Module descriptors for English taught modules at
Brandenburg University of Applied Sciences
Winter semester (September – February)

Although we check all offers carefully and update them regularly changes might still occur due to short-term modifications. Version: 29th January 2020

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Department of Business and Management: Bachelor modules

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<th>Brief module label:</th>
<th>Projektmanagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module description:</td>
<td>Project Management and Social Competences</td>
</tr>
<tr>
<td>Division in teaching sessions, if applicable:</td>
<td>Module, lecture, exercise</td>
</tr>
<tr>
<td>Duration of module:</td>
<td>One semester</td>
</tr>
<tr>
<td>Classification in the curriculum:</td>
<td>WI Ba, 3rd semester, required module</td>
</tr>
<tr>
<td>Usability of the module:</td>
<td>Preparatory course for subsequent advanced courses</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Author:</td>
<td>Prof. Dr. Andreas Johannsen</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>Prof. Dr. Andreas Johannsen</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>German, for exchange students English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>5</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
<td>150 hours = 60 hours of attendance and 90 hours of self-study</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>Lecture: 2 semester hours per week</td>
</tr>
<tr>
<td></td>
<td>Exercise: 2 semester hours per week</td>
</tr>
<tr>
<td></td>
<td>Total: 4 semester hours per week</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
<td>Assessment Centre Report (10%), home assignment with presentation (40%), written examination (50%)</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>1/3 of the subject grade; 7% of all subject grades; 2.33% of the final grade</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>Lecture: The students recognize and discuss about the social competences in the context of Project Management. They identify particular social phenomena and problems in projects. They know the main features and methods required for a professional Project Management. They recognize their own resources. They can outline the requirement of professional cooperation and identify the development of their personal potential.</td>
</tr>
</tbody>
</table>
Exercise: The students are able to apply the broad-based methods of Project Management, utilize the possibilities of successful communication (discuss, explain, elaborate, negotiate etc.) in project situations, they apply different forms of team work for preparing and presenting the results of group work, they prepare themselves for forthcoming assessment procedures, apply methods of time management and work organization.

Contents:

Management of software projects:
1. Basics of Project Management
2. Specific management of software projects
3. Instruments: Data collection techniques, methods of estimation of effort, creative techniques, Specifications, handling project risks, planning techniques (phase planning, network planning technique)
4. Quality management (fundamentals, product quality, process quality, methods, quality policy, testing programs, test objects and aims in various project phases)

Basics of social competences:
5. Sociological/psychological principles
   habitus, self-perception/perception of others, individual perception,
   Iceberg model, requirements, values etc.
6. Basics of communication
   TZI, TA – Analysis, 4-page model, art of negotiation
7. Cooperation in enterprises, team development
   What is a team?, Structures, problems, selection and deployment of teams etc.
8. Team training
   Group dynamism, Role behaviour, successful team behaviour
9. Personal appearance
   Appearance appropriate to situation (behaviour, dress, body language, rhetoric...),
10. Personnel development
   Requirement profiles, Assessment – Centre, multimodal personnel selection
11. Job application training (Part I)  
CV analyses, testimonials

12. Job application training (Part II)  
E-Mail/Online- and multimedia – Job applications, Job interviews

13. Social competences in virtual space  
Online communication compared to direct communication, comparative analyses

14. Learning and working techniques (Part I)  
Learning techniques, time management

15. Learning and working techniques (Part II)  
Work organization, stress management

Teaching and learning methods:  
Lecture using a combination of media (transparencies, blackboard work, demos), accompanying exercises with Assessment Centre (Video recordings and evaluations in the group), home assignment and group work, presentations.

Literature:
Ebeling, Peter: Rhetorik – der Weg zum Erfolg [Rhetoric – the Way to Success], Munich, 1995
<table>
<thead>
<tr>
<th>Module no./code:</th>
<th>WB3043</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module description:</td>
<td>Communication across cultures</td>
</tr>
<tr>
<td>Division into teaching sessions, if applicable:</td>
<td>//</td>
</tr>
<tr>
<td>Duration of module:</td>
<td>One semester</td>
</tr>
<tr>
<td>Classification in the curriculum:</td>
<td>WI Ba, 5th semester, compulsory module</td>
</tr>
<tr>
<td>Usability of the module:</td>
<td>//</td>
</tr>
<tr>
<td>Frequency offered:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Module leader:</td>
<td>Prof. Dr. Andreas Johannsen</td>
</tr>
<tr>
<td>Lecturer:</td>
<td>Stephen Naudé</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Knowledge from “Using English in business informatics“ lectures</td>
</tr>
<tr>
<td>ECTS credits:</td>
<td>5</td>
</tr>
<tr>
<td>Total workload and composition of course:</td>
<td>150 hrs. = 60 hrs. attendance and 90 hrs. self-study</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>Integrate lectures (seminar): 4 contact hours</td>
</tr>
<tr>
<td>Study and examination requirements:</td>
<td>Coursework and presentation/participation in a group discussion (each 50%)</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>According to SER</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>After successful completion of the module, the students will be able to use the acquired English language skills and competence to adequately master tasks during their studies and in later professional life. The students will also acquire the intercultural competence to successfully participate in international or virtual teams. They will hone their teamwork and self-management through the set tasks</td>
</tr>
</tbody>
</table>
### Contents:
- Managing international meetings
- Presenting across cultures
- Negotiating across cultures
- Working in an international team
- Leading/Managing virtual teams

### Teaching and learning methods:
Workshops, practical applications of the material learned in group discussions, self-study (internet research, reading, listening to audio podcasts)

### Literature:
- B. Dignen “Communicating across Cultures”
- T. Brake “Where in the World is my Team?”
- T. D, Zweifel “Culture Clash – Managing the Global High-Performance Team”
- J. Comfort “The Mindful international Manager”

### Additional information:
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### Module no./code:
BB320

### Module description:
**Studium Generale 2: Philosophy of Theory and Epistemology**

### Division into teaching sessions, if applicable:
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### Duration of module:
One semester

### Classification in the curriculum:
BWL BA, 5th semester, required module

### Usability of the module:
The module can also be used in other (bachelor's degree) courses according to the study and examination regulations applicable there.

