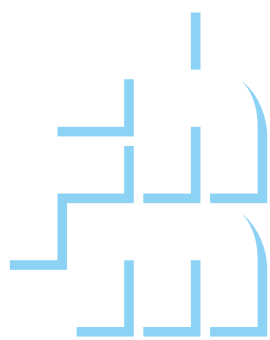




**Information
Systems
and
Management
Bachelor**



fachhochschule

munich university of applied sciences

münchen

ECTS Information Package

General Description

The Computer Science/Mathematics Department 07 offers programs of study in two different areas:

- Computer Science (Bachelor and Master)
- Information Systems and Management (Bachelor and Master, in cooperation with the Business Administration Department 10)

This brochure only describes the Information Systems and Management Bachelor program of study. There are separate brochures for the Master Degree Program, and for the programs of study in Computer Science.

There are approximately 800 students enrolled in Computer Science and 350 students enrolled in Information Systems and Management at the Department of Computer Science/Mathematics. Approximately 35 full-time professors teach students, as well as a changing number of guest lecturers from industry. (In the Information Systems and Management programs, these are supplemented by another 10 professors from the Business Administration Department.) Hence, the Department is able to offer a wide range of courses from a broad canon of current themes relevant to practice. Close relations with many companies in the greater Munich area make it possible to offer internships or case study projects in cooperation with the industry.

The following 15 laboratories with about 100 workstations are available to students:

- Laboratory for Chip Cards,
- Laboratory for Computer Anatomy,
- Laboratory for Computer Graphics and Image Processing,
- Laboratory for Autonomous Systems,
- Laboratory for Microcomputers,
- Laboratory for Computer Vision and Pattern Recognition,
- Laboratory for Computer Integrated Manufacturing,
- Laboratory for Computer Organisation,
- Laboratory for Software Development,
- Laboratory for Java,
- Laboratory for Knowledge-Based Systems, and
- Laboratory for e-Commerce.
- Laboratory for Database Systems and Information Management,
- Laboratory for Highly Reliable Systems, and
- Laboratory for Mathematics.

Bachelor program

After successful completion of the Bachelor program, students will gain the

Academic degree: Bachelor of Science (B.Sc.)

The Bachelor degree program was accredited by the ASIIN.

Concurrently to the Bachelor program of study, students may enrol in the supplemental program „Privacy and Data Protection“ (21 ECTS credits). Successful graduates of this supplemental program will receive a state-approved university certificate.

Admission requirements

The general requirements for admission to a University of Applied Sciences (Fachhochschule) apply. This means that generally a high school degree or a degree from a polytechnic college is a prerequisite. In addition, there are minimum grade requirements (Numerus clausus).

Recommendations for exchange students

The study period at the Munich University of Applied Sciences (MUAS) can be one or more semesters in length. Most courses are one semester in length and conclude with an examination at the end of the semester. Only the course „Information Systems and Management“ in the Bachelor degree program extends over the first and second semester. Note, however, that not all courses are offered in every semester. Some courses will only be offered in summer semester, others only in winter semester. In each semester, only a choice of the electives will be offered.

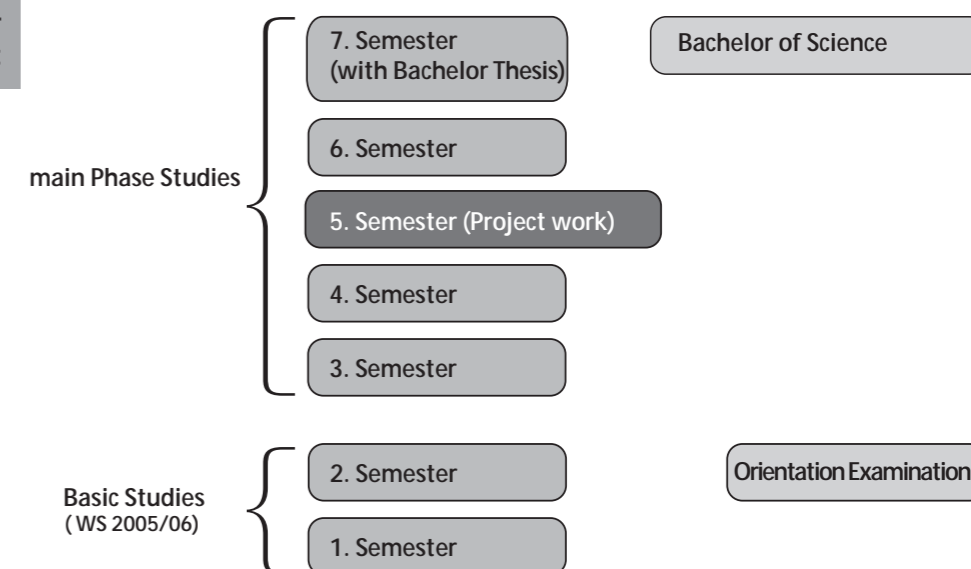
Exchange students are free to make a course selection that most complements the course requirements of their home university. When making their choice, it is irrelevant whether the chosen courses are required courses, or electives, or whether the courses are from different programs of study or take place in different semesters of study. It is, however, the student's own responsibility to make sure that there are no scheduling conflicts in the student's weekly lecture schedule. Such conflicts can generally be avoided by choosing courses that all are assigned the same semester of study.

Each semester, a small number of the courses will be offered in English language. However, in order to allow for a useful and flexible selection of courses, it is strongly recommended that exchange students be able to attend courses in German language.

Students interested in a practical study semester in industry should apply directly with the company. However, since the department has a list of companies which are hiring students for internships, and close relations with many of them, you might want to contact the department first.

Diagram providing an overview of the Bachelor program of study:

Information Systems and Management Bachelor Program of Study



Qualifications achieved

Course Overview

Examination regulations and grading procedures:

In most courses, students will have to pass a written exam at the end of the semester. Others require students to also hand in practicum assignments or research project reports, or to give presentations. Most of these assignments receive a grade. Some are marked on a „pass“ or „fail“ basis.

1.0 is the highest grade and 5.0 the lowest; a grade of 4.0 means you have just passed the exam.

1,0 or 1,3	very good
1,7 or 2,0 or 2,3	good
2,7 or 3,0 or 3,3	satisfactory
3,7 or 4,0	adequate
5,0	insufficient (failed)

Students may repeat any failed exam once. A limited number of exams may be repeated twice upon applying to do so.

You will find the binding rules for exams in the current course calendar (Studi-enplan) as well as in the conditions of study and exam ordinance (Studien- und Prüfungsordnung).

International Student Advisor

Name: Prof. Dr. Christian Vogt
Responsible for all of the department's partner universities.

Description of the individual courses in each semester

Abbreviations:

GSCE = General Studies Compulsory Elective
CE = Compulsory Elective (elective to be chosen from a particular group of compulsory electives)
DCE = Departmental Compulsory Elective
H/W = Hours per Week

1. Semester				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B01	Mathematics for Economics - Analysis I	Mandatory	4	5
IF-WI-B04	Information Systems and Management (Part 1)*	Mandatory	4	5
IF-WI-B05	Software Development I	Mandatory	4	5
IF-WI-B07	Business Administration	Mandatory	4	5
IF-WI-B08	Managerial Accounting	Mandatory	4	5
IF-WI-B09	Economics	Mandatory	4	5

* The examination for this course will be taken at the end of the 2nd semester.

