

# **Course Catalogue**

# Bachelor's Program International Industrial Management (TBB)

University of Applied Sciences, Esslingen

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# Table of contents

Module 0901 Economics 1	3
Module 0927 Fundamental Technology	5
Module 0928 Mathematics	7
Module 0929 Soft Skills	9
Module 0930 Introduction to Technology and Business Studies	11
Module 0906 Economics 2	13
Module 0931 Fundamental Business Informatics	15
Module 0932 Production	17
Module 0933 Statistics	19
Module 0934 Project Management	21
Module 0935 Financial Management	23
Module 0936 Computer Aided Design, Computer Aided Manufacturing	25
Module 0937 Intercultural Communication	27
Module 0938 Application Systems	29
Module 0914 Quality Management	31
Module 0939 Marketing	33
Module 0940 Corporate Management	35
Module 0941 Product Management	37
Module 0942 Technical Sales	39
Module 0943 Procurement Management	41
Module 0944 Controlling	43
Module 0945 Law	45
Module 0920 Business Simulation	47
Module 0946 Practical Study Semester	49
Module 0947 Change Management and Innovation Management	51
Module 0948 International Business	53
Module 0949 Process Performance Management	55
Module 0926 Scientific Project	58
Module 0925 Bachelor Thesis: Bachelor of Administration	60

# Module 0901 Economics 1

1	<b>Module</b> <b>no.</b> 0901	<b>Major</b> TBB	Semester 1	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	oe e	Workload (hr.) 240	ECTS Credits 8
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Introduction to Business Administration		Lecture		German	4	60	60	4
	b)	Economics	Lecture		German	4	60	60	4
3	Qualific	ation Target Matrix	Professional Competence		Method Comp	ologica etence	I	Self and Social Competence	
	Remem	ber and Understand	D	3			Σ		
	Apply		D	3	$\boxtimes$			Σ	
	Analyze and Evaluate		D	3		₹			
	Deve	elop and Expand	С		Γ				]

# 4 Learning Outcomes and Competences

After completing the module, students will:

- Understand fundamental business methodologies and accounting principles
- Understand Micro and Macroeconomic fundamentals. They will understand social and Macroeconomic implications involving State and entrepreneurial actions

#### Remember and Understand (Knowledge)

 As a foundation for subsequent lectures, first semester students will receive comprehensive, practical, and theoretical knowledge in Business Administration and Economics (see Content below)

#### Apply (Skills)

 As a foundation for subsequent lectures, first semester students will receive comprehensive, practical, and theoretical knowledge in Business Administration and Economics (see Content below)

#### Analyze and Evaluate (Competences)

• Students will classify and analyze Business and Economics-related publication. While recognizing multiple interdependecies, they will understand conflicting goals that must be overcome in a pluralistic society

#### 5 Content

Introduction to Business Administration:

- Fundamentals
- Constitutive decisions (decision theory, location decisions, legal decisions, decisions on intercompany connections)
- Corporate governance (corporate governance, organization, personnel management, controlling)
- Accounting and finance (accounting, internal accounting, financing, investing)
- Performance profiling (innovation management, procurement, logistics, production management, marketing)

#### **Economics:**

- Overview of economic history
- Supply and Demand
- Elasticity
- Trade advantages
- · Effect and efficiency of economic policy measures
- Welfare economics and market efficiency
- Externalities
- Efficiency of environmental policies

# Module 0901 Economics 1

- Public / Private / Club goods, common-pool resources
- Control system
- Corporate behavior and industrial economics
- Labor Economics
- Income distribution, justice
- In-depth review of a current case study

#### 6 Participation Requirement

According to study and examination regulations:

None

Recommended:

None

#### 7 Forms of Assessment

Two 90 minute exams, one for each course. Module performance will be the weighted average scores on the exams.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Dr. Norbert Jäger

#### 10 Literature

Introduction to Business Administration

- Vahs, D./Schäfer-Kunz, J.: Einführung in die Betriebswirtschaftslehre, Schäffer-Poeschel Verlag
- Wöhe, G./Döring, U./Brösel, G.: Einführung in die Allgemeine Betriebswirtschaftslehre, Verlag Vahlen

#### **Economics**

- Gregory Mankiw: Grundzüge der Volkswirtschaftslehre, Schäffer-Poeschel Verlag
- Marco Herrmann: Arbeitsbuch zu Grundzüge der Volkswirtschaftslehre, Schäffer-Poeschel Verlag

# 11 Contribution to the Program

The courses "Introduction to Business Administration" and "Economics" are fundamental to understanding Economics during this program.

# 12 Last Update

# Module 0927 Fundamental Technology

1	<b>Module</b> <b>no.</b> 0927	Major TBB	Semester 1	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 240	ECTS Credits 8
2		Courses	Course	e Style	Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) N	Naterial Science	Lect	Lecture		2	30	30	2
	b) Stati	cs and Strength of Materials	Lect	Lecture		2	30	30	2
	c) Pro	duction Processes	Lect	Lecture		2	30	30	2
	d) Te	chnical Drawing	La	ab	German	1	15	45	2
3	Qualific	ation Target Matrix	Professional Competence		Methodological Competence		I	Self and Compe	
	Remem	ber and Understand	Σ	3		X.			l
		Apply	Σ	$\boxtimes$		$\leq$			l
	Anal	yze and Evaluate	Σ	$\boxtimes$					
	Deve	elop and Expand							

#### 4 Learning Outcomes and Competences

After completing the module, students will:

# Remember and Understand (Knowledge) Apply (Skills)

**Analyze and Evaluate (Competences)** 

#### Materials Science:

- Students will understand important materials and their construction, properties, meaning and applicability
- Students will understand the relationship between internal structure and functional properties of materials
- Students can assess opportunities to further process materials
- Students will understand the possibilities and limitations of different material groups
- Students will have in-depth knowledge of ferrous metals.

#### Statics and Strength of Materials:

- Students will analyze systems of forces (decomposition and assembly of forces)
- Students will recognize and calculate the resulting effect of multiple forces and moments
- Students will mathematically and graphically determine unknown forces in planar systems
- Students will computationally determine unknown forces and general systems of forces
- Students will calculate internal stress in components for the base load cases
- Students will understand and assess a component's failure mechanism

#### **Production Processes:**

- Students will learn the six main groups of manufacturing processes (Casting, Forming, Separating, Joining, Imaging and Coating, and Machining) and their respective characteristics
- Students will understand the intricacies of the first three manufacturing processes (Casting, Forming, and Separating).
- The students will learn both traditional and innovative processes
- Students will evaluate advantages and disadvantages of alternative processes
- Students will identify boundary conditions for the technical and economical use of a process
- Students will understand the interaction of several processes in a process chain
- The students will recognize independencies and dependencies within the process chain for a typical component
- Students will understand the relationship of Production Process to Material Science and Statics

# Module 0927 Fundamental Technology

#### **Technical Drawing:**

- Students will recognize the importance of technical drawings as a communication tool for engineers
- Students will understand the rules of technical drawing
- Students will read technical drawings
- Students will create simple technical drawings and sketches with paper and pencil

#### 5 Content

- Fundamentals of Materials Science and their application in Vehicle and Mechanical engineering.
- Fundamentals of Statics and Strength Theory and their application in Vehicle and Mechanical engineering.
- Manufacturing processes and their application in Vehicle and Mechanical engineering
- Rules of technical drawing and its application in Vehicle and Mechanical engineering

#### 6 Participation Requirement

According to study and examination regulations: None

Recommended:

Knowledge of Physics and Mathematics

#### 7 Forms of Assessment

One 120 minute exam consisting of 3 parts: Material Science, Statics and Strength Theory, and Production Processes. 40 minutes is alloted for each part of the exam. Module performance will be the weighted average score on each part of the exam. The Technical Drawing course will offer a practical exam (construction drawing) that will not be graded.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Dr.-Ing. Gerhard Kehl

#### 10 Literature

- Roos/Maile: Werkstoffkunde für Ingenieure, Springer-Verlag
- Mayr: Technische Mechanik, Hanser-Verlag
- Westkämper/Warnecke: Einführung in die Fertigungstechnik, Teubner-Verlag
- Hoischen/Hesser: Technisches Zeichnen
- N.N.: Tabellenbuch Metall, Europa-Verlag

#### 11 Contribution to the Program

In this module, the students acquire fundamental technical skills and engineering knowledge that broaden their understanding of a technical business economist who works in the industrial environment, at the interface between technical and business areas.

#### 12 Last Update

#### Module 0928 Mathematics

1	Module no. 0928	Major TBB	Semester 1	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	<b>Workload (hr.)</b> 180	ECTS Credits 6
2	Courses		Course Style		Language	Frequency (SWS) (hr.)		Self Study (hr.)	ECTS Credits
	a) Mathematics		Lecture with exercises		German	5	75	105	6
3	Qualification Target Matrix		Professional Competence			Methodological Competence			id Social betence
	Remem	ber and Understand	⊠		$\boxtimes$				
	Apply		⊠		$\boxtimes$				
	Analyze and Evaluate		⊠		Σ	₹			
	Develop and Expand				Σ	₹			

# 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- Understand the importance of fundamental mathetmatical concepts, formulas, rules, procedures, and ways of thinking outlined below in the "Content" section
- Familiar with typical application examples

#### Apply (Skills)

• Apply mathematical terms, procedures, formulas, and calculation rules to concrete questions

# Analyze and Evaluate (Competences)

- Mathematically asssess, calculate, and extropolate solutions for practical application in various fields (economic, technology, etc.)
- Evaluate which mathematical solution is suitable to solve a complex problem

#### **Develop and Expand (Competences)**

- Develop problem-solving strategies
- · Develop a systematic approach to critical thinking

# 5 Content

- Trigonometry and vector calculation: trigonometric functions, triangulation, vectors, coordinates, addition, resulting force
- Variable functions: Properties of functions, graphs, and calculation rules; Inverse. Power, Root, Exponential, and Logarithm functions; Zeroing determination; economic functions such as price, sales, revenue, cost, profit functions, and production functions
- Differential calculation of a variable: Derivatives, derivation rules; continuity and differentiability; tangents; Relationships between function and derivatives; Extreme and turning points; economic applications of differential calculus: determination of optima, economic interpretation of derivative (limit functions, elasticity)
- Linear system of equations, Gaussian algorithm; internal activity allocation
- Linear optimization: mathematical description, graphical solution method; Basic idea of the simplex method
- Matrix calculation: matrices, arithmetic operations (addition / subtraction, s-multiplication, multiplication), transpose, inverse; multi-level production process
- Functions of multiple variables: mathematical description, intersection curves, partial derivatives, extremes with and without constraints
- Financial Mathematics: compound interest formula, cash and final values of cash flows, pension calculation, annuities

# 6 Participation Requirement

According to study and examination regulations: None

# Module 0928 Mathematics

#### Recommended:

- Mathematics knowledge: numerical calculations with fractions, break terms, powers, roots, logarithms, algebraic transformations, sets and functions, properties of elementary functions, equations and inequalities, basic geometric concepts and formulas
- Familiarity with a scientific calculator

#### 7 Forms of Assessment

One 90 minute exam. Faculty will provide calculators and will allow the use of items listed below in the "Literature" section.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Plappert

#### 10 Literature

- Script
- · Collection of exercises and sample exams (online)
- Mohr: Mathematische Formeln für das Studium an Fachhochschulen. Hanser.
- Mohr, Plappert: Einführung in die Mathematik für Wirtschaftsinformatiker, Grenzwert-Verlag

#### 11 Contribution to the Program

Students will acquire fundamental mathematical knowledge and skills that will be needed for future economic and technical courses.