### Frequency offered:
Every academic year

### Module leader:
Prof. Dr. Andreas Wilms

### Private lecturer:
Various lecturers from the Department of Business and Management

### Language of instruction:
German or English (language of instruction will be announced before the start of the semester)

### Prerequisites:
//

### ECTS credits:
5

### Total workload and composition of course:
150 hours = approx. 50 hours of attendance, 100 hours of self-study

### Form of teaching/semester hours per week:
Lecture/4 semester hours
<table>
<thead>
<tr>
<th>Study and examination requirements:</th>
<th>Written paper and presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>According to the study and examination regulations</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>The students will deal intensively with the scientific cognitive process and thus build a basis for their own academic and scientific work. The students will acquire the skills to • argue scientifically in a sound and in a balanced way, • design their own empirical analyses and evaluate them based on hypotheses, • to formulate in a scientific manner. After completing the module, the students will be able to independently write a scientific text – in particular a thesis – taking into account structural, content and formal requirements.</td>
</tr>
<tr>
<td>Contents:</td>
<td>Content of the module: • Scientific process • Structures of science • Working with data • Scientific method and scientific reasoning • Scientific language • Formal requirements for scientific work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Brief module label:</th>
<th>VWLS Wettbewerbspolitik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module description:</td>
<td>Innovations, Market power and Technology policy</td>
</tr>
<tr>
<td>Division in teaching sessions, if applicable:</td>
<td></td>
</tr>
<tr>
<td>Duration of module:</td>
<td>One semester</td>
</tr>
<tr>
<td>Classification in the curriculum:</td>
<td>BWL BA, 5th semester, specialization VWL</td>
</tr>
<tr>
<td>Usability of the module:</td>
<td>Runs simultaneously with consolidating BWL courses and preparatory course for subsequent advanced VWL courses</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Author:</td>
<td>Prof. Dr. rer. pol. Bettina Burger-Menzel</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>Prof. Dr. rer. pol. Bettina Burger-Menzel</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>German or English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Basic understanding of Economics</td>
</tr>
<tr>
<td><strong>ECTS-Credits:</strong></td>
<td>5</td>
</tr>
<tr>
<td>------------------------</td>
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</tr>
<tr>
<td><strong>Total workload and its composition:</strong></td>
<td>150 hours of workload, approx. 50 hours of attendance; approx. 40 hours of preparation and follow-up, approx. 60 hours of preparation for examination</td>
</tr>
<tr>
<td><strong>Form of teaching/semester hours per week:</strong></td>
<td>4 semester hours per week /lecture</td>
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<tr>
<td><strong>Study and examination achievements:</strong></td>
<td>Written examination or seminar paper with presentation</td>
</tr>
<tr>
<td><strong>Weighting of the grade in the overall grade:</strong></td>
<td>According to the regulations of studies and examinations</td>
</tr>
<tr>
<td><strong>Learning outcomes:</strong></td>
<td>The students have a technical and methodical understanding of innovation processes in the regional, national and global competitive environment; they are able to discuss about the special importance of markets and market structures critically, which are full of technologically intensive; they can to analyze the locational economic effects of research and development activities as well as of innovation activities; they understand the motivation behind governmental interventions and are able to identify and structure the conditions for a technology policy capable of action, as well as name the fields of possible target conflicts with the market-oriented economic order.</td>
</tr>
</tbody>
</table>
| **Contents:** | In the module Innovations, Market power and Technology policy the innovative behaviour is analyzed in a global competition context in order to understand interactive transactions between market, network and hierarchy solutions and to categorize possibilities of intervention by the state into a technologically and internationally dynamic environment and to evaluate the same. This approach is divided into the following aspects:  
- Research and innovation processes (20%)  
- Characteristics of technology-intensive markets and options of action for economic units and state (30%)  
- Research and innovation policy-related intervention in technology-intensive markets and risks of the state’s failure (50%) |
| **Teaching and learning methods:** | The students prepare the main contents of knowledge as much as possible and under structured guidance of the lecturer in self-study, consolidated through discussions and further developed and secured through overlapping questions. As much as possible, the activity is interactive and in seminar-type teaching. In the background of the acquired knowledge or current events, workgroups work on individual topics and present the results in a plenary session. So as to supplement the teaching session reference literature is recommended or files and texts available on the Web can be used as working material, and multimedia applications are expressly desirable. Through the Moodle learning platform, |
the students have the opportunity to obtain (updated) material at flexible time and place and to work in workgroups or jointly.

<table>
<thead>
<tr>
<th>Literature:</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Additional information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief module label: Business plan</td>
</tr>
<tr>
<td>Module description: Business Plan</td>
</tr>
<tr>
<td>Division in teaching sessions, if applicable: Project paper/Lecture</td>
</tr>
<tr>
<td>Duration of module: One semester</td>
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<tr>
<td>Classification in the curriculum:</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Usability of the module:</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
</tr>
<tr>
<td>Author:</td>
</tr>
<tr>
<td>Private lecturer:</td>
</tr>
<tr>
<td>Language of instruction:</td>
</tr>
<tr>
<td>Prerequisites:</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
</tr>
</tbody>
</table>

**Learning outcomes:**
The students
- acquire knowledge about the soft factors needed for start-up business plans, and they can characterize these appropriately with hard facts,
- can recognize and evaluate the success factors and hurdles encountered in the start-up process,
- can derive strategies of action for a start-up plan and the development of network structures,
- possess summarily the technical and methodical competence for evolving an implementable business in team while taking into consideration all relevant areas of planning; they also master particularly the quantitative evaluation methods in order to become a competent negotiating partner in the acquisition of capital.

**Contents:**
The team will prepare a start-up plan:
- Team formation, task sharing
- Search for ideas, assessment, development of the product / the service
- Market analysis: Market size and segments, customers, other competitors, partners
| Teaching and learning methods: | The development of a Business Plan has 3-stages:  
1. Generation of ideas  
2. Marketing concept  
3. Organizational and financing concept  
The above points are worked out mostly on the basis of cases with brief introduction to each section of the business plan. The groups consist of 3 – 5 participants. The method of primary and secondary researching points to a case. The plans are drafted in the lab, using a Business Plan software application. If possible, the plans are placed in a regional or nationwide competition. |
| Literature: | Birley, S., Muzyka, D. F., Mastering Entrepreneurship, Harlow 2000  
<p>| Additional information: | Working with Business Plan software, e.g. UGS, interdisciplinary groups |</p>
<table>
<thead>
<tr>
<th>Duration of module:</th>
<th>One semester</th>
</tr>
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<tbody>
<tr>
<td>Classification in the curriculum:</td>
<td>BWL MA, 1st semester, elective module field C</td>
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<tr>
<td>Usability of the module:</td>
<td>The module can also be used in other (master's degree) courses in accordance with the study and examination regulations applicable there.</td>
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<tr>
<td>Frequency offered:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Module leader:</td>
<td>Prof. Dr. Bettina Burger-Menzel</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>Prof. Dr. Bettina Burger-Menzel</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>6</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
<td>180 hours = 60 hours of attendance and 120 hours of self-study</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>4 semester hours per week</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
<td>Either a written examination of 90 min. in duration must be passed or a project (homework assignment) followed by a presentation must be completed</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>According to the study and examination regulations</td>
</tr>
</tbody>
</table>
| Learning outcomes: | After the successful completion of the module, students will be capable of transferring findings and methodological approaches of decision, network and motivation theory to a context-specific case, and to use discursive skills to review and validate this.  

