HS PF

**MODULHANDBUCH /
MODULE HANDBOOK SPO2016**

**BUSINESS ADMINISTRATION/
DIGITAL ENTERPRISE MANAGEMENT**
B.Sc.

Stand: September 2016

INHALTSVERZEICHNIS

Abkürzungsverzeichnis / List of Abbreviations

CR	Credit gemäß ECTS – System / credits according to ECTS – System
PLH	Prüfungsleistung Hausarbeit / examination based on essay
PLK	Prüfungsleistung Klausur / examination based on written exam
PLL	Prüfungsleistung Laborarbeit / examination based on laboratory work
PLM	Prüfungsleistung mündliche Prüfung / examination based on oral exam
PLP	Prüfungsleistung Projektarbeit / examination based on project work
PLR	Prüfungsleistung Referat / examination based on presentation
PLT	Prüfungsleistung Thesis / examination based on written thesis
PVL-BVP	Prüfungsvorleistung für die Bachelorvorprüfung / prerequisite examination for bachelor interim overall exam
PVL-BP	Prüfungsvorleistung für die Bachelorprüfung prerequisite examination for final bachelor graduation
PVL-PLT	Prüfungsvorleistung für die Thesis prerequisite examination for registration for bachelor thesis
SWS	Semesterwochenstunde(n) / contact hours per week
UPL	Unbenotete Prüfungsleistung /non-graded examination (pass/fail only)
WPF	Wahlpflichtfach / Elective

Alignment Matrix zur Vermittlung der Kompetenzziele gemäß KMK /
Alignment matrix for learning goals according to official state requirements

Sem.	Module	Wissensver-breiterung / Enlargement of knowledge	Wissensver-tiefung / Consolida-tion of knowledge	Instrumen-tale Kompetenz / Instrumental Competence	Systemische Kompetenz / Systemic Competence	Kommunika-tive Kompetenzen/ Communica-tive Compe-tencies
ERSTER STUDENABSCHNITT / LEVEL 1 – INTERIM GRADE						
(Basic Modules, not counting to the final bachelor grade**)**						
General Program						
1.	SIC1030	X				X
1.	AQM1040	X	X			
1.	ECO1040	X	X			
1.	GMT1200	X	X			
1.	LAN1030	X				
2.	AQM1140	X	X	X		
2.	ECO1210	X	X			
2.	GMT1210	X	X			
2.	LAN1040	X				
Specialisation Digital Enterprise Management						
1.	BIS1010	X	X			
2.	BIS1110	X	X	X		
2.	BIS1120	X	X	X		
ZWEITER STTUDENABSCHNITT / LEVEL II – MODULES CONTRIBUTING TO THE FINAL GRADE						
(Advanced Modules)						
General Program						
4.+7.	SIC 1030 ctd.		X			X
3.	AQM2040	X	X	X		
3.	ECO2100	X	X		X	
3.	GMT2200	X	X			
3.	LAN1050	X	X			
4.	ECO2110			X	X	X
4.	GMT2110	X	X			
4.	LAW2060	X	X			
5.	INS3020			X	X	X
5.+6.	GMT3100		X	X	X	X
6.	ESR3100		X	X	X	
6.	GMT3310		X	X	X	
7.	EXA4999			X	X	X
7.	THE4999			X	X	X
Specialisation Digital Enterprise Management						
3.	BIS2050		X	X	X	
3.	BIS2070	X	X	X		
4.	BIS2090		X	X	X	X
4.	BIS2100	X	X	X		
6.	BIS3040		X	X	X	X
6.	BIS3060		X	X	X	
7.	BIS4050		X	X	X	X
7.	BIS4060		X	X	X	X

Erster Studienabschnitt / Level 1 – Interim Grade (Basic Modules)

A. General Program

SIC1030 – GENERAL SKILLS AND COMPETENCIES

Module Name	General Skills and Competencies
Module ID	SIC1030
Semester	1, 4, 7
Credits	5
SWS /contact hours per week	4
Frequency	SIC1031, BIS2061 and BIS2062 once a year BIS4031 each semester

Associated Courses	• SIC1031 Social and Methodical Competencies: Semester 1, 2 SWS,
	  3 Credits
	• SIC1032 German – A2
	• SIC1032 German – B1
	• SIC1033 German – B1+
	
	• Trainings (Semester 4, Elective, one to be chosen):
	  ○ BIS2061 Communication Skills (1 SWS, 1 Credit)
	  ○ BIS2062 Presentation Techniques (1 SWS, 1 Credit)
	  ○ BIS2063 Negiation Skills (1 SWS, 1 Credit)
	
	• BIS4031 Labour Market Bridge: Semester 7, 1 SWS, 1 Credits

Prerequisites	None

Assessment Methods	• SIC1031 Social and Methodical Competencies: UPL
	• SIC1032-1034: Passing the relevant exams
	• Trainings (Electives):
	  ○ BIS2061 Communication Skills: UPL
	  ○ BIS2062 Presentation Techniques: UPL
	  ○ BIS2063 Neogiation Skills: UPL
	
	• BIS4031 Labour Market Bridge: UPL

Requirements for granting of credits	Passing all courses and the selected training of the module. The individual components may be passed separately.
Significance for the Final Grade	The module is neither counted towards the interim nor the final bachelor grade.
Planned Group Size	SIC1031, BIS2061, BIS2062, BIS2063 and BIS4031: 15 students

Language	• SIC1031 Social and Methodical Competencies: English
	• SIC1032-1034: German
	• Trainings (Electives)
	  ○ BIS2061 Communication Skills: German
	  ○ BIS2062 Presentation Techniques: German

	◦ BIS2063 Neogiation Skills: German or English • BIS4031 Labour Market Bridge: German
Module Duration	3 semesters (scheduled for semesters 1, 4, 7)
Module Coordinator	Thesmann, Stephan
Lecturer(s)	• SIC1031 Social and Methodical Competencies: professors of the faculty and student tutors • Trainings (Electives BIS2061 and BIS2062): Lecturers from the bachelor programs Digital Enterprise Management and Business Information Systems – Management & IT • BIS4031 Labour Market Bridge: Lecturers from the bachelor programs Digital Enterprise Management and Business Information Systems – Management & IT
Discipline	Digital Enterprise Management
Applicability in other programs	None.
Pedagogical Approach	Interactive approach including tutorials and trainings
Objectives	The students • know how to conduct subject conversations effectively • know how to conduct conflict conversations effectively without losers • recognize destructive, rigid communication patterns and practice successful alternatives • gain an assured manner when speaking in front of the group • are able to build up and design presentations goal- and listener-oriented • know how to deploy media, stylistic devices and body language in an appropriate way • are aware of intercultural differences • are able to observe group processes and estimate their own behaviour • perceive own role within the group and the effect of its behaviour more consciously • know how to influence and control teamwork goal-oriented • are prepared to behave successfully in internships • are prepared to find and apply for a position
Content	The module imparts • Training design in mixed groups (international and german students) • Work tasks are worked out in small groups • Topics are cross-culturally-relevant standard situations such as greetings, dates, thanking, opening a conversation, conversation strategies, communication situations of the business world in general (e.g. applications, negotiations, meetings, etc.) and the discipline, respectively • Preparation for job application
Relation to other Modules	SIC1031 lays the foundations for all future seminars and projects.
Literature	SIC1031: • Course Materials provided.

	• Gibson, International Business Communication, Oxford • Powell, Mark: Dynamic Presentations, Cambridge • Varner, I./Beamer, L.: Intercultural Communication in the Global Workplace, New York et. al. BIS2061, BIS2062, BIS2063, BIS4031: • Kursmaterialien • Schulz von Thun, F.: Miteinander reden: Störungen und Klärungen. Hamburg • Birkenbihl, V.: Kommunikationstraining, Heidelberg • Hartmann, M. et al: Die überzeugende Präsentation, Weinheim • Herbig, A. F.: Vortrags- und Präsentationstechnik, Norderstedt
Workload	SIC1031: Contact hours (15*2=) 30 hours Preparation and follow-up (15*4=) 60 hours **Subtotal** **90 hours** Electives – BIS2061 and BIS2062 (each) Contact hours (15*1=) 15 hours Preparation and follow-up (15*1=) 15 hours **Subtotal** **30 hours** BIS4031: Contact hours (15*1=) 15 hours Preparation and follow-up (15*1=) 15 hours **Subtotal** **30 hours** **Total** **150 hours**
Additional Remarks	SIC1032-1034: These module components certify the respective skills in German. Native speakers automatically pass. For non-native speakers the certification of the entry level in German is driving the language offers in the LAN-modules. Required certifications can be reached by successfully passing the LAN-exams.
Keywords	Intercultural Communication, Presentation Skills, Communications Skills, Training
Last edited	August 2018

AQM1040 – MATHEMATICAL FOUNDATIONS FOR BUSINESS

Module Name	Mathematical Foundations for Business
Module ID	AQM1040
Semester	1
Credits	5 Credits
SWS / contact hours per week	4
Frequency	winter semester only
Associated Courses	AQM1041 Analysis/Linear Algebra (2 SWS, 3 Credits) AQM1042 Fundamentals of Financial Mathematics (2 SWS, 2 Credits)
Prerequistes	None
Assessment Methods	AQM1041 Analysis /Linear Algebra: PLK – 60 min AQM1042 Fundamentals of Financial Mathematics: PLK – 60 min
Requirement for granting of credits	Passing of the written exams, each component course may be passed separately.
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	AQM1041 Foundations in Analysis und Linear Algebra: 15 AQM1042 Foundations in Financial Mathematics: 50
Language	This module is a mandatorily taught in English for the study program BSBA/Digital Enterprise Management and is being offered in the winter semester only.
Module Duration	1 Semester
Module Coordinator	Wüst, Kirsten
Lecturer(s)	Professors of the subject area Quantitative Methods and Assistant Lecturers
Discipline	Quantitative Methods
Applicability in other programs	The module is included in all business bachelor programs, Fundamentals of Financial Mathematics is also attended by students of the bachelor in Laws and the *International Study Program (ISP)*.
Pedagogical Approach	Lecture with exercises
Objectives	The participants... • can translate simple economic issues in mathematical models • are able to analyze economic functions by use of differential and integral calculus • understand basic concepts of optimization methods by applying the method of Lagrange multipliers • know how to handle systems of linear equations and matrices

	• are provided upon successful completion of the course with mathematical knowledge that opens up access to advanced courses in statistics and quantitative planning • know conventional financial products • can critically assess various offers of financial companies such as financial investment and borrowing • know the operation and applications of modern financial instruments (especially interest derivatives) and their risks and opportunities
Content	The module consists of two courses " Analysis/Linear Algebra" and "Fundamentals of Financial Mathematics". AQM1041: As part of the first course, the concepts of Analysis of functions with one variable (limit / continuity, homogeneity / elasticity, differential and integral calculus) are first developed. In addition, the basic concepts of matrix-vector calculation (incl. Determinant, inverse) and the solution of linear systems are subject of this course. Based on these two areas, the basic methods of analysis of functions of several variables are discussed (partial homogeneity, partial elasticity, partial / total differential, differential calculus, multiple integrals, constrained optimization). AQM1042: The course "Foundations in Financial Mathematics" provides the necessary mathematical tools for Financial Mathematics (exponential / logarithmic functions, sequences, and series). Foundations in calculation of interest serve as the basis for the following chapters. Theory of investment, pension calculation, sinking fund calculation and a chapter on market value and ROI of securities give an introduction into business decision situations. With an introduction in interest derivatives an insight into the modern corporate financial planning is granted.
Relation to other modules	It will set the methodological basis for all other subjects in the field of Applied Quantitative Methods, Pure Economics and Business Economics. In addition, this module is the basis for the specialization courses Finance and Accounting.
Literature	AQM1041: • Hoy, M., Livernois, J., McKenna, C., Rees, R., Stengos, T.: Mathematics for Economists, MIT press. • Simon, C. P.: Mathematics for Economists, Norton&Company. • Sydsaeter, K. and Hammond, P.J.): Essential Mathematics for Economic Analysis., Prentice Hall. AQM1042: • Jeanblanc, M., Yor, M., Chesney, M.: Mathematical Methods for Financial Markets, Springer. • Hull, John C., Options, Futures and Other Derivatives, , Prentice Hall • Oakshott, L.: Essential Quantitative Methods: For Business, Management and Finance, Macmillan Education.

	Most recent editions.
Workload	150 hours, thereof

AQM1041 Analysis/Linear Algebra: Contact time 2 x 15 SWS = 30 SWS. Self-study app. 60 hours (for preparation of course and autonomous reading of literature, exercises and e-learning)

AQM1042 Fundamentals of Financial Mathematics: Contact time 2 x 15 SWS = 30 SWS. Self-study app. 30 hours (for preparation of course and autonomous reading of literature, exercises and e-learning) |
| Additional remarks | The module requires the knowledge of a basic course in upper school mathematics.

The English-language AQM1041 is organised as a Fast-Track-Lecture with 4 contacts hours per week and the final examination about 6 weeks prior to the end of the semester.