2. Semester				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B02	Mathematics for Economics - Analysis II	Mandatory	4	5
IF-WI-B03	Statistics and Operations Research	Mandatory	4	5
IF-WI-B04	Information Systems and Management (Part 2)**	Mandatory	4	5
IF-WI-B06	Software Development II	Mandatory	4	5
IF-WI-B10	Business Law	Mandatory	4	5
IF-WI-B11	General Studies Compulsory Elective	GSCE	4	5

** The examination will cover the contents of part 1 and part 2.

3. Semester				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B12	Database Systems	Mandatory	4	5
IF-WI-B14	Software Engineering I	Mandatory	4	5
IF-WI-B19	Controlling	Mandatory	4	5
IF-WI-B21	Human Resource Management	Mandatory	4	5
IF-WI-B22-B24	Business Elective	CE	4	5
IF-WI-B25	Information Systems I	Mandatory	4	5

4. Semester				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B15	Software Engineering II	Mandatory	4	5
IF-WI-B16-B18	Computer Science Elective	CE	4	5
IF-WI-B20	Accounting and Tax	Mandatory	4	5
IF-WI-B26	Information Systems II	Mandatory	4	5
IF-WI-B33	Elective on Information Systems and Management I	DCE	4	5
IF-WI-B35	Seminar on Information Systems and Management I	Mandatory	4	5

5. Semester				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B28	Practical Study	Mandatory		24
IF-WI-B29	Course Accompanying the Practical Study Semester	Mandatory	12	6

6. Semester				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B13	Data Communications	Mandatory	4	5
IF-WI-B16-B18	Computer Science Elective	CE	4	5
IF-WI-B27	Business Simulation	Mandatory	4	5
IF-WI-B30	Elective: Formal Concepts in Information Systems and Management I	Mandatory	4	5
IF-WI-B31	Elective: Formal Concepts in Information Systems and Management II	Mandatory	4	5
IF-WI-B36	Seminar on Information Systems and Management II	Mandatory	4	5

7. Semester				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B22-B24	Business Elective	CE	4	5
IF-WI-B32	Elective: Formal Concepts in Information Systems and Management III	Mandatory	4	5
IF-WI-B34	Elective on Information Systems and Management II	DCE	4	5
IF-WI-B37	Bachelor Seminar, and Bachelor Thesis	Mandatory	4	15

Courses in the Computer Science mandatory electives group are:				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B16	Data Structures and Algorithms	CE	4	5
IF-WI-B17	Data Management	CE	4	5
IF-WI-B18	IT Security	CE	4	5

Courses in the Business mandatory electives group are:				
Course-Nr.	Title	Type	H/W	Credits
IF-WI-B22	Privacy and Data Protection	CE	4	5
IF-WI-B23	Marketing	CE	4	5
IF-WI-B24	Materials Management and Logistics	CE	4	5

„Privacy and Data Protection“ Supplemental Program

Students who have successfully completed the preliminary exam may enrol in the „Privacy and Data Protection“ supplemental program. The program includes the following courses. Some of the courses also are compulsory courses or electives in the Bachelor program of study.

„Privacy and Data Protection“ Supplemental Program			
Course-Nr.	Title	H/W	Notes
IF-Z-BD01	Privacy and Data Protection	4	= IF-WI-B22
IF-Z-BD02	IT Security	4	= IF-WI-B18
IF-Z-BD03	Business Law	4	= IF-WI-B10
IF-Z-BD04	Practical Studies in Privacy and Data Protection	2	
IF-Z-BD05	Current Issues in Data Protection	2	

Course Description

1. Mathematics for Economics-Analysis I

Course no.: IF-WI-B01

4 H/W

1. Semester

5 ECTS-Credits

Contents

- Principles of differential and integral calculus with univariates
- Principles of algebra and linear algebra, particularly systems of equations and matrices
- Significant numeric processes in the economy

Prerequisites	None
Objectives	hands-on grasp of essential mathematic principles and modelling methods applicable in computer science and the economy.
Recommended literature	<i>Eichholz, W.; Vilkner, E.</i> : Taschenbuch der Wirtschaftsmathematik, Fachbuchverlag Leipzig, 1997. <i>Preuß, W.; Wenisch, G.</i> : Lehr- und Übungsbuch in Wirtschaft und Finanzwesen, Fachbuchverlag Leipzig, 1998. <i>Rödter, W.</i> : Wirtschaftsmathematik für Studium und Praxis 1, Lineare Algebra, Springer, 1997 <i>Tietze, J.</i> : Einführung in die angewandte Wirtschaftsmathematik, Vieweg, 9.Auflage, 2000; Einführung in die Finanzmathematik, Vieweg, 6. Auflage 2003
Method of instruction	seminars with exercises
Examination	written examination
Language of instruction	German
Instructor(s)	Schwenkert, Zielke

2. Mathematics for Economics-Analysis II

Course no.: IF-WI-B02

4 H/W

2. Semester

5 ECTS-Credits

Contents

- Finance mathematics
- Principles of differential calculus with multivariates
- Selected special topics in business mathematics

Prerequisites	Business Mathematics I (IF-WI-B01)
Objectives	Hands-on grasp of essential mathematical principles and modelling methods applicable in computer science and the economy. Discussion of selected special topics in business mathematics.
Recommended literature	none
Method of instruction	seminars with exercises
Examination	written examination
Language of instruction	German
Instructor(s)	Schwenkert, Zielke

3. Statistics and Operations Research

Course no.: IF-WI-BO3

4 H/W

2. Semester

5 ECTS-Credits

Contents

- Probability calculus, descriptive and inductive statistics
- Operations research, particularly linear optimisation
- Selected special topics in applied statistical methods and operations research

Prerequisites	Business Mathematics I (IF-WI-B01)
Objectives	An understanding of the most significant principles in the fields of statistics and operations research. Ability to apply the acquired knowledge to practical problems (modelling and problem-solving).
Recommended literature	<i>Domschke, W.; Drexel, A.</i> : Einführung in Operations Research, Springer, 3.Auflage, 1995 <i>Domschke, W.; Drexel, A.</i> : Übungsbuch Operations Research, Springer, 1995 <i>Ellinger, T.; Beuermann, G.; Leisten, R.</i> : Operations Research. Eine Einführung, Springer, 4.Auflage, 1998 <i>Elton, E.; Gruber, M.</i> : Modern Portfolio Theory And Investment Analysis, Wiley&Sons, 3.Auflage 1987 <i>Greiner, M.; Tinhofer, G.</i> : Stochastik für Studienanfänger der Informatik, Hanser, 1996 <i>Kröpfl, B.; Peschek, W.; Schneider, E.; Schönlieb, A.</i> : Angewandte Statistik, Hanser, 2.Auflage, 1999 <i>Sauerbier, T.; Voß, W.</i> : Kleine Formelsammlung Statistik, Fachbuchverlag Leipzig, 2000
Method of instruction	seminars with exercises
Examination	written exam
Language of instruction	Englisch
Instructor(s)	Schwenkert, Zielke

4. Information Systems and Management

Course no.: IF-WI-BO4

2 x 4 H/W

1./2. Semester

2 x 5 ECTS-Credits

Contents

- Basic principles: insight into the historical development of hardware and software, number systems.
- Hardware: hardware architecture of IT-systems. Structure, components and functioning of computers and peripherals.
- Formal concepts: computer science theories (e.g. automata and formal languages, computability, graphs, Petri nets).
- IT-projects: organisation; activities and documentation.
- IT-systems: systems programmes (e.g. operating systems, database-systems, user interfaces); operating modes.
- Information and communication technology (ICT systems): networks; data transfer; teleprocessing and distributed information processing.
- Business applications: classification; selection and implementation of software; components and typology of company information processing application systems.