#### 12 Last Update

# Module 0929 Soft Skills

1	<b>Module</b> <b>no.</b> 0929	Major TBB	Semester 1	Offering ⊠WS ⊠ SS	<b>Duration</b> 1 Semester	Module Type Obligatory	Workload (hr.) 180	ECTS Credits 6
2		Courses	Course	Course Style		Frequency (SWS) (hr.)	Self Study (hr.)	ECTS Credits
	a) W	orking Methods	Lecture wit	Lecture with exercises		30	30	2
	b) Int	erpersonal Skills	Lecture wit	Lecture with exercises		15	45	2
	c) En	glish Proficiency	Lecture wit	Lecture with exercises		30	30	2
3	Qualific	ation Target Matrix	Professional Competence		Methodological Competence		Self and Soc	ial Competence
	Remem	ber and Understand	Σ	<b></b>	$\boxtimes$			$\boxtimes$
		Apply	$\boxtimes$		$\boxtimes$			$\boxtimes$
	Analyze and Evaluate		Σ	$\boxtimes$			$\boxtimes$	
	Deve	elop and Expand	Σ			$\boxtimes$		

#### 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

• Understand essential study methods. They will be able to present an assignment and have an advanced English vocabulary to manage different situations

#### Apply (Skills)

• Social skills will be promoted through practical examples and teamwork. This will include participation in small exercises where conversational situations will arise

#### Analyze and Evaluate (Competences)

• Analyze content relevant to their study. They will practice and evaluate their skills in mock professional situations (e.g. negotiation and conflict situations, objectives)

#### **Develop and Expand (Competences)**

• Develop problem solving strategies for both their studies and mock conversational situations (this will be practiced in English as well)

#### **Working Methods**

The students will understand and apply the most effective study and working methods to their studies. They will develop a guideline for independent work through proven methods.

#### **Interpersonal Skills**

At the end of the course students have acquired a good insight into a number of essential managerial skills and are able to recognize which skills are needed in a given situation.

#### **English Proficiency**

The English Proficiency course is designed to ensure that all students have attained at least proficiency level B2 according to the Common European Framework of Reference for Languages.

#### 5 Content

The module has three main aims. First and foremost, students will develop a fundamental framework for the successful completion of their program. Secondly, it will ensure their English proficiency is at the required level to understand their lectures. Finally, it will give them a thorough grounding in interpersonal skills.

Interpersonal skills are perhaps the most important attribute for managerial effectiveness. Studies have shown that managers engage in over 50 different types of behavior involving organizing and coordinating, information handling, motivation and conflict management, problem solving and control of resources. Many

# Module 0929 Soft Skills

of these behaviors involve the type of interpersonal skills which can be learnt.

Specifically we the following skill areas are dealt with:

Negotiating skills, conflict management and resolution, interviewing strategies, persuasion skills, setting goals and providing feedback, building and managing teams.

The course is project-based and students will be organized into teams whose task is to deal with the various above-mentioned skill areas. The objective of each task force is to stage a workshop to teach the other students the skills they as a team have been focusing on. In addition to their own specific topic students will gain valuable experience in the group dynamics and in the management of teams, meetings and workshops. The teams will be coached and monitored.

#### 6 Participation Requirement

According to study and examination regulations:

None

#### Recommended::

Proficiency in English, corresponding to at least level B2 according to the Common European Framework of Reference for Languages. This typically involves at least 6 years of studying English.

A language user at level B2 can understand the main ideas of complex text on both concrete and abstract topics. They can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. They can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. For more details see:

Common European Framework of Reference for Languages

At the beginning of the semester students will be given a placement test to ascertain their proficiency in English. Those failing to meet the minimum requirement level B2 will be required to attend the English Proficiency course (see below).

#### 7 Forms of Assessment

Module performance consists of an examination in Interpersonal Skills (1/3 weight) and English Proficiency (2/3 weight). The course in Working Methods will not be graded.

Students will have their placement test score reflected as their grade in English Proficiency if it yields B2 or higher.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

### 9 Lecturer / Responsible for the Module

Prof. Dr. Sven Ullrich

#### 10 Literature

- Johnson, R.A. (1993): Negotiating and Influencing Skills. Sage
- McRae, B. (1997): Negotiating and Influencing Skills. Sage
- Robbins, S.P. & Hunsaker (2002). Training in Interpersonal Skills. Prentice Hall
- Voss, R., Bloss, M. & Starke-Wuschkow, J. (2015): Studieren-Starter-Pack: Tipps und Tricks für Erstis.
- Stuttgart: utb

#### 11 Contribution to the Program

Students will improve their core competences, profiency in English and develop their ability to work in a team with purposeful, yet self-reflective manners

# 12 Last Update

# Module 0930 Introduction to Technology and Business Studies

1	Module no. 0930	<b>Major</b> TBB	Semester 1	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Tyj Obliga	oe e	Workload (hr.) 120	ECTS Credits 4
2		Courses	Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Introduction to Technology		Lecture		English	2	30	30	2
	b) Introduction to Business Studies		Lecture		English	2	30	30	2
3	Qualification Target Matrix		Professional Competence		Method Comp	ologica etence	I		d Social etence
	Remem	ber and Understand		₹					
	Apply		$\boxtimes$						X
	Analyze and Evaluate				С				
	Deve	elop and Expand			Г				

#### 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- Introduction to Technology: Students have a basic knowledge and understanding of fundamental processes and concepts from different technological fields. In addition, they are familiar with specific technologies that will change over time, depending on what is currently in the industrial focus
- Introduction to Business Studies: The module covers basics taken from some of the key areas of Business Management: Marketing, Finance, Human Resources Management and Operations Management. Students are familiar e.g. with identifying business opportunities, protecting business ideas and developing a straightforward business plan

# Apply (Skills)

- Introduction to Technology: Students are able to express their knowledge in English using the correct technical terminology
- Introduction to Business Studies: Students are able to express their knowledge in English using the correct terminology. Furthermore they are able to present a business plan in an appropriate way to professional audience

#### Analyze and Evaluate (Competences)

- Introduction to Technology: Students understand the construction and functioning of a number of technical devices and machines
- Introduction to Business Studies: Students have a basic knowledge and understanding of fundamental processes and concepts from the fields of business and economics

#### 5 Content

The *Introduction to Technology* course provides a grounding in the principal areas of technology. The first section gives an introduction to the basic principles of mechanics and thermodynamics including some applications in the automotive industry. The second section deals with the principles of magnetism and electronics leading up to the development of the computer and other modern communication technologies. The third section focuses on the most recent developments in robotics and its use in industrial areas. Topics discussed include: Engineering materials, classifying engineering processes and machines, units of measurement in engineering. Mechanisms like motion and friction, external and internal combustion engines and engine subsystems, electrochemical and fuel cells and other propulsion types, automobile manufacturing, battery-powered electric cars. Principles of electric circuits, function of electronic devices, circuit symbols, understanding electronic diagrams, circuit protection, radio technology, signal modulation, transmission and reception. Computer technology, basic components, memory, recent developments, robotics and its future potential in industry.

The *Introduction to Business Studies* course covers topics taken from some of the key areas of Business Management: Marketing, Finance, Human Resources Management and Operations Management.

# Module 0930 Introduction to Technology and Business Studies

The first section starts with fundamental basics, covering the most important definitions of Business Management and Entrepreneurship. Furthermore the processes of identifying business opportunities, protecting business ideas, developing a business plan and choosing the right legal structure are discussed. The second section deals with Marketing, in particular with formulating marketing objectives, strategies and the corresponding Marketing Mix. In the following section financial basics are discussed, e.g. sources of business finance and calculating revenue, costs and profit. The next section deals with Human Resources Management (HRM): HRM aims and objectives, HRM activities and strategies, recruitment and training and measuring the effectiveness of a personnel department. The last section covers the topic Operation Management with focus on the supply chain and quality management. The sub-module ends with a short excursus about presentation skills.

#### 6 Participation Requirement

According to study and examination regulations:

Proficiency in English corresponding to at least level B2 according to the Common European Framework of Reference for Languages. Typically this involves at least 6 years of learning English. A language user at level B2 "can understand the main ideas of complex text on both concrete and abstract topics. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear and detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options". For more details see: Common European Framework of Reference for Languages

#### Recommended:

At least 8 years of studying English

#### 7 Forms of Assessment

Introduction to Technology: 60 minutes written examination

Introduction to Business Studies: min. 10 minutes oral examination (not graded). The oral examination includes a student presentation and questions concerning all topics discussed in the lecture.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Zürn

#### 10 Literature

Introduction to Technology

An electronic manuscript will be provided.

#### Introduction to Business Studies

- An electronic manuscript will be provided.
- Recommended literature: Business Studies for A Level, lan Marcousé, Hodder Education

#### 11 Contribution to the Program

Automobile manufacturing is a globalized industry with English as its lingua franca. TBB graduates must be able to communicate competently in English on technical and business management issues.

#### 12 Last Update

# Module 0906 Economics 2

1	Module no. 0906	<b>Major</b> TBB	Semester 2	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	pe	Workload (hr.) 240	ECTS Credits 8
2		Courses	Course Style		Language	Frequ (SWS)	•	Self Study (hr.)	ECTS Credits
	a) External Accounting		Lecture with exercises		German	4	60	60	4
	b) Internal Accounting		Lecture with exercises		German	4	60	60	4
3	Qualification Target Matrix		Professional Competence			Methodological Competence			d Social etence
	Remem	ber and Understand					[		
	Apply						[		
	Analyze and Evaluate				Γ	]		[	
	Deve	elop and Expand			Ε	]		Γ	

# 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

• Advanced and practical knowledge in the theories and principles of accounting, financial statements, cost accounting and other topics listed below in the "Content" section

#### Apply (Skills)

• Advanced and practical skills in the areas of accounting, financial statements, cost accounting and other topics listed below in the "Content" section. Skills will be needed to solve complex and unpredicatable problems in a specialized work environment

# 5 Content

#### External Accounting:

- Fundamentals (accounting as an information system, mapping of companies in annual accounts, recording of business transactions on accounts, organizational and legal framework, basic assessments)
- Accounting (booking for the representation of turnover tax, booking in equity and debt capital for the representation of financing processes, booking in fixed assets for the representation of investment processes, bookings in current assets for representation of turnover processes, booking to mapping personnel employment, booking for the representation of taxation)
- Annual Accounts (Closing processes, inventory for the determination of quantity, evaluative final thesis, temporary thesis, preparation of annual financial statements and management reports, analysis of annual financial statements for the purpose of assessing companies)

#### Internal Accounting:

- Fundamentals (accounting as an information system, calculation parameters, cost characterization, structure and forms of cost accounting systems)
- Costing (Cost Element Accounting, Cost Center Accounting, Cost Object Controlling)
- Income statements (cost of sales accounting, total cost method, one-step contribution margin calculation, multi-level contribution margin calculation)
- Decision calculations (break-even analyzes, product program planning, price determination)
- Control Invoices (Planned Cost, Earned Value Analysis)

#### Participation Requirement

According to study and examination regulations: None

....

Recommended:

"Introduction to Business Administration"

# Module 0906 Economics 2

#### 7 Forms of Assessment

Two 90 minute exams, one for each course. Module performance will be the weighted average scores on the

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

#### 9 Lecturer / Responsible for the Module

Prof. Dr. Jan Schäfer-Kunz

### 10 Literature

#### **External Accounting**

- Schäfer-Kunz, J.: Buchführung und Jahresabschluss, Schäffer-Poeschl Verlag
- Bornhofen, M. u. a.: Buchführung 1 + 2, Springer Gabler Verlag.
- Coenenberg, A. u. a.: Jahresabschluss und Jahresabschlussanalyse, Schäffer-Poeschel Verlag.