The English version of AQM1042 is also offered to exchange students in the *International Study Program (ISP).*

The credits achieved in the English language will be credited to any existing English-credit-requirement of Pforzheim bachelor degree programs. |
| Keywords | Calculation of interest, differential calculus, integral calculus, investment, linear equation, modern financial products |
| Last edited | January 5, 2017 |

AQM1140 – QUANTITATIVE METHODS I

Module Name	Quantitative Methods I
Module ID	AQM1140
Semester.	2
Credits	5
SWS / contact hours per week	4
Frequency	summer semester only
Assigned courses	AQM1141 Descriptive Statistics (2 SWS/3 credits) AQM1142 Mathematical Optimization (2 SWS/2 credits)
Prerequisites	None
Assessment Methods	AQM1141 Descriptive Statistics: PLK – 60 minutes AQM1142 Mathematical Optimization: PLK – 60 minutes
Requirements for granting of credits	Passing of the written exams, each component course may be passed separately.
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	AQM1141 Descriptive Statistics open to students of all Bachelor program: 200 students AQM1142 Mathematical Optimization: 15 students (English Track)
Language	This module is a mandatorily taught in English for the study program BSBA/Digital Enterprise Management and is being offered in the summer semester only.
Module Duration	one semester
Module Coordinator	Kuhlenkasper, Torben
Lecturers	Professors for Quantitative Methods at Pforzheim University and selected external lecturers
Discipline	Quantitative Methods
Applicability in other modules / study programs	The module is included in all business bachelor programs.
Pedagogical approach	Lecture with exercises
Objectives	The students... 1. understand the meaning of basic statistical concepts within the context of business and economics; 2. are able to analyse data sets by applying the methods of descriptive statistics in the software EXCEL or SPSS.; 3. are able to calculate univariate descriptive measures and make suitable graphs to interpret the resulting information and to prepare management decisions; 4. are able to apply the techniques of bivariate statistics (correlation and regression analysis) and interpret the results appropriately;

	5. are able to apply basic techniques of time series analysis and methods for index accounts and forecasts and interpret the results appropriately. 6. are able to detect and avoid sources of statistical manipulations. The students … 1. are able to think in a model-oriented approach; 2. know and understand the basic principles of mathematical optimization; 3. know how to apply the basic methods of mathematical optimization in suitable contexts and 4. can solve realistic examples on their own by following a systematic approach based on algorithms.
Content	" Descriptive Statistics" provides insights into basic uni- and bivariate techniques of data analysis and applies the latter techniques to real examples from business and economics by using statistical software. The lectures covers techniques of data acquisition, scalings, presenting and interpreting uni- and bivariate quantitative data sets and basic theory of probability. „ Mathematical Optimization" is focussed on the principles of model-oriented approaches. Additionally, the most important concepts of linear programming are covered in the lecture. The course gives insights into the most important and most frequently applied techniques of quantitative corporate planning. Heavy emphasis is placed on the application of the methods for problems in the real business context and the corresponding interpretation of the results as well as the usage of software for solving mathematical problems.
Relation to other modules	The module provides a basis for the lecture "Fundamentals of Inferential Statistics", "Operations Research " and several other lectures in economics, business and data analysis.
Literature	AQM1141 Descriptive Statistics • Cleff, T. (2013): Exploratory Data Analysis in Business and Economics. An Introduction Using SPSS, STATA and EXCEL. Springer, Heidelberg. • Anderson, D. R., Sweeney, D.J., Williams T.A. (2006): Statistics for Business and Economics, EMEA, Mason. AQM1142 Mathematical Optimization • Oakshott, L.: Essential Quantitative Methods: For Business, Management and Finance, Macmillan Education.
Workload	Fundamentals of Descriptive Statistics: 2 x 15 = 30 contact hours. In addition, 30 hours are required for the preparation of the lecture, studying the literature and solving examples for additional practise. Operations Research I: 2 x 15 = 30 contact hours. In addition, 60 hours are required for the preparation of the lecture, studying the literature and solving examples for additional practise.
Additional remarks	AQM1141 "Descriptive Statistics" in its English Version is organised as a Fast-Track-Lecture with 4 contacts hours per week and the final examination about 6 weeks prior to the end of the semester. The English version of AQM1141 is also offered to exchange students in the *International Study Program (ISP).* The credits achieved in the English language in AQM1141 will be credited to any existing English-credit-requirement of Pforzheim bachelor degree programs.
Keywords	regression analysis; data acquisition; data aggregation; data analysis; corporate planning; linear programming
Last changes	January 5, 2017

ECO 1040 – FOUNDATIONS OF ECONOMICS I

Module Name	Foundations of Economics I
Module ID	ECO1040
Semester	1
Credits	6
SWS / contact hours per week	4
Frequency	each semester
Associated courses	ECO1041 Introduction and Microeconomics (4 SWS / 6 credits)
Prerequisites	None
Assessment Methods	PLK - 60 minutes
Requirement/s for granting of credits	Passing the exam
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	Max. 80 students
Language	This module is a mandatorily taught in English for the study programs BW/International Business, BW/International Marketing and BSBA/Digital Enterprise Management.
Module Duration	1 semester
Module Coordinator	Beck, Hanno
Lecturer/s	Professors and lecturers from the Economics Faculty.
Discipline	Economics
Applicability in other modules/degree courses	The module is included in all bachelor programs. The English version of the module is also offered to exchange students within the ISP.
Pedagogical approach	Lectures with exercises
Objectives	Microeconomic changes and economic changes significantly influence the success of individual economic entities. The purpose of the economics modules is to equip students with the ability to independently evaluate the conditions in which an economic entity trades. Such knowledge is invaluable for decision-making in many business situations. This is particularly true when making investment decisions, which in turn influence other business situations. This module covers legal principles and competitive forces, and draws on microeconomic approaches to enable analysis of economic problem areas in a closed economy. At the end of the course, students should be able to: • recognise the main elements which determine the success of the economic policy and competitive ability in a particular area. • Evaluate the micro and macroeconomic consequences of legal and political decisions on competition.

	• Use microeconomic analysis techniques to understand how different types of market function, including when the state intervenes.
Content	• Introduction to the methods, key terms and subject of economics. • Economic policy (ideal and real), ordoliberalism and social market economy • Supply and demand on goods markets, elasticity, production and costs. • Pricing: perfect and imperfect competition, pricing in a monopoly, oligopolies • State intervention in market pricing: ceiling & floor prices, taxes, influence of external factors • competition concepts and policies
Relation to other modules	• This course provides a foundation in economic methods, which will be applied to foreign trade situations in the module *International Economic Relations* and then applied independently in the module *Economics tutorials* • Through its application to goods, this subject relates to general business administration (production and costing theory). The demand for goods, pricing for various market types and competition policy touches on marketing issues. markets Competition theory and policy enhance business administration teaching on pricing and law teaching on competition and cartel law.
Literature	• Krugman, P./Wells, R.: Economics • Mankiw, N. G./Taylor, M. P.: Economics • Pindyck, R. S./Rubinfeld, D. L., Microeconomics • Samuelson, P. A./Nordhaus, W. D., Economics • Stiglitz, J. E./Walsh, C. E., Principles of Microeconomics
Workload	This module comprises contact time of 4 x 15 = 60hours and self-study (reading, practice and exam preparation) of a further 90 hours..
Additional remarks	The English version of this module is also offered in the *International Study Program (ISP).*
Keywords	introduction, microeconomics, economics, foundations
Last Updated	January 5, 2017

ECO 1210 – FOUNDATIONS OF ECONOMICS II

Module Name	Foundations of Economics II
Module ID	ECO1210
Semester	2
Credits	5
SWS/contact hours per week	4
Frequency	each semester
Associated Courses	ECO1012 Macroeconomics
Prerequisites	None
Assessment Methods	PLK – 60 Minutes
Requirement/s for the awarding of credits	A pass mark in the examination
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned Group Size	Max. 80 students
Language	This module is a mandatorily taught in English for the study programs BW/International Business, BW/International Marketing and BSBA/Digital Enterprise Management.
Module Duration	1 semester
Module Coordinator	Beck, Hanno
Lecturer(s)	Professors and lecturers from the Economics Faculty.
Discipline	Economics
Applicability to other programs	The module is included in all bachelor programs.
Pedagogical Approach	Lectures
Objectives	Macroeconomic changes and economic changes significantly influence the success of individual economic entities. The purpose of the economics modules is to equip students with the ability to independently evaluate the macroeconomic conditions in which an economic entity trades. Such knowledge is invaluable for decision-making in many business situations. This is particularly true when making investment decisions, which in turn influence other business situations. This module draws on macroeconomic approaches to enable analysis of economic problem areas in a closed economy. At the end of the course, students should be able to: • recognise the main elements which determine the success of the economic policy and competitive ability in a particular area. • Macroeconomic analysis enables students to understand the most significant external factors on business activity: unemployment, inflation and cyclical fluctuations. They shall be able to explain these phenomena and evaluate various courses of action for correcting

	macroeconomic imbalances and their effects on business decisions.
Content	- Introduction to the methods, key terms and subject of economics. - Classic macroeconomic approach (full employment, flexible prices) - Keynesian macroeconomic approach (underemployment, price stickiness) - Monetary theory and policy, explanation of interest and inflation - Causes of and cyclical fluctuations and how the state can influence these. - Economic growth: determining factors and limits - Structural change: Cause and effect
Relation to other modules	- This course provides a foundation in economic methods, which will be applied to foreign trade situations in the module *International Economic Relations* and then applied independently in the module *Economics tutorials*. - Macroeconomic development and the factors which determine it are relevant to many aspects of business administration, including the development of prices and interest rates, or when decisions are made regarding a location. Certain areas of the module are particularly relevant for individual degree courses, for example cyclical fluctuations on purchasing and sales decisions.
Literature	- Blanchard, O:, Macroeconomcis - Krugman, P./Wells, R.: Economics - Mankiw, N. G./Taylor, M. P.: Economics - Samuelson, P. A./Nordhaus, W. D., Economics
Workload	Each course requires contact time of 60 x 45mins and a further 60x 45mins for self-study (independent reading, practice and exam preparation)
Additional remarks	The English version of this module is also offered in the *International Study Program (ISP).*
Keywords	macroeconomics, macro economics, economics, foundations
Last Updated	January 5, 2017

GMT 1200 – FOUNDATIONS OF GENERAL MANAGEMENT I

Module Name	Principles of General Business Administration I
Module ID	GMT1200
Semester	1
Credits	6
Hours per week	6
Frequency	winter semester only.
Associated Courses	GMT1011 Foundations of Accounting (2 SWS/2 Credits) GMT1202 Managerial Processes, Functions and Decisions I (4 SWS/4 Credits)
Prerequisites	None
Assessment Methods	GMT1011: UPL (PLK – 60 minutes) GMT1202: PLK – 60 minutes
Requirements for granting of Credits	Passing of the written exams, each component course may be passed separately.
Significance for final grade	GMT1011 is neither counted to the interim nor the final grade. GMT1202 is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	Maximum of 80 students
Language	This module is a mandatorily taught in English for the study programs BW/International Management and BSBA/Digital Enterprise Management an is being offered in the winter semester only.
Module Duration	1 Semester
Module Coordinator	Kropp, Matthias
Lecturer(s)	Professors of the discipline General Business Administration and assistant lecturers
Discipline	General Business Administration
Applicability in other programs	The module is included in all bachelor programs
Pedagogical Approach	Lecture with Exercises
Objectives	The students will know the recognition of the essential business transactions of a company in its internal and external accounting. Furthermore, they will understand its significance. The students should be able to evaluate these effects on the components of the financial statements and the internal income statement.

The students should be able to understand fundamental business relationships, important objectives of a company and the essential steps related to their pursuit. They will know the fundamental structure of a company and the connections between the business units. They should have a basic understanding of the tasks and economic questions in the operating functions. |

	They should be able to apply criteria relating to the use of essential operating resources.
Content	GMT1011: • Legal obligation to keep records • Stocktaking and inventory • Balance sheet and profit and loss accounts • Accounting of business transactions • Fundamentals of the balance sheet and profit and loss account GMT1202: • Basis concepts and principles of business administration • Operating objectives and figures • The company as customer-oriented value-added process • Effects of business decisions on company results • Constitutive decisions of organizations
Relation to other Modules	Preparation of all other business administration modules
Literature	GMT1011: • Horngren, C./Sundem, G./Elliot, J./Philbrick, D.: Introduction to Financial Accounting, Upper Saddle River, NJ • Jones, M. J.: Financial Accounting, Verlag Wiley • Weygandt, J./Kimmel, P./Kieso, D.: Financial Accounting, IFRS Edition, Hoboken, NJ GMT1202: • Boddy, D.: Management: An Introduction, FT Prentice Hall • Cole, G.A.: Management Theory and Practice, DP Publications • Daft, R. L.: Management Theory and Practice, DP Publications • Mullins, L. J.: Management and Organisational Behaviour, Pearson Education • Schermerhorn, J. R.: Introduction to Management International Student Version, John Wiley & Sons
Workload	It is expected that the students spend 90 h for preparation, independent literature study, exercises and e-learning, in addition to the 6 x 15 = 90 SWS attendance time.
Additional remarks	Both related courses will be offered within one semester. An early examination (in German) is offered for participants with previous knowledge in the part-module „Foundations of Accounting" in the first third of the semester. The english version of GMT1011 is offered to exchange students as part of the *International Study Program (ISP)*.
Key Words	Accounting annual financial statement accountancy entrepreneurial processes function
Last Edited	January 5, 2017

GMT 1210 – FOUNDATIONS OF GENERAL MANAGEMENT II

Module Name	Principles of General Business Administration II
Module ID	GMT1210
Semester	2
Credits	5
SWS / contact hours per week	4
Frequency	summer semester only.
Associated Courses	GMT1022 Managerial Processes, Functions and Decisions II
Prerequisites	None
Assessment Methods	PLK – 60 minutes
Requirements for granting of credits	Successful passing of the examination
Significance for the Final Grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	Maximum of 80 students
Language	This module is a mandatorily taught in English for the study programs BW/International Management and BSBA/Digital Enterprise Management and is being offered in the summer semester only.
Module Duration	1 Semester
Module Coordinator	Kropp, Matthias
Lecturer(s)	Professors of the discipline General Business Administration
Discipline	General Business Administration
Applicability in other programs	The module is included in all bachelor programs.
Pedagogical Approach	Lecture with Exercises
Objectives	The students should be able to understand fundamental business relationships, important objectives of a company and the essential steps related to their pursuit. They should have a basic understanding of the tasks and economic questions in the operating functions. Furthermore, the students will understand the importance of customer orientation in entrepreneurial activities and the company as a customer-focused value-added process, which can be broken down into a number of operating sub-processes. They will know fundamental problems of the operative corporate governance and be able to analyze these problems as well as to work out appropriate decision criteria and to develop approaches for problem resolution. They should be able to apply criteria relating to the use of essential operating resources. The students should be able to assess the effects of operational business decisions on company results and on the company's social environment.