4. Information Systems and Management (ff.)

Course no.: IF-WI-BO4

2 x 4 H/W

1./2. Semester

2 x 5 ECTS-Credits

Prerequisites	None
Objectives	Students will gain an overview of the structure, components and operating methods of IT-systems and their implementation in a company setting as well as the theoretical foundations of computer science.
Recommended literature	<i>Balzert H.</i> : Lehrbuch der Software-Technik, Band 1 und Band 2, Spektrum, Heidelberg <i>Gumm H.-P., Sommer M.</i> : Einführung in die Informatik, Oldenbourg, München <i>Tanenbaum A. S.</i> : Moderne Betriebssysteme, Pearson Studium, München
Method of instruction	seminars with exercises
Examination	written exam
Language of instruction	German
Instructor(s)	Lindermeier, Mandl, Stützle

5. Software Development I

Course no.: IF-WI-BO5

4 H/W

1. Semester

5 ECTS-Credits

Contents

- Programming: programming fundamentals (logic, operating sequence, structuring). Acquisition of a high-level programming language.
- Algorithms and data structures: simple data structures and algorithms.

Prerequisites	None
Objectives	Understanding the logic of programme development and programming. Learning a suitable, expression-heavy programming language which the student can use during the practical semester, from a didactic perspective.
Recommended literature	<i>H. Mittelbach</i> : Einführung in C++, Fachbuchverlag Leipzig, 2002
Method of instruction	seminars with written exams
Examination	graded practical programming exercises; written examination at the end of part two
Language of instruction	German
Instructor(s)	Möncke, Zimmer

6. Software Development II

Course no.: IF-WI-BO6

4 H/W

2. Semester

5 ECTS-Credits

Contents

- Algorithms and data structures: complex data structures and algorithms.
- Basic principles of software engineering (e.g. phase models, object-oriented software development).

Prerequisites	• Basic knowledge of information systems • Programming skills on the level of Software Development I (IF-WI-B05)
Objectives	Enrichment of programme development and programming skills.
Recommended literature	<i>H. Mittelbach</i> : Einführung in C++, Fachbuchverlag Leipzig, 2002
Method of instruction	seminars with exercises
Examination	graded practical programming exercises; written examination covering parts one and two.
Language of instruction	German
Instructor(s)	Möncke, Zimmer

7. Business Administration

Course no.: IF-WI-BO7

4 H/W

1. Semester

5 ECTS-Credits

Contents

Introduction to:

- Introduction to business economics and its place within science
- Company setup: incorporation laws (legal forms and co-determination)
- Organisation: (start up and operating processes)
- Location choice
- Business processes: production; marketing
- Investment and financing
- Controlling

Prerequisites	None
Objectives	The objective is to provide an understanding the setup and functions of a company and the basics of management taking IT implementation possibilities into account. Students will learn the legalities as well as the organisation and business processes of a company.
Recommended literature	<i>Wöhe, Günter:</i> Einführung in die Allgemeine Betriebswirtschaftslehre, neueste Auflage, Vahlen, München. <i>Hahn, Oswald:</i> Allgemeine Betriebswirtschaftslehre, 2. Auflage, Oldenbourg, München, Wien, 1994. <i>Schierenbeck,</i> : Einführung in die Allgemeine Betriebswirtschaftslehre, Oldenbourg, München, Wien . <i>Schmalen,</i> : Grundlagen und Probleme der Betriebswirtschaftslehre, Schäffer-Poeschel, Stuttgart, 2002. <i>Hopfenbeck, Waldemar:</i> Allgemeine Betriebswirtschafts- und Managementlehre, Landsberg, 1989.
Method of instruction	seminars
Examination	written examination
Language of instruction	German
Instructor(s)	Stütze, Greiner, Peisl

8. Managerial Accounting

Course no.: IF-WI-BO8

4 H/W

1. Semester

5 ECTS-Credits

Contents

Introduction to:

- Double-entry bookkeeping
- The accounting system: entry of special business cases; balancing and valuation methods; tax regulations.
- Annual accounts.

Prerequisites	None
Objectives	An overview of business accounting. Competency in bookkeeping and rendering of accounts. Ability to compile and analyse annual accounts and provide a position report.
Recommended literature	<i>Altmann, Helmut:</i> Grundfälle Buchführung, 1992. <i>Bähr, Gottfried,</i> : Buchführung und Jahresabschluss, 1987. <i>Bieg, Hartmut:</i> Buchführung, 2000. <i>Blödtner, Wolfgang:</i> Lehrbuch Buchführung und Bilanzsteuerrecht, 1986. <i>Bornhofen, Manfred:</i> Buchführungstechnik und Bilanzsteuerrecht, 2003 <i>Schmolke, Siegfried; Deitermann, Manfred:</i> Industriebuchführung mit Kosten- und Leistungsrechnung, IKR, 1992.
Method of instruction	seminars with exercises
Examination	written examination
Language of instruction	German
Instructor(s)	Stütze, Greiner, Körbs

9. Economics

Course no.: IF-WI-BO9

4 H/W

1. Semester

5 ECTS-Credits

Contents

- Basic terminology
- Economic and social systems
- Micro-economics: demand, production and choice, pricing in different market forms
- Macro-economics: economic cycle, finances in political economy, production and distribution, growth
- Economic policy

Prerequisites	None
Objectives	An overview of the basic terminology in the field of political economy, behaviour patterns and interrelationships.
Recommended literature	<i>Baßler, U., Heinrich, J., Koch, W. A. S.,</i> Übungsbuch zu Grundlagen und Problemen der Volkswirtschaft, Köln 2000 <i>Baßler, U., Heinrich, J., Utecht, B.,</i> Grundlagen und Probleme der Volkswirtschaft, Stuttgart 2002 <i>Hanusch, H.,</i> Einführung in die Volkswirtschaftslehre, Berlin [u.a.] 1998 <i>Hardes, H.-D., Schmitz, F., Uhly, A.,</i> Grundzüge der Volkswirtschaftslehre, München [u.a.] 2002 <i>Mankiw, N. G.,</i> Grundzüge der Volkswirtschaftslehre, Stuttgart 2001 <i>Möller, H. W.,</i> Angewandte Volkswirtschaftslehre, Wiesbaden 2002 <i>Siebert, H.,</i> Einführung in die Volkswirtschaftslehre, Stuttgart [u.a.] 2003 <i>Woll, A.,</i> Allgemeine Volkswirtschaftslehre, München 2000 <i>Woll, A., Thieme, H. J., Cassel, D.,</i> Übungsbuch zur allgemeinen Volkswirtschaftslehre, München 2000
Method of instruction	seminars
Examination	written examination
Language of instruction	German
Instructor(s)	Lankes, Lenk, Stütze

10. Business Law

Course no.: IF-WI-B10

4 H/W

2. Semester

5 ECTS-Credits

Contents

- The legal system
- Legal regulations of business law (particularly from sections of the German Civil Code pertaining to general parts, law of obligations and contract, law of tort, and law of property)
- Introduction to selected case studies
- Particular problem statements in the area of telecommunications and internet as well as software production and licensing

Prerequisites	None
Objectives	Knowledge of the legal principles of business law and methods to assess the facts of a case and systematically solve simple cases.
Recommended literature	<ul style="list-style-type: none">• Textbooks: <i>Lorenz/Riehm</i>, Lehrbuch zum neuen Schuldrecht, Beck, München, 2002 <i>Medicus</i>, Schuldrecht I Allgemeiner Teil, Beck, München, 2002• Commentary: Palandt, Kommentar zum BGB, Beck, München, (current edition).
Method of instruction	seminars
Examination	written examination
Language of instruction	German
Instructor(s)	Möncke

11. General Studies Courses

Course no.: IF-WI-B11

4 H/W

2. Semester

5 ECTS-Credits

Contents

General Studies compulsory electives may be chosen from the selection offered by the university under the auspices of the university's general guidelines in as far as they are not compulsory courses or departmental compulsory electives from the Information System programme of study or on the programme's exclusion list. General Studies courses taken during the Bachelor basic phase of studies are also excluded.