#### Internal Accounting

- Jórasz, W.: Kosten- und Leistungsrechnung, Schäffer-Poeschel Verlag
- Coenenberg, A. u. a.: Kostenrechnung und Kostenanalyse, Schäffer-Poeschel Verlag
- Friedl, G. u.a.: Kostenrechnung Eine entscheidungsorientierte Einführung, Verlag Vahlen

#### 11 Contribution to the Program

This module teaches the accounting knowledge required for a business administration degree

# 12 Last Update

# Module 0931 Fundamental Business Informatics

1	Module no. 0931	Major TBB	Semester 2	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Tyj Obliga	e e	Workload (hr.) 180	ECTS Credits
2		Courses	Cours	Course Style		Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Bus	iness Computing	Lecture wit	Lecture with exercises		2	30	30	2
	b)	Databases	Lecture wit	Lecture with exercises		2	30	30	2
		ess Computing and Databases Lab	Lá	Lab		2	30	30	2
3	Qualific	ation Target Matrix	Professional Competence		Methodological Competence		I		d Social etence
	Remem	ber and Understand		₹	$\boxtimes$			[	
		Apply		₹		₹		[	
	Analyze and Evaluate ⊠		₹		₹		[		
	Dev	elop and Expand				≺			

#### 4 Learning Outcomes and Competences

After completing the module, students will:

# Remember and Understand (Knowledge)

- Describe typical approaches to classify data
- · Explain the challenges of managing data
- Represent various data models and the structure of a database system
- Describe various graphical user interfaces of a database
- Explain the normal forms and show the benefits of normalized tables
- Explain the 3-schema architecture according to ANSI / SPARC
- Describe the database languages QBE and SQL

#### Apply (Skills)

- Defining tables using MS-Access
- Formulate and execute queries using QBE and SQL
- Create screen forms and reports using MS-Access
- Manage and format data with MS-Excel
- Select and apply Excel formulas for evaluation and solution of business issues
- Create and use pivot tables
- Use diagrams to visualize the data
- Look up and register data in other Excel spreadsheets
- Use the Excel Addin Solver to solve optimization problems

#### Analyze and Evaluate (Competences)

· Decide to what extent and which tool the data should be managed in a business environment

#### **Develop and Expand (Competences)**

• Develop solutions for specific operational problems with MS-Excel

#### 5 Content

# **Business Computing:**

• Solution of business problems with the help of MS Office products (optimization models, calculation schemes), and data management with the help of MS Excel

#### Database:

• Data types and data structures, relational database model, data definition, data manipulation and database query with QBE and SQL, creation of database forms and reports

Business Computing and Database Lab

#### Module 0931 Fundamental Business Informatics

• Supervised exercises on Business Computing and Databases

#### 6 Participation Requirement

According to study and examination regulations:

Recommended:

0901 Economics 1, 0928 Mathematics

#### 7 Forms of Assessment

As part of the Business Computing course, students can obtain an ungraded certificate by completing all specified Excel tasks by hand without errors. The knowledge and skills acquired in the Databases course will be examined in the context of an exam (60 min.), The result of which determines the module grade. As part of the Business Computing and Databases course, students can obtain an ungraded certificate by working on practical tasks with Access.

# 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Dr. Hartinger

#### 10 Literature

- Bilke, P. und Sprung, U., Excel 2010: Die Anleitung in Bildern, Bonn 2011,
- Steiner, R., Grundkurs Relationale Datenbanken: Einführung in die Praxis der Datenbankentwicklung für Ausbildung, Studium und IT-Beruf, 8. Auflage, Wiesbaden 2014,
- Stern, A., Keine Angst vor Microsoft Access! für Access 2007 bis 2016: Datenbanken verstehen, entwerfen und entwickeln, 5. Auflage, Heidelberg 2016,
- Weikert, A., Access 2010 f
  ür Windows Grundlagen f
  ür Anwender, Bodenheim 2011,
- Skripte zu den Lehrveranstaltungen

# 11 | Contribution to the Program

The module teaches the basics of Business Informatics. Dealing with structured databases and evaluating them is one of the key qualifications of technically oriented business economists and is becoming increasingly important in connection with current topics such as Industry 4.0 and Big Data. Spreadsheets and database systems are almost always used as basic tools. The module teaches the handling of such tools and at the same time lays the foundation for the following modules: 0938 Application Systems and 0949 Process Performance Management

#### 12 Last Update

# **Module 0932 Production**

1	Module no. 0932	<b>Major</b> TBB	Semester 2	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	pe	Workload (hr.) 120	ECTS Credits 4
2		Courses	Cours	e Style	Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Machine Tools		Lecture		German	2	30	30	2
	b)	Automation	Lecture		German	2	30	30	2
3	Qualification Target Matrix		Professional Competence		Method Comp	ologica etence	I		d Social etence
	Remem	ber and Understand		₫			[		
	Apply				$\boxtimes$			[	
	Analyze and Evaluate		$\boxtimes$		Γ			[	
	Deve	elop and Expand			Γ			[	

#### 4 Learning Outcomes and Competences

After completing the module, students will:

# Remember and Understand (Knowledge)

Machine Tools:

- Understand the classification, meaning and technical terms for machine tools
- Understand various applications of machine tools
- Understand static, dynamic and thermal factors influencing the quality of workpieces produced by machine tools
- Understand series and parallel connections of mechanical components with regard to stiffness
- Understand basic vibratory systems
- Understand technical solutions for the main assemblies of machine tools and their properties

# Automation:

- Understand the way of thinking, presentation, systematics and language associated to automation
- Understand the benefits of automation in the business value creation process
- Understand evaluation standards for automation
- Understand functional starting points of automation
- Understand determining factors influencing automation
- Understand technical solutions of automation tasks as well as the different tools and components available

#### Apply (Skills)

Machine Tools:

- · Recognize and classify essential components on machine tools
- Use series and parallel connections on mechanical assemblies to determine stiffness

# **Analyze and Evaluate (Competences)**

Machine Tools:

- · Calculate stiffness of composite subsystems
- Calculate basic oscillatory systems

#### Automation:

Assess practical problems

#### 5 Content

- Fundamentals of machine tools for the production of high quality technical products and their
- · Fundamentals in automation of production processes in the production and assembly of high

# **Module 0932 Production**

	quality technical products and their components
6	Participation Requirement According to study and examination regulations: None Recommended:
	0927 Fundamental Technology, 0928 Mathematics
7	Forms of Assessment One 90 minute exam.
8	<b>Module Application</b> Obligatory module in the Bachelor's Program for International Business Administration (TBB).
9	Lecturer / Responsible for the Module Prof. DrIng. Gerhard Kehl
10	<ul> <li>Literature</li> <li>Conrad: Taschenbuch der Werkzeugmaschinen, Hanser-Verlag</li> <li>Schmid: Automatisierungstechnik, Europa-Verlag</li> </ul>
11	Contribution to the Program In this module, the students acquire fundamental technical skills and engineering knowledge that broaden their understanding of a technical business economist who works in the industrial environment, at the interface between technical and business areas.
12	<b>Last Update</b> 05.02.2018

# Module 0933 Statistics

1	Module no. 0933	<b>Major</b> TBB	Semester 2	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Tyj Obliga	oe e	Workload (hr.) 180	ECTS Credits 6
2		Courses	Course	e Style	Language	Frequ (SWS)	•	Self Study (hr.)	ECTS Credits
	a)	Statistics	Lecture wit	Lecture with exercises		4	60	60	4
	b)	Statistics Lab	La	Lab		1	15	45	2
3	Qualification Target Matrix		Professional Competence		Method Comp	ologica etence	I		d Social etence
	Remem	ber and Understand	$\boxtimes$				[		
	Apply		Σ	3				[	
	Analyze and Evaluate		Σ	3		₹		[	
	Deve	elop and Expand	С			₹			$\boxtimes$

#### 4 Learning Outcomes and Competences

After completing the module, students will:

# Remember and Understand (Knowledge)

- Understand the meaning of basic statistical terms, formulas, rules of calculation, procedures and other topics listed below in the "Content" section
- Understand typical application examples, including the application of statistical methods in quality assurance

# Apply (Skills)

- · Apply statistical terms, formulas, calculation rules, and procedures to concrete questions
- Solve statistical issues with Office software

# **Analyze and Evaluate (Competences)**

- Statistically formulate problems, calculate or solve statistical models, and transfer statistical solutions to the concrete problems.
- Evaluate whether or to what extent the statistical description and solution are suitable for the particular application problem

#### **Develop and Expand (Competences)**

- Develop and evaluate problem-solving strategies
- · Develop an aptitude for logical reasoning and the systematic approach

#### 5 Content

#### Statistics:

- Data collection and cleansing
- Representation of statistical material (feature type, graphical representation, positional and scattering parameters of a random sample)
- Multidimensional Sampling (Correlation and Regression)
- Combinatorics
- Probability calculation (Laplace models, probabilities of composite events, random variables and distribution functions, special distributions such as normal distribution, binomial distribution, Poisson distribution, hypergeometric distribution, random scattering)
- Closing statistics: point estimators, statistical tests and confidence intervals
- Application of statistical methods in quality assurance: quality control charts, process capability indicators, acceptance sampling

#### Statistics Lab:

· Processing statistical problems with standard software in Office

#### 6 Participation Requirement

According to study and examination regulations:

# **Module 0933 Statistics**

#### None

#### Recommended:

- 0928 Mathematics
- Mathematics knowledge: numerical calculations with fractions, break terms, powers, roots, logarithms, algebraic transformations, sets and functions, properties of elementary functions, equations and inequalities, basic geometric concepts and formulas
- Familiarity with a scientific calculator

#### 7 Forms of Assessment

One 90-minute exam consisting of material from both courses. As part of the Statistics Lab, students can obtain an ungraded certificate by completing statistical questions within Office software.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

#### 9 Lecturer / Responsible for the Module

Prof. Plappert

# 10 Literature

- Script
- Collection of exercises and sample exams (online)
- · Sachs: Wahrscheinlichkeitsrechnung und Statistik. Fachbuchverlag Leipzig
- Timischl: Qualitätssicherung. Statistische Methoden. Hanser
- Monka, Voß: Statistik am PC. Hanser
- Mohr: Statistik für Ingenieure und Naturwissenschaftler. expert Verlag

#### Contribution to the Program

In this module, students acquire fundamental statistical knowledge and skills needed to deal with economic issues. With statistics, students have an important tool to remove uncertainty from business decisions.

#### 12 Last Update

# Module 0934 Project Management

1	<b>Module</b> <b>no.</b> 0934	<b>Major</b> TBB	Semester 2	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty Oblig	pe	Workload (hr.) 120	ECTS Credits 4		
2		Courses	Cours	e Style	Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits		
	a) Four	ndations in Project Management	Lec	ture	German	2	30	30	2		
	b)	Project	Exer	cises	German	1	15	45	2		
3	Qualific	ation Target Matrix	Professional	Competence	Method Comp	ologica etence	ıl		d Social etence		
	Remem	ber and Understand			$\boxtimes$						
		Apply									
	Anal	yze and Evaluate		]		⊠					
	Deve	elop and Expand			Γ			Γ			
5	Remembe  U  Apply (Sk  A  W  Analyze a  A  Content  Foundation  St  St  St  Tr  Project:  Project:  Project:  A	Content  Foundations in Project Management:  Students will understand the tools of project management  Students will create a project assignment and carry out the subsequent analysis and planning  Students will have a project and experience the opportunities, limits, and leadership aspects associated with project management  Project:  Purpose of projects  Types and processes of projects									
7	According None Recomme None	Recommended: None  Forms of Assessment									
8	Project work with assessment on the following criteria: active participation in project group, preparation of a project contract, MS Project Plan, Project report, final presentation, and project result.  Module Application										
9	Obligatory module in the Bachelor's Program for International Business Administration (TBB).  Lecturer / Responsible for the Module										
	Prof. Dr. Wlcek										
10	Literature	<u> </u>									

# **Module 0934 Project Management**

- PMI (2013): A Guide to the PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK GUIDE), 5. Dt. Ausgabe
- Schelle, H. (2014): Projekte zum Erfolg führen, 7. Auflage, Beck dtv
- Jacoby, W. (2015): Projektmanagement für Ingenieure, 3. Auflage, Springer
- Dt. Inst. f. Normung (2013): DIN ISO 21500:2013-06
- Helzle, D. (2016): Immer wieder einmalig, Hehser Verlag

# 11 Contribution to the Program

Project group work is increasing among generalists in the fields of business administration and technology. This moudle provides participants with knowledge and skills to actively participate in and lead projects

12 Last Update

# Module 0935 Financial Management

1	<b>Module</b> <b>no.</b> 0935	<b>Major</b> TBB	Semester 4	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 180	ECTS Credits	
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits	
	a) Corporate Finance:		Lecture		English	4	60	60	4	
	b) Bus	iness Case Study	Lecture wit	Lecture with exercises		2	30	30	2	
3	Qualification Target Matrix		Professional Competence		Methodological Competence		Self and Social Competence			
	Remember and Understand						[			
	Apply							[		
	Analyze and Evaluate									
	Deve	elop and Expand			$\boxtimes$					

# 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

· Acquire knowledge in the area of investment, financing, and business planning

#### Apply (Skills)

• Appraise investment projects through capital flow.