Content	• The company as customer-oriented value-added process • Effects of business decisions on company results • Foundations of production and cost theory • Use of company production factors (particularly labour and resources)
Relation to other Modules	Preparation of all other business administration modules of the second study section
Literature	• Christopher, M.: Logistics and Supply Chain Management, Financial Times Prent. • Hill, A & Hill, T:, Essential Operations Management, Palgrave. • Kotler, P., Armstrong, G., Wong, V. & Saunders, J.: Principles of Marketing 6th European edn., Prentice Hall • Marchington, M. & Wilkinson, A.: People Management and Development. Human Resource Management at Work, CIPD
Workload	It is expected that the students spend 90 h for preparation, independent literature study, exercises and e-learning, in addition to the 4 x 15 = 60 SWS attendance time.
Additional remarks	The credits achieved in the English language will be credited to any existing English-credit-requirement of Pforzheim bachelor degree programs.
Key Words	Entrepreneurial processes functions corporate governance management decisions
Last Edited	January 5, 2017

LAN1030 – GERMAN / FOREIGN LANGUAGE I

Module Name	German / Foreign Language I
Module ID	LAN1030
Semester	1
Credits	5 Credits
SWS / contact hours per week	8
Frequency	each semester
Associated Courses	See catalogue
Prerequistes	None
Assessment Methods	PLK – 90 minutes
Requirement for granting of redits	Passing of the exam.
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	20
Language	German
Module duration	1 Semester
Module Coordinator	Bender, Gabriele
Lecturer(s)	Lecturers of the Institute of Foreign Languages
Discipline	Institute of Foreign Languages
Applicability in other programs	The module is also offered to exchange students within the ISP.
Pedagogical Approach	Interactive Approach
Objectives	The participants • can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). • can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. • can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate.
Content	See objectives.
Relation to other modules	The module forms the basis for "Deutsch als Fremdsprache II"
Literature	Braun, B. u.a.: DaF kompakt A1: Deutsch als Fremdsprache für Erwachsene. Kurs- und Übungsbuch, Klett, 978-3126761864

	Sander, I. u.a. : DaF kompakt A2 Kurs- und Übungsbuch, Klett, ISBN 978-3-12-676187-1
Workload	150 hours, thereof Contact time 8 x 15 SWS = 120 hours. Self-study app. 30 hours (for preparation of course and autonomous reading of literature and exercises)
Additional remarks	The module comprises a pre-semester course and an additional course along the semester. Students who are already familiar with the German language at this level do have to obtain instead foreign language skills at least in other languages not familiar to them at the respective level as offered by the Institute of Foreign Languages ((e.g. Deutsch C1, French A2, B1, Spanish A2, B1). The module is also offered to exchange students in the *International Study Program (ISP).*
Keywords	Deutsch, German as a Foreign Language
Last edited	June 2016

LAN1040 – GERMAN / FOREIGN LANGUAGE II

Module Name	German / Foreign Language II
Module ID	LAN1040
Semester	2
Credits	5 Credits
SWS / contact hours per week	8
Frequency	once a year
Associated Courses	See catalogue
Prerequistes	None.
Assessment Methods	PLK – 90 minutes
Requirement for granting of redits	Passing of the exam.
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	20
Language	German
Module duration	1 Semester
Module Coordinator	Bender, Gabriele
Lecturer(s)	Lecturers of the Institute of Foreign Languages
Discipline	Institute of Foreign Languages
Applicability in other programs	The module is also offered to exchange students within the ISP.
Pedagogical Approach	Interactive Approach
Objectives	The participants .. • can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. • can deal with most situations likely to arise whilst travelling in an area where the language is spoken. • can produce simple connected text on topics which are familiar or of personal interest. • can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans..
Content	See objectives.
Relation to other modules	The module is based on prior knowledge equivalent to A2 as being taught in "Deutsch als Fremdsprache I".

	The module forms the basis for "Deutsch als Fremdsprache III"
Literature	Sander, I. u.a.: DaF kompakt / Kurs- und Übungsbuch mit 2 Audio-CDs B1: Deutsch als Fremdsprache für Erwachsene, Klett, 978-3126761888
Workload	150 hours, thereof Contact time 8 x 15 SWS = 120 hours. Self-study app. 30 hours (for preparation of course and autonomous reading of literature and exercises)
Additional remarks	The module comprises a pre-semester course and an additional course along the semester. Students who are already familiar with the German language at this level do have to obtain instead foreign language skills at least in other languages not familiar to them at the respective level as offered by the Institute of Foreign Languages ((e.g. Deutsch C1, French A2, B1, Spanish A2, B1). The module is also offered to exchange students in the *International Study Program (ISP)*.
Keywords	Deutsch, German as a Foreign Language
Last edited	June 2016

B. Specialisation

BIS1010 - COMPUTERS IN BUSINESS - FOUNDATIONS

Module Name	Computers in Business - Foundations
Module ID	BIS1010
Semester	1
Credits	5
SWS / contact hours per week	4
Frequency	German: each semester English: once a Year
Associated Courses	• BIS1011 Computers in Business – Foundations (2 SWS/2 credits) • BIS1012 Computers in Business - Applications Hands-on-Training (1 SWS/2 credits) • BIS1013 Computers in Business - E-Learning Based Foundations for Applications (1 SWS/1 credit)
Prerequisites	None
Assessment Methods	• BIS1011 Computers in Business – Foundations and BIS1012 Computers in Business - Applications Hands-on-Training: PLK+PLL – 60 minutes • BIS1013 Computers in Business - E-Learning Based Foundations for Applications: UPL
Requirements for granting of credits	Passing the embedded assignments and the written exam. The E-learning assessement may be passed individually.
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned Group Size	15 students
Language	German or English Participation in the English-language version of this module is compulsory for students of BW/Digital Enterprise Management.
Module Duration	1 semester
Module Coordinator	Thesmann, Stephan
Lecturer(s)	Lecturers from the bachelor programs Digital Enterprise Management and Business Information Systems – Management & IT
Discipline	Digital Enterprise Management
Applicability in other programs	The module is included in all business bachelor programs.
Pedagogical Approach	Interactive approach with Hands-on-Training
Objectives	The students • are familiar with categories of information systems in business, their cooperation, functionality, and fields of application • are able to describe organizational, functional, information, and process aspects of information systems using standard methods • know the foundations of IT project management • are acquainted with basic functional principles of information- and communication technology • have a basic understanding of measures to provide information security and privacy

	• know how to solve business problems with a low degree of complexity using spreadsheet calculation software • are prepared to implement data structures of low complexity in a database management systems and to develop database queries
Content	The module imparts • Organizations, management, and the networked enterprise • Key applications of the enterprise • Modelling applications using ARIS • Managing IS projects • Information and communication infrastructure • Information security and privacy • Ethical and social issues • Using Office software to solve business problems
Relation to other modules	The module forms the basis for all subsequent IT-modules
Literature	• Course materials • Laudon, K.C. and Laudon, J.P., Management Information Systems. Managing the Digital Firm. 13th ed., Boston et al 2014 (respectively the current edition). • Web based trainings for MS Excel and MS Access
Workload	• BIS1011 Computers in Business – Foundations: Contact hours (15*2=) 30 hours Preparation and follow-up (15*1=) 15 hours Exam preparation 15 hours **Total** **60 hours** • BIS1012 Computers in Business - Applications Hands-on-Training: Contact hours (15*1=) 15 hours Preparation and follow-up (15*3=) 45 hours **Total** **60 hours** • BIS1013 Computers in Business - E-Learning Based Foundations for Applications: Contact hours (15*1=) 15 hours Self-Studies (15*1=) 15 hours **Total** **30 hours**
Additional remarks	-
Key words	business information systems, IT-solutions, modelling IS, ARIS, managing IS, IS technology, security, privacy, ethical aspects
Date of last Modification	March 2015

BIS1110 - DIGITAL BUSINESS-APPLICATIONS

Module Name	Digital Business-Applications
Module ID	BIS1110
Semester	2
Credits	5
SWS / contact hours per week	4
Frequency	once a Year
Associated Courses	BIS1111 Digital Business Applications
Prerequisites	None
Assessment Methods	PLK+PLH/PLL – 60 minutes
Requirements for granting of credits	Passing of both, the continuous assignments and the written exam
Significance for final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	20 students
Language	English
Module Duration	1 semester
Module Coordinator	Schuler, Joachim
Lecturer(s)	Schuler, Joachim
Discipline	Digital Enterprise Management
Applicability in other programs	None
Pedagogical Approach	Interactive teaching approach and computer based exercises.
Objectives	The students • have an overview about the typical portfolio of digital business applications in divers industries • understand relationship between business requirements and corresponding IT solutions • are aware of challenges to implement digital business applications as a case of change management • are able to solve modest complex business tasks by using a software system
Content	The module imparts • Digital business applications to support the value chain of a company • Digital business applications to provide a platform for E-Business • Digital business applications to support managing knowledge and decision making • Computer-based exercises to solve modest complex business tasks
Relation to other modules	The module forms the basis for all subsequent IT-modules.
Literature	• Laudon, K.C. and Laudon, J.P., Management Information Systems. Managing the Digital Firm. 13th ed., Boston et al 2014 (respectively the current edition).
Workload	Contact hours (15*4=) 60 hours Reading assignment for each class (14*2=) 28 hours

	Do research on the internet to find current case studies of companies related to digital business applications	(6*2=)	12 hours
	Rework of class content	(15*=2)	30 hours
	Exam preparation		20 hours
	Total		**150 hours**
Additional remarks	The module is also offered to exchange students in the *International Study Program (ISP).*		
Key words	business information systems, IT-solutions, e-business, e-commerce, ERP, value chain management, business processes		
Date of last Modification	March 2015		

BIS1120 - WEB-INTERFACE-DESIGN

Module Name	Web-Interface-Design
Module ID	BIS1120
Semester	2
Credits	5
SWS/contact hours per week	4
Frequency	once a year
Associated Courses	BIS1121 Web-Interface-Design
Prerequisites	None
Assessment Methods	PLK/PLL - 60 minutes
Requirements for granting of credits	Passing of both, the embedded lab exercises and the written exam.
Significance for the final grade	The module is counted towards the interim grade weighted by its credits, but not to the final bachelor grade.
Planned group size	20 students
Language	English
Module Duration	1 semester
Module Coordinator	Thesmann, Stephan
Lecturer(s)	Thesmann, Stephan
Discipline	Digital Enterprise Management
Applicability in other programs	None
Pedagogical Approach	Lectures with lab exercises
Objectives	The students • are able to design web interfaces considering usability, user experience, accessibility, and search engine optimization • are able to implement web interfaces using content management systems (e. g. Wordpress, Joomla, and Drupal) and web technologies (e. g. HTML5, Java Script, AJAX, PHP)
Content	The module imparts • Web Interface Development Models • Human Centred Design Approach (Human-Computer-Interaction, User Experience, Usability, ISO 9241) • Accessibility (WAI 2, BITV 2) • Search Engine Optimization • Web Content Management Systems (e. g. Wordpress, Joomla, and Drupal) • Web Implementation Technologies (e. g. HTML5, Java Script, AJAX, PHP) • Asset Design, Media Formats, and Compression Methods • Managerial and Editorial Tasks • Quality Assurance
Relation to other modules	The module forms the basis for all subsequent IT-modules.
Literature	• Course Materials

	• Krug, S., Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability, New Riders • Duckett, J., HTML and CSS: Design and Build Websites, Wiley. Newest editions
Workload	The course is based on a textbook. Students have to prepare chapters before classes according to a detailed timetable. During class the students gain a deeper understanding by explanations, examples and the application of methods and tools. In addition, the students work continuously during the semester on a design and implementation project (lab work) in teams of two to three persons. The following workload estimate can be derived: Preparation (15*1=) 15 hours Contact hours (15*4=) 60 hours Lab work (15*4=) 60 hours Exam preparation 15 hours **Total** **150 hours**
Additional remarks	The module is also offered to exchange students in the *International Study Program (ISP)*.
Key words	web design, user interface design, user experience Design, human-computer-interaction, usability, search engine optimization, accessibility, responsive web design, media objects, assets, data compression
Date of last Modification	March 2015

Zweiter Studienabschnitt / Level 2 – Modules contributing to the final grade (Advanced Modules)

A. General Program

AQM2040 – QUANTITATIVE METHODS 2

Module Name	Quantitative Methods 2
Module ID	AQM2040
Semester	3
Credits	5
SWS/contact hours per week	4
Frequency	German: each semester English: once a year
Associated Courses	AQM2101 Inferential Statistics (2 SWS/3 Credits) AQM2141 Operations Research (2 SWS/2 Credits)
Prerequisites	None
Assessment Methods	AQM2101 Inferential Statistics: PLK – 60 minutes AQM2141 Operations Research: PLK – 60 minutes
Requirements for granting of credits	Passing of the written exams, each component course may be passed separately.
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group size	German: AQM2101 Inferential Statistics: maximum 200 students AQM2102 Operations Research: maximum 100 students English: 25 students
Language	German or English Participation in the English-language version of this module is compulsory for students of BSBA/Digital Enterprise Management and – for AQM2101 only – BW/International Marketing.
Module Duration	1 semester
Module Coordinater	Wüst, Kirsten
Lecturers	Professors of Quantitative Methods
Discipline	Quantitative Methods
Applicability in other programs	The module is included in all business bachelor programs except BW/International Marketing.
Pedagogical Approach	Lectures with exercises
Objectives	Inferential Statistics: The students...