In detail:  
The students will understand the scientific derivation and meaning of the ideas of man and their connection with more quantitatively or qualitatively oriented behavioural models.  
They will be able to identify the essential motives for action and optimisation strategies of a (limited) rational person and reflect critically on them (Level 1).  
They will be able to recognise how different network roles, structures and relationships affect human behaviour and discursively represent different perspectives (Level 2). |
They will be aware of the interaction of motivation and cognition, and to the consequences this can have for human optimisation behaviour (Level 3).

They will be capable of applying the knowledge gained in the three levels to a self-developed case, and to further develop the case with increasing complexity of context factors.

They will have been taught to communicate and reflect on the individual findings of a tandem partner and within the group, and to face a critical discourse (e.g. in the context of a role play).

<table>
<thead>
<tr>
<th>Contents:</th>
<th>The content is based on research-based and interdisciplinary discussion of the idea of man at the interface with:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Global cooperation</td>
</tr>
<tr>
<td></td>
<td>- Sustainability strategies in an environmental context</td>
</tr>
<tr>
<td></td>
<td>- Multi-stakeholder environment</td>
</tr>
<tr>
<td></td>
<td>The idea of man is extended by three steps:</td>
</tr>
<tr>
<td></td>
<td>- Homo economicus and limited rationality</td>
</tr>
<tr>
<td></td>
<td>- Homo socialis and the intercultural references</td>
</tr>
<tr>
<td></td>
<td>- Multiple self and cognition</td>
</tr>
<tr>
<td></td>
<td>The resulting optimisation strategies are analysed, critically discussed and transferred to the student’s own application example, even against the background of complex adaptive systems.</td>
</tr>
</tbody>
</table>

| Teaching and learning methods: | Instruction in seminars with group exercises, student discussion forums with ownership of content and process organisation as well as an application forum guided by the lecturer. |


Additional information: Research and application-oriented learning
<table>
<thead>
<tr>
<th>Classification in the curriculum:</th>
<th>BWL MA, 2nd semester, required module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usability of the module:</td>
<td>The module can also be employed in other (Master’s) courses according to the regulations of studies and examinations applicable there.</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Author:</td>
<td>Prof. Dr. Uwe Höft</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>Prof. Dr. Uwe Höft</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>Normally English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Previous knowledge of the module “International Management and Marketing”</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>6</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
<td>150 hours of workload: approx. 50 contact hours, approx. 40 hours of preparation and follow-up, 7.5 working days = 60 hours of preparation for examination</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>Lecture and business game seminar &quot;Sell the robot&quot; (total 4 semester hours per week)</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
<td>Normally written examination of 90 min. duration (or alternatively any form of examinations prescribed in the regulations of studies and examinations)</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>According to the regulations of studies and examinations or $0.7*(5/90) = 3.89%$</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>The students are expected to familiarize themselves with the outline of fundamentals, theories and instruments of the B-to-B Marketing and apply them. Basic understanding of industrial and international markets and the relevant marketing instruments is a prerequisite for successful international market processing.</td>
</tr>
</tbody>
</table>
| Contents:                        | - Fundamentals and basic terminology of Business-to-Business Marketing  
                                - The buying pattern of organisations (analysis of industrial demand pattern)  
                                - Operative B-to-B Marketing (Marketing-Mix Instruments of international B-to-B Marketing)  
                                o Product policy  
                                o Services policy  
                                o Price and conditions policy  
                                o Distribution policy/Distribution management  
                                o Communications policy  
                                - Management game seminar (compact seminar) "Sell the robot" |
<p>| Teaching and learning methods:   | Lecture and seminar teaching; management game seminar (compact seminar); |
| Literature:                     | Backhaus, Klaus: Industriegütermarketing [Industrial Goods Marketing], 7th ed. 2003 |</p>
<table>
<thead>
<tr>
<th>Brief module label:</th>
<th>Business Management (BWL) Project for Erasmus and exchange students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module description:</td>
<td>Business Management (BWL) Project</td>
</tr>
<tr>
<td>Division in teaching sessions, if applicable:</td>
<td>Project</td>
</tr>
<tr>
<td>Duration of module:</td>
<td>One semester</td>
</tr>
<tr>
<td>Classification in the curriculum:</td>
<td>All semesters, BWL MA and BA (ERASMUS and exchange students, only)</td>
</tr>
<tr>
<td>Usability of the module:</td>
<td>The module can also be employed in other (Master’s) courses according to the regulations of studies and examinations applicable there.</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Author:</td>
<td>Prof. Dr. Katharina Frosch</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>Any of the professors involved in this course may teach in this module.</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>//</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>10</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
<td>300 hours of self-study, attendance components will be determined together with the tutor individually, however, not more than 100 hours.</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>Self-study and accompanied project work</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
<td>Project work and home writing assignment</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------------------------------</td>
</tr>
</tbody>
</table>
| Weighting of the grade in the overall grade: | The students are able to independently analyse and evaluate the theoretical fundamentals of selected topics. The aim of the project is to apply the business management related instruments and to compile the findings into a paper and, if applicable, present the results (e.g. to German students in a regular study module). Minimum standards:  
  - written project results of 20-30 pages (including own tables and graphs); upper/lower/left/right page margins all set on 3 cm, body text in Arial 12 pt.  
  - compliance with the general rules of good scientific practice (in particular: substantiating arguments with well-established evidence; using detailed citations to indicating all external sources; list of references)  
  - at least one personal meeting with the tutor, not later than 8 weeks after the semester has started |
| Learning outcomes: | Possible tasks and topics are derived, for example, from the selected areas of specialization relating to:  
  - Topics related to International Management and international Marketing as well as customer relationship management (Prof. Schwill)  
  - Innovation research and technology studies as well as supply/value chain management (Prof. Mieke)  
  - Logistics and process analysis (Prof. Hildebrand)  
  - Market Research; Industrial Marketing; Innovation Management and Innovation Intelligence (Prof. Höft)  
  - Studies, projects and analyses related to the management of small and medium-sized enterprises SME (Prof. Schnurrenberger)  
  - Projects on strategic and practical aspects of accounting, controlling and business succession (Prof. Sievers)  
  - Entrepreneurship and start-up financing (Prof. N.N. – currently no topics available)  
  - Projects and analyses on technology and competition policy with a strong focus on international aspects as well as social innovation (Prof. Burger-Menzel)  
  - Reports and analyses linked to legal aspects of business and management (Prof. Schröter)  
  - Human resource management, in particular empirical comparisons of labour market aspects in selected countries (Prof. Frosch)  
  - Projects and analysis in the field of corporate finance (Prof. Wilms)  
  - Projects and analysis in the field of Corporate Governance and Sustainability (Prof. Kühne)  
  - Empirical analysis of economic indicators using raw data (Prof. Stobernack)  
  Projects can adopt a mainly application-oriented as well as a
<table>
<thead>
<tr>
<th>Brief module label:</th>
<th>Profiling Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module description:</td>
<td>Profiling Germany</td>
</tr>
<tr>
<td>Division in teaching sessions, if applicable:</td>
<td>//</td>
</tr>
<tr>
<td>Duration of module:</td>
<td>One semester, during the Winter Semester</td>
</tr>
<tr>
<td>Classification in the curriculum:</td>
<td>Additional module for foreign students</td>
</tr>
<tr>
<td>Usability of the module:</td>
<td>The module can also be employed in other (Bachelor's/Master's) courses according to the regulations of studies and examinations applicable there.</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Author:</td>
<td>Katharina Leipnitz</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>N.N.</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Basic knowledge about Germany</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>5</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
<td>150 hours of workload: approx. 50 hours of attendance approx. 40 hours of preparation and follow-up, approx. 60 hours of project work</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>4 semester hours per week/Project/Lecture</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
<td>Home assignment and presentation</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>Relevant only for foreign students; then according to the regulations of studies and examinations $0.7 \times (5/90) = 3.89%$</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>The students are expected to recall the basic cultural and economic conditions in Germany. During the project work they should discover the specific differences in their countries and analyse the economic facts during the lecture.</td>
</tr>
</tbody>
</table>
| Contents: | - History and culture of Germany  
- Political and social structures  
- Economic structures  
- Germany in the EU |
| Teaching and learning methods: | Lecture and project work |
| Literature: | - Facts about Germany (German Federal Office)  
- DAAD Destination Germany  
- Other current information pamphlets will be distributed during the lecture. |
<p>| Additional information: | Excursions to historically relevant places and museums |
| Brief module label: | Modelling Processes |
| Module description: | Modelling and Analysis of Processes |
| Division in teaching sessions, if applicable: | Lecture, exercise |
| Duration of module: | One semester |
| Classification in the curriculum: | WI Ma, 1st semester, required module |
| Usability of the module: | The module is a preparatory step for other related courses. |
| Frequency of offering of modules: | Every academic year |
| Author: | Prof. Dr. Dietmar Wikarski |
| Private lecturer: | Prof. Dr. Dietmar Wikarski |</p>
<table>
<thead>
<tr>
<th>Language of instruction:</th>
<th>German, for exchange students English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites:</td>
<td>Bachelor's course modules; System analysis and Process modelling</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>6</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
<td>180 hours = 72 hours of attendance and 108 hours of self-study</td>
</tr>
</tbody>
</table>
| Form of teaching/semester hours per week: | Lecture: 2 semester hours per week  
Exercise: 2 semester hours per week  
Total: 4 semester hours per week |
| Study and examination achievements: | Written examination or homework |
| Weighting of the grade in the overall grade: | 1/3 of the subject grade;  
14% of all subject grades;  
4.66% of the final grade |
| Learning outcomes:       | Based on the basic skills acquired earlier in the Bachelor’s course for the analysis and modelling of processes, they are updated, consolidated and extended to complex models and procedures, including discussion on the methods. As a generalized abstraction for modelling business and cooperation processes, the students acquire abilities in conceptualizing multi-dimensional, spatially discrete and temporally constant process structures and in using relevant software tools. |
| Contents:                | • Basic description methods for spatially discrete and auxiliary processes (finite automations, Petri nets, Markov chains)  
• Object-oriented methods for process modelling  
• Current modelling languages for business and cooperation processes (eEPK, BPML, BPEL, etc.)  
• Overview of standards and software tools for modelling  
• Analysis and evaluation of business processes (WFMC-Reference model, Adonis, ARIS, SemTalk etc.)  
• Consolidated exemplary application of at least one of these tools  
• Optional: Elements of Operations Research (Optimization, Queuing theory,…) |
| Teaching and learning methods: | Lecture, self-study, practical modelling exercises on the PC |
| Literature:              | F. Bause, P.S. Kritzinger: Stochastic Petri Nets, Vieweg-Verlag |
Additional information:

