathematics</td>
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**ECTS**

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<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tbody>
<tr>
<td>10</td>
<td>numerical grade</td>
<td>--</td>
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**Duration**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Module level</th>
<th>Other prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>undergraduate</td>
<td>The supervisor may make the successful completion of certain modules that are relevant for the respective topic a prerequisite for the assignment of the topic.</td>
</tr>
</tbody>
</table>

**Contents**

Independently researching and writing on a (potentially interdisciplinary) topic in mathematics, economics or computer science selected in consultation with the supervisor.

**Intended learning outcomes**

The student is able to work independently on a given, possibly interdisciplinary topic in mathematics, economics or computer science and apply the skills and methods obtained during the study programme. He/She can write down the result of his/her work in a suitable form.

**Courses**

No courses assigned to module

**Method of assessment**

Bachelor's thesis (approx. 275 to 330 hours)

**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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