	1. Understand simple methods of inferential statistics and know how to apply them in EXCEL, SPSS or STATA 2. master the basics of probability theory; 3. know the concepts of probability distributions (chi-square, binomial, hypergeometrical, poisson, student, normal and f-distribution) and know how to apply them to economic issues; 4. are able to calculate and interpret confidence intervals for means, variances and proportions 5. can exercise and interpret parametric one-sample- and two-sample-tests 6. know how to do and interpret the non-parametric chi-square-test Operations Research: The students. 1. can translate problems of their study program into quantitative models 2. can solve problems of their individual study program with algorithmic approaches. 3. know computer-based solutions to their individual study program problems.
Content	The students get an insight into probability theory, parameter estimation, different probability distributions and the most important parametric and non-parametric tests. They are enabled to interpret the results. In the second part of the module the methods are complemented by further practical approaches of operative planning where the emphasis of the course depends on the study programs associated to it. Emphasis is for example put on transportation problems and location design, simulation and queuing theory, portfolio theory, investment and financing or game theory. The interpretation of economic problems is in the focus of the class. Several practical examples are presented.
Relation to other modules	This module is based on Quantitative Methods I
Literature	Inferential Statistics: • Anderson, D. R., Sweeney, D.J., Williams T.A.: Statistics for Business and Economics, Mason Operations Research: • Hillier, F. S., Lieberman, G. J.: Introduction to Operations Research, Boston u.a. • Taha, H. A.: An Introduction to Operations Research, New Jersey
Workload	Inferential Statistics: 2 x 15 SWS = 30 SWS time in class, additionally ca. 60 h for preparation, literature studies , exercises, elearning and internet research Operations Research:

	2 x 15 SWS = 30 SWS time in class, additionally ca. 60 h for preparation, literature studies , exercises, elearning and internet research
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. The English versions of the component courses are also offered to exchange students in the *International Study Program (ISP).*
Key words	Probability theory, probability distributions, statistical tests, linear programming (simplex), operative planning
Last edited	January 5, 2017

ECO2100 – INTERNATIONAL ECONOMICS

Module Name	International Economics
Module ID	ECO2100
Semester	3
Credits	5
SWS/contact hours per week	4
Frequency	each semester
Associated courses	ECO2011 International Economics
Prerequisites	None.
Assessment Methods	PLK – 60 minutes
Requirements for granting of credits	A pass mark in the examination.
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group Size	Max. 80 students
Language	This module is a mandatorily taught in English for the study programs BW/International Business, BW/International Marketing and BSBA/Digital Enterprise Management.
Module Duration	1 semester
Module Coordinator	Beck, Hanno
Lecturer(s)	Professors from the Economics faculty.
Discipline	Economics
Applicability to other programs	The module is included in all business bachelor programs.
Pedagogical Approach	Lectures with exercises
Objectives	Macroeconomic changes and economic changes significantly influence the success of individual economic entities. The purpose of the economics modules is to equip students with the ability to independently evaluate the macroeconomic conditions in which an economic entity trades. Such knowledge is invaluable for decision-making in many business situations. This is particularly true when making investment decisions, which in turn influence other business situations. This module adds international relations to the analysis of closed economies, an issue which has become very significant for companies through the globalisation of the value chain. At the end of the course, students should be able to: • understand the close involvement of the German economy in the global economy • know the advantages and disadvantages of various exchange rate mechanisms and the factors which determine exchange rate development

	• understand the advantages of an international division of labour, and the driving forces of the globalisation process • know the most important international organisations (IMF, world bank, WTO etc.) and appreciate their significance for international trade relations
Content	• Balance of payments analysis • Monetary theory and policy • International trading of goods and services • International capital flow • The effects of globalisation on industrial and developing countries • Global governance
Relation to other modules	Economic analysis of the real and monetary aspects of international trade relations is relevant for all business administration degrees as globalisation now affects all industries, company sizes and corporate functions.
Literature	• Appleyard, D. R./Field, A. J./Cobb, S. L., International Economics • Feenstra, R. C./Taylor, Al. M., International Economics • Krugman, P./Obstfeld, M., International Economics • Mankiw, N. G./Taylor, M. P.: Economics
Workload	This module comprises weekly contact time of 15 x 4 = 60 hours and self-study (reading, practice, e-learning and exam preparation) of a further 90 hours.
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. The English version of this module is offered in the *International Study Program (ISP)*. An English version of the module is optionally offered as a fast track with an exam before Christmas.
Keywords	International Economics, economic relations, foreign trade, economics
Last Updated	January 5, 2017

ECO2110 – ADVANCED STUDIES AND APPLICATIONS IN ECONOMICS

Module Name	Advanced Studies and Applications in Economics
Module ID	ECO2110
Semester	ECO2111: 3 ECO2012: 4
Credits	5
SWS/contact hours per week	3
Frequency	German: each semester English: ECO2111: once a year ECO2012: each semester
Associated Courses	ECO2111 Scientific Writing; Media Competence and Information Recherche (1 SWS/1 Credit) ECO2012 Seminar in Economic Policy (2 SWS/4 Credits)
Prerequisites	ECO2111: none. ECO2012: the PVL in ECO2111 has to be successfully passed.
Assessment Methods	ECO2111: PVL ECO2012: PLH + PLR
Requirements for granting of credits	Passing the exams
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group size	ECO2111: German: plenary lecture (up to 350 attendees) and tutorials (35 students). English: lecture (15 attendees) and tutorial (15 students) ECO2012: max. 24 students
Language	This module is a mandatorily taught in English for the study programs BW/International Business and BSBA/Digital Enterprise Management.
Module Duration	2 semesters
Module Coordinator	Beck, Hanno
Lecturer(s)	Professors and lecturers from the Economics faculty.
Discipline	Economics
Applicability in other programs	The module is included in all business bachelor programs except BW/International Marketing
Pedagogical Approach	Lectures, workshops + seminar
Objectives	Macroeconomic changes and economic changes significantly influence the success of individual economic entities. The purpose of the economics modules is to equip students with the

	ability to independently evaluate the macroeconomic conditions in which an economic entity trades. Such knowledge is invaluable for decision-making in many business situations. This is particularly true when making investment decisions, which in turn influence other business situations. This module consolidates knowledge gained in earlier courses by requiring students to independently apply economic methods to an economic question in an academic research situation. At the end of this module, students should be able to: • demonstrate mastery of academic research techniques. They should be able to use media, and be familiar with how conduct, process, prepare and share research, • independently apply their knowledge of economics on economics questions in seminar.
Content	Academic research (comprising plenary sessions on basic skills and tutorials in which these skills are applied.): • Preparation for the tutorials and summative assessment. • Literature research for the tutorials and summative assessment • Finding, evaluating and organising appropriate literature • Conversations with a supervisor and further experts. • How to structure tutorial work and the final project. • Compiling a script • Citations in academic research. • Supervision of script Seminars (independent coursework on an economic issue, the results of which are also presented to the tutor group) on the following or similar areas: • Labour market theory and policy • Poverty and development • Educational economics • Demography and economic development • Immigration in Germany and Europe • Energy politics in Germany and Europe • Financial market crises and banking supervision • Research and innovation policy • Monetary policy and theory • Globalisation and localised competition • Use of resources and sustainability • Economics of sports • Entrepreneurship and corporate governance • Behavioural economics • Monetary and financial policy
Relation to other modules	The economics tutorials build upon the three previous economics modules. Through strong mentoring in the tutorials, students will practise academic research techniques which will significantly help them to become competent users of economic methods and to write a successful bachelors level thesis.

Literature	ECO2111:
	• course handouts
	• Pforzheim University: Guidelines for academic writing
	ECO2012:
	depends upon the exact topic selected
Workload	This module requires:
	• ECO2111: 15 x 1h = 15h contact time and 15h for guided self-study
	• ECO2012: 15 x 2 = 30h contact time and 90h to be dedicated to reading, preparing the essay and presentation.
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester.
	The English version of the module is offered as part of the *International Study Program (ISP)*
Keywords	Academic research, academic paper, academic work, tutorials, tutorial, economics
Last Updated	January 5, 2017

ESR3100 – ETHICS AND SOCIAL RESPONSIBILITY

Module Name	Ethics and Social Responsibility
Module ID	ESR3100
Semester	6
Credits	5
SWS/contact hours per week	4
Frequency	each semester
Associated Courses	This is an elective module for which one of the following courses is to be chosen (each with 4 SWS/5 credits): • ESR3101 Sustainable Development: Perspectives in Economic and Social History (in German) • ESR3102 Business Ethics (in German) • ESR3104 Sustainable Development (in German) • ESR3105 Sustainable Development (in English) • ESR3106 Ethics, Business and Society (in English) • ESR3107 Corporate Environmental and Sustainability Management (in English) • ESR3108 Ethics, Business and Society (in German) Note: A minimum of three courses will be actually offered, with at minimum one in English. Due to changing demand over the academic year, the range of courses is likely to be higher in summer semester. Course offers may be changed or added.
Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	PLK/PLH/PLR/PLM – 45 minutes
Requirements for granting of credits	Passing the respective exams
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group size	60 students
Language	German or English (student option), depending on course choice
Module Duration	1 semester
Module Coordinator	Volkert, Jürgen
Lecturer(s)	Professors and lecturers from the Economics faculty and BW/Ressourceneffizienz-Management
Discipline	Economics
Applicability in other programs	The module is included in all business bachelor programs
Pedagogical Approach	Lectures with exercises or seminar (depending on group size)
Objectives	At the end of this module, students should:

	• recognize the importance of changing social views on ethics and sustainability • be aware of the impacts of globalization and its resulting consequences for corporate social responsibility • be able to incorporate conflicting demands into an extended framework for reconciling conflicts
Content	The module is organised as an elective with the aforementioned courses representing subject choices. Highlighting differing social values and social demands in various cultural backgrounds, all courses deal with corporate responsibility issues. The resulting influences, restrictions and conflicts for business decisions are being demonstrated and alternative paths to their solution are being discussed.
Relation to other modules	The module is augmenting the business modules by focussing on the dimensions of business ethics and sustainability.
Literature	Depends upon the course selected
Workload	This module requires: 15 x 4h = 60h contact time and 90h for guided self-study and preparation for the exam.
Additional remarks	The module forms part of the mobility window in the 6th semester, it is available for the recognition of credits from a study semester abroad. The conditions on workload and objectives can normally met by a variety of courses at our partner universities. The English version of the module is offered as part of the *International Study Program (ISP)*.
Keywords	Business Ethics, Sustainability, Sustainable Development, Sustainability Management
Last Updated	January 5, 2017

EXA4999 – FINALS

Module Name	Finals
Module ID	EXA4999
Semester	7
Credits	5
SWS/contact hours per week	2
Frequency	each semester
Associated Courses	COL4999 Scholarly Colloquium (2 SWS/2 Credits) ORA4999 Oral Examination (0 SWS/ 3 Credits
Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	COL4999: UPL ORA4999 : PLM
Requirements for granting of credits	Passing the respective exams, each component course may be passed separately.
Significance for final grade	COL4999 is not counted to the final bachelor grade. ORA4999 is counted to the final bachelor grade weighted by its credits.
Planned group size	COL4999: max. 10 students ORA4999: max. 3 students
Language	German or English
Module Duration	1 semester
Module Coordinator	Eisenberg, Claudius
Lecturer(s)	Professors and lecturers from Business School faculty
Discipline	All disciplines
Applicability in other programs	The module is included in all business bachelor programs
Pedagogical Approach	COL4999: Coaching ORA4999: Self-directed study of the program-specific content
Objectives	COL4999: The students are able • To understand the requirements of ORA4999 and get instruction for their self-directed study • To structure their thesis adequately, • to discuss the essential aspects of their thesis project, • to present these aspects to a limited audience and show their ability to face a critical discussion. ORA4999: The students are able • to present clearly and discuss critically aspects of their specifc study program

Content	COL4999: Instruction for their self-directed study for ORA4999. Presentation and critical discussion of the contents of the planned or just startet thesis project to other students and their thesis advisor. ORA4999: Competencies acquired in the program-specific part of their degree program.
Relation to other modules	The module is consolidating the contents of previous modules in the individual specialisation of the respective programs and is preparing for the thesis.
Literature	Depends upon program and selected topics.
Workload	COL4999: 15 x 2h = 30h contact time and 30h for thesis related self-study ORA4999: 90h for guided self-study and preparation for the oral examination.
Additional remarks	COL4999 is organized by the respective thesis advisor. ORA4999 requires a specific registration with the examination office. The English versions of the modules components are part of the *International Study Program (ISP)* for students enrolled in degree progams. Credits achieved in the English language will be credited to any existing English-credit-requirement of Pforzheim bachelor degree programs.
Keywords	Scholarly Colloquium, thesis preparation, oral examination
Last Updated	January 5, 2017

GMT2200 – COST AND MANAGEMENT ACCOUNTING

Module Name	Cost and Management Accounting
Module ID	GMT2200
Semester	3
Credits	5
SWS/contact hours per week	4
Frequency	winter semester only
Associated Courses	GMT2201 Cost and Management Accounting (4 SWS/5 Credits)
Prerequisites	None
Assessment Methods	PLK – 90 minutes
Requirement for granting of credits	Successful passing of the examination
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Class Size	Maximum of 80 students
Language	This module is a mandatorily taught in English for the study programs BW/International Marketing and BSBA/Digital Enterprise Management and is offered in the winter semester only.
Module Duration	1 Semester
Module Coordinator	Kropp, Matthias
Lecturer(s)	Professors of the discipline General Business Administration and adjunct lecturers
Discipline	General Business Administration
Applicability in other programs	The module is only part of the bachelor programs BW/International Marketing and BSBA/Digital Enterprise Management.
Pedagogical Approach	Lecture with exercises
Objectives	The students • will know the recognition of the essential business transactions of a company in its internal accounting. Furthermore they will understand its significance. • should be able to evaluate the effects of the business transactions on the internal income statement and to contribute to the preparation of management decisions by providing costing analyses.
Content	• Introduction to cost accounting • Cost-type accounting • Cost center accounting • Cost unit accounting • Direct costing