<table>
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<tr>
<th>Module no./code:</th>
<th>WM130</th>
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<tbody>
<tr>
<td>Module description:</td>
<td>Value-oriented IT management</td>
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<tr>
<td>Division into teaching sessions, if applicable:</td>
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<tr>
<td>Duration of module:</td>
<td>One semester</td>
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<tr>
<td>Classification in the curriculum:</td>
<td>WI Ma, 1st semester, core module</td>
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<tr>
<td>Usability of the module:</td>
<td>The module lays the foundations in the areas of use and quality-oriented IT management for the subsequent learning areas of core and elective modules.</td>
</tr>
<tr>
<td>Frequency offered:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Module leader:</td>
<td>Prof. Dr. Jochen Scheeg</td>
</tr>
<tr>
<td>Lecturer:</td>
<td>Prof. Dr. Jochen Scheeg</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>German / English</td>
</tr>
</tbody>
</table>
| Prerequisites: | Lectures on  
  - Principles of business informatics  
  - Principles of business studies  
  - Information management |
| ECTS credits: | 6 |
### Total workload and composition of course:

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>180 hrs.</td>
<td>72 hrs. attendance and 108 hrs. self-study</td>
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### Form of teaching/semester hours per week:

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>4 contact hours</td>
<td>2 hours lecture + 2 hours workshop</td>
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</table>

### Study and examination requirements:

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written examination and project work with presentation</td>
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### Weighting of the grade in the overall grade:

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to SER</td>
<td></td>
</tr>
</tbody>
</table>

### Learning outcomes:

Upon successful completion of this module, the students will possess knowledge in IT management. The students are taught knowledge on the following topics, in Part A: Principles of integrated information management, IT sales management, IT production management, IT procurement management and IT back-office functions; in part B: IT service management fundamentals, IT service strategy and continual service improvement, IT service design, IT service transition and IT service operation. Assess the fundamentals of modern information management, which illuminates newer approaches beyond textbook literature. In particular getting to know new paradigms in information management as well as the critical assessment of practical relevance and operational capability. Both methodological aspects as well as current questions from corporate practice concerning the organisation of the IT, essential tasks of information management and their execution form key technical learning objectives in of the module. The focus is on leadership, management and organisation of all IT-related topics in companies. The students will develop pronounced problem-solving and assessment competence. The students will master the theoretical principles in order to implement them cognitively, intuitively and creatively in their work.