The total number of hours per week must be in accord with the number of hours per week listed in the lecture schedule.

Prerequisites	None
Objectives	The acquisition of character-building general knowledge based on constitutional and basic legal ethical norms.
Recommended literature	Depending on the course
Method of instruction	seminars
Examination	Determined by the General Studies Department
Language of instruction	German or English
Instructor(s)	Lenk

12. Database Systems

Course no.: IF-WI-B12

4 H/W

3. Semester

5 ECTS-Credits

Contents

Seminars will cover:

- Foundations of database systems and architecture
- Database management systems, focussing on relational databases
- Database languages, particularly SQL
- Physical database setup
- Transaction and concurrency concepts, recovery methods
- Administration of database systems, error control aspects
- Database special topics

Prerequisites	None
Objectives	overview of architectures, processes and applications of database systems, knowledge of the most significant methods, techniques, processes and tools used with persistent data.
Recommended literature	<i>Hald, A.; Nevermann, W.</i> : Datenbank-Engineering für Wirtschaftsinformatiker, Vieweg, 1995 <i>Marsch, J.; Fritze, J.</i> : Erfolgreiche Datenbankanwendung mit SQL, Vieweg, 5.Auflage, 1999 <i>Meier, A.</i> : Relationale Datenbanken, Springer, 3.Auflage, 1998 <i>Pernul, G.; Unland, R.</i> : Datenbanken im Unternehmen, Oldenbourg, 2001 <i>Vossen, G.</i> : Datenbankmodelle, Datenbanksprachen und Datenbankmanagement-Systeme, Oldenbourg, 3.Auflage, 1999
Method of instruction	seminars with a practicum
Examination	written exam
Language of instruction	German
Instructor(s)	Schwenkert, Staudt

13. Data Communications

Course no.: IF-WI-B13

4 H/W

6. Semester

5 ECTS-Credits

Contents

- Basic communication architecture terminology and fields of application (e.g. layered model, protocols, network types and technologies).
- Development of communication applications on the basis of transport protocols such as TCP and UDP.
- Use of transport access ports such as sockets
- Study of selected issues evident in real, particularly TCP/IP-based, data communication systems.
- Particular aspects of data communications such as connection-based and connectionless communication, secure data transfer, routing, segmentation and fragmentation as well as special aspects of network design.

13. Data Communications (ff.)

Prerequisites	basic knowledge of the principles of computer communications from basic phase of studies (information systems module) programming skills in an object-oriented programming language such as Java, C++ or C# from the basic phase of studies (software development module)
Objectives	Knowledge of the principles, work processes and application options in data communications.
Recommended literature	<i>Comer, Douglas, E.</i> : Computernetzwerke und Internets, 3. überarbeitete Auflage, Pearson Studium, 2002 <i>Kurose, J. F.; Ross, K. W.</i> : Computernetze, Pearson Studium, 2002 <i>Tanenbaum, A. S.</i> : Computernetze, 3. revidierte Auflage, Prentice Hall, 2001
Method of instruction	seminars with exercises
Examination	graded practical programming exercises; written examination covering parts one and two.
Language of instruction	German
Instructor(s)	Mandl, Pleier, Böttcher

14. Software Engineering I

Course no.: IF-WI-B14

4 H/W

3. Semester

5 ECTS-Credits

Contents

- Software engineering models within the software life-cycle
- Phase-specific methods and tools of software engineering
- Object-oriented analysis and design

Prerequisites	<ul style="list-style-type: none"> • Basic knowledge of information systems • Programming skills
Objectives	Knowledge of the objectives, theory and practice of software engineering. Familiarity with the methods, techniques, processes and tools used in analysis, design, implementation, maintenance and project planning of software.
Recommended literature	<i>H. Balzert</i> : Lehrbuch der Software-Technik, 2. Auflage, 2001 <i>H. Balzert</i> , Lehrbuch der Objektorientierung, 1999 <i>Stevens, Pooley</i> : UML: Softwareentwicklung mit Objekten und Komponenten, 2000
Method of instruction	seminars with exercises
Examination	graded practical programming work; written examination at the end of part two.
Language of instruction	German
Instructor(s)	Heigert, Zimmer

15. Software Engineering II

Course no.: IF-WI-B15

4 H/W

4. Semester

5 ECTS-Credits

Contents

- Software engineering models within the software life-cycle
- Project management, quality assurance, and configuration management while developing software
- Computer-assisted software engineering
- Economic aspects of software development
- Selected topics in software engineering (e.g. software ergonomics, software maintenance, re-engineering, modelling of companies).

Prerequisites	<ul style="list-style-type: none"> • Basic knowledge of information systems • Programming skills • Principles of software engineering (cf. part I)
Objectives	Knowledge of the objectives, theory and practice of software engineering. Familiarity with the methods, techniques, processes and tools used in analysis, design, implementation, maintenance and project planning of software.
Recommended literature	<i>H. Balzert</i> : Lehrbuch der Software-Technik, 2. Auflage, 2001 <i>Oestereich</i> : Objektorientierte Softwareentwicklung, 5. Aufl., 2001 <i>Sommerville</i> : Software Engineering, 6. Aufl., 2000
Method of instruction	seminars with exercises
Examination	graded practical project work; written examination covering parts one and two.
Language of instruction	German
Instructor(s)	Heigert, Zimmer

16. Data Structures and Algorithms

Course no.: IF-WI-B16

4 H/W

4. or 6. Semester

5 ECTS-Credits

Contents

- Analysis of algorithms
- Elementary data structures
- Recursion
- Abstract data types (e.g. stacks, queues, trees)
- Search, merge and sort algorithms

Prerequisites	<ul style="list-style-type: none"> • Basic knowledge of information systems and management • Programming skills
Objectives	Knowledge of the most significant algorithmic concepts and data structures used in the economy today and familiarity with their particular characteristics.
Recommended literature	<i>Sedgewick R.</i> : Algorithmen in C++, Pearson Studium, München <i>Breutmann B.</i> : Data and Algorithms, Hanser, München
Method of instruction	seminars with exercises
Examination	course work and written examination
Language of instruction	German
Instructor(s)	N. N.

17. Data Management

Course no.: IF-WI-B17

4 H/W

4. or 6. semester

5 ECTS-Credits

Contents

- Principles and concepts of information analysis, strategic information planning: models and architectures
- Semantic and logical data modelling, techniques of forward- and reverse-engineering
- Data management in companies
- Selected topics in data management, such as modelling verification, metadata management, data warehouse architectures, migration techniques, etc.