Relation to other Modules	Preparation of all subsequent business administration modules, builds on the previous business administration modules.
Literature	• Horngren, C. T., Datar, S. M. & Rajan, M. V.: Cost Accounting: A Managerial Emphasis, Pearson • Lanen, W. N., Anderson, S. W. & Maher, M. W.: Fundamentals of Cost Accounting, Business and Economics • Taschner, A./Charifzadeh, C.: Management and Cost Accounting, Wiley
Workload	It is expected that the students spend 90 h for preparation, independent literature study, exercises and e-learning, in addition to the 4 x 15 = 60 SWS attendance time.
Additional remarks	The module is offered as a fast track with an exam before Christmas. The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. The English version of this module is also offered to exchange students in the *International Study Program (ISP)*.
Key Words	Accounting, cost accounting, management accounting
Last Edited	August 2018

GMT2110 – FINANCIAL MANAGEMENT

Module Name	Financial Management
Module ID	GMT2110
Semester	4 For students of BW/International Marketing and BW/Controlling, Finanz- und Rechnungswesen the module is upfronted to semester 3. For students of BW/Steuern und Wirtschaftsprüfung the module is stretched over the semesters 2 and 3)
Credits	7
SWS/contact hours per week	6
Frequency	each semester
Associated Courses	Financial Accounting, Investments and Finance I (3 Credits) Financial Accounting, Investments and Finance II (4 Credits)
Prerequisites	None
Assessment Methods	PLK – 90 minutes
Requirement for granting of credits	Passing of the written examination
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group size	Maximum of 80 students
Language	This module is a mandatorily taught in English for the study program BSBA/Digital Enterprise Management.
Module Duration	1 Semester (2 semesters for students of BW/Steuern und Wirtschaftsprüfung)
Module Coordinator	Bacher, Urban
Lecturer(s)	Professors of the discipline General Business Administration
Discipline	General Business Administration
Applicability in programs	The module is included in all bachelor programs.
Pedagogical Approach	Lecture with Exercises
Objectives	The students - will know the legal and economic foundations for the preparation of the annual HGB and international financial statements and - should be able to evaluate the informative value of the financial statements. - should be able to analyze all parts of an annual financial statement and to evaluate and suggest balance sheet policy measures. - will know the essential criteria for assessing the advantageousness of operating investments and will be able

	to apply, evaluate and compare methods of investment analysis.
	• will know the essential entity's sources of funding. They should be able to evaluate the various sources with regard to their prerequisites and advantageousness as well as to qualitatively and quantitatively compare the impacts they have on company results.
	• will know the essential credit security instruments and will be able to calculate the capital requirements and the capital servicing capacity of a company.
Content	• Fundamentals of the annual financial statement (legal foundations, tasks and elements, recognition and valuation principles)
	• Balance, profit and loss account, appendix and situation report
	• Balance sheet analysis and accounting policy
	• Operating investment economy
	• Financial planning and capital structure management
	• External and internal financing
	• Credit security, capital servicing capacity
	• Fundamentals of international accounting standards (IAS / IFRS)
Connection to other Modules	Builds on the business administration modules of the first study section
Literature	• Alexander, D. & Nobes, C.: Financial Accounting: An International Introduction, Financial Times Prent.
	• Baker, H. K. & Powell, G. E.: Understanding Financial Management: A Practical Guide, Wiley-Blackwell
	• Berry, A.: Financial Accounting: An Introduction, Cengage Learning EMEA
	• Hillier, D. et al.: Corporate Finance, McGraw Hill
	• Horngren, C. T., Sundem, G. L., Gary, L. E., John, A. P. & Donna, R.: Introduction to Financial Accounting, Prentice Hall
	• Kieso, D. E., Weygandt, J. J. & Warfield, T. D.: Intermediate Accounting, John Wiley & Sons
	• Nothhelfer, R.: Financial Accounting, De Gruyter Oldenbourg
	• Weygandt, J. J., Kimmel P. D. & Kieso, D. E.: Financial Accounting: IFRS Edition, John Wiley & Sons
Workload	In addition to the 6 x 15 = 90 SWS contact hours it is expected that the students spend 120 h for exam preparation, independent literature study, exercises and accompanying tasks.
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. The English version of the module is part of the *International Study Program (ISP).*
Key Words	Accounting financial management finance investment
Last Edited	August 2018

GMT3100 – BUSINESS MANAGEMENT

Module Name	Business Management
Module ID	GMT3100
Study Semester	5 - GMT3025 Management Simulation 6 - GMT3013 Strategic Management
Credits	5
SWS/contact hours per week	4
Frequency	Each semester
Associated Courses	GMT3025 Management Simulation (2 SWS/2 Credits) GMT3013 Strategic Management (2SWS/3 Credits)
Prerequites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	GMT3025: UPL GMT3013: PLK – 60 minutes
Requirement for granting of credits	Passing of the examinations. The components of the module may be passed separately.
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group size	GMT3025: 25 students GMT3013: 80 students
Language	German or English (student option)
Module Duration	2 Semester
Module Coordinator	Foschiani, Stefan; Terporten, Michael; Liesegang, Eckart
Lecturer(s)	Professors of the discipline General Business Administration
Discipline	General Business Administration
Applicability in other programs	The module is included in all bachelor programs
Pedagogical Approach	GMT3025: Simulation Game GMT3013: Lecture with Case Study
Objectives	The students • will understand the process for the development of appropriate corporate goals and the process of managing their implementation in practice (management process). • will understand the company as a customer-focused value-added process. • will know methods of analysis and improvement of the entire value-added process. • will know several management principles, techniques and models and will be able to evaluate and apply their advantages and disadvantages as well as their effects on leadership and company results.

	• will possess a holistic view on a market-managed company and will be able to assess impacts of business decisions on company results. • will know basic strategies for increasing the company value and will be able to transfer them to the corporate functions. • should possess competencies for goal-oriented leadership of a company (particularly business planning processes). • should possess skills for dealing with team conflicts and complex decision-making situations that had to be taken under high pressure and uncertain future expectations.
Content	The module "Corporate Management" looks at the strategic problems to which the company is exposed. Furthermore, the module looks at the current explanatory principles and instruments that lead to a solution. The main topics are: introduction to the strategic management, strategic options, the company audit, the analysis of the performance chain, benchmarking, the analysis of the industry, competition analysis, assessment of the strategic position, the forecast of the future, corporate culture and mission statement.
Relation to other Modules	Builds on the previous business administration modules
Literature	A participant handbook is offered for the Management Simulation. Strategic Management: • Besanko, David et al.: Economics of Strategy, John Wiley & Sons, Inc. • Heracleous, Loizos: Strategy and Organisation, Cambridge University Pressausemeier, Jürgen et al.: Szenario-Management, Carl Hanser Verlag • Johnson, G., Scholes, K. & Whittington, R.: Exploring Corporate Strategy, Prentice Hall
Workload	It is expected that the students spend 90 h for preparation, independent literature study, exercises and accompanying tasks, in addition to the 4 x 15 = 60 h attendance time (over two semesters).
Additional remarks	GMT3025 takes place in small groups as a block seminar during the semester break after the internship semester. There are restrictions to participation (particularly for the English-speaking management simulation game). A pre-notification is required. For students of BW/International Business French or Spanish versions of GMT3025 are separately organized by their program director. GMT3013 forms part of the mobility window in the 6th semester, it is available for the recognition of credits from a study semester abroad. The conditions on workload and objectives can normally met by a variety of courses at our partner universities.

	The English version of the module is offered as part of the *International Study Program (ISP)*. Restrictions of participation apply to GMT3025.
Key Words	Corporate governance management strategic management
Last Edited	January 5, 2017

GMT3400 – MANAGEMENT IN SPECIFIC INDUSTRIES

Module Name	Management in Specific Industries
Module ID	GMT3400
Semester	6
Credits	6
SWS/contact hours per week	5
Frequency	each semester
Associated Courses	This is an elective module for which one of the following courses is to be chosen (each with 5 SWS/6 credits): • GMT3401 Management of the Industrial Enterprise (in German) • GMT3402 Bank Management (in German) • GMT3403 Mobility Industry (in German) • GMT3421 Retail Management (in English) • GMT3422 International Management (in English) Note: A minimum of three courses will be actually offered, with at minimum one in English. Due to changing demand over the academic year, the range of courses is likely to be higher in summer semester. Course offers may be changed or added.
Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	PLK – 90 minutes
Requirement for granting of credits	Passing of the written examination
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Class Size	Max. 80 students
Language	German
Module Duration	1 Semester
Module Coordinator	Kropp, Matthias
Lecturer(s)	Professors of the discipline General Business Administration
Discipline	General Business Administration
Applicability in other programs	The module is included in all bachelor programs
Pedagogical Approach	Lecture with Exercises
Objectives	The students will be able to apply the acquired skills to the management of a company in a specific industry (such as industry, trade, credit industry). They will know the special framework conditions and problems of business activities in the respective industry. They should be able to promptly take on first projects and management tasks.

Management of the Industrial Enterprise:

The students

- will apply the skills acquired in the previous business administration modules to the management of an industrial company.
- should know the special framework conditions and problems of business activities in this industry and can therefore promptly take on first professional and personal management tasks.

Retail Management:

The students

- will know the institutional characteristics of trading companies (retailers are providers).
- will know typical areas of responsibilities and problems in trading companies, such as location choice, customer-oriented assortment creation, brand policy, personnel management (in particular in sales).
- will acquire knowledge in the management of trading companies and service companies.

Bank Management:

The students

- will apply the skills acquired in the previous business administration modules to the management of a credit institution.
- will know the investment objectives and will judge and assess all common types of investment (deposits, bonds, stocks, investment funds, derivatives).
- should be able to apply credit services of a bank to companies and their arithmetic units.
- will know the essential credit security instruments.
- will determine the capital servicing capacity of a company and thus get to a secure credit assessment.
- should know the interdependencies under special conditions of the credit system and their specific problems and can therefore promptly take on first professional and personal management tasks.

International Management:

The students

- will know the potential forms of the internationalization process of a company and can operate successfully in an international environment.

	• should be able to internationally market products and services and to manage the required financing processes. • should know the special framework conditions and problems internationally operating companies and can therefore promptly take on first professional and personal management tasks. Mobility Industry: The students • are able to apply the skills acquired in the previous business administration modules. • will acquire knowledge of the special framework conditions, problems and terms of business activities in the automobile industry. • will master the methods of the research & development management, of the production control and of logistics. • should therefore be qualified to take on first professional and personal management tasks.
Content	Special business administration (such as management of the industrial enterprise, management of the retail enterprise, bank management, management of the automobile industry) Management of the Industrial Enterprise: The lecture treats the issue "Research and Development in the Industry" as a key function for the future competitiveness. Furthermore, the issue production and logistics is treated in light of increasing globalization. Retail Management: This lecture covers the basics of retail management. The issues functions, trade marketing, procurement and logistics, personnel management and corporate governance will be emphasized especially for this industry. Specific tasks in trading companies will be carved out in practical examples and projects. The lecture targets students who would like to work for a trading company. It targets also students who would like to work in sales and marketing department of companies, whose clients are trading companies. The students will also gain an insight into the task areas of service companies. Bank Management: The lecture deals among other things with features of credit institutions and with the bank system in Germany. Furthermore, the lecture covers the different types of investment (deposits, bonds, stocks, investment funds, derivatives) and the credit

	business. In this context the typical banking risks, in particular the interest and credit risk, will be emphasized. International Management: This lecture covers the internationalization process of a company, international marketing, foreign trade financing and legal frame conditions of foreign activities. Mobility Industry: In the first part Prof. Dr. Haugrund treats issues, which refer to the beginning of the value chain in the automobile industry. Based on fundamental questions regarding the future mobility, task fields will be defined for the strategic research and development of the automobile industry. Afterwards all questions related to the research and development management will be dealt with in detail. Chosen core themes of the areas production and logistics at suppliers as well as original equipment manufacturers top off the first part of the lecture. Based on that, Prof. Dr. Terporten focuses mainly on the subsequent part of the value chain, the sales and aftersales organizations at the original equipment manufacturers and the sales and service structures in the motor vehicle trade.
Connection to other Modules	Builds on the previous business administration modules
Literature	Depending on the special business administration offered. Management of the Industrial Enterprise: • Tidd, J. & Bessant, J.: Managing Innovation: Integrating Technological, Market and Organizational Change, Wiley • Trott, P.: Innovation Management and New Product Development, Prentice Hall Retail Management: • Berman, Berry/Evans, Joel R., Retail Management: A Strategic Approach, Upper Saddle River (NJ) Bank Management: • Berger, A. N., Molyneux, P. & Wilson, J. O. S.: The Oxford Handbook of Banking, Oxford University Press International Management: • Griffin, R.W., Pustay, M.W., International Business • Czinkota, M.R., Ronkainen, I.A. et. al., International Business • Johannson, J.J., Global Marketing