### Contents:

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A:</td>
<td>Principles of integrated information management, IT sales management, Product management, Account management, Part III: IT production management, Product engineering, production engineering</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I:</td>
<td>Principles of integrated information management</td>
</tr>
<tr>
<td>Part II:</td>
<td>IT sales management</td>
</tr>
<tr>
<td>Product management</td>
<td></td>
</tr>
<tr>
<td>Account management</td>
<td></td>
</tr>
<tr>
<td>Part III:</td>
<td>IT production management</td>
</tr>
<tr>
<td>Product engineering, production engineering</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A:</td>
<td>Principles of integrated information management, IT sales management, Product management, Account management, Part III: IT production management, Product engineering, production engineering</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I:</td>
<td>Principles of integrated information management</td>
</tr>
<tr>
<td>Part II:</td>
<td>IT sales management</td>
</tr>
<tr>
<td>Product management</td>
<td></td>
</tr>
<tr>
<td>Account management</td>
<td></td>
</tr>
<tr>
<td>Part III:</td>
<td>IT production management</td>
</tr>
<tr>
<td>Product engineering, production engineering</td>
<td></td>
</tr>
<tr>
<td>Management of service provision</td>
<td></td>
</tr>
<tr>
<td>Delivery management</td>
<td></td>
</tr>
<tr>
<td>Part IV: IT procurement management</td>
<td></td>
</tr>
<tr>
<td>Sourcing management</td>
<td></td>
</tr>
<tr>
<td>Part V: IT back-office functions</td>
<td></td>
</tr>
<tr>
<td>IT controlling</td>
<td></td>
</tr>
<tr>
<td>IT quality management</td>
<td></td>
</tr>
</tbody>
</table>

**Part B:**
- IT service management fundamentals
- IT service strategy and continual service improvement
- IT service design
- IT service transition
- IT service operation

**Teaching and learning methods:**
- Lectures
- Exercises in the form of case studies with homework
- Independent development of topics by the students with subsequent presentation and joint discussion

**Literature:**
- ITIL
  - Ebel, Nadine (2008): ITIL V3 Basis Zertifizierung, Addison-Wesley

**Additional information:**
- Offer of ITIL certification to build upon lecture.
## WM 536

<table>
<thead>
<tr>
<th>Module description:</th>
<th>Social Networks and Sentiment Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division in teaching</td>
<td></td>
</tr>
<tr>
<td>sessions, if applicable:</td>
<td></td>
</tr>
<tr>
<td>Duration of module:</td>
<td>One semester</td>
</tr>
<tr>
<td>Classification in the</td>
<td>WI Ma, 3rd semester, compulsory module</td>
</tr>
<tr>
<td>curriculum:</td>
<td></td>
</tr>
<tr>
<td>Usability of the module:</td>
<td>subject-specific specialization</td>
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<tr>
<td>Frequency of offering of</td>
<td>Every academic year</td>
</tr>
<tr>
<td>modules:</td>
<td></td>
</tr>
<tr>
<td>Module leader:</td>
<td>Prof. Dr. Vera G. Meister</td>
</tr>
<tr>
<td>Lecturers:</td>
<td>Dr. Nina Rizun, Maria Meister MA</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Knowledge from bachelor studies:</td>
</tr>
<tr>
<td></td>
<td>• Fundamentals of statistical methods</td>
</tr>
<tr>
<td></td>
<td>• Software engineering</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>6</td>
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<tr>
<td>Total workload and its</td>
<td>180 hours = approx. 60 hours of</td>
</tr>
<tr>
<td>composition:</td>
<td>attendance, approx. 120</td>
</tr>
<tr>
<td></td>
<td>hours of preparation and follow-up</td>
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<tr>
<td>Form of teaching/semester</td>
<td>semester hours per week = Lecture with</td>
</tr>
<tr>
<td>hours per week:</td>
<td>exercises, lectures</td>
</tr>
<tr>
<td></td>
<td>and project elements</td>
</tr>
<tr>
<td>Study and examination</td>
<td>Projects and Presentation</td>
</tr>
<tr>
<td>achievements:</td>
<td></td>
</tr>
<tr>
<td>Weighting of the grade</td>
<td>According to SER</td>
</tr>
<tr>
<td>in the overall grade:</td>
<td></td>
</tr>
</tbody>
</table>

### Learning outcomes:

The main objective of this course is to increase student awareness of the fundamental principles of extracting knowledge from unstructured and poorly formalized data sets. This course is designed as a general introductory level course for all students who are interested in Opinion Mining and Sentiment Analysis, as well as Social Network and Social Behavior Analysis. The main sources for knowledge mining will be textual Internet content as well as different types of relationships within Social Networks.

Learning goals: students are expected to understand conceptually and choose appropriate advanced algorithms and technical solutions for knowledge extraction to apply in real practical tasks, namely:

- to mine and represent the textual Internet content (opinions, reviews, messages, comments etc.) in structured
to build a hierarchical structure of Topics described in the analyzed textual Corpus;

- to extract the semantically meaningful words (keywords) and words collocations for each Topic;

- to perform the Clustering of texts on the basis of their contextual (semantic) similarity;

- to conduct the Sentiment analysis of texts;

- to formalize and present different types of relationships as a Social Network;

- to understand the structure and main characteristics of the whole analyzed Social Network as well as the specific roles of each of its actors;

- to conduct the structural and content analysis of Social Networking Sites.

**Contents:**


**Teaching and learning methods:**

- Lectures,
- Workshops,
- Small Research Projects

**Literature:**


<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Margot Phaneuf.</strong> The sociogram, a complementary tool to the genogram and a means of enriching the interview <a href="http://www.infiressources.ca/fer/Depotdocument_anglais/The_sociogram.pdf">http://www.infiressources.ca/fer/Depotdocument_anglais/The_sociogram.pdf</a></td>
</tr>
<tr>
<td><strong>Dian I. Martin, Michael W. Berry.</strong> Mathematical Foundations Behind Latent Semantic Analysis (<a href="http://mall.psy.ohio-state.edu/LexicalSemantics/MartinBerry2006.pdf">http://mall.psy.ohio-state.edu/LexicalSemantics/MartinBerry2006.pdf</a>)</td>
</tr>
<tr>
<td><strong>Alex Thomo.</strong> Latent Semantic Analysis (Tutorial) (<a href="http://www.engr.uvic.ca/~seng474/svd.pdf">http://www.engr.uvic.ca/~seng474/svd.pdf</a>)</td>
</tr>
<tr>
<td>Module no./code:</td>
</tr>
<tr>
<td>-----------------------------</td>
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<tr>
<td>Module description:</td>
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<tr>
<td>Duration of module:</td>
</tr>
<tr>
<td>Classification in the curriculum:</td>
</tr>
<tr>
<td>Frequency offered:</td>
</tr>
<tr>
<td>Module leader:</td>
</tr>
<tr>
<td>Lecturer:</td>
</tr>
<tr>
<td>Language of instruction:</td>
</tr>
</tbody>
</table>
| Prerequisites:              | Knowledge from basic Bachelor’s courses:  
|                             | - Introduction to business studies  
|                             | - Introduction to information management |
| ECTS                        | 6 |
| Total workload and composition of course: | 180 hrs. = 60 hrs. attendance and 120 hrs. self-study |
| Form of teaching/semester hours per week: | Lectures with workshops, presentations and project elements in total 4 contact hours |
| Study and examination requirements: | Thesis review with oral examination. Credits gained during the semester can be included in the grade. |
| Weighting of the grade in the overall grade: | According to SER |
| Learning outcomes:          | Upon successful completion of this module, students will be familiar with the development and creation of new design and technology ideas. The students will develop pronounced problem-solving and assessment competence. These core competencies are conveyed especially with regard to process flows and design thinking. The students will master the theoretical principles in order to implement them cognitively, intuitively and creatively in their work. Students are able to create prototypes. This includes the preparation of drafts, the execution of feasibility analyses and possibly budgeting. |
The students will have honed their team skills and self-management through the set tasks.