# Analyze and Evaluate (Competences)

• Understand and assess the impacts of different financing possibilities

#### **Develop and Expand (Competences)**

Independently create business plans

#### 5 Content

Corporate Finance:

- · Classify the functions investment and financing in the overall entirety of business management
- Understand the significance for different operation processes
- Apply basic concepts of Accounting Systems
- Identify the most important key figures of the annual financial statements analysis
- Classify the most important capital market products
- · Present specific information by means of a series of payment
- Understand the meaning of different aspects of investment decisions
- Distinguish the terms static and dynamic methods of investment appraisal
- Apply the procedures of dynamic investment appraisal
- · Identify risks of an investment decision
- Create a business plan. Understand targets and tasks of the submodule financing
- Assess the capital requirement of a company by means of commitment period
- Assess the liquidity of a company
- Understand the differences between the internal- and external financing
- Delimit the terms of self-financing and debt-financing and the terms of internal and external financing
- Understand the meaning of alternative financing measures

## **Business Case Study:**

Apply all fields of the module

#### 6 Participation Requirement

According to study and examination regulations:

Completed first stage of study

# Module 0935 Financial Management

	Recommended: Basics of economics and business management, accounting and innovation management						
7	Forms of Assessment One 90 minute exam and presentation.						
8	Module Application Obligatory module in the Bachelor's Program for International Business Administration (TBB).						
9	Lecturer / Responsible for the Module Prof. Günther						
10	Ross/Westerfield/Jordan: Fundamentals of Corporate Finance, Irwin McGraw-Hill     Arnold: Corporate Financial Management, Prentice Hall						
11	Contribution to the Program  The module conveys the knowledge required for a business administration degree in the field of finance.						
12	<b>Last Update</b> 05.02.2018						

# Module 0936 Computer Aided Design, Computer Aided Manufacturing

Module no. 0936	<b>Major</b> TBB	Semester 3	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 180	ECTS Credits 6	
2	Courses Co		Course Style		Frequ (SWS)		Self Study (hr.)	ECTS Credits	
a) Computer Aided Design		Lecture		German	2	30	30	2	
b) Computer Aided Manufacturing		Lecture		German	2	30	30	2	
c)	CAD/CAM Lab	La	Lab		1	15	45	2	
Qualific	Qualification Target Matrix		Competence	Methodological Competence		_		d Social etence	
Remem	Remember and Understand		$\boxtimes$		$\boxtimes$		[		
	Apply	$\boxtimes$							
Anal	yze and Evaluate								
Deve	elop and Expand		3	$\boxtimes$					

# 4 Learning Outcomes and Competences

After completing the module, students will:

# Remember and Understand (Knowledge)

Computer Aided Design (CAD):

- Foundation and Methods in Design
- Understand CAD methods
- Understand the process from initial drawing to the finished product

# Computer Aided Manufacturing (CAM):

- Classification of CAM in the various CAX techniques
- Importance of CAM in the product development process
- Requirements for a CAD / CAM process
- Understanding the technical requirements involved in a CAM operating procedure (eg measuring and control techniques
- Foundations of CNC programming

#### Apply (Skills)

Computer Aided Design (CAD):

- Solid modeling and Drawing derivation with 3D CAD Systems
- Mastering a 3D CAD system

#### Computer Aided Manufacturing (CAM):

• Applying CNC programming for simple parts

#### **Develop and Expand (Competences)**

• Apply CAD / CAM knowledge to an example project

#### 5 Content

- CAD techniques and operating procedures within a 3D CAD system. (Solid modeling, assemblies, drawing derivation)
- CAM techniques, CNC programming

#### 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

None

# Module 0936 Computer Aided Design, Computer Aided Manufacturing

#### 7 Forms of Assessment

One 60 minute exam in Computer Aided Manufacturing (CAM). An ungraded certificate will be awareded in Computer Aided Design (CAD) upon completion of a practical design in the CAD system. The design will include solid modeling and drawing derivation. Ungraded project work in the CAD / CAM Lab consists of creating a CNC program for a given geometry using a CNC programming system or solving a design task using the CAD system.

# 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Sarnitz

#### 10 Literature

• Kief / Roschiwal / Schwarz: CNC-Handbuch, Hanser-Verlag

#### 11 Contribution to the Program

In this module, the students acquire fundamental technical skills and engineering knowledge that broaden their understanding of a technical business economist who works in the industrial environment, at the interface between technical and business areas.

# 12 Last Update

# Module 0937 Intercultural Communication

1	Module no. 0937	<b>Major</b> TBB	Semester 3	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 120	ECTS Credits 4
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Intercultural Communication		Lecture		English	2	30	30	2
	b) Comr	Intercultural nunication Seminar	Seminar		English	2	30	30	2
3	Qualification Target Matrix		Professional Competence			Methodological Competence			d Social etence
	Remember and Understand						[		
	Apply		⊠						₹
	Analyze and Evaluate		⊠					$\boxtimes$	
	Deve	elop and Expand							

#### 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- · Understand fundamental principles and theories of intercultural communication
- Understand essential strategies and skills involved in the leadership and management of multicultural teams
- Gain insight into symbols, rituals, and behaviors of diverse cultures specifically Asian, Hispanic, and Arabian cultures.

#### Apply (Skills)

- Understand underlying cultural assumptions as the basis of one's own behavior and how to interact in intercultural workplaces
- Interact in business situations and respect taboos and customs
- Develop cultural empathy and effective intercultural communication

#### **Analyze and Evaluate (Competences)**

• Analyze situations in multicultural teams using basic principles and theories

#### 5 Content

- Theories of intercultural management, corporate strategy, organizational structures, human resource management, and communications in multinational companies.
- Management and conflict resolution in intercultural environments.
- Core values of different cultures and their effect on behavior and communication, especially in the context of business negotiation

#### 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

None

#### 7 Forms of Assessment

One 90 minutes exam in Intercultural Communication, and one graded presentation

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Dr. Oliver Dürr

# Module 0937 Intercultural Communication

#### 10 Literature

- Robbins, S.P. / Hunsaker, P.L. (1996): Training in Interpersonal Skills, 2. Auflage, Upper Saddle River, Prentice Hall
- Johnson, R.A. (1993): Negotiation Basics, Newbury Park, Sage
- McRae, B. (1998): Negotiating and Influencing Skills, Newbury Park, Sage
- Hofstede, G. (1997): Cultures and Organisations: Software of the Mind, New York, McGraw-Hill
- Hall, T. (1989): Beyond Culture, New York, Doubleday
- Bartlett, C.A. / Ghoshal, S. / Birkinshaw, J.M. (2004): Transnational Management, New York, McGraw-Hill
- Jacob, N. (2003): Intercultural Management, London, Kogan Page
- Varner, I. / Beamer, L. (2010): Intercultural Communication in the Global Workplace, New York, McGraw-Hill

#### 11 Contribution to the Program

Students gain insight into different cultures and basic principles of intercultural communication. They develop effective communication competencies for international and multicultural teams.

12 **Last Update** 05.02.2018

# **Module 0938 Application Systems**

1	Module no. 0938	Major TBB	Semester 3	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	pe	Workload (hr.) 120	ECTS Credits 4	
2		Courses	Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits	
	a) Enterprise Resource Planning System		Lecture		German	2	30	30	2	
	b) E	RP System Lab	Lab		German	2	30	30	2	
3	Qualification Target Matrix		Professional Competence		Methodological Competence		I		d Social etence	
	Remember and Understand						[			
	Apply				$\boxtimes$				X	
	Analyze and Evaluate									
	Deve	elop and Expand			$\boxtimes$					

#### 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- Understand the structure of an ERP system, including its advantages and disadvantages
- Understand company processes that are mapped in an ERP system
- Understand standard functionalities of ERP systems
- Understand steps necessary to implement and maintain an ERP system

#### Apply (Skills)

- Use a common ERP system
- · Create master data in an ERP system and the impact of errors
- Use business processes in an ERP system through consistent case studies

#### Analyze and Evaluate (Competences)

- Independently analyze and solve errors
- Evaluate the flow of quantities and values in an ERP system, and select appropriate methods for processing and controlling business processes
- · Evaluate processes in a ERP system

#### **Develop and Expand (Competences)**

- Acquire the aptitude to use ERP systems. Students will recognize errors and systematically analyze and correct sources of error
- Recognize the business contexts in the ERP system again

# 5 Content

Today many jobs are supported by IT applications, and knowledge of these application and systems are among the key qualifications required of every technical business administrator. This includes the basic understanding of how information is "managed" in the company, and the mapping and analysis of processes in ERP systems.

#### Enterprise Resource Planning System:

Students will understand the architecture, characteristics, and elements of standard software systems (SSWS) and ERP systems. Furthermore, they will be familiar with steps to introduce SSWS, knowing full well their capabilities, limitations, functionalities and and processes.

#### **ERP System Lab:**

Students will use exemplary processes in sales order processing, materials management and production. They will evaluate modules with current SSWS, such as SAP or Oracle.

- Architecture, features, and elements of standard software systems (SSWS)
- Steps in the introduction of SSWS

# Module 0938 Application Systems

- · Possibilities, limitations, typical functionalities, and processes supported by SSWS
- Example processes in Sales and Distribution (Sales Order Processing), Materials Management (Procurement), and Production

Evaluations with current SSWS, such as SAP or Oracle

#### 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

#### Recommended:

0906 External Accounting, Fundamental in Logistics

#### 7 Forms of Assessment

One 90 minute exam. An ungraded certificate will be awareded in ERP System Lab upon completion of practical exercises.

# 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

#### 9 Lecturer / Responsible for the Module Prof. Mathis

#### 10 Literature

- Script for lectures
- SAP-Bibliothek (Hilfefunktion von SAP R/3)
- Maassen/Schoenen (2007): Grundkurs SAP R/3, Vieweg, 2007
- Krasser, N.(2015): Success Factors: Grundlagen, Prozesse, Implementierung (SAP PRESS) 2015
- Schulz, O (2016).: Der SAP-Grundkurs für Einsteiger und Anwender: Inklusive Video-Tutorials Erfolgreich zur Zertifizierung (SAP PRESS) 2016

#### 11 Contribution to the Program

Fundamental business knowledge from various modules is brought together to demonstrate their interdependencies in routine business transactions and processes

# 12 Last Update

# Module 0914 Quality Management

1	<b>Module</b> <b>no.</b> 0914	<b>Major</b> TBB	Semester 3	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	<b>Module Type</b> Obligatory	Workload (hr.) 120	ECTS Credits 4
2	Courses		Course Style		Language	Frequency (SWS) (hr.)	Self Study (hr.)	ECTS Credits
	a) Quality Management		Lecture		German	30	30	2
	b) QM Lab		Lab		German 15		45	2
3	Qualification Target Matrix		Professional Competence		Methodological Competence			d Social etence
	Remember and Understand		$\boxtimes$		$\boxtimes$			
	Apply						]	
	Analyze and Evaluate				$\boxtimes$			
	Deve	elop and Expand						

#### 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- Understand different Quality concepts
- · Understand the emergene and development of Quality Management
- Understand different quality philosophies
- Understand QM tasks in the product life cycle
- Understand the foundations of Metrology

#### Apply (Skills)

- Apply methods of quality management, e.g. QFD, DFMA, 8D, FMEA, SPC, ...
- Apply selected QM methods in laboratory reports

#### **Analyze and Evaluate (Competences)**

- Evaluate orientation types of a quality management system
- Evaluate costs and benefits of quality management
- Analyze quality management systems: DIN EN ISO 9000 ff, EFQM, TQM

# 5 Content

#### **Quality Management Lecture:**

Understand the principles of modern Quality Management and important QM methods and procedures.

- Different Quality concepts
- Emergene and development of Quality Management
- Knowing the meaning of different quality philosophies
- QM tasks in the product life cycle and in different divisions
- Methods of quality management, e.g. QFD, DFMA, 8D, FMEA, SPC, ...
- Process orientation of a quality management system
- Costs and benefits of quality management
- Quality management systems: DIN EN ISO 9000 ff, EFQM, TQM

#### QM Lab:

- Mastery of selected methods and procedures of QM through practice and application
- · Understand the foundations of Metrology
- Understand measuring systems and CAQ
- Apply and implement test equipment and test equipment management
- Measure inspection characteristics and create and analyze the SPC control chart
- Use of selected QM methods with laboratory reports

#### 6 Participation Requirements

According to study and examination regulations:

None

# Module 0914 Quality Management

Recommended:

Foundation in Mathematics or Statistics

#### Forms of Assessment

One 90 minute exam conditional on completion of QM Lab. An ungraded certificate will be awareded in QM Lab upon completion of practical exercises.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB) and Technical Business Administration / Automotive Industry (TAB)

# 9 Lecturer / Responsible for the Module Prof. Zürn

#### 10 Literature

- Herrmann, J.; Fritz, H. (2016): Qualitätsmanagement, 2. überarbeitete und erweiterte Auflage, Carl Hanser Verlag.
- Brunner, F.; Wagner K.W. (2016): Qualitätsmanagement Leitfaden für Studium und Praxis,
   6. überarbeitete Auflage, Carl Hanser Verlag

#### Supplementary:

- Schmitt, R.; Pfeiffer, T. (2015): Qualitätsmanagement, 5. überarbeitete Auflage, Carl Hanser Verlag
- Brüggemann, H.; Bremer, P. (2015): Grundlagen Qualitätsmanagement, 2. erweiterte und überarbeitete Auflage, Springer Verlag

#### 11 Contribution to the Program

Quality management has in recent years / decades clearly developed from pure quality testing to an important integrative management discipline. Internationally, a company is required to have ISO 9001 certification today in most industrial sectors. TBB graduates therefore need to be thoroughly familiar with the methods and processes of quality management.