	• Cateora, P.R., Gilly, M.C. et. al., International Marketing • Lascu, D.-N., International Marketing • Coyle, B., Foreign Exchange Markets • Bhogal, T.S., Trivedi, A.K., International Trade Finance • Ramberg, J., ICC Guide to Incoterms Mobility Industry: • Mitchell, W. J., Borroni-Bird, C. E. & Burns, L. D.: Reinventing the Automobile: Personal Urban Mobility for the 21st Century, The MIT Press • Trott, P.: Innovation Management and New Product Development, Prentice Hall
Workload	It is expected that the students spend 105 h for preparation, independent literature study, exercises and accompanying tasks, in addition to the 5 x 15 = 75 SWS attendance time.
Additional remarks	At least three compulsory elective subjects are offered per semester. The module forms part of the mobility window in the 6th semester, it is available for the recognition of credits from a study semester abroad. The conditions on workload and objectives can normally met by a variety of courses at our partner universities. The courses taught in within this module are offered as part of the *International Study Program (ISP)*.
Key Words	Trade, industry retail, banking and finance; international marketing, business administration
Last Edited	January 5, 2017

INS3020 – INTERNSHIP SEMESTER

Module Name	Internship Semester
Module ID	INS3020
Semester	5
Credits	28
SWS/contact hours per week	2
Frequency	each semester
Associated Courses	INS3021 Internship (0 SWS/26 Credits) INS3022 Accompanying course of the internship (2 SWS/ 2 Credits
Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	INS3021: UPL INS3022: UPL
Requirements for granting of credits	The internship has to be documented by a formal agreement with an employer in a work area qualifying for the specific degree program. The documentation also encompasses a duration of at minimum 100 working days (after adjustment for holidays and sick leave, if any). In addition the required internship reports have to be handed in and passed. The accompanying lecture is requiring participation. The module can only passed if all module requirements are fullfilled.
Significance for final grade	The module is required for, but not counted towards the final bachelor degree grade
Planned group size	INS3021: n.a. INS3022: up to 40
Language	INS3021: in any language, reports however are to be written in a language covered by a professor of the respective degree program INS3022: German or English
Module Duration	1 semester
Module Coordinator	Eisenberg, Claudius
Lecturer(s)	Professors from Business School faculty
Discipline	All disciplines
Applicability in other programs	The module is included in all bachelor programs
Pedagogical Approach	INS3021: professional experience INS3022: seminar
Objectives	During the internship students • get to know how to behave in a business environment • demonstrate their ability to apply the competencies acquired in their degree programs during their first four semesters of study.

	• get a practical experience of different aspects of their respective degree programs and enlarge their knowledge. At the end of their internship semester students are able to demonstrate and critically reflect their experiences.
Content	Acquisition of practical experience and its critical reflection.
Relation to other modules	The module is consolidating the contents of previous modules in the individual specialisation of the respective programs and is preparing for the thesis.
Literature	Depends upon placement.
Workload	INS3021: 780 hours of work (=100 working days) at the employer institution (includes the writing of the reports). INS3022: 2x15=30h contact hours and 30h preparation for the presentation.
Additional remarks	There is an automatic registration for the internship semester in the semester preceding the internship semester - provided all credits from the first two semesters are being successfully passed. If this requirement is not met, the internship semester is moved up to the subsequent semester. In this case an internship in the 5th semester cannot be started. On the student's request the internship semester can be moved to a higer semester for specific reasons, eg. because of seasonal demand for interns or in order to do a study semester abroad first. The internship semester may be done abroad, the Business School is strongly recommending students to spend efforts to this aim.
Keywords	Internship
Last Updated	May 2015

LAW2060 – LAW

Module Name	Law
Module ID	LAW2060
Study Semester	4
Credits	5
SWS/contact hours per week	4
Frequency	Once a year (summer semester)
Courses	LAW2061 Business Law (4 SWS/5 Credits)
Prerequisites	None
Assessment Methods	PLK – 90 minutes
Requirement for granting of credits	successful passing of the examination
Significance for final grade	The module flows into the final grade of the bachelor's degree, weighted by its credits.
Planned group size	15 students
Language	German
Module Duration	1 Semester
Module Coordinator	Schmitt, Ralph
Lecturer(s)	Professors of the discipline Business Law
Discipline	Business Law
Applicability in other programs	None
Pedagogical Approach	Lecture with Examples
Objectives	The students • The students have a good grasp of the legal basics of contract completion. • acquire basic knowledge of the law of obligations and of the law of companies and corporations.
Content	This course provides an overview of the German civil law, based on private law (BGB) and company law (HGB) • key issues of the law of contract (e.g. contract formation, types of contracts, agency), performance and breach of contract • Torts, Product liability. • Trade and company law
Relation to other modules	Forms a basic understanding for legal issues as in GMT3310
Literature	• Bürgerliches Gesetzbuch (e.g. edited by dtv-Verlag, this edition also contains ProdukthaftungsG), • Handelsgesetzbuch

	• Enders/Hetger, Grundzüge der betrieblichen Rechtsfragen • Führich, Wirtschaftsprivatrecht • Gildeggen et al., Wirtschaftsprivatrecht • Kaiser, Bürgerliches Recht • Müssig, Wirtschaftsprivatrecht - latest editions -
Workload	It is expected that the students spend 90 h for preparation, independent literature study, exercises and accompanying tasks, in addition to the 4 x 15 = 60 h attendance time.
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester.
Key Words	Private law, corporate law
Last Edited	January 5, 2017

LAN2050 – GERMAN / FOREIGN LANGUAGE III

Module Name	German / Foreign Language III
Module ID	LAN2050
Study semester	3
Credits	5 Credits
SWS / contact hours per week	8
Frequency	once a year
Associated Courses	See catalogue
Prerequistes	None.
Assessment Methods	PLK/PLM – 90 minutes
Requirement for granting of redits	Passing of the exam.
Significance for final grade	The module is weighted by 5 Credits for the final grade.
Planned group size	20
Language	German
Module duration	1 Semester
Responsible person	Bender, Gabriele
Lecturer(s)	Lecturers of the Institute of Foreign Languages
Discipline	Institute of Foreign Languages
Applicability in other programs	International Study Program
Pedagogical Approach	Interactive Approach
Objectives	The participants • Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. • Can interact with a degree of fluency that • makes regular interaction with native speakers possible without too much strain for either party. • 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.
Content	See objectives.
Relation to other modules	The module forms the basis for all subsequent modules taught in German.
Literature	Sander, I. u.a.: DaF kompakt / Kurs- und Übungsbuch mit 2 Audio-CDs B1: Deutsch als Fremdsprache für Erwachsene, Klett, 978-3126761888
Workload	150 hours, thereof

	Contact time 8 x 15 SWS = 120 hours. Self-study app. 30 hours (for preparation of course and autonomous reading of literature and exercises)
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. The module normally comprises a pre-semester course and an additional course along the semester. Students who are already familiar with the German language at this level do have to obtain instead foreign language skills at least in other languages not familiar to them at the respective level as offered by the Institute of Foreign Languages ((e.g. Deutsch C1, French A2, B1, Spanish A2, B1).
Keywords	Deutsch, German as a Foreign Language
Last edited	April 2015

THE4999 – THESIS

Module Name	Thesis
Module ID	THE4999
Semester	7
Credits	12
SWS/contact hours per week	-
Frequency	each semester
Associated Courses	-
Prerequisites	All 120 credits of the first four semesters have to be passed..
Assessment Methods	THE
Requirements for granting of credits	Passing of the thesis.
Significance for final grade	The module is counted towards the final bachelor degree grade weighted by its credits.
Planned group size	n.a.
Language	In a language covered by a professor of the respective degree program
Module Duration	3 months
Module Coordinator	Eisenberg, Claudius
Lecturer(s)	Professors from Business School faculty
Discipline	All disciplines
Applicability in other programs	The module is included in all bachelor programs
Pedagogical Approach	Self-study and academic writing Practical project with academic relevance in cooperation with a company is possible and for specific degree programs strongly suggested.
Objectives	The students • demonstrate their ability to work scientifically on a topic and to critically analyze its aspects applying theoretical concepts. • are able to suggest a possible solution.
Content	Writing an extensive academic essay.
Relation to other modules	The module is consolidating the contents of the previous modules of the respective programs.
Literature	Depends upon topic
Workload	360 hours of work in writing the thesis

Additional remarks	None
Keywords	Bachelor Thesis, Thesis
Last Updated	January 5, 2017

B. <u>Specialisation</u>

BIS2050 – PROGRAMMING AND DATA MANAGEMENT

Module Name	Programming
Module ID	BIS2050
Semester	3
Credits	6
SWS/contact hours per week	6
Frequency	Each semester, but alternating in the language of instruction
Associated Courses	• BIS2051 Programming (4 SWS / 4 Credits) • BIS2052 Database Systems (2 SWS/2Credits)
Prerequisites	None For BSBA/Digital Enterprise Management: None. For students of the study program BW/Wirtschaftsinformatik – Management & IT: At maximum 23 credits may be missing from the interim grade.
Assessment Methods	PLL/ PLK/ PLH/PLM – 120 minutes
Requirement for granting of credits	Passing of the respective exams
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned Group Size(s)	25 students
Language(s)	Winter semester: German – Summer semester: English
Module Duration	1 semester
Module Coordinator	Burkard, Werner
Lecturer(s)	Burkard, Werner; Schuster, Thomas
Discipline	Digital Enterprise Management
Applicability in other programs	The module is also part of the study program BW/Wirtschaftsinformatik – Management & IT
Pedagogical Approach	Lectures with lab exercises and a project
Objectives	The students in BIS2051 (Programming) • know the programming language Java and are familiar with fundamental concepts of object orientation (OO). • are able to use a well-known integrated developing environment • are able to solve simple problems using Java • structure their programs into packages, classes and methods. • are capable of realizing a predefined project aim in a given space of time, using learned OO concepts. The students in BIS2052 (Database systems) • know how to manage a database management system. They recognize goals and identify risks and challenges. • know database design layers and fundamentals of database architecture • are able to model database structures for a given problem from a semantic and logical point of view

	• are able to define, manipulate, identify, query and save data using SQL on a modern database management system
Content	The module imparts in BIS2051 (Programming): • Characteristics of programming languages • Syntax notations • Working with an IDE (integrated development environment) • Fundamental concepts of object oriented programming • Datatypes, variables, expressions and operators • Simple structures in a class • Classes, object construction and method calls • Inheritance mechanisms and polymorphism • Collections, Graphical User Interfaces, Database access in BIS2052 (Database systems): • Introduction of relational (and non-relational) databases • Relational databases in detail • SQL basics • SQL queries in detail • Database design: basics and advanced concepts
Relation to other modules	The module forms the basis for all subsequent IT-modules.
Literature	• Sierra, K., Bates, B., Head First Java, O'Reilly 2005. • M. J. Hernandez, Database Design for Mere Mortals: A Hands-On Guide to Relational Database Design, 3 edition. Upper Saddle River, NJ: Addison-Wesley Professional, 2013. • L. Beighley, Head First SQL: Your Brain on SQL -- A Learner's Guide, 1 edition. Beijing ; Sebastopol, CA: O'Reilly Media, 2007. • J. Maymala, PostgreSQL for Data Architects. Packt Publishing - ebooks Account, 2015. • M. Fowler, UML Distilled: A Brief Guide to the Standard Object Modeling Language, 3 edition. Boston: Addison-Wesley Professional, 2003. • additional learning documents are found on the e-learning platform, see: https://lms.hs-pforzheim.de/
Workload	The following workload estimate can be derived: Programming: Preparation (15*1=) 15 hours Contact hours (15*4=) 60 hours Programming work (15*2=) 30 hours Final exam preparation 15 hours Total 120 hours Database systems: Preparation (15*1=) 15 hours Contact hours (15*2=) 30 hours Final exam preparation 15 hours Total 60 hours Module total: 180 hours
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester.

	The module is offered as part of the *International Study Program (ISP)*. The credits achieved in the English language in BIS2053 will be credited to the English-credit-requirement of BW/Wirtschaftsinformatik – Management & IT.
Key words	Java, object orientation, IDE, objects, classes, API, Javadoc, methods, members, inheritance, polymorphism, overloading, overwriting Relational database systems, database design, database requirements, SQL, queries, access control
Last updated	July 2016

BIS2070 - BUSINESS PROCESS MANAGEMENT AND TRANSACTIONAL PROCESSING SYSTEMS

Module Name	Business Process Management and Transactional Process Systems
Module ID	BIS2070
Semester	3
Credits	4
SWS/contact hours	4
Frequency	Each semester, but alternating in the language of instruction
Asscociated Courses	BIS2041 Business Process Management and Transactional Processing Systems
Prerequisites	None ~~For BSBA/Digital Enterprise Management: None. For other study programs: No more than 10 credits must be missing from the interim grade.~~
Assessment Methods	PLK/PLL – 60 minutes
Requirement for the granting of credits	Passing of both, the continuous assignments and the written exam
Significance for the ginal grade	The module is counted to the final bachelor grade weighted by its credits.
Planned Group Size	25 students
Language	Winter semester: English – Summer semester: German
Module Duration	1 semester
Module Coordinator	Schuler, Joachim
Lecturer(s)	Morelli, Frank / Schuler, Joachim
Discipline	Digital Enterprise Management
Applicability in other programs	BIS2041 is also part of the study programs BW/Wirtschaftsinformatik – Management & IT and BW/Einkauf und Logistik
Pedagogical Approaches	Lectures with exercises and a case study
Objectives	The students • conceive fundamental concepts for business process management design and current trend within this area • understand business processes as a starting point for the design of IT systems • discern interdependencies and interaction of core business processes from the area of logistics like procurement, inventory management, etc. • conceive the transformation of business process requirements in IT solutions and the relevance of integration aspects within ERP systems using SAP ERP • understand fundamental approaches and concepts of business process optimization using transaction systems • discern the importance of standard software using SAP ERP as well as the architecture and integration of operative IT systems (like ERP, CRM, SRM, SCM, and PLM) from a business perspective • understand the proceeding and the key success factors for the implementation of a transaction system • are able to design concrete business processes by using practice-oriented modelling methods • can analyze business process models using appropriate analysis tools and / or IT tools