The students will have a strong knowledge of digital business models. Likewise, they will be able to develop and implement business models. They will also be able to develop, conduct and evaluate ethnographic studies. The students will be able to carry out various analyses, amongst others, user behaviour and needs. They will be able to develop solutions with due consideration to user behaviour. They will generate new ideas for the products with a focus on economic feasibility, carry out tests and independently accompany their prototyping process - from conception to conversion to the product. They will be able to convey and represent patterns with different variations for shaping the business models. On the basis of basic knowledge, against the background of willingness to pay, students will be able to reflect critically on user needs. Depending on the chosen business model, the students will develop different prototypes and have them tested by corresponding user groups.

Students will be familiar with the basics of theory and practice of innovative processes. They will also have basic knowledge in the area of design thinking. Both support the students in finding solutions in the development process and in generating new ideas. They will be able to teach and represent selected methods and tools along the understanding / observing / point of view / brainstorming / prototyping / refinement chain. Students of different disciplines are trained in creative, networked and user-oriented thinking. The aim is to enable them to develop innovative and market-oriented products. Their ideas will be illustrated by prototypes and reviewed based on user and customer feedback.

<table>
<thead>
<tr>
<th>Contents:</th>
</tr>
</thead>
</table>
| Special focus: Digital business models - develop and implement  
- Execution of ethnographic studies, documentation and evaluation  
- Focus on business models for products: Analysis of user behaviour, analysis of needs, development of solutions with special consideration of user behaviour. |
| Teaching and learning methods | Idea generation for products with a focus on economic feasibility, testing and implementation in the form of prototypes  
| | Presentation of design options (patterns) for business models and their variations  
| | Reflecting on user needs with emphasis on willingness to pay  
| | Development of prototypes for business models (in different resolutions) and testing of prototypes with user groups  
| Blackboard, projector, flipchart, etc. | Ambrose, Gavin / Harris, Paul - BASICS Design  
| Group work | 08. DESIGN THINKING: the act or practice of using your mind to consider design.  
| If necessary, field trip. | Very interactive lecture format with a high degree of creative freedom for students. Interdisciplinarity. High level of self-motivation is required.  
| Module no./code: | WM501  
| Module description: | Enterprise Knowledge Graph Implementation  
| Division into teaching sessions, if applicable: | //  
| Duration of module: | One semester  
| Classification in the curriculum: | WI MA 3rd semester, compulsory module  
| Usability of the module: | //  
| Frequency offered: | Every academic year  


<table>
<thead>
<tr>
<th>Module leader:</th>
<th>Prof. Dr. Vera G. Meister</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer:</td>
<td>Prof. Dr. Vera G. Meister</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>German / English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Enterprise Knowledge Engineering (desirable)</td>
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<td>ECTS credits:</td>
<td>6</td>
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<tr>
<td>Total workload and composition of course:</td>
<td>180 hours = approx. 60 hours of attendance, approx. 108 hours of self-study</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>4 semester hours per week seminar and cooperative project work</td>
</tr>
</tbody>
</table>
| Study and examination requirements: | • Teaching-Learning arrangement  
                                 • Technical implementation, documentation and demonstration |
| Weighting of the grade in the overall grade: | According to SER |

**Learning outcomes:**

The students are familiar with the challenges and the range of tasks involved in implementing Enterprise Knowledge Graphs. In an application domain, they can formulate the requirements in the form of competence questions and select the appropriate technology elements: standard specifications, vocabularies, tools and services. They know the elements of an ECG development environment, can configure them according to requirements and personalize them, if necessary. They can use SPARQL 1.1 flexibly as a query and update language for ECG-based application systems. They can further develop existing elements of an ECG architecture or adapt them to existing requirements.

**Contents:**

- Definitions and architectural models for Knowledge Graphs
- Knowledge Graphs in the organizational environment
- Development environments for Knowledge Graphs: Basic components, extensions, interfaces, processes
- Extraction, integration, enrichment and validation of data from different sources
- Provision of integrated, linked data via standardized interfaces (SPARQL, REST)

**Teaching and learning methods:**

- Cooperative, agile project work in mixed teams
- Learning by Teaching
- Prototyping

**Literature:**

- Harald Sack: Linked Data Engineering, Online course on OpenHPI, [https://open.hpi.de/courses/semanticweb2016](https://open.hpi.de/courses/semanticweb2016)
Various specifications and related web resources for vocabularies, standards and existing prototypes of the BMaKE research group, e.g. [https://github.com/bmake, https://bmakewiki.th-brandenburg.de](https://github.com/bmake, https://bmakewiki.th-brandenburg.de)