# 12 Last Update

# Module 0939 Marketing

1	<b>Module</b> <b>no.</b> 0939	Major TBB	Semester 3	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 180	ECTS Credits 6
2		Courses	Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a)	Marketing	Lec	Lecture		2	30	30	2
	b) Ma	rketing Exercises	Exercises		German	1	15	45	2
	c) Sa	les Management	Lec	Lecture		2	30	30	2
3	Qualification Target Matrix		Professional	Competence	Methodological Competence			d Social etence	
	Remember and Understand		⊠		$\boxtimes$			[	
	Apply		⊠		$\boxtimes$			[	
	Analyze and Evaluate								
	Deve	elop and Expand			$\boxtimes$			$\boxtimes$	

#### 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- Understand fundamental concepts in Marketing and Sales
- Understand how / where to apply concepts in a practical situation

#### Apply (Skills)

 Apply methodology to practical situations in the industry – emphasis will be on pratical, not theoretical cases

#### Analyze and Evaluate (Competences)

- Analyze peculiarities in relevant business case studies
- Evaluate problems and recommend remediations

#### **Develop and Expand (Competences)**

Assess and develop problem solving strategies

# 5 Content

#### Marketing:

- Understanding the role of Marketing in a company and how it's an engine for growth
- Role of Market research and Business Intelligence in the development of marketing strategies
- Analysis Methods in Marketing & Strategic ventures
- Product positioning in competition
- · Formulation of marketing strategies
- · Design of sales processes and its intereaction with marketing
- Analysis of business opportunities
- · Use of marketing tools

#### Marketing Exercises:

- Understand the role of marketing in a company
- Development of marketing strategies
- Interplay between marketing and sales

# Sales Management:

- Terms and fundamentals
- Strategic sales management (design of distribution systems)
- Operational sales management (management of sales organizations)
- · Success factors in sales

# Module 0939 Marketing

#### 6 Participation Requirements

According to study and examination regulations:

None

Recommended:

None

#### 7 Forms of Assessment

Module performance consists of a 120 minute exam in Marketing and Marketing Exercises (2/3 weight) and a 60 minute exam in Sales Management (1/3 weight). An ungraded certificate will be awareded in Marketing Exercises upon completion of the course.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Kohlert (MV), Prof. Burmester

#### 10 Literature

- Dudenhöffer, Ferdinand: Premium-Markt Analyse. Rollenwechsel im Premiummarkt, unveröffentlichtes Paper des CAR-Instituts an der Universität Duisburg-Essen, 2009
- Kohlert, Helmut: Marketing für Ingenieure, München/Wien 2006
- Levitt, Theodore: Marketing Myopia, in: Harvard Business Review, September/October 1975, S 2 14
- Winkelmann, Peter: Vertriebskonzeption und Vertriebssteuerung
- G. Hofbauer/ C. Hellwig: Professionelles Vertriebsmanagement
- Ch. Homburg / H. Schäfer / J. Schneider: Sales Excellence Vertriebsmanagement
- P. Kotler / F. Bliemel: Marketing-Management

#### 11 Contribution to the Program

Overview / in-depth insights into essential marketing concepts and methods / procedures of technically oriented companies

#### 12 Last Update

# Module 0940 Corporate Management

Module no. 0940	Major TBB	Semester 4	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	oe .	Workload (hr.) 240	ECTS Credits 8
2	Courses	Course	Course Style		Frequ (SWS)		Self Study (hr.)	ECTS Credits
a)	Organization	Lecture wit	Lecture with exercises		2	30	30	2
b) Corp	orate Management			German	2	30	30	2
	onnel Management			German	2	30	30	2
d) Organi M	ganization and Personnel  Management Lab  Lab		ab	German	1	15	45	2
Qualific	Qualification Target Matrix		Professional Competence		Methodological Competence		Self and Social Competence	
Remem	Remember and Understand Apply		3				$\boxtimes$	
					⊴		[	
Anal	yze and Evaluate				$\overline{\mathbf{X}}$	Σ		×
Deve	elop and Expand			]			×	

#### 4 Learning Outcomes and Competences

After completing the module, students will:

# Remember and Understand (Knowledge)

- Understand corporate governance and strategy
- Understand management approaches to corporate governance
- Understand functions of business management
- Understand corporate strategy and strategy design
- · Learn about different leadership styles used in companies
- Learn management methods

#### Apply (Skills)

 Apply methodical knowledge in corporate management such as portfolio approaches like, Blue Ocean method and Business Model Canvas

#### **Analyze and Evaluate (Competences)**

· Independently evaluate and assess issues within a company

#### **Develop and Expand (Competences)**

Present results and answer questions

#### 5 Content

# Organization:

Will provide practical, technical, and methodological knowledge in the following areas:

- · Concept and characteristics of the organization
- Foundations of Organizational Theory
- Organizational concepts of the practice: primary and secondary organization
- Process management
- Approaches to organizational development
- · Methods of organizational design

#### Corporate Management:

Will provide practical, technical, and methodological knowledge in the following areas:

• Corporate governance

# **Module 0940 Corporate Management**

- · Modern methods in marketing
- Portfolio Management
- · Corporate strategies and design
- Strategic Controlling

#### Personnel Management:

Will provide practical, technical, and methodological knowledge in the following areas:

- · Fundamentals of Personnel Management
- · Personnel planning, deployment, and controlling
- Personnel development
- Terminations
- Compensation Management
- · Approaches to integrative personnel and organizational development

#### Organization and Personnel Management Lab:

Students will delve into methods of organizational and personnel development. Furthermore, key topics will be emphasized that will broaden their practical and theoretical understanding of management principles.

#### 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

#### Recommended:

None

#### 7 Forms of Assessment

One 120 minute exam consisting of Organization, Corporate Management, and Personnel Management. 40 minutes will be alotted for each section. An ungraded certificate in Organization and Personnel Management Lab will be awareded upon completion of all case studies and exercises.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

#### 9 Lecturer / Responsible for the Module

Prof. Kohlert (MV). Prof. Günther

#### 10 Literature

- Becker, M.: Personalentwicklung, 5. Auflage, Stuttgart 2009
- Bröckermann, R.: Personalwirtschaft, 5. Auflage, Stuttgart 2009
- Kohlert, Helmut: Unternehmensanalyse und strategische Planung, Stuttgart 2016
- Kohlert, Helmut: Marketing-Audit in 8 Schritten Wie nutzen technisch-orientierte Unternehmen Marketing?, in: marke41, Heft 6/2010, S. 68-73
- Macharzina, K./Wolf, J.: Unternehmensführung, 7. Auflage, Wiesbaden 2010
- Schmelzer, H. J./Sesselmann, W.: Geschäftsprozessmanagement in der Praxis, 7. Auflage, München 2010
- Vahs, D.: Organisation, Ein Lehr- und Managementbuch, 8. Auflage, Stuttgart 2012
- Vahs, D./Weiand, A.: Workbook Change Management, Stuttgart 2010
- Weinert, A. B.: Organisations- und Personalpsychologie, 5. Auflage, Basel 2004

#### 11 Contribution to the Program

Students will understand methods and processes of modern corporate management. This module will be an essential element in the study of business administration and will form the foundation for the module "Change Management" in the 6th semester.

#### 12 Last Update

# Module 0941 Product Management

1	<b>Module</b> <b>no.</b> 0941	<b>Major</b> TBB	Semester 4	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	oe e	Workload (hr.) 150	ECTS Credits 5
2	Courses  a) Product Management b) Product Management Case Study		Course Style		Language	Frequency (SWS) (hr.)		Self Study (hr.)	ECTS Credits
			Lec	Lecture		2	30	60	3
			Exercises		German	1	15	45	2
3	Qualification Target Matrix		Professional Competence		Method Comp	ologica etence	I		d Social etence
	Remem	ber and Understand	Σ	3				$\boxtimes$	
	Apply		⊠						X
	Analyze and Evaluate		⊠		$\boxtimes$			[	
	Deve	elop and Expand		3		₹			$\boxtimes$

#### 4 Learning Outcomes and Competences

After completing the module, students will:

## Remember and Understand (Knowledge)

- · Understand Product Management in the context of marketing and technical product development
- Understand core fields of Product Management (product strategy, new products, and product lifecycle management)
- Understand process organization in product management
- Understand methods of product management

#### Apply (Skills)

- Carry out a complete product discovery process based on specific case study
- Apply methods of data retrieval, data structuring, alternative selection, and technology selection required in the context of product discovery
- Formulate strategies (positioning, etc.)

## **Analyze and Evaluate (Competences)**

- Analyze the customer, competitive, and marketing environment
- Analyze and evaluate utility and portfolios
- Evaluate systematic transfer of customer requirements and positioning objectives in product technology (QFD and target costing)

#### **Develop and Expand (Competences)**

- Understanding the relationships in market-oriented product discovery
- Strengthen analytical and abstract reasoning skills
- Formulate strategies
- Understand the core content of product management and its importance in the company

#### Content

Systematic, method-based derivation of product programs and new products (product discovery), taking into account markets, technologies, and cost effectiveness.

#### Core Content:

- Product Strategy
- Product Discovery
- Product Life Cycle Management

## 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

# **Module 0941 Product Management**

12 **Last Update** 05.02.2018

	Product Development and 0939 Marketing
7	Forms of Assessment One 90 minute exam. Completion of a group project in the Product Management Case Study course will be required.
8	Module Application Obligatory module in the Bachelor's Program for International Business Administration (TBB).
9	Lecturer / Responsible for the Module Prof. Ralf Burmester
10	<ul> <li>Literature</li> <li>Marketing Management, Kotler/Bliemel</li> <li>Praxishandbuch Produktmanagement, Matys</li> <li>Erfolgreiches Produktmanagement, Aumayr</li> <li>Marktorientiertes Produktmanagement, Renner</li> <li>Product Life Cycle Management, Stark</li> <li>Professionelles Produktmanagement, Hofbauer/ Schweidler</li> <li>Produkt- und Preismanagement im Firmenkundengeschäft, Pepels</li> <li>Professionelles Produkt Management für die Investitionsgüterindustrie, Kairies</li> </ul>
11	Contribution to the Program Interdisciplinary understanding of marketing, technological, and business administration. Module also provides methodological competence for systematic, market-oriented product design.

## Module 0942 Technical Sales

1	<b>Module</b> <b>no.</b> 0942	<b>Major</b> TBB	Semester 4	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 90	ECTS Credits 5
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Technical Sales		Lecture		German	2	30	60	3
	b) Technical Sales Case Study		Exercises		German	1	15	45	2
3	Qualificat	tion Target Matrix	Professional Competence			dologica betence	ıl		d Social etence
	Remembe	er and Understand					Γ		
	Apply		⊠					Γ	
	Analyze and Evaluate		⊠			$\boxtimes$		Γ	
	Devel	op and Expand	Σ	<b></b>					$\boxtimes$

## 4 Learning Outcomes and Competences

After completing the module, students will:

## Remember and Understand (Knowledge)

The module considers "technical sales" in the overall context of business-to-business marketing (B2B). The students will understand the technical and methodological foundations of modern B2B marketing in theory and current corporate practice (usually through lecture and practice). They will define relevant terms and differentiate between B2B marketing and B2C marketing. In addition, they will understand the relevant business typologies in B2B marketing and will describe and explain them through examples. Furthermore, they will represent both core elements of buyer behavior and supplier behavior in business markets. Along the marketing management process, they will understand and define the relevant phases: starting with the analysis of the market and company situation in B2B marketing, the definition of the marketing goals and the desired market position, the definition of the marketing strategies and the associated marketing mix. They will understand the differences in the marketing mix of the product business, the plant business, the systems business and the supply business. Online-based methods in the context of B2B marketing will be understood and critically discussed.