	• are able to generate recommendations for business process optimization • know how to employ SAP ERP in the area of logistics from a user´s perspective
Content	The course imparts • an overall outline about the business process management topic • fundamental concepts for business process design as well as current trends in this area • methodic approaches for modeling, analysis, and optimization of business processes • in detail: foundations in business process management, business modeling using BPMN, principles of business process management and business process excellence life cycle, process analysis and process optimization as well as business process management within an enterprise • business processes as a starting point for the design of IT systems (process modelling, modelling of organizational units, modelling of information objects) • the role of enterprise applications (ERP, CRM, SRM, SCM, and PLM) in a business context and corresponding opportunities for process optimization using IT systems • steps for selecting and implementing an ERP system • foundations of SAP ERP like organizational units and master data within the area of logistics • transformation of business processes within the area of logistics to the ERP system SAP ERP
Relation to other modules	The module forms the basis for all subsequent IT-modules.
Literature	• Dumas, M., La Rosa, M., Mendling, J, Reijers, H., Fundamentals of Business Process Management, Springer-Verlag 2013. • Magal, S., Word, J., Integrated Business Processes with ERP Systems, Wiley 2012.
Workload	The course is based on a textbook. Students have to prepare chapters before classes according to a detailed timetable. During class the students gain a deeper understanding by explanations, examples and the application of methods and tools. In addition, the students work continuously during the semester on exercises and on case studies in teams of two to three persons. The following workload estimate can be derived: Preparation (15*1=) 15 hours Contact hours (15*4=) 60 hours Exercises (15*1=) 15 hours Case studies (15*1=) 15 hours Exam preparation 15 hours Total 120 hours
Additional remarks	Students are expected to have passed the module BIS1010 "Computers in Business – Foundations" The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. The module is offered as part of the *International Study Program (ISP)*. The credits achieved in the English language in BIS2041 will be credited to the English-credit-requirement of BW/Wirtschaftsinformatik – Management & IT.

Key words	business process management, business process modeling, business process reengineering, BPM lifecycle, BPMN, process discovery, process analysis, process redesign, process automation, process intelligence, ERP systems, transaction systems, SAP ERP
Last updated	January 5, 2017

BIS2090 - IS PROJECT MANAGEMENT

Module Name	IS Project Management
Module ID	BIS2090
Semester	4
Credits	7
SWS/contact hours per week	4
Frequency	• BIS2042: each semester • BIS2091: once a year
Associated Courses	• BIS2042 Methods of Project Management (2 SWS/3 Credits) • BIS2091 IS-Project (1 SWS/4 Credits)
Prerequisites	None
Assessment Methods	• BIS2042: PLK – 60 minutes • BIS2091: PLP
Requirement for granting of credits	Passing the the respective exams; BIS2042 and BIS2091 may be passed individually
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group Size	• BIS2042: 40 students • BIS2091: 4-8 students per project
Language	• BIS2042 Methods of Project Management: Winter semester: German – Summer semester: English or German (optional) • BIS2091 IS-Project: German and English Participation in the English-language version of BIS2042 is compulsory for students of BW/Digital Enterprise Management.
Module Duration	1 semester
Module Coordinator	Morelli, Frank
Lecturer(s)	Morelli, Frank / Schuler, Joachim
Discipline	Digital Enterprise Management
Apllicability programs	BIS2042 Methods of Project Management is also available to students of BW/Wirtschaftsinformatik – Management & IT, BW/Einkauf und Logistik, BW/Personalmanagement and BW/Ressourceneffizienz-Management.
Pedagogical Approach	Lectures with exercises and an IS project
Objectives	The students • master method-based planning and structuring of complex projects • acquire collaborative competencies based on team exercises • are able to apply the attained knowledge on IT projects
Content	The module imparts • an overall survey about the project management topic • in detail: foundations in project management, project organization, project methods, project planning, risk management, contract management
Relation to other modules	The module is consolidating on the IT competencies already achieved and preparing for qualified job assignments during the internship semester.
Literature	• Kerzner, H., Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 11th edition, Wiley 2013.

Workload	The course is based on a textbook. Students have to prepare chapters before classes according to a detailed timetable. During class the students gain a deeper understanding by explanations, examples and the application of methods and tools. In addition, the students work continuously during the semester on exercises and on case studies in teams of two to three persons. The following workload estimate can be derived: Preparation 15 hours Contact hours (15*3=) 45 hours Project work 135 hours Exam preparation 15 hours Total 210 hours
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. BIS2042 is offered as part of the *International Study Program (ISP)*. The credits achieved in the English language in BIS2042 will be credited to the English-credit-requirement of BW/Wirtschaftsinformatik – Management & IT and BW/Einkauf and Logistik.
Key words	project management, project phases, project planning, project organization, multi project management, program management, project methods, earned value method, work-breakdown structure, network, risk management, contract management, IT project, IS project
Last updated	January 5, 2017

BIS2100 - ELECTRONIC MARKETS, EDI & EAI

Module Name	Electronic Markets, EDI & EAI
Module ID	BIS2100
Semester	4
Credits	5
SWS/contact hours per week	4
Frequency	once a year
Associated Courses	BIS2101 Electronic Markets, EDI & EAI
Prerequisites	None
Assessment Methods	PLK/PLP – 60 minutes
Requirement for granting of credits	Passing the embedded project and the written exam.
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned group size	25 students
Language	English
Module Duration	1 semester
Module Coordinator	Schuler, Joachim
Lecturer(s)	Lecturers from the bachelor programs Digital Enterprise Management and Business Information Systems – Management & IT
Discipline	Digital Enterprise Management
Applicability in other programs	None
Pedagogical Approach	Lectures with a project
Objectives	The students • know types of business integration, their characteristics and benefits • know how to plan und to manage a business integration solution • are able to design a business integration solution for use cases
Content	The module imparts • Importance of electronic markets • Markets topologies • Kinds of services provided by electronic markets • Relationships of actors involved • Marketplace information and communication technologies • Electronic data interchange: Characteristics and types • Communication standards and transfer protocols • EDIFACT • Enterprise Application integration: Types and areas of application • Examples of electronic markets • Security and privacy in electronic markets
Relation to other modules	The module forms the basis for all subsequent IT-modules.
Literature	• Course Materials • Beckner, M., Dharanikota, K., BizTalk 2013 Recipes: A Problem-Solution Approach. Apress 2013.

	• Standing, S., Standing, C., Love, P. E. D.., A Review of Research on E-Marketplaces 1997-2008, Elsevier 2010. • Naujok, K.-D.; Rebstock, M., Fengel, J., Huemer, C.; Paulheim, H., Röder, P.; Tafreschi ,O., Ontologies-Based Business Integration, Springer Science & Business Media 2008.
Workload	During class the students gain a deeper understanding by explanations, examples and the application of methods and tools. In addition, the students work continuously during the semester on a design and implementation project in teams of two to three persons. The following Workload Estimate can be derived: Contact hours　　　　　　　　　　　　(15*4=)　　60 hours Project work　　　　　　　　　　　　　(15*4=)　　60 hours Presentation of problem solving　　　　(15*1=)　　15 hours Exam preparation　　　　　　　　　　　　　　　　15 hours Total　　　　　　　　　　　　　　　　　　　　　150 hours
Additional remarks	The successful passing of the module is a prerequisite for the module THE4999 of the 7th semester. The module is offered to exchange students in the *International Study Program (ISP)*.
Key words	Business-to-Business-Integration, Business-to-Consumer-Integration, Electronic marketplace, Electronic Catalog, Electronic data interchange, EDIFACT, Enterprise Application integration
Last updated	March 2015

BIS3040 – IT-PROJECT

Module Name	Project
Module ID	BIS3040
Semester	6
Credits	5
SWS/contact hours per week	2
Frequency	each semester
Associated Courses	BIS3041 Project Work
Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	PLP
Requirements for granting of credits	Passing the project work
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned Group Size	15 students
Language	German
Module Duration	1 semester
Module Coordinater	Burkard, Werner
Lecturer(s)	Lecturers from the bachelor programs Digital Enterprise Management and Business Information Systems – Management & IT
Discipline	Digital Enterprise Management
Applicability in other programs	This is a joint module with BW/Wirtschaftsinformatik – Management & IT
Pedagogical Approach	Coached project work
Objectives	The students • can identify and structure problems when operating business information systems • are able to design and implement clever IT solutions • are capable of optimizing business processes • can to work together and organize their team on their own responsibility • are able to realize a predefined project aim in a given space of time, together with their team colleagues
Content	The module imparts • Projects often are done in cooperation with German business companies. They define the project aims. • Projects may concentrate on more technical or more organizational questions, or both. • Even when projects may have a complex scope of work they always have a more practical way of looking at the problems • Work is done in small teams (up to 5 students max) • Students are coached by a professor • There is a final presentation in front of the project owning company
Literature	• Course Materials, depending on the given projects
Workload	The following workload estimate can be derived: Contact hours (15*2=) 30 hours Project work (15*5=) 105 hours

	Final program presentation incl. preparation	15 hours
	Total	150 hours
Additional remarks	Students are expected to have completed the internship (semester 5)	
Key words	Project organization, project management, team,	
Date of last Modification	March 2015	

BIS3060 - ELECTIVES DIGITAL ENTERPRISE MANAGEMENT

Module Name	Electives Digital Enterprise Management
Module ID	BIS3060
Semester	6
Credits	12
SWS/contact hours per week	8
Frequency	each semester

Associated Course(s)	The module imparts the mandatory core course PAL3111 e-business and Supply Chains and six electives, of which the students have to choose three.
	
	Compulsory: PAL3111 e-business and Supply Chains (2 SWS, 3 Credits)
	
	Electives (9 credits to be chosen):
	
	• Transactional Processing Systems in Logistics (BIS3012, 2 SWS, 3 Credits)
	• Electives A: Digital Business Models (each 2 SWS, 3 Credits)
	   o BIS3061 Internet of Everything
	   o BIS3062 Organizational Networks
	   o BIS3063 Anything-Relationship-Management
	• Electives B: Digital Technology Solutions (each 2 SWS, 3 Credits)
	   o BIS3064 Mobile Solutions
	   o BIS3065 Smart Factory
	   o BIS3066 Big Data Management
	
	Note: A minimum of 12 credits of elective courses will be actually offered. Due to changing demand over the academic year, the range of courses is likely to be higher in summer semester. Course offers may be changed or added. Although courses mixed from Electives A and B may be chosen, the program advices its students to stay with their choice within A or B.

Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	• PAL3111 e-business and Supply Chains: PLK/PLP/PLL – 60 minutes • BIS3012 Transactional Processing Systems in Logistics: PLL/PLP/PLR • Electives: PLK/PLL/PLH/PLR – 60 minutes
Requirements for granting of credits	Passing the respective examinations. The examinations of individual the individual component courses may be passed individually.
Significance of the final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned Group Size	PAL3111 e-business and Supply Chains: 60 students BIS3012 Transactional Processing Systems in Logistics: 30 Students Electives: 30 Students
Language	English
Module Duration	1 semester
Module Coordinator	Schuster, Thomas
Lecturer(s)	• PAL3111 e-business and Supply Chains: Schuler, Joachim / Möller, Klaus • Electives: Lecturers from the bachelor programs BW/Digital Enterprise Management and BW/Wirtschaftsinformatik – Management & IT, BW/Einkauf und Logistik and the School of Engineering.

Discipline	Digital Enterprise Management
Applicability in other programs	The associated courses of this module may be chosen by students of the study programs BW/Wirtschaftsinformatik – Management & IT and BW/Einkauf und Logistik.
Pedagogical Approach	• PAL3111 e-business and Supply Chains: Interactive teaching approach with exercises and case study • Electives: Depending on the course/group size; in general Interactive teaching approach with student project or case study and preparing a term paper
Objectives	**PAL3111 e-business and Supply Chains**: This core course guarantees that all students understand the foundations of supply chain management and acquire the necessary competencies to evaluate Internet based business models and to develop procurement and distribution strategies in order to enhance supply chain performance. In detail, the students • understand the goals of IT for Supply Chain Management, are able to ascertain the scope, role, and relevance of IT systems for supply chain integration and optimization, and apply this knowledge in real-life, managerial scenarios; • understand the foundations of Internet-enabled supply chain management; • be able to develop procurement and distribution strategies under e-business and evaluate business models; • be able to formulate strategies for leveraging Internet technology to enhance supply chain performance; and • understand the impact of supply chain process collaboration. **Electives** The six available electives allow the students to gain deeper insight and develop their competencies and skills according to their career aspirations. The Electives A focus on Digital Business Models, while the Electives B focus on Digital Technology Solutions. **Electives A: BIS3061 Internet of Everything** The students • understand what IoT technologies are used for today and what is required in certain scenarios. • gain a better understanding of the types of technologies that are available and in use today and can be utilized to implement IoT solutions. • are aware of challenges to implement IoT • understand relationship between business requirements and IoT-Solutions • appreciate potential of IoT and the impact of IoT for new Business Models **Electives A: BIS3062 Organizational Networks** The students • know benefits and characteristics of organizational and social networks • know how to create, analyse, and optimize an organizational network • are able to propose an integration scenario for organizational networks considering economic and social aspects