**Additional information:** As a result, a publication at a relevant scientific conference is planned.

<table>
<thead>
<tr>
<th>Brief module label:</th>
<th>Economics – Technology Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module description:</td>
<td>Economics - Technology Policy</td>
</tr>
<tr>
<td>Division in teaching sessions, if applicable:</td>
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<tr>
<td>Duration of module:</td>
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<tr>
<td>Classification in the curriculum:</td>
<td>TIM MA, 2nd semester</td>
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<tr>
<td>Usability of the module:</td>
<td>Intended as concurrent Business Administration course for in depth study</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Author:</td>
<td>Prof. Dr. rer. pol. Bettina Burger-Menzel</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>Prof. Dr. rer. pol. Bettina Burger-Menzel</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>German or English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>Basic knowledge of economics</td>
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<tr>
<td>ECTS-Credits:</td>
<td>6</td>
</tr>
<tr>
<td>Total workload and ist composition:</td>
<td>180 hours of workload, approx. 50 hours of attendance; approx. 60 hours of preparation and follow-up, approx. 70 hours of preparation for examination</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>Lecture/ 4 semester hours per week</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
<td>Written examination or homework followed by presentation</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>According to the regulations of studies and examinations</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>The students will have subject and methodical understanding of Innovation Processes in regional, national and global context of competition; they will be able to identify the special position of technology-intensive markets, understand the motivation behind governmental intervention and can identify and structure the conditions for competent</td>
</tr>
<tr>
<td>Contents:</td>
<td>technology policies as well as name the fields of possible target conflicts with the market-oriented economic system.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>In the module Economics – Technology Policy the interrelationship of innovations in the globally operating competition processes are taught so as to understand interactive transactions between market, network and hierarchic solutions and to classify and evaluate the possibilities of intervention by the state in a technologically and internationally dynamic environment.</td>
<td></td>
</tr>
<tr>
<td>The points are covered as follows:</td>
<td></td>
</tr>
<tr>
<td>• Research and Innovation Processes (20%)</td>
<td></td>
</tr>
<tr>
<td>• Characteristics of technology-intensive markets and options for action for economic units and the state (30%)</td>
<td></td>
</tr>
<tr>
<td>• Research and Innovation political intervention in technology-intensive markets and risks of state’s failure (50%)</td>
<td></td>
</tr>
<tr>
<td>Teaching and learning methods:</td>
<td>The most important know-how content is prepared by the students as much as possible in self-study and under structuring supervision by the lecturers, consolidated through discussions and developed further by comprehensive questions. It is important to conduct this as much as possible in interactive and seminar-oriented teaching.</td>
</tr>
<tr>
<td>During teaching sessions and follow-up reference works are recommended or data files and texts provided through Intranet are offered as working material, multimedia applications are expressly desirable. If Moodle learning platform is used, the students also have the possibility of working flexibly in terms of time and place in workgroups or joints.</td>
<td></td>
</tr>
<tr>
<td>Conway, S.; Steward, F.: Managing and shaping innovation, 2009</td>
<td></td>
</tr>
<tr>
<td>Freeman, C.; Soete, L.: The Economics of Industrial Innovation, 2004</td>
<td></td>
</tr>
</tbody>
</table>
Knottenbauer, K.: Theorien des sektoralen Strukturwandels [Theories of Sectoral Structural Transformation], 2000
Maggioni, M. A.: Clustering Dynamics and the Location of High-tech Firms, 2002
Scotchmer, S.: Innovation and Incentives, 2004
Williamson, O.E.: The Economic Institutions of Capitalism, 1985

Additional information:

<table>
<thead>
<tr>
<th>Brief module label:</th>
<th>Corporate Finance and Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module description:</td>
<td>Corporate Finance and Policy</td>
</tr>
<tr>
<td>Division in teaching sessions, if applicable:</td>
<td>Lecture</td>
</tr>
<tr>
<td>Duration of module:</td>
<td>One semester</td>
</tr>
<tr>
<td>Classification in the curriculum:</td>
<td>BWL MA, 1st semester, elective module Dept. B</td>
</tr>
<tr>
<td>Usability of the module:</td>
<td>The module can also be employed in other (Master’s) courses according to the regulations of studies and examinations applicable there.</td>
</tr>
<tr>
<td>Frequency of offering of modules:</td>
<td>Every academic year</td>
</tr>
<tr>
<td>Author:</td>
<td>Prof. Dr. Andreas Wilms</td>
</tr>
<tr>
<td>Private lecturer:</td>
<td>N.N.</td>
</tr>
<tr>
<td>Language of instruction:</td>
<td>English</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
</tr>
<tr>
<td>ECTS-Credits:</td>
<td>5</td>
</tr>
<tr>
<td>Total workload and its composition:</td>
<td>150 hours of workload: approx. 50 contact hours, approx. 40 hours of preparation and follow-up, 7.5 working days = 60 hours of preparation for examination</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Form of teaching/semester hours per week:</td>
<td>4 semester hours per week/ Lecture</td>
</tr>
<tr>
<td>Study and examination achievements:</td>
<td>Written examination (70%) and Case Study presentation (30%)</td>
</tr>
<tr>
<td>Weighting of the grade in the overall grade:</td>
<td>According to the regulations of studies and examinations or (0.7 \times (5/90) = 3.89%)</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>The students capture the strategic dimension of finance. They understand the relation between risk and return. They learn tools to appraise investment opportunities and to perform company valuations. The students comprehend the function of capital markets and the characteristics of equity and debt financing; based on this they are able to take financing decisions, also by taking special forms of financing into consideration. The students can apply the different value levers of 'Private Equity' and support 'M&amp;A-Transactions' both in the preparation and in the integration phase.</td>
</tr>
</tbody>
</table>
| Contents: | Introduction  
- CFO Agenda and the Finance Function  
- Finance & Strategy  
Basic concepts of the financial sphere:  
- Balance Sheet and Income Statement  
- Cash Flow  
Capital Budgeting  
- NPV, IRR  
- Advanced forms  
Capital Market Theory  
- Risk and Return: CAPM  
- Cost of Capital; Leverage  
Capital Markets  
- Function and Structure  
- Capital Market Strategy  
- Valuation of Stocks and Bonds  
Company Valuation  
- DCF, Multiples  
- Cross-Border Valuation and International Project Appraisal  
Capital Structure |
- Role of Equity
- Role of Debt

Dividend Policy

Special Forms of Debt Financing
- Project Finance
- Asset Securitization

Private Equity

Introduction to Investment Banking
- Mergers & Acquisitions
- Business and Financial Due Diligence
- Post-Merger-Integration

Restructuring

Teaching and learning methods:
- Lecture using a combination of media (transparencies, blackboard work, projector etc.)
- Exercises in the lab, on the computer etc.
- Case study discussion
- Work out a topic in groups and talk

Literature:

Additional information:

Department of Informatics and Media: Bachelor modules

<table>
<thead>
<tr>
<th>Module Name</th>
<th>Algorithms and Data Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Semester</td>
<td>1st semester</td>
</tr>
<tr>
<td>Module Coordinator</td>
<td>Prof. Dr. Reiner Creutzburg</td>
</tr>
<tr>
<td>Main Lecturer(s)</td>
<td>Prof. Dr. Reiner Creutzburg</td>
</tr>
<tr>
<td>Teaching Language</td>
<td>German</td>
</tr>
<tr>
<td></td>
<td>English for Applied Computer Science</td>
</tr>
</tbody>
</table>
| Level within Curriculum: | B.Sc. Applied Computer Science, 1st sem., mandatory module  
B.Sc. Informatik, 1st sem., mandatory module  
B.Sc. Medizininformatik, 1st sem., mandatory module |
|-------------------------|-------------------------------------------------------------------|
| Teaching Methods:       | Lecture: 2 hours weekly per semester  
Exercise: 2 hours weekly per semester |
| Workload:               | 150 hrs = 60 contact hrs and 90 hrs directed self-study |
| Credit Points:          | 5 |
| Prerequisites according to Study and Exam Regulations: | |
| Recommended Prerequisites: | |
| Learning Outcome / Skills: | The students know standard algorithms for typical problems from:  
searching, sorting, string matching, recursion,  
trees and graphs.  
They are able to assess and evaluate the performance of algorithms.  
The know the data structures list, array, chained list, stack, queue, tree, graph.  
The students learn the importance of mathematics for computer science by means of concrete applications.  
They learn the necessary mathematical tools in concrete problems of basic computer science and are able to apply them. |
| Course Content:         | algorithms  
complexity analysis, asymptotic analysis,  
complexity classes  
data structures  
elementary data structures  
trees and graphs  
searching and sorting  
string matching  
recursion  
graph algorithms  
case studies |
| Mode of Assessment:     | written exam  
additional assessments during the semester may be included in the final grading. |
| Teaching Media:         | Classical lecture with mixed media (slides, internet sources, animations), exercises |
**Module Name:** Computer Science and Logic