Prerequisites	none
Objectives	Knowledge of the most significant processes, planning, acquisition, administration and use of data as company resources. Insight into the tasks, methods, and utilities of data management and strategic information planning.
Recommended literature	<i>Blaha M.R.</i> : A Manager's Guide To Database Technology. Building And Purchasing Better Applications, Prentice-Hall 2001 <i>Schwinn, K. Dippold, R., Ringgenberg, A., Schnider, W.</i> : Unternehmensweites Datenmanagement , 2.Auflage, Vieweg/Gabler 1999 <i>Vetter, M.</i> : Aufbau betrieblicher Informationssysteme mittels konzeptioneller Datenmodellierung, B.G. Teubner 1987 <i>Vossen, G.</i> : Datenbankmodelle, Datenbanksprachen und Datenbankmanagement-Systeme, Oldenbourg, 3.Auflage, 1999
Method of instruction	seminars with a practicum
Examination	written exam
Language of instruction	German
Instructor(s)	Schwenkert, Staudt

18. IT Security

Course no.: IF-WI-B18

4 H/W

4. or 6. Semester

5 ECTS-Credits

Contents

- Principles, need for, and objectives of IT security
- Dangers and typical attack scenarios
- Concepts and methods of security management
- Principles, mechanisms, systems used for authentication, authorisation, administration and auditing
- Selected examples and practical application areas

Prerequisites	principles of IT systems (networks, hardware, operating systems, applications)
Objectives	An understanding of problem statements, principles, concepts and mechanisms to ensure IT security.
Recommended literature	The most current literature covering IT security; articles from trade journals and conferences will be used. <i>Claudia Eckert</i> : IT- Sicherheit. Konzepte, Verfahren, Protokolle, Oldenbourg, München
Method of instruction	seminars with exercises
Examination	written exam
Language of instruction	German
Instructor(s)	Pleier, Gerling

19. Controlling

Course no.: IF-WI-B19

4 H/W

3. Semester

5 ECTS-Credits

Contents

Introduction to:

- Basic principles
- Cost-type accounting
- Cost-centre accounting
- Cost-unit accounting
- Short-term profit and loss account
- Accounting systems: standard product costing, full- and direct costing, relative itemised costing, activity-based costing. New processes and directions

Prerequisites	Business Economics
Objectives	Familiarity with cost and activity accounting as a part of the company information and controlling system; mastering the fundamental instruments of cost and activity accounting.
Recommended literature	<i>Ahlert, Dieter</i> : Industrielle Kostenrechnung, 1992 <i>Coenberg, Adolf Gerhard</i> : Kostenrechnung und Kostenanalyse, 1999. <i>Schmolke, Siegfried, Deitermann, Manfred</i> : Industrielles Rechnungswesen, IKR, 1983 <i>Ebert, Günter</i> : Kosten- und Leistungsrechnung, 1997 <i>Freidank, Carl-Christian</i> : Kostenrechnung, 2001 <i>Gröger, Manfred</i> : Grundlagen der internen Unternehmenssteuerung, 2002
Method of instruction	seminars
Examination	written examination
Language of instruction	German
Instructor(s)	Stütze, D. Fischer, Körbs

20. Accounting and Tax

Course no.: IF-WI-B20

4 H/W

4. Semester

5 ECTS-Credits

Contents

Introduction to:

- Accounting and valuation methods, tax regulations
- Annual accounts
- Overview of taxation types
- German tax laws: Income Tax Act, Corporation Tax Law, GewStG, UStG, VStG.
- Taxation effects: business cases, financial statements (accounting law), regulation types
- Taxation effects in the case of foreign interests: principles of double taxation, European Union guidelines and International Tax Relations Law.

Prerequisites	Business Economics
Objectives	Ability to process and analyse annual accounts and position reports. Overview of the German tax system with a view toward income tax, substance and transaction taxes and their relevance for companies.
Recommended literature	<i>Coenenberg, Adolf Gerhard: Jahresabschluß und Jahresabschlußanalyse/[1], 2003</i> <i>Coenenberg, Adolf Gerhard: Jahresabschluß und Jahresabschlußanalyse/[2], 2003</i> <i>Fischer, Lutz: Internationale betriebswirtschaftliche Steuerlehre, 1998</i> <i>Haberstock, Lothar: Einführung in die betriebswirtschaftliche Steuerlehre, 1998</i> <i>Rose, Gerd: Betriebswirtschaftliche Steuerlehre, 1992</i> <i>Wöhe, Günter: Grundzüge der betriebswirtschaftlichen Steuerlehre, 1995</i>
Method of instruction	seminars
Examination	written exam
Language of instruction	German
Instructor(s)	Stützle, D. Fischer, Huber -Jahn

21. Human Resource Management

Course no.: IF-WI-B21

4 H/W

3. Semester

5 ECTS-Credits

Contents

- Introduction to Organisational Behaviour
- Human Resources Management

Prerequisites	Business Administration principles
Objectives	An understanding of the organisational structure of companies. Principles of HR Management
Recommended literature	<i>Buchanan, D.; Huczynski, A.: Organizational Behaviour. Financial Times Management, Harlow, 2001</i> <i>Scholz, C.: Personalmanagement. Vahlen, München, 2000</i> <i>Schulte-Zurhausen, M.: Organisation. Vahlen, München, 2002</i>
Method of instruction	seminars with exercises
Examination	written examination
Language of instruction	German
Instructor(s)	Greiner, Peters

22. Privacy and Data Protection

Course no.: IF-WI-B22

4 H/W

3. or 7. Semester

5 ECTS-Credits

Contents

- The significance of the basic right to information self-determination in an open society
- Threats in the areas of information exchange and communication
- Foundations in constitutional and European law
- Basic Terminology: Legal and technical language use
- Legal regulations in the public and private sectors as well as professional confidentiality
- Balancing the mandates of privacy and law enforcement, threat prevention, and counterterrorism
- Organisational and technical aspects of privacy

Prerequisites	none
Objectives	<ul style="list-style-type: none"> • A sensitivity toward privacy needs • Insights into the dangers and risks of data manipulation and forgery • Knowledge of the legal systems, surrounding privacy and the ability to judge situations based on the complex legal regulations involved
Recommended literature	<i>Textbook:</i> Tinnefeld/Ehmann/Gerling, Einführung in das Datenschutzrecht, Oldenbourg, München <i>Journals:</i> Datenschutz und Datensicherheit, Vieweg, Wiesbaden Computer und Recht, Dr. Otto Schmidt, Köln <i>Commentary:</i> Simitis, Kommentar zum BDSG, Nomos, Baden-Baden
Method of instruction	seminars
Examination	written exam
Language of instruction	German
Instructor(s)	Möncke, Petri, Schuster

23. Marketing

Course no.: IF-WI-B23

4 H/W

3. or 7. Semester

5 ECTS-Credits

Contents

- Basic terminology of marketing
- Market research methods
- Product policy: product strategies, product planning and development, programme and assortment policies.
- Pricing policy: pricing strategies, pricing research and development
- Distribution policy: direct and indirect turnover, distribution concepts
- Communication policy: corporate identity, advertising, public relations, promotions.
- Marketing designs.