#### Apply (Skills)

The aforementioned knowledge will be systematically used in small case study groups and intermediate exercises during lecture.

## **Analyze and Evaluate (Competences)**

As part of the case study, students will question mock company practices using topics discussed during lectures. Within the framework of small groups, they will learn to recognize and analyze problems in order to structure and solve them together within a given deadline. In addition, they will learn to critically discuss and justify their work by presenting their solution in the auditorium.

# **Develop and Expand (Competences)**

Students will document their case study using a PowerPoint presentation. They will be tasked with independently creating a meaninful presentation to discuss the results.

## 5 Content

Technical Sales Lecture:

- Terms and characteristics of business-to-business marketing
- · Product and business typologies in business-to-business marketing
- Buver behavior in business markets
- Provider behavior on business markets
- · The marketing management process
- Analysis of the market and company situation in business-to-business marketing
- Defining the marketing goals and the desired market position
- Definition of marketing strategies
- The marketing mix as part of the marketing management process. Differences in the marketing mix

## Module 0942 Technical Sales

in the plant, system, and supply business

• B2B Marketing and Internet

#### Technical Sales Case Study:

- Analysis of procurement behavior
- Analysis of supplier behavior and portfolio analysis
- SWOT analysis / B2B market research
- Definition of marketing strategies
- Preparation of a suitable marketing mix

## 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

None

#### 7 Forms of Assessment

One 90 minute exam. An ungraded certificate will be awareded upon presentation and submission of all documents associated with the case study.

## 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

## 9 Lecturer / Responsible for the Module

Prof.Dr. Dorothee Brauner

#### 10 Literature

- Gordon H. Eckardt: Business-to-Business-Marketing, Eine Einführung für Studium und Beruf, Schäffer-Poeschel Verlag, Stuttgart 2011
- Daniel Lorberg, Harald Vergossen: Marketing: Grundlagen und Strategien, Lehrbuch mit Online Lernumgebung; NWB Verlag GmbH& Co.KG, Herne 2015
- Michael Kleinaltenkamp, Samy Saab: Technischer Vertrieb, Eine praxisorientierte Einführung in das Business-to-Business-Marketing, Springer Verlag, Berlin Heidelberg 2009
- Klaus Backhaus, Markus Voeth: Industriegütermarketing, Grundlagen des Business-to-Business-Marketings, 10. Auflage, Vahlen Verlag, München 2014

## 11 Contribution to the Program

As part of the module "technical sales", the interaction between the technical and business aspects of a technical business administration will be clarified.

## 12 Last Update

# Module 0943 Procurement Management

1	Module no. 0943	<b>Major</b> TBB	Semester 3	Offering ⊠WS ⊠ SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	oe e	Workload (hr.) 120	ECTS Credits 4
2	Courses		Course Style		Language	Frequency (SWS) (hr.)		Self Study (hr.)	ECTS Credits
	a) Procurement Management		Lecture		German	4	60	60	4
3	Qualification Target Matrix		Professional Competence		Method Comp	_	I		d Social etence
	Remem	ber and Understand	⊠						
	Apply				$\boxtimes$			[	
	Analyze and Evaluate								
	Deve	elop and Expand	Σ	3	Г	]			

## 4 Learning Outcomes and Competences

After completing the module, students will:

Remember and Understand (Knowledge) - see below Apply (Skills) - see below

Analyze and Evaluate (Competences) - see below Develop and Expand (Competences) - see below

- Understand the fundamentals of scheduling, purchasing and logistics.
- Understand the terms associated with a supply chain, and apply proper methodology.
- Evaluate the connections between the procurement of raw materials, purchased parts, production, and the final product
- · Assess the value chain and rate it according to cost, time and quality
- Evaluate requirements from the supply chain
- · Apply methods from disposition and logistics
- · Optimize processes and inventories
- · Determine required quantities and costs
- Understand interfaces for production and job control
- Use sample exercises to improve methodological competence

#### 5 **Content**

- Foundations and concepts of modern materials management with a focus on procurement (purchasing, scheduling, logistics) in the manufacturing industry
- As part of the procurement function, the concepts of materials management, inventory management, order management, order processing, and forecasting procedures will be explored
- Concepts will be integrated into a supply chain model
- Customer-side production will be taken into account and measured
- International supply concepts will be presented and evaluated.
- Cost impact, methodological competences, and the requirements for a modern supply chain will be evaluated

## 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

None

#### 7 Forms of Assessment

One 90 minute exam.

## 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

## Lecturer / Responsible for the Module

Prof. Kluck

# Module 0943 Procurement Management

## 10 Literature

- Buchholz, Wolfgang: Supply Chain Solutions
- Kummer: Grundzüge der Beschaffung, Produkion und Logistik
- Werner, Hartmut: Supply Chain Management
- Hirschsteiner, Günther: Einkaufs- und Beschaffungsmanagement
- Kluck, Dieter: Materialwirtschaft und Logistik
- Wannenwetsch, Helmut: Integrierte Materialwirtschaft und Logistik
- Zahn, Erich: Produktionswirtschaft
- Nebl, Theodor: Produktionswirtschaft
- Traeger, H.D.: Grundlagen Lean Produktion
- Harlander, Norbert: Beschaffungsmarketing und Materialwirtschaft

## 11 Contribution to the Program

This module conveys the knowledge required for business administration studies in the area of procurement management

12 Last Update

# **Module 0944 Controlling**

1	<b>Module</b> <b>no.</b> 0944	<b>Major</b> TBB	Semester 4	Offering ⊠WS ⊠ SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	oe e	Workload (hr.) 120	ECTS Credits 4
2	Courses		Course Style		Language	Frequency (SWS) (hr.)		Self Study (hr.)	ECTS Credits
	a) Controlling		Lecture		German	4	60	60	4
3	Qualification Target Matrix		Professional Competence		Method Comp		I		d Social etence
	Remem	ber and Understand			$\boxtimes$			Γ	
	Apply		⊠					$\boxtimes$	
	Analyze and Evaluate		$\boxtimes$						
	Develop and Expand					]			

## 4 Learning Outcomes and Competences

After completing the module, students will:

### Remember and Understand (Knowledge)

- Describe the functions and tasks of controlling in a company
- Describe the most important controlling techniques

#### Apply (Skills)

- Understand the behavioral impact certain controlling techniques have in a company
- · Apply fundamental controlling techniques to operational decisions

## **Analyze and Evaluate (Competences)**

 Analyze results of controlling techniques. Derive behavioral effects, propose solutions, and report them in a structured way

#### 5 Content

- Students will learn controlling methodology and apply them in a professional context
- Cost management methods will be evaluated
- Control invoices and deviation analysis will be evaluated
- Coordination problems in decentralized companies will be discussed
- · Controlling methods in regards to budgets, key metrics, and transfer prices will be evaluated

#### 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

Corporate Finance

## 7 Forms of Assessment

One 90 minute exam.

## 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

#### 9 Lecturer / Responsible for the Module

Prof. Dr. rer. pol. Oliver Dürr

### 10 Literature

- Ewert, R. / Wagenhofer, A.: Interne Unternehmensrechnung, 8. Auflage, 2014.
- Coenenberg, A.G. / Fischer, T.M. / Günther, T.: Kostenrechnung und Kostenanalyse, 8. Auflage, 2012.
- Fischer, T.M. / Möller, K. / Schultze, W.: Controlling: Grundlagen, Instrumente, Entwicklungsperspektiven, 2. Auflage, 2015.
- Küpper, H.-U. / Friedl, G. / Hofmann, C. / Hofmann, Y. / Pedell, B.: Controlling: Konzeption, Aufgaben, Instrumente, 6. Auflage, 2013.

# **Module 0944 Controlling**

- Horváth, P. / Gleich, R. / Seiter, M.: Controlling, 13. Auflage, 2015. Reichmann, T.: Controlling mit Kennzahlen und Management-Tools: Die systemgestützte Controlling-Konzeption, 8. Auflage, 2011.

# **Contribution to the Program**

Students will learn about cost-oriented decisions, cost management methods, cost control analysis, and the behavioral impact of controlling techniques.

**Last Update** 05.02.2018

## Module 0945 Law

1	<b>Module</b> <b>no.</b> 0945	Major TBB	Semester 4	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 120	ECTS Credits 4
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Business Law		Lecture		German	2	30	30	2
	b) Labor Law		Lecture		German	2	30	30	2
3	Qualification Target Matrix		Professional Competence		Method Comp	ologica etence	I		d Social etence
	Remem	ber and Understand					]		
	Apply		$\boxtimes$					]	
	Analyze and Evaluate								
	Deve	elop and Expand	Г		Ε			[	

#### 4 Learning Outcomes and Competences

After completing the module, students will:

## Remember and Understand (Knowledge)

• Understand and classify the legal standards and foundations required for the activities of technical business administrators

#### Apply (Skills)

Assess the legality of business transactions and apply them to practice scenarios

#### 5 Content

Fundamentals of Business and Labor Law

## Business Law:

Students will understand business law issues through practice and develop their own understanding in the following topics:

- Foundations of Civil, Commercial, and Company law
- Debt and Property law
- Commercial transactions and Commercial businesses
- Partnership and Corporation laws
- Drafting of company contracts

#### Labor Law:

- Sources: laws, collective agreements, company agreements, judiciary, freedom of association
- Collective Labor Law: collective agreements
- Industrial action: strike, lockout
- Works Constitution Act: council, union, co-determination

#### Individual Labor Law:

- Staffing: invitation to tender, application procedure, employment contract
- Rights and obligations arising from the employment relationship: employer, employee
- · Remuneration: illness, vacation
- Social insurance: illness, vacation, pension

## 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

#### Recommended:

Corporate Finance

## 7 Forms of Assessment

One 90 minute exam consisting of both Business Law and Labor Law.

# Module 0945 Law

8	Module Application Obligatory module in the Bachelor's Program for International Business Administration (TBB).
9	Lecturer / Responsible for the Module Prof. Dr. rer. pol. Oliver Dürr
10	Literature Civil Law Code
11	Contribution to the Program The students will understand the legalities surrounding the professional world.
12	<b>Last Update</b> 05.02.2018

## Module 0920 Business Simulation

Mod no 092	).	<b>Major</b> TBB	Semester 5	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 120	ECTS Credits 4
2	Courses		Course Style		Language	Frequ (SWS)	•	Self Study (hr.)	ECTS Credits
a)	a) Business Simulation		Exercises		German	2	30	30	2
b)	b) Exercises in Economics		Project		German	-		60	2
Qua	alific	ation Target Matrix	Professional Competence		Method Comp	ologica etence	I		d Social etence
Rei	mem	ber and Understand						X	
	Apply		⊠						X
	Analyze and Evaluate		$\boxtimes$		Γ			]	
	Develop and Expand		۵	<b></b>					

### 4 Learning Outcomes and Competences

- Business Simulation: Participants will guide a fictitious simulation game company by analyzing
  accounting reports and independently developing key business decisions in a competitive market
  environment
- Exercises in Economics: Participants will penetrate an economic problem / phenomenon / question in order to analyze its pros and cons in detail. A scientifically sound opinion on the proposed solutions will be evaluated

## Remember and Understand (Knowledge)

- Business Simulation: Previously learned theories of Business Administration must be exercised during the simulation game, as knowledge is refined through practical example
- Exercises in Economics: Reactivation of micro and macroeconomic knowledge and its application to a current economic problem

## Apply (Skills)

- Business Simulation: Application of contents and theories of Business Administration
- Exercises in Economics: All acquired economic knowledge should be used in the evaluation and analysis of the given chains of reasoning

## **Analyze and Evaluate (Competences)**

- Business Simulation: Analysis and evaluation of company reports and Macroeconomic requirements
- Exercises in Economics: Chains of reasoning will be examined and assessed for their plausibility, stringency and, if necessary, their feasibility from an economic, social and practical point of view.