	Electives A: BIS3063 Anything-Relationship-Management The students • know benefits, characteristics, and different types of xRM systems from a business´ perspective • are able to use information and communication technology (ICT) for xRM platforms • are able to propose an integration scenario for xRM platforms **Electives B: BIS3064 Mobile Solutions** The students • understand technologies and business trends impacting mobile applications • understand enterprise scale requirements of mobile applications, and are able to derive these requirements from business problems • understand the architecture of mobile applications and their backend services. • are able to design and develop multi-platform mobile applications using application development frameworks **Electives B: BIS3065 Smart Factory** The students • know benefits, characteristics and different types of a smart factory approaches • know different technology used in smart factories • are able to propose an integration scenario for smart factories • are able to model and develop the design of a smart factory **Electives B: BIS3066 Big Data Management** The students • know benefits and characteristics of big data analytics • know how to plan und to manage a big data solution • are able to apply big data analytics to common use cases
Content	**PAL3111 e-business and Supply Chains** imparts • eBusiness Framework • eBusiness upstream (supply) • eBusiness downstream (distribution) • eSCM/eCollaboration • Case study **Electives A: BIS3061 Internet of Everything** imparts • Overview Internet of Things (IoT) • Business Aspects of the Internet of Things • Making Things Smart: Getting Things onto the Internet • Business Cases & Concepts for IoT • IoT Business Issues and Models **Electives A: BIS3062 Organizational Networks** imparts • Importance and characteristics of organizational networks • Socio-technical networks • Organizational network management • Economic and social aspects of socio-technical networks

	Electives A: BIS3063 Anything-Relationship-Management imparts • Importance and characteristics of xRM systems • Types of xRM systems • Information and technology for xRM platforms • xRM platform integration **Electives B: BIS3064 Mobile Solutions** imparts • Characteristics and development of mobile applications • Quality criteria and enterprise requirements of mobile applications: performance, scalability, modifiability, availability and security • Development of multi-platform mobile applications, managing application data, integrating of distributed services, • Testing, Publishing, deployment, maintenance, and management of mobile applications **Electives B: BIS3065 Smart Factory** imparts • Introduction in Smart Factory • Technologies for smart factories: cyber physical systems. 3D print, RFID, Cloud • Design of a smart factory • Challenges and Benefits, implementing a smart factory **Electives B: BIS3066 Big Data Management** imparts • Importance and characteristics of big data in business and scientific context • Big data technologies (machine learning, MapReduce, NoSQL) and applications (as Hadoop, Spark, Cassandra, Zookeeper) • Big data solution stack architectures • Test and development of Big Data analytic solutions
Relation to other modules	The module is based on the IT-modules of the previous semesters.
Literature	**PAL3111 e-business and Supply Chains** imparts • Meider, A., Gosselin, E., Stormer, H., eBusiness & eCommerce: managing the digital value chain. Springer Science & Business Media, 2009. • Zentes, J., Morschett, D., Schramm-Klein, H., Strategic Retail Management: Text and International Cases. Wiesbaden, Springer Gabler Verlag 2011 (eBook). • Chaffey, D., Digital Business & E-Commerce Management, 6th ed. Strategy Implementation & Practice, 6th Revised ed. edition. Trans-Atlantic Publications, 2014. **Electives A: BIS3061 Internet of Everything** imparts • Weber, R. H., Weber, R., Internet of Things. Springer 2010. • Holler, J. et al., From Machine-to-machine to the Internet of Things: Introduction to a New Age of Intelligence. Academic Press 2014. • Gaglio, S., Lo Re, G., Advances onto the Internet of Things, Springer 2014. **Electives A: BIS3062 Organizational Networks** imparts • Aalbers, H., Dolfsma, W., Innovation Networks: Managing the networked organization, Routledge 2015.

- Shuman, J. C., Twombly, J., and Rottenberg, D., Collaborative Communities: Partnering for Profit in the Networked Economy. Chicago: Dearborn Trade, 2001.
- Camarinha-Matos, L. M., Collaborative Networks for a Sustainable World. Springer, 2010.

Electives A: BIS3063 Anything-Relationship-Management imparts

- Britsch, J., Schacht, S., Mädche, A., Anything Relationship Management, in: Business & Information Systems Engineering (BISE 4 (2012) 2, p. 85-87.
- Kumar, V. and Reinartz, W., Customer Relationship Management: Concept, Strategy, and Tools, 2nd ed. 2012 edition. Berlin: Springer, 2012.
- Kumar, V., and Petersen, J. A., Statistical Methods in Customer Relationship Management, 1 edition. Chichester, West Sussex: Wiley, 2012.

Electives B: BIS3064 Mobile Solutions imparts

- Dalmasso, I., et al., Survey, comparison and evaluation of cross platform mobile application development tools. In: Wireless Communications and Mobile Computing Conference (IWCMC), 2013 9th International. IEEE 2013. S. 323-328.
- Smutny, P., Mobile development tools and cross-platform solutions. In:Carpathian Control Conference (ICCC), 2012 13th International. IEEE 2012. S. 653-656.
- Ramnath, R., Crawfis, R., Sivilotti. P., Android SDK 3 for Dummies, Wiley 2011.
- Lee, V., Schneider, H., Schell, R., Mobile Applications: Architecture, Design, and Development, Prentice Hall 2004.
- Lauras, M., et al. Enterprise Interoperability: I-ESA'14. Wiley 2015.

Electives B: BIS3065 Smart Factory imparts

- Taha, W., Cartwright, R., Philippsen, R., Zeng, Y., A First Course on Cyber Physical Systems, Proceedings of the Workshop on CPS Education (CPS-Ed) at CPSWeek on April 8th, 2013 in Philadelphia.
- Alur, R., Principles of Cyber-Physical Systems. Cambridge, Massachusetts: The MIT Press, 2015.
- Lucke, D., Constantinescu, C., and Westkämper, E., Smart factory-a step towards the next generation of manufacturing, in Manufacturing systems and technologies for the new frontier, Springer, pp. 115–118, 2008.
- M. Bauer, L. Jendoubi, and O. Siemoneit, 'Smart Factory–Mobile Computing in Production Environments', in Proceedings of the MobiSys 2004 Workshop on Applications of Mobile Embedded Systems (WAMES 2004), 2004.
- Rawat, D. B., Rodrigues, P. C. and Stojmenovic, I., Cyber-Physical Systems: From Theory to Practice. CRC Press, 2015.

Electives B: BIS3066 Big Data Management imparts

- Dumbill, E,: Planning for Big Data: A CIO's Handbook to the Changing Data Landscape, O'Reilly Media, 2012.
- O'Neil, C. and Schutt, R., Doing Data Science: Straight Talk from the Frontline, 1 edition. O'Reilly Media, 2013.
- Maheshwari, A., Data Analytics Made Accessible. Amazon Digital Services LLC, 2014.
- White, T., Hadoop: The Definitive Guide, 4 edition. Beijing: O'Reilly Media, 2015.

Workload	• PAL3111 e-business and Supply Chains: Contact hours (15*2=) 30 hours Preparation (15*1=) 15 hours Rework of class content (15*2=) 30 hours Exam preparation 15 hours Total 90 hours • Each Elective: Contact hours (15*2=) 30 hours Preparation (15*1=) 15 hours Rework of class content (15*2=) 30 hours Exam preparation 15 hours Total 90 hours Grand total 90 (PAL3111) + 3 * 90 (Electives) = 360 hours
Additional remarks	Students are expected to have passed the course BIS2070 - Business Process Management and Transactional Processing Systems. The module forms part of the mobility window in the 6th semester, it is available for the recognition of credits from a study semester abroad. The conditions on workload and objectives can normally met by a variety of courses at our partner universities. The associated courses of the module are offered as part of the *International Study Program (ISP)*.
Key words	e-business, e-commerce, supply chain, value chain, e-procurement, e-distribution, digital business models, digital technology solutions, internet of things, IoT, smart things, organizational networks, socio-technical networks, anything relationship management, extended relationship management, XRM, customer relationship management, CRM, ERM, information and communication technology, ICT, mobile application, app, cross platform development, cloud service, smart factory, cyber physical system. 3D print, RFID, big data, multidimensional data, business intelligence, data mining, predictive analytics, signal processing, real-time processing, in memory-database, privacy
Last updated	January 5, 2017

BIS4050 - CAPSTONE DIGITAL ENTERPRISE MANAGEMENT

Module Name	Capstone Digital Enterprise Management
Module ID	BIS4050
Semester	7
Credits	6
SWS	2
Frequency	each semester
Associated Course(s)	• BIS4052: Case Studies in International Digital Enterprise Management (1 SWS/3 Credits) • BIS4053: Current Topics in Digital Enterprise Management (1 SWS/3 credits)
Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	• BIS4052: PLR/PLH/PLK – 90 minutes • BIS4053: PLR/PLH
Requirements for granting of credits	Passing the respective examinations. The examinations of individual component courses may be passed individually.
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned Group Size	25 students
Languages	German
Module Duration	1 semester (intensive: initial seven weeks)
Module Coordinator	Thesmann, Stephan
Lecturer(s)	Lecturers from the bachelor programs Digital Enterprise Management and Business Information Systems – Management & IT
Discipline	Digital Enterprise Management
Applicability in other programs	BIS4052 is a joint offer with BW/Wirtschaftsinformatik – Management & IT
Pedagogical Approach	Seminar- and collaboration-oriented teaching and learning approach.
Objectives	BIS4052 Case Studies in International Digital Enterprise Management The students • are able to analyse a real-world situation systematically • are able to apply business information systems knowledge and skills to make evaluations, assessments, recommendations and or solutions for real-word situations in the area of Digital Enterprise Management • are able to present their insights and results to decision makers in a written and oral form BIS4053 Current Topics in Digital Enterprise Management The students • are able to do scholarly research in a new subject area in the field of Digital Enterprise Management Systems • are able to design and write an academic term paper • are able to present a topic in the field of Digital Enterprise Management Systems persuasively

Content	BIS4052 Case Studies in International Digital Enterprise Management The cases will be selected and/or prepared based on current themes that cover the state of the art in digital enterprise management (see BIS4053). BIS4053 Current Topics in Digital Enterprise Management The topics will be defined based on current themes that cover the state of the art in digital enterprise management like Sharing Economy, Cloud-based Solutions, Mobile Solutions, Big Data Management, Internet of Everything, Smart Factory, Organizational Networks, Anything-Relation-ship-Management.
Relation to other modules	This is a capstone-level module requiring integration of all fields of Digital Enterprise Management systems.
Literature	• Current journal articles, book chapters, books according to the selected topics. • Selected case studies.
Workload	The course is strongly based on literature. Students have to do self-directed research using scholarly databases, journals and book according the topics. For the seminar students have to prepare the term paper and presentations in groups of typically two students. Furthermore they have to be prepared for the discussion in class. For the case study part all students have to be prepared by reading the case and working on case issues. Additionally on student team per class has to prepare a presentation and will moderate the discussion accompanied by the course facilitator. The following workload estimate can be derived: Contact hours (7*4=) 28 hours Term paper preparation 59 hours Preparation of presentation 10 hours Preparing the other sessions (6*4=) 24 hours Preparing case presentation 59 hours **Total** **180 hours**
Additional remarks	The module is part of the thesis semester. In order to enable students to finish their thesis until the end of this semester, the module is upfronted to the first seven weeks of the semester. There will be no contact hours or other workload after that period.
Key words	seminar, case studies
Date of last Modification	October 2016

BIS4060 – SEMINAR BUSINESS INFORMATION SYSTEMS

Module Name	Seminar Business Information Systems
Module ID	BIS4060
Semester	7
Credits	5
SWS	1
Frequency	each semester
Associated Course(s)	• BIS4051: Seminar (1 SWS/5 Credits)
Prerequisites	All credits of the interim grade / first study circle have to be passed.
Assessment Methods	• BIS4051: PLR/PLH
Requirements for granting of credits	Passing the respective examinations. The examinations of individual component courses may be passed individually.
Significance for final grade	The module is counted to the final bachelor grade weighted by its credits.
Planned Group Size	25 students
Languages	German
Module Duration	1 semester (intensive: initial seven weeks)
Module Coordinator	Thesmann, Stephan
Lecturer(s)	Lecturers from the bachelor programs Digital Enterprise Management and Business Information Systems – Management & IT
Discipline	Digital Enterprise Management
Applicability in other programs	This is a joint module with BW/Wirtschaftsinformatik – Management & IT
Pedagogical Approach	Seminar- and collaboration-oriented teaching and learning approach.
Objectives	The students • are able to do scholarly research in a new subject area in the field of Business Information Systems • are able to design and write an academic term paper • are able to present a topic in the field of Business Information Systems persuasively
Content	The topics will be defined based on current themes that cover a broader range of subjects in the field of Business Information Systems like Digital Business-Applications, Business Process Management and Transactional Processing Systems, Electronic Markets, EDI & EAI, Database Systems, Programming, Web-Interface-Design, and Project Management.
Relation to other modules	This is a capstone-level module requiring integration of all fields of Business Information Systems.
Literature	• Current journal articles, book chapters, books according to the selected topics. • Selected case studies. • Thesmann, S., Burkard W., Wirtschaftsinformatik für Dummies, 1. Auflage, Wiley 2014 (respectively the current edition).

Workload	The course is strongly based on literature. Students have to do self-directed research using scholarly databases, journals and book according the topics. For the seminar students have to prepare the term paper and presentations in groups ot typically two students. Furthermore they have to be prepared for the discussion in class. For the case study part all students have to be prepared by reading the case and working on case issues. Additionally on student team per class has to prepare a presentation and will moderate the discussion accompanied by the course facilitator. The following workload estimate can be derived:
	Contact hours (7*2=) 14 hours Term paper preparation 114 hours Preparation of presentation 10 hours Preparing the other sessions (6*2=) 12 hours **Total** **150 hours**
Additional remarks	The module is s part of the thesis semester. In order to enable students to finish their thesis until the end of this semester, the module is upfronted to the first seven weeks of the semester. There will be no contact hours or other workload after that period.
Key words	seminar, case studies. Business Information Systems
Date of last Modification	January 5, 2017