Prerequisites	Business Economics
Objectives	Familiarity with the essential elements of market research; ability to synthesise and apply the individual marketing tools to a marketing mix. Ability to think in a market-oriented manner.
Recommended literature	<i>Böcker, Franz</i> : Marketing, 1987 <i>Meffert, Heribert</i> : Marketing, 2000 <i>Meffert, Heribert</i> : Marketing-Arbeitsbuch, 2003 <i>Müller-Hagedorn, Lothar</i> : Einführung in das Marketing, 1990 <i>Nieschlag, Robert; Dichtl, Erwin; Hörschgen, Hans</i> : Marketing, 2002 <i>Weis, Hans Christian</i> : Marketing, 2001
Method of instruction	seminars
Examination	written examination
Language of instruction	German
Instructor(s)	Stütze, Greiner

24. Material Management and Logistics

Course no.: IF-WI-B24

4 H/W

3. or 7. Semester

5 ECTS-Credits

Contents

- Material and manufacturing processes
- Economic planning of materials
- Decision-making and optimisation processes and methods. ABC and XYZ analysis, warehousing strategies, operating figures, demand prognoses.
- Production planning and control
- Logistics

Prerequisites	Business Economics
Objectives	An understanding of the place of material and manufacturing economics in industrial firms. Knowledge of the most significant methods and decision-making tools for economic solutions to logistics problems, as well as an understanding of the process chain in material and manufacturing economics.
Recommended literature	<i>Corsten, Hans</i> : Produktionswirtschaft, 2000 <i>Dyckhoff, Harald</i> : Grundzüge der Produktionswirtschaft, 1998 <i>Hoitsch, Hans-Jörg</i> : Produktionswirtschaft, 1993 <i>Jehle, Egon</i> : Produktionswirtschaft, 1986 <i>Schneeweiß, Christoph</i> : Einführung in die Produktionswirtschaft, 1993 <i>Tysiak, Wolfgang</i> : Einführung in die Fertigungswirtschaft, 2000
Method of instruction	seminars
Examination	written exam
Language of instruction	German
Instructor(s)	Stütze, Klug

25. Information Systems I

Course no.: IF-WI-B25

4 H/W

3. Semester

5 ECTS-Credits

Contents

- Foundations of information systems
- Introduction to major EPR systems
- Selected case studies
- Basic principles of software customizing

Prerequisites	principles of business administration and organisation, particularly the following courses: <ul style="list-style-type: none"> • Business Administration • Organisation and Personnel • Business Process Management
Objectives	knowledge of the composition and functions of standard software used in companies.
Recommended literature	<i>Färber, G.; Kirchner, J.</i> : mySAP Technology. Einführung in die neue Technologie-Plattform der SAP. Galileo Press, Bonn, 2002 <i>Gadatsch, A.</i> : Management von Geschäftsprozessen. Vieweg, München, 2002 <i>Maassen, A.; Schoenen, M.; Werr, I.</i> : Grundkurs SAP R/3 Vieweg, München, 2003 <i>Woods, D.</i> : Enterprise Services Architecture - SAPs Bauplan für Geschäftsapplikationen der nächsten Generation. Galileo Press, Bonn, 2004
Method of instruction	seminars with exercises
Examination	written exam
Language of instruction	German
Name der Dozenten	Peters, Regier

26. Information Systems II

Course no.: IF-WI-B26

4 H/W

4. Semester

5 ECTS-Credits

Contents

- Same as Information Systems I
- Particular focus on B2B and B2C scenarios (E-commerce, CRM, supply chain management)

Prerequisites	<ul style="list-style-type: none"> • Principles of business administration • Principles of information systems • Information Systems I
Objectives	knowledge of the composition and functions of standard software used in companies
Recommended literature	<i>Chris Todman</i> : Designing a Data Warehouse supporting Customer Relationship Management, Prentice Hall, 2001 <i>Ronald Swift</i> : Accelerating Customer Relationships, Prentice Hall, 2001 <i>Wolfgang Schwetz</i> : Customer Relationship Management Gabler, 2001 <i>Schubert, Wölflé</i> : E-Business erfolgreich planen und realisieren, Hanse, 2000 <i>Knolmeyer, Mertens, Zeier</i> : Supply Chain Management, Springer, 2002
Method of instruction	seminars with exercises
Examination	written exam
Language of instruction	German
Instructor(s)	Heigert

27. Business Simulation

Course no.: IF-WI-B27

4 H/W

6. Semester

5 ECTS-Credits

Contents

- foundations of the process-oriented enterprise
- methods and tools for process analysis, design and management
- workflow management

Prerequisites	Principles of business administration and organisation, particularly the contents of the following courses: <ul style="list-style-type: none"> • Business Administration • Organisation and Personnel
Objectives	ability to design and assess process-oriented business processes, particularly from an information technology point of view
Recommended literature	<i>Hüsselmann, C.</i> : Fuzzy-Geschäftsprozessmanagement. Josef Eul, Lohmar, 2003 <i>Lehmann, F.; Roller, F.</i> : Production Workflow. Prentice Hall, NJ, USA, 2000 <i>Scheer, A.W.</i> : ARIS, Modellierungsmethoden, Metamodelle, Anwendungen. Springer, Berlin, 2001 <i>Scheer, A.W.</i> : ARIS, Vom Geschäftsprozeß zum Anwendungssystem. Springer, Berlin, 1999 <i>Schulte-Zurhausen, M.</i> : Organisation. Vahlen, München, 2002 <i>van der Aalst, W.; van Hee, K.</i> : Workflow Management. MIT Press, Cambridge, USA, 2002
Method of instruction	seminars with exercises
Examination	written exam
Language of instruction	German
Instructor(s)	Peters

28. Practical Study Semester

Course no.: IF-WI-B28

24 weeks internship with a company

5. Semester

24 ECTS-Credits

Contents

Participation in selected information systems fields: software development (e.g. system analysis, design, programming, testing)
 Project management or implementation
 IT systems conception, realisation, administration or maintenance
 Organisation; marketing, corporate disposition.

Prerequisites	knowledge of business administration, computer science and mathematics according to the basic studies phase courses
Objectives	Objectives: Students will learn how a company functions and train their roles as information systems specialist (software developer, project co-worker, etc). Competencies: Students will gain practical experience in a company as a future information manager.
Method of instruction	practical experience in a company
Examination	A internship report and certification must be presented.
Language of instruction	German
Instructor(s)	Lindermeier, Peters

29. Course Accompanying the Practical Study Semester

Course no.: IF-WI-B29

12 H/W

5. Semester

6 ECTS-Credits

Contents

Market analysis: market formats, corporate sources of income, behaviour and reaction mechanisms.
 Planning of production, costs, investments, financing and distribution within a company. Decision-making and control processes and their implications for the bottom line and balance sheet based on a realistic model, e.g. using a business game.
 Illustration of practical corporate interrelations (e.g. interpretation of the market, aspects of corporate organisation) and/or fostering of practically-oriented key qualifications that go beyond mere technical knowledge (e.g. corporate work methods, resource management, team skills).
 Project management, presentation training, producing project reports, employee leadership, resource management

Prerequisites	de facto but not formal, solid business administration and economic knowledge
Objectives	Objectives: This module aims at providing skills in company market analysis, planning, decision-making and control processes in a realistic market model. Students will also work toward an objective working on a time-limited project in an independent, compressed, and exemplary manner. Competencies: Students will be able to apply a company market analysis as well as planning, decision-making and control processes in a company. Students will be able to understand and interpret corporate interrelations and acquire practical fundamental key qualifications such as company work methods and social skills. Students will be able to work on a project in a team. They will also gain practical knowledge of the typical roles that are part of a project.
Recommended literature	Context-specific literature
Method of instruction	seminars
Examination	Students will be assessed on the basis of a research project, presentation or verbal colloquium.
Language of instruction	German
Instructor(s)	Cichon, Fischer, Lenk, Lindermeier, Mandl, Peters, Regier, Stützle

30. Formal concepts in Information Systems and Management I

Course no.: IF-WI-B30

4 H/W

6. Semester

5 ECTS-Credits

Contents

Possible topics include the application of logic languages for the representation of knowledge and application of logic and lattice theory in order to gain statements on programs or systems.