**Study Semester:** 1st semester

**Module Coordinator:** Prof. Dr. Michael Syrjakow

**Main Lecturer(s):** Prof. Dr. Jochen Heinsohn, Prof. Dr. Michael Syrjakow

**Teaching Language:** German; English for Applied Computer Science

**Level within Curriculum:**
- B.Sc. Informatik
- B.Sc. Medizininformatik
- B.Sc. Applied Computer Science: 1st sem.

**Teaching Methods:**
- Lecture: 3 hours weekly per semester
- Exercise: 1 hours weekly per semester

**Workload:** 150 hrs = 60 contact hrs and 90 hrs directed self-study

**Credit Points:** 5

**Prerequisites according to Study and Exam Regulations:**

**Recommended Prerequisites:**

**Learning Outcome / Skills:**
Students will learn about the relationships between important branches of informatics and media; applied logic plays a key role in computer science.

They will be able to recognize the importance of the fundamentals of computer science and their relevance to the curriculum.

They will also be able to code and to represent numbers as well as relevant information in computers and recognize the importance of algorithms, programming and software development.

Students will develop skills, such as logical thinking and creative working methods and will be familiar with the role of applied logic in the modern spectrum of computer science and media.

**Course Content:**
- **Introduction to computer science**
  - a) informatics and branches thereof
  - b) information and its representation, data, types and structures of data, number systems and number depiction
  - c) major components and basic architecture of computer systems
  - d) algorithms, programming languages and software development (overview only)
- **Applied logic**
<table>
<thead>
<tr>
<th>Module Name:</th>
<th>Project-oriented Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Semester:</td>
<td>1st semester</td>
</tr>
<tr>
<td>Module Coordinator:</td>
<td>Prof. Dr. Michael Syrjakow</td>
</tr>
<tr>
<td>Main Lecturer(s):</td>
<td>All professors and academic employees of the department of computer science and media</td>
</tr>
<tr>
<td>Teaching Language:</td>
<td>German; English for Applied Computer Science</td>
</tr>
</tbody>
</table>

**a) propositional logic:** formulas, syntax and semantics, Boolean functions, semantic equivalency, simplifying formulas, DNF and KNF, resolution procedure, horn formulas, logical reasoning

**b) predicate logic:** definition of a formula, formulating sentences in predicate logic, syntax and semantics, simplifying predicate logic formulas, unification and resolution

**c) other logics** (overview only)

**Mode of Assessment:** Written exam. Additional assessments during the semester may be included in the final grading.

**Teaching Media:** Lecture with mixed media (blackboard and mostly interactively filled slides), exercises in small groups

**Literature:**

<table>
<thead>
<tr>
<th>Teaching Methods:</th>
<th>flexibly organized compact lectures (altogether approx. 5 days during the semester) including contact hours, self-study (working groups), Web-based support as necessary, 2 SWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload:</td>
<td>60 hrs = 30 hrs contact hrs and 30 hrs directed self-study</td>
</tr>
<tr>
<td>Credit Points:</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites according to Study and Exam Regulations:</td>
<td>None</td>
</tr>
<tr>
<td>Recommended Prerequisites:</td>
<td>Students know how to use facilities at the University of Applied Sciences, such as the library, laboratories, and examination offices. They have acquired social competencies and general learning skills through group work on topics of computer science (B.Sc. Informatik, B.Sc. Applied Computer Science) and medical informatics (B.Sc. Medizininformatik) Students are able to apply methods and techniques of project management and they can use presentation techniques. Beyond that, they know how to solve problems cooperatively. They have got an overview of the broad range of courses offered at the department of computer science and media and they are in an excellent starting position for successful studies.</td>
</tr>
<tr>
<td>Learning Outcome / Skills:</td>
<td>First part (2 days at the beginning of the semester): visit of the library, introduction into self-organization and cooperative work, presentation of the IT-infrastructure and the learning platform Moodle, choice of a topic for the second part (group work). Second Part: self-organized (guided) group work (8-9 weeks), participation at the workshops: &quot;presentation techniques&quot; and &quot;course organization&quot;, developing of presentations and guided exercises on the results of group work; final presentation of group work (3 days mid-semester).</td>
</tr>
<tr>
<td>Course Content:</td>
<td>Full participation at the first part Second part: successfully completed group work including presentation and documentation of the results without grading</td>
</tr>
<tr>
<td>Mode of Assessment:</td>
<td>Self-organized guided group work, laboratory exercises, Web-based support.</td>
</tr>
<tr>
<td>Module Name:</td>
<td>English</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Study Semester:</td>
<td>1st semester</td>
</tr>
<tr>
<td>Module Coordinator:</td>
<td>Dr. Annett Kitsche</td>
</tr>
<tr>
<td>Main Lecturer(s):</td>
<td>BA Christoph Reinecke</td>
</tr>
<tr>
<td>Teaching Language:</td>
<td>English</td>
</tr>
<tr>
<td>Level within Curriculum:</td>
<td>B.Sc. Informatik, 1st sem., mandatory module</td>
</tr>
<tr>
<td></td>
<td>B.Sc. Applied Computer Science, 1st sem.,</td>
</tr>
<tr>
<td></td>
<td>mandatory module</td>
</tr>
<tr>
<td>Teaching Methods:</td>
<td>Exercises: 2 hours weekly per semester</td>
</tr>
<tr>
<td>Workload:</td>
<td>60 hrs = 30 contact hrs and 30 hrs directed</td>
</tr>
<tr>
<td>Credit Points:</td>
<td>2</td>
</tr>
<tr>
<td>Prerequisites according</td>
<td>English language level B2</td>
</tr>
<tr>
<td>and Exam Regulations:</td>
<td></td>
</tr>
<tr>
<td>Recommended Prerequisites:</td>
<td></td>
</tr>
<tr>
<td>Learning Outcome / Skills:</td>
<td>Students will extend their specialist vocabulary in computing and will be able to utilise it in communicative situations. In addition, they will develop listening and speaking skills relevant to their studies and profession that will enable them to take part in English language lectures and discussions. Their ability to read and process English-language specialist literature will be enhanced; the main focus in developing written language skills will be on forms important for professional situations. In this process, soft skills and intercultural competence will also grow.</td>
</tr>
<tr>
<td>Course Content:</td>
<td>Forms of interactive oral and written language on presenting, describing, discussing and evaluating situations, processes and procedures in IT and daily life influenced by IT. Engaging with authentic texts (reading and listening) in the original language Accompanying English-language lectures (lecture preview and review)</td>
</tr>
<tr>
<td>Mode of Assessment:</