## **Develop and Expand (Competences)**

## **Business Simulation:**

- Participants will understand the complexity of business contexts and learn how to organize, plan, control, analyze deviations, and steer according to the company's goals.
- Participants will understand important aspects of the macroeconomic environment of the German and European economies. They will classify important social developments and assess different economic alternatives

#### 5 Content

#### **Business Simulation:**

- Practical experience in entrepreneurial thinking and decision-making
- Practice and deepen business knowledge in a simulative corporate context
- · Lead a company, making business decisions over several business periods, and analyzing the entire

## **Module 0920 Business Simulation**

operational reporting system

• Development of individual case studies for product costing, cost object accounting, activity-based costing, marketing, and investment decisions

#### **Exercises in Economics:**

- Assessment of Macroeconomic processes and problematic situations
- Application of economic knowledge to assess economic and social situations

## 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

Economics, Accounting I+II, Introduction to Business Administration

#### 7 Forms of Assessment

An ungraded certificate will be awareded in Business Simulation upon completion of the simulation game and all relevant coursework. Following completion of the simulation game, one project about an economic topic will be assessed for the Exercises in Economics course.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

9 Lecturer / Responsible for the Module

Prof. Dr. Jäger

## 10 Literature

- Teilnehmerhandbuch Topsim General Management
- Gregory Mankiw: Grundzüge der Volkswirtschaftslehre
- Gregory Mankiw: Makroökonomik
- Diverse Videovorträge

#### 11 Contribution to the Program

Useful economic knowledge for all who meet the requirements.

# 12 Last Update

# **Module 0946 Practical Study Semester**

1	Module no. 0946	<b>Major</b> TBB	<b>Semester</b> 5	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Module Type Obligatory	Workload (hr.) 780	ECTS Credits 26
2	Courses		Course Style		Language	Language Frequency (SWS) (hr.)		ECTS Credits
	a) Occupational Experience		Internship			720		24
	b) Audit Practice Semester		Seminar		German	15	45	2
3	Qualific	ation Target Matrix	Professional Competence			ological etence		d Social etence
	Remem	ber and Understand	⊠				[	
	Apply		⊠					$\boxtimes$
	Analyze and Evaluate		⊠		D	₫	$\boxtimes$	
	Deve	elop and Expand	Σ	₫	D	₫		×

#### 4 Learning Outcomes and Competences

After completing the module, students will:

## Remember and Understand (Knowledge)

- Classify tasks in the right subject areas
- Acquire and deepen specialist knowledge in the specific areas of the practice

#### Apply (Skills)

· Apply learned skills and methods in practice

## **Analyze and Evaluate (Competences)**

· Evaluate solutions

## **Develop and Expand (Competences)**

- · Acquire social competence through dealings with supervisors and colleagues
- Understand how to communicate within a company
- Own a project and gain responsibility and confidence
- · Create an application

## 5 Content

In the practical study semester, students apply the scientific methods and procedures taught during their studies to tasks in the professional world. They acquire practical experience during their employment and thus directly prepare themselves for future professional activity. They'll work in a company or other professional facility with at least 100 attendance days and write a report about their experience. At the end of the practical study semester, students will reflect on their newly acquired theoretical and practical knowledge. They will critically assess the procedures and processes in place during their internship, and will receive feedback on their performance.

# 6 Participation Requirements

According to study and examination regulations:

Passed Bachelor's Program Preliminary Exam

#### Recommended:

All modules of the first four semesters.

Because the practical semester is required before commencing the Bachelor thesis, it should be completed in the 5th semester according to SPO (study and examination. Since the evaluation of the practical study semester will take time, a 6th semester is required as a subsequent theoretical semester. Otherwise, there may be delays in starting the bachelor thesis.

## 7 Forms of Assessment

Proof of at least 100 days of attendance in a suitable internship, carrying out acceptable activities listed under the Internship Policy

# **Module 0946 Practical Study Semester**

	Written report approved by the Internship Office, in accordance with the provisions of the Internship Policy Report uploaded to university website Internship presentation and participation in the course "Audit Practical Semester"
8	Module Application Obligatory module in the Bachelor's Program for International Business Administration (TBB).
9	Lecturer / Responsible for the Module Prof. Dr. Hartinger
10	Literature Bachelor Internship Policy on the faculty website
11	Contribution to the Program Students will acquire practical experience and knowledge to supplement their courses on the essential activities of technical business economists. As part of their occupational experience, they actively carry out economic and / or technical work for a substantial part of the employment period.
12	<b>Last Update</b> 05.02.2018

# Module 0947 Change Management and Innovation Management

1	<b>Module</b> <b>no.</b> 0947	<b>Major</b> TBB	Semester 6	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 240	ECTS Credits 8
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	Organizational Psychology a) and Personnel Development		Lecture with exercises		German	3	45	45	90
	Organizational b) Development and Process Management		Lecture with exercises		German	3	45	45	90
	c) Innov	ation Management	Lecture with exercises		German	2	30	30	60
3	Qualific	ation Target Matrix	Professional Competence			Methodological Competence			d Social etence
	Remem	ber and Understand			$\boxtimes$				⊴
	Apply		⊠		$\boxtimes$				₹
	Analyze and Evaluate		⊠		$\boxtimes$			$\boxtimes$	
	Deve	elop and Expand		₫		₹			₹

# 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- Understand fundamental models and theories for describing, explaining and designing change and innovation processes in organizations
- · Understand mediation models and theories

#### Apply (Skills)

 Apply methodologies and carry out independent projects in the realm of Change and Innovation Management

## **Analyze and Evaluate (Competences)**

• Identify, interpret, and evaluate relevant content in order to plan, implement, and optimize organizational development, and personnel development projects

## **Develop and Expand (Competences)**

- Manage innovation and change in an organization, and develop new problem-solving strategies
- Develop a holistic perspective for planning changes in an organization this knowledge will surface near the end of the course
- Understand models and theories for describing, explaining, and shaping change and innovation processes in an organization concrete examples and practical exercises will be presented.

## Organizational Psychology and Personnel Development:

Students will learn psychological models and theories, with which they can better understand and explain the behavior and experience of people in changing organizations. Practical examples will be presented to increase awareness.

## Organizational Development and Process Management

Students will learn models and procedures of organizational development, and refine their understanding through practical exercises. They will deal with various approaches of process design, management of business processes, and change management. Students will independently design and implement OE projects and optimize processes

#### **Innovation Management**

Students will evaluate the importance and complexities of Innovation Management

# Module 0947 Change Management and Innovation Management

#### 5 Content

Organizational Psychology and Personnel Development:

- Behavior and experience in change processes
- Transactional leadership approach
- Trust and motivation
- Negotiation management
- Management diagnostics
- The construct of creativity
- · Conflict management and innovativeness
- Power and micro politics

#### Organization Development and Process Management:

- Review of structure / process organization
- Basic concepts and process types in theory and practice
- Design of processes
- Management of business processes
- Models and processes of organizational design and development
- Success factors of change management

#### Innovation Management:

• Models and processes of Innovation Management

## 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

#### Recommended:

None

## 7 Forms of Assessment

Module performance consists of a 180 minute exam covering all three courses. 60 minutes will be available for each section.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

# 9 Lecturer / Responsible for the Module

Prof. Dr. Sven Ullrich

## 10 Literature

- Disselkamp, Marcus (2017). Innovation und Veränderungen. Stuttgart: Kohlhammer
- Rosenstiel, L. v. & Nerdinger, Friedemann W. (2011). Grundlagen der Organisationspsychologie, 7. überarbeitete Auflage, Stuttgart: Schäffer-Poeschel
- Vahs, D. & Leiser, W. (2004). Change Management in schwierigen Zeiten. Wiesbaden: DUV
- Vahs, D.: Organisation (2015). Einführung in die Organisationstheorie und -praxis, 9. Auflage, Stuttgart: Schäffer-Poeschel
- Vahs, D./Brem, A (2015).Innovationsmanagement, Von der Idee zur erfolgreichen Vermarktung, 5., überarbeitete und erweiterte Auflage, Stuttgart 2015

#### 11 Contribution to the Program

Overview / in-depth insights into essential concepts and methods / procedures of modern corporate management in the mentioned fields.

## 12 Last Update

## Module 0948 International Business

1	<b>Module</b> <b>no.</b> 0948	<b>Major</b> TBB	Semester 6	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Typ Obliga	oe .	Workload (hr.) 240	ECTS Credits 8
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) International Marketing b) Case Studies International Business		Lecture		English	2	30	30	2
			Exer	Exercise		2	30	30	2
	c) International Finance		Lecture with Exercises		English	2	30	30	2
	d) Intern	ational Commercial Law	Lec	ture	English	2	30	30	2
3	Qualific	ation Target Matrix	Professional Competence		Methodological Competence		I		d Social etence
	Remem	ber and Understand	⊠					[	
	Apply				$\boxtimes$			[	
	Analyze and Evaluate				$\boxtimes$				⊠
	Deve	elop and Expand				≺		Γ	

## 4 Learning Outcomes and Competences

After completing the module, students will:

## Remember and Understand (Knowledge)

• International Finance: Students understand the specific aspects of international finance and are aware of different risks that multinational companies face

## Apply (Skill)

• International Finance: Students can deal with exchange rate risks in a company's context

#### Analyze and Evaluate (Competences)

• International Finance: Students are able to evaluate different international investment strategies and sources of finance.

#### **Develop and Expand (Competences)**

• International Finance: Students can make independently management decisions which arise in a multinational company

## 5 Content

International Marketing:

This course covers an entire range of international marketing, beginning with start-up operations, continuing with new market entry considerations, and concluding with the international issues confronting giant global marketers. The course addresses the reality of the interchange between business and government by analyzing international marketing issues from both the business and policy perspective. Most important is the integration of the societal dimensions of diversity, environmental concerns, ethics, and economic transformation.

At the end of this course, students will:

- Have a better understanding of the basic concepts in international marketing and the environmental forces that will need to consider as international marketers
- Learn how to focus on the various activities necessary for international marketing planning, including import/export operations, together with elements of the marketing-mix.
- Learn to become more effective marketing managers by understanding the strategy issues most relevant for the multinational corporation.
- Learn about reducing risk and expanding global opportunities in the real world entrepreneurial perspective.

## Module 0948 International Business

Case Studies International Business:

• Applying the international marketing material in different case studies

#### International Commercial Law:

By the end of the course participants should have a basic understanding of commercial legal relations, in particular with respect to trans-border transactions in Common Law and Civil Law Systems, be familiar with legal terminology, be capable of understanding and analyzing basic legal problems in different types of contracts and be able to recognize business risks/develop risk management solutions from different viewpoints (e.g. seller/ purchaser, licensor/licensee), understand corporate structures and basic principles of mergers & acquisitions (M&A) and joint venture concepts.

- Basic differences between Common Law and Civil Law Systems
- International Organizations Formation of contracts
- Basic legal elements of different types of contracts
- Warranties
- · Breach of contract, based on CISG
- Risk management/risk avoidance from different viewpoints with case studies
- Applicable law, jurisdiction, battle of the forms
- Dispute resolution, security, intellectual property law

#### International Finance:

- Global financial environment, international monetary system and the Balance of Payments.
- FX-theory and -exposure (FX-market (FOREX), FX-theory, FX-derivatives, FX-exposure and -management of a firm)
- Financing sources of a multinational firm (global cost of capital and optimal capital structure, international equity and debt financing, financing the foreign subsidiary)
- International investment decisions (international portfolio diversification, foreign direct investments)
- Managing multinational operations (multinational capital budgeting, international trade financing, international tax environment and transfer pricing, multinational cash management)

#### 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

Recommended:

Marketing, Corporate Finance

#### 7 Forms of Assessment

One 120 minute exam consisting of International Marketing, Finance, and International Business Case Studies. One 60 minute exam consisting of International Commercial Law

## 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

## 9 Lecturer / Responsible for the Module

Prof. Kohlert, Prof. Flad (WS), Prof Günther (SS)

#### 10 Literature

- Czinkota/Ronkainen/Zvobgo: International Marketing, Andover 2011
- Kohlert/Fadai/Sachs: Entrepreneurship for Engineers, München 2013
- Kohlert/PwC: Vom Risiko zur Chance. Russland und die Ukraine im Fokus mittelständischer Maschinenbauer und Automobilzulieferer aus Baden-Württemberg, Stuttgart 2005 (English version)
- Roberts/Berry: Entering New Businesses. Selecting Strategies for Success, in: Sloan Management Review, Spring 1985, pp. 3–16

# Contribution to the Program

International framework for business, specializing in sales and corporate management.