Prerequisites	computer science principles such as from the Information Systems module from the basic studies phase. Economics such as from the Business Administration module from the basic studies phase. Mathematics such as from the Business Mathematics modules I and II from the basic studies phase.
Objectives	Objectives: This module provides knowledge of formal concepts which can be applied in computer science or economic sciences. Competencies: Students will acquire advanced knowledge of the application of formal concepts (logic, computability and decidability, formal description of discrete structures, formal language and theory of automata, complexity theory) through concrete issues.
Recommended literature	Context-specific literature, e.g. <i>Asteroth, Alexander; Baier, Christel</i> : Theoretische Informatik. Eine Einführung in Berechenbarkeit, Komplexität und formale Sprachen mit 101 Beispielen, Pearson Studium, 2004 <i>Haggarty</i> : Diskrete Mathematik für Informatiker, Pearson-Studium, 2004 <i>Hopcroft J.E.; Ullmann J.D.</i> : Einführung in Automaten-theorie, Formale Sprachen und Komplexitätstheorie, Addison-Wesley, <i>Hromkovic, Juraj</i> : Algorithmische Konzepte der Informatik. Berechenbarkeit, Komplexitätstheorie, Algorithmik, Kryptographie. Eine Einführung, Teubner Verlag, 2001 <i>Kozen, D.C.</i> : Automata and Computability, Springer-Verlag,
Method of instruction	Amount of work in class: app. 42 hours, independent study: app. 108 hours
Examination	Students will be assessed on the basis of a graded research project, test or written examination. This will be determined in the course calendar.
Language of instruction	German
Instructor(s)	Möncke, Schwenkert

31. Formal concepts in Information Systems and Management II

Course no.: IF-WI-B31

4 H/W

6. Semester

5 ECTS-Credits

Contents

Possible topics include the application of logic languages for the representation of knowledge and application of logic and lattice theory in order to gain statements on programs or systems.

Prerequisites	computer science principles such as from the Information Systems module from the basic studies phase. Economics such as from the Business Administration module from the basic studies phase. Mathematics such as from the Business Mathematics modules I and II from the basic studies phase.
Recommended literature	Context-specific literature, e.g. <i>Asteroth, Alexander; Baier, Christel</i> : Theoretische Informatik. Eine Einführung in Berechenbarkeit, Komplexität und formale Sprachen mit 101 Beispielen, Pearson Studium, 2004 <i>Haggarty</i> : Diskrete Mathematik für Informatiker, Pearson-Studium, 2004 <i>Hopcroft J.E.; Ullmann J.D.</i> : Einführung in Automaten-theorie, Formale Sprachen und Komplexitätstheorie, Addison-Wesley, <i>Hromkovic, Juraj</i> : Algorithmische Konzepte der Informatik. Berechenbarkeit, Komplexitätstheorie, Algorithmik, Kryptographie. Eine Einführung, Teubner Verlag, 2001 <i>Kozen, D.C.</i> : Automata and Computability, Springer-Verlag,
Objectives	Objectives: This module provides knowledge of formal concepts which can be applied in computer science or economic sciences. Competencies: Students will acquire advanced knowledge of the application of formal concepts (logic, computability and decidability, formal description of discrete structures, formal language and theory of automata, complexity theory) through concrete issues.
Method of instruction	Amount of work in class: app. 42 hours, independent study: app. 108 hours
Examination	Students will be assessed on the basis of a graded research project, test or written examination. This will be determined in the course calendar.
Language of instruction	German
Lecturer(s)	Möncke, Schwenkert

32. Formal concepts in Information Systems and Management III

Course no.: IF-WI-B32

4H/W

7. Semester

5 ECTS-Credits

Contents

Possible topics include the application of logic languages for the representation of knowledge and application of logic and lattice theory in order to gain statements on programs or systems.

Prerequisites	computer science principles such as from the Information Systems module from the basic studies phase. Economics such as from the Business Administration module from the basic studies phase. Mathematics such as from the Business Mathematics modules I and II from the basic studies phase.
Recommended literature	Context-specific literature, e.g. <i>Asteroth, Alexander; Baier, Christel</i> : Theoretische Informatik. Eine Einführung in Berechenbarkeit, Komplexität und formale Sprachen mit 101 Beispielen, Pearson Studium, 2004 <i>Haggarty</i> : Diskrete Mathematik für Informatiker, Pearson-Studium, 2004 <i>Hopcroft J.E.; Ullmann J.D.</i> : Einführung in Automaten-theorie, Formale Sprachen und Komplexitätstheorie, Addison-Wesley, <i>Hromkovic, Juraj</i> : Algorithmische Konzepte der Informatik. Berechenbarkeit, Komplexitätstheorie, Algorithmik, Kryptographie. Eine Einführung, Teubner Verlag, 2001 <i>Kozen, D.C.</i> : Automata and Computability, Springer-Verlag,
Objectives	This module provides knowledge of formal concepts which can be applied in computer science or economic sciences. Competencies: Students will acquire advanced knowledge of the application of formal concepts (logic, computability and decidability, formal description of discrete structures, formal language and theory of automata, complexity theory) through concrete issues.
Method of instruction	app. 42 hours, independent study: app. 108 hours
Examination	Practical report and certificate
Language of instruction	German
Instructor(s)	Prof. Dr. Ulrich Möncke, Prof. Dr. Rainer Schwenkert

33. Elective on Information Systems and Management I

Course no.: IF-WI-B33

4 H/W

4. Semester

5 ECTS-Credits

Contents

Special topics in information systems and business administration. Independent work on a demanding topic. The departmental electives range from scientific to applied topics in relevant fields and enable students to expand their knowledge in information systems and management.

Presentation and defence: presentation of results through the adequate use of multimedia tools. Competent technical discussion.

Prerequisites	completed preliminary programme but other than that no special prerequisites
Objectives	Objectives: This module specializes in selected topics of information systems, economics and computer science. Competencies: Students will gain advanced knowledge of the selected topics in the fields of information systems, economics and computer science.
Recommended literature	Topic-specific
Method of instruction	Amount of work in class: app. 42 hours, independent study: app. 108 hours
Examination	Students will be assessed on the basis of a graded research project and a test or written examination. This will be determined in the course calendar.
Language of instruction	German
Instructor(s)	various lecturers, particularly representatives from business and administration

34. Elective on Information Systems and Management II

Course no.: IF-WI-B34

4 H/W

7. Semester

5 ECTS-Credits

Contents

Special topics in information systems and business administration. Independent work on a demanding topic. The departmental electives range from scientific to applied topics in relevant fields and enable students to expand their knowledge in information systems and management.

Presentation and defence: presentation of results through the adequate use of multimedia tools. Competent technical discussion.

Prerequisites	completed preliminary programme but other than that no special prerequisites
Objectives	Objectives: This module specializes in selected topics of information systems, economics and computer science. Competencies: Students will gain advanced knowledge of the selected topics in the fields of information systems, economics and computer science.
Recommended literature	Topic-specific
Method of instruction	app. 42 hours, independent study: app. 108 hours
Examination	Students will be assessed on the basis of a graded research project and a test or written examination. This will be determined in the course calendar.
Language of instruction	German, English
Instructor(s)	various lecturers, particularly representatives from business and administration

35. Seminar on Information Systems and Management I

Course no.: IF-WI-B35

4 H/W

4. Semester

5 ECTS-Credits

Contents

Immersion in information system special topics: independent work on a thematic. Scientific work on a topic.

Presentation and defence: presentation of results through the adequate use of multimedia tools.

Prerequisites	basic knowledge of information systems
Objectives	Objectives: This module serves the independent study, representation and defence of selected information systems topics. Competencies: Students will be able to immerse themselves in an information systems topic, work on it scientifically and present the results.
Recommended literature	<i>Disterer, Georg: Studienarbeiten schreiben</i> , Springer Verlag, 1998 Student selection based on research project Selection of literature according to individual lecture topics
Method of instruction	app. 42 hours, independent study: app. 108 hours
Examination	Students must work on a project with a component clearly attributable to them. Student knowledge will be tested in a colloquium.
Language of instruction	German
Instructor(s)	Mandl, Heigert, Möncke, Greiner and others

36. Seminar on Information Systems and Management II

Course no.: IF-WI-B36

4 H/W

6. Semester

5 ECTS-Credits

Contents

Immersion in information system special topics: independent work on a thematic. Scientific work on a topic.

Presentation and defence: presentation of results through the adequate use of multimedia tools. Proof of achievement:

Students must work on a project with a component clearly attributable to them. Student knowledge will be tested in a colloquium.

Prerequisites	basic knowledge of information systems
Objectives	This module serves the independent study, representation and defence of selected information systems topics. Competencies: Students will be able to immerse themselves in an information systems topic, work on it scientifically and present the results.
Method of instruction	seminars
Recommended literature	<i>Disterer, Georg: Studienarbeiten schreiben</i> , Springer Verlag, 1998 Student selection based on research project Selection of literature according to individual lecture topics
Examination	Students must work on a project with a component clearly attributable to them. Student knowledge will be tested in a colloquium.
Language of instruction	German
Instructor(s)	Mandl, Heigert, Möncke, Greiner and others

37. Bachelor Seminar and Bachelor Thesis

Course no.: IF-WI-B37

Seminar: 4 H/W

7. Semester

15 ECTS-Credits
(thesis: 12, colloquium: 3)

Contents

Bachelor seminar: the seminar will support the independent, methodical work. Presentation and defence of thesis.

Bachelor thesis:

Independent work on a practical interdisciplinary problem statement based on scientific and methodical approaches. The ability to work through problems in industry is encouraged.

Prerequisites	knowledge of information systems on par with the 6. technical semester
Objectives	Objectives: The objective of this module is to write a scientific thesis. Competencies: Students will be able to write a scientific thesis.
Method of instruction	app. 450 hours
Recommended literature	Books introducing scientific work methods
Examination	Bachelor thesis and colloquium for the defence of the thesis including presentation of results.
Language of instruction	German
Instructor(s)	all Information Systems colleagues

38. Field Trip

Course no.: IF-WI-B38

1. - 7. Semester

Contents

The length and extent of the field trip depends on the situation at hand. The maximum investment generally should not exceed a weeks effort. Students do not have to make up the hours in other courses lost due to the field trips. Therefore, the total amount of hours remains the same.

Prerequisites	None
Objectives	Knowledge of operational processes and the ability to integrate the knowledge gained in class in real-world business settings. Study of current situations considering particularly national and international factors.
Method of instruction	field trip
Examination	none

1. Privacy and Data Protection

Course: IF-Z-BDO1

4 H/W

5 ECTS-Credits

Objectives

- Societal and legal principles of privacy and data protection
- legal and technical terminology
- the line between data security and privacy
- balancing the mandates of privacy and data security
- Threats in the areas of communication and information
- Current issues in administration and the economy
- Legal regulations in the public and private sectors as well as professional secrecy
- Organisational and technical aspects of privacy

Prerequisites	none
Course objective	Sensitivity toward privacy needs, insight into the dangers and risks of data manipulation and forgery, knowledge of the legal systems surrounding privacy and the ability to judge situations based on the complex legal systems involved.
Recommended literature	<i>Tinnefeld/Ehmann/Gerling</i> , Einführung in das Datenschutzrecht, Oldenbourg, München <i>Magazines</i> : Datenschutz und Datensicherheit, Vieweg, Wiesbaden; Computer und Recht; Dr. Otto Schmidt, Köln; <i>Simitis</i> , Kommentar zum BDSG, Nomos, Baden-Baden
Method of instruction	seminars
Examination	written exam
Language of instruction	german
Name of lecturer	Beier, Ehmann, Möncke, Petri, Schuster

2. IT-Security

Course: IF-Z-BDO2

4 H/W

5 ECTS-Credits

Objectives

- Principles, motivation for, and objectives of IT-security
- Threats and typical attack scenarios
- Concepts and methods of security management
- Principles, mechanisms, systems used for authentication, authorisation, administration and auditing
- Selected examples and practical application areas

Prerequisites	Principles of IT systems (networks, hardware, operating systems, applications)
Course objective	An understanding of problems, principles, concepts and mechanisms ensuring IT security.
Recommended literature	The most current literature covering IT-security; articles from journals and conferences will be used. <i>Claudia Eckert</i> : IT- Sicherheit. Konzepte, Verfahren, Protokolle, Oldenbourg, München
Method of instruction	lectures with discussions and exercises
Examination	written exam
Language of instruction	german
Name of lecturer	Gerling, Pleier

3. Business Law

Course: IF-Z-BDO3

4 H/W

5 ECTS-Credits

Objectives

- The legal system
- Legal regulations of commercial law (particularly from sections of the German Civil Code pertaining to general parts, laws of obligations, and property laws)
- Introduction to selected case studies
- Particular problem statements in the area of telecommunications as well as software production and licensing

Prerequisites	none
Course objective	Knowledge of the legal principles of commercial law as well as the acquisition of methods to assess the facts of a case and systematically solve simple cases.
Recommended literature	<i>Textbook:</i> Lorenz/Riehm, Lehrbuch zum neuen Schuldrecht, Beck, München, 2002 <i>Medicus:</i> Schuldrecht I Allgemeiner Teil, Beck, München, 2002 <i>Commentary:</i> Palandt, Kommentar zum BGB, Beck, München, (current edition).
Method of instruction	lectures with discussion
Examination	written exam
Language of instruction	german
Name of lecturer	Möncke

4. Practical Studies in Privacy and Data Protection

Course: IF-Z-BDO4

2 H/W

3 ECTS-Credits

Objectives

Selected legal, organisational and technical case studies from real-world business setting of a data protection official.

Prerequisites	Privacy and Data Protection (IF-Z-BD01)
Course objective	Ability to make legal, organisational and technical assessments of data protection problems.
Method of instruction	practicum
Examination	term work and presentation
Language of instruction	german
Name of lecturer	Gerling, Schuster

5. Current Issues in Data Protection

Course: IF-Z-BDO5

2 H/W

3 ECTS-Credits

Objectives

Concrete threats to privacy and the media, current protection mechanisms

Prerequisites	Privacy and Data Protection (IF-Z-BD01)
Course objective	knowledge of the current European data protection laws, applicability to real-world business situations
Recommended literature	Announced at lecture time.
Method of instruction	seminars
Examination	term work
Language of instruction	german
Name of lecturer	Petri, Tinnefeld