## 12 Last Update

# **Module 0949 Process Performance Management**

1	<b>Module</b> <b>no.</b> 0949	<b>Major</b> TBB	Semester 6	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	IVNA		Workload (hr.) 180	ECTS Credits
2	Courses		Course Style		Language	Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) Information Systems		Lecture with exercises		German	2	30	30	2
	b) Process Planning		Lecture with exercises		German	2	30	30	2
	c) Controlling Seminar		Sem	inar	German	2	30	30	2
3	Qualification Target Matrix Professio		Professional	Competence	Methodological Competence			Self and Social Competence	
	Remember and Understand				$\boxtimes$				
	Apply		×		$\boxtimes$				
	Analyze and Evaluate		⊠		$\boxtimes$				
	Develop and Expand								

#### 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

- Understand the meaning and goals of Business Intelligence in the context of business information systems and business functions
- Outline and explain the essential components of a data warehouse system
- Distinguish basic types of data usage such as reporting, OLAP, and data mining
- · Describe the essential methods for visualizing data
- Name common data mining methods for typical data mining tasks
- List various traditional and current methods for documentation and analysis of processes, and understand in which cases they should be applied
- Explain criteria for designing companies and processes under process- and customer-oriented aspects

## Apply (Skills)

- Use the SAP Business Explorer to prepare operational decisions
- Apply methods to document processes
- Summarize tasks according to customer and process criteria, and derive organizational units and requirements for job creation
- Apply various controlling methods to practical problems, defend them argumentatively and critically question them

## **Analyze and Evaluate (Competences)**

- Determine and classify the characteristics and key figures of an information system required for a specific application scenario
- Analyze business data using OLAP
- · Support decision-making through appropriate business diagrams
- Analyze and evaluate processes
- Recognize and evaluate weak points in processes
- Develop target and problem-oriented solutions for process improvement
- Develop special controlling tasks and methods, and present them in a structured manner. Classify and discuss them critically

#### 5 Content

Participants will learn about the structure, mode of operation, and essential features of operational management and leadership systems. They will learn methods for mapping processes and will derive typical metrics for evaluating and controlling processes. In addition, they will learn how planning, controlling and information tools can be aligned to the corporate objective.

# Module 0949 Process Performance Management

#### Information Systems:

After defining the different types of application systems, the course presents the structure, operation and fields of application in business information systems. Of particular importance are the evaluation of (business) processes and the scope of application of corporate controlling. Participants will gain practical experience in the evaluation and visualization of company data through working on a provided system environment based on SAP NetWeaver BI. They will understand how decisions-relevant relationships can be automatically recognized (partially) with the help of data mining approaches.

#### **Process Planning:**

With a provided system environment, the participants will gain practical experience in the evaluation and visualization of business processes and their properties. They will learn how decisions-relevant relationships can also be automatically recognized (partially) with the aid of classic key figure approaches in the context of process management.

- Students learn the basic characteristics of processes, as well as different methods for mapping processes across different levels of planning and controlling so that a hierarchically structured process map is created
- Depending on various objectives, students will derive typical metrics for assessing and controlling processes. Moreover, they will develop approaches to improve processes
- During the course of the lecture, exercises will be carried out using standard software programs. Process models will be created and evaluated as an example.

#### Controlling Seminar:

Participants will apply controlling methods to practical questions by developing and critiquing case studies. Special controlling methods will be critically evaluated.

### 6 Participation Requirements

According to study and examination regulations:

Completed first stage of study

## Recommended:

Module 0931 Fundamental Business Informatics, 0938 Application Systems, and 0944 Controlling

## 7 Forms of Assessment

One 90 minute exam consisting of Information Systems and Process Planning (weight 2/3). 45 minutes will be allotted for each section. One graded paper will be required for Controlling Seminar (weight 1/3). Module performance will be the weighted score of these two assessments.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB).

## 9 Lecturer / Responsible for the Module

Prof. Hartinger

## 10 Literature

#### Information Systems:

• Gabriel, R., Gluchowski, P. und Pastwa, A., Datawarehouse & Data Mining, Herdecke u.a. 2009.

## Process Planning:

Gladen, W., Performance Measurement, Wiesbaden 2008, Becker, J. u.a., Prozessmanagement, Berlin
u.a. 2005, Schmelzer, H. und Sesselmann, W., Geschäftsprozessmanagement in der Praxis,
München 2010.

#### Controlling Seminar:

- Ewert, R. / Wagenhofer, A.: Interne Unternehmensrechnung, 8. Auflage, 2014.
- Coenenberg, A.G. / Fischer, T.M. / Günther, T.: Kostenrechnung und Kostenanalyse, 8. Auflage, 2012.
- Fischer, T.M. / Möller, K. / Schultze, W.: Controlling: Grundlagen, Instrumente, Entwicklungsperspektiven, 2. Auflage, 2015.
- Küpper, H.-U. / Friedl, G. / Hofmann, C. / Hofmann, Y. / Pedell, B.: Controlling: Konzeption, Aufgaben, Instrumente, 6. Auflage, 2013.
- Horváth, P. / Gleich, R. / Seiter, M.: Controlling, 13. Auflage, 2015.
- Reichmann, T.: Controlling mit Kennzahlen und Management-Tools: Die systemgestützte Controlling-Konzeption, 8. Auflage, 2011.

# **Module 0949 Process Performance Management**

• Troßmann, E. / Baumeister, A. / Werkmeister, C.: Fallstudien im Controlling, 3. Auflage, 2013.

## 11 Contribution to the Program

Well-founded corporate management is essentially based on the transfer of company data into decision-relevant information, and the use of modern controlling methods. In addition to traditional static key figure systems, an in-depth detailed analysis of (business) processes is used to avoid undesirable outcomes. The Process Performance Management module teaches how to map and present the methods, metrics, processes, and systems needed to plan, monitor, control, and improve a company's performance.

12 **Last Update** 05.02.2018

# **Module 0926 Scientific Project**

1	Module no. 0926	no. Major		Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Module Type Obligatory		Workload (hr.) 300	ECTS Credits
2	Courses		Course Style		Language	Frequency (SWS) (hr.)		Self Study (hr.)	ECTS Credits
	a) Scientific Project		Pro	ject	German or English		20	280	10
3	Qualification Target Matrix		Professional	Competence	Methodological Competence		Self and Social Competence		
	Remember and Understand								
	Apply				$\boxtimes$			$\boxtimes$	
	Analyze and Evaluate		$\boxtimes$						
	Develop and Expand		٥	3	$\boxtimes$		J C		

## 4 Learning Outcomes and Competences

After completing the module, students will:

### Apply (skills)

- Resolve scientific and technical issues, taking into account economic, environmental, safety and ethical aspects
- Develop a scientific foundation to work on a project
- · Plan time, effort, and resources
- Independently learn new technologies and methods
- Document results in a clear and understandable way
- Independently research, and if needed, interview with experts.

#### Analyze and evaluate (skills)

- Assess and evaluate their processes
- Assess and evaluate their results

#### Develop and Expand (skills)

• Use learned methodologies to propse and implement solutions

#### Content

Having learned fundamental scientific principles, students will independently develop (may work in teams, if individual achievement can be proven) a project within a deadline. This will require research, and if needed, discussions with experts

This will include:

- Development, concretization and agreement of the project with the supervisor
- · Creation of a schedule
- Research and discussions with experts
- · Execution of tasks according to the schedule
- Presentation of the project to the supervisor, and possibly a plenary session.

## Participation Requirements

According to study and examination regulations:

Completed all examss in the first stage of study

Recommended:

Completion of all exams from Semesters 1-6

#### 7 Forms of Assessment

The project will be graded

## 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB) and Technical Business Administration / Automotive Industry (TAB)

# 9 Lecturer / Responsible for the Module

Dean of Studies

# **Module 0926 Scientific Project**

## 10 Literature

- Kornmeier, M. (2008): Wissenschaftlich schreiben leicht gemacht für Bachelor, Master und Dissertationen, 6. Auflage, Bern 2013
- Joachim Stary, Die Technik wissenschaftlichen Arbeitens. Eine praktische Anleitung, Band724 von Uni-Taschenbücher, 2013
- Andermann, Drees, Duden Wie verfasst man wissenschaftliche Arbeiten? Ein Leitfaden für das Studium und die Promotion; 3. Auflage, 2006
- Carlike, P./ Christensen, C.(2005): The cycles of Theory Building in Management Research, Working Paper, Boston 2005
- Bortz, J. Döring, N (2001). Forschungsmethoden und Evaluation, Springer Verlag

## 11 Contribution to the Program

Students will acquire interdisciplinary knowledge necessary to carry out a scientific project. They will learn to structure their work in a presentable manner, and organize themselves in a manner in which they can critically question and evaluate the quality of their work.

12 **Last Update** 05.02.2018

## Module 0925 Bachelor Thesis: Bachelor of Administration

1	Module no. 0925	Major TBB	Semester 7	Offering ⊠WS ⊠SS	<b>Duration</b> 1 Semester	Mod Ty <sub>l</sub> Obliga	oe .	Workload (hr.) 420	ECTS Credits 14
2		Courses		Course Style		Frequ (SWS)		Self Study (hr.)	ECTS Credits
	a) E	a) Bachelor Thesis		Thesis		х	40	320	12
	b) Colloquium		Colloquium		German or English	х	0	60	2
3	Qualification Target Matrix		Professional	Competence	Methodological Competence		I	Self and Social Competence	
	Remem	Remember and Understand							
	Apply								
	Analyze and Evaluate Develop and Expand				$\boxtimes$			$\boxtimes$	
			$\boxtimes$						

## 4 Learning Outcomes and Competences

After completing the module, students will:

#### Remember and Understand (Knowledge)

• Understand the processes involved in scientific research

#### Apply (Skills)

- Independently complete a task of international business administration (TBB) and technical business administration / automotive industry (TAB) on a scientific basis within a set deadline.
- Select the appropriate methods for the treatment of their topic, and justify and document it on a theory-guided basis.
- Present a scientific thesis and defend it against a plenum
- Organize their work and themselves in a presentable manner
- Systematically and scientifically structure their topic

#### Analyze and Evaluate (Competences)

- Analyze and evaluate scientific and technical tasks and their solutions
- Evaluate their topic via a scientific discourse and assign its relevance to mechatronics.
- Analyze essential research and present their findings in a relatable way

#### **Develop and Expand (Competences)**

- Implement scientific and technical tasks, taking into account economic, environmental, safety and ethical aspects
- Develop existing skills to solve new problems.

#### 5 Content

In the thesis, students will independently develop (also in the team that if the equity performance can be demonstrated) a thesis within a deadline. They will apply scientific methods and present their results. This will include:

- Development and concretization of the task
- Creation of a work and schedule
- Literature review
- Planning, implementation and evaluation of the task
- Theoretical derivation and justification of general problem solution designs or specific policies
- Selective and logical structure of the representation
- Formulation of the text and, where possible, create appropriate visualizations (charts, tables)
- Final review of work on recognizable consistency and linguistic correctness

The Colloquium consists of a presentation, in which students present their thesis in the form of lecture and defend against a plenum

## 6 Participation Requirements

## Module 0925 Bachelor Thesis: Bachelor of Administration

According to study and examination regulations:

Completed Practical Study Semester

Recommended:

Completion of all exams from Semesters 1-6

#### 7 Forms of Assessment

The Bachelor thesis and Colloquium will be evaluate by two examiners. Module performance will be the mean score given by the examiners.

#### 8 Module Application

Obligatory module in the Bachelor's Program for International Business Administration (TBB) and Technical Business Administration / Automotive Industry (TAB)

## 9 Lecturer / Responsible for the Module

Dean of Studies

#### 10 Literature

- Kornmeier, M. (2008): Wissenschaftlich schreiben leicht gemacht für Bachelor, Master und Dissertationen, 6. Auflage, Bern 2013
- Joachim Stary, Die Technik wissenschaftlichen Arbeitens. Eine praktische Anleitung, Band724 von Uni-Taschenbücher, 2013
- Andermann, Drees, Duden Wie verfasst man wissenschaftliche Arbeiten? Ein Leitfaden für das Studium und die Promotion; 3. Auflage, 2006
- Carlike, P./ Christensen, C.(2005): The cycles of Theory Building in Management Research, Working Paper. Boston 2005
- Bortz, J. Döring, N (2001). Forschungsmethoden und Evaluation, Springer Verlag

## 11 Contribution to the Program

Students will acquire interdisciplinary knowledge necessary to carry out a scientific project. They will learn to structure their work in a presentable manner, and organize themselves in a manner in which they can critically question and evaluate the quality of their work.

#### 12 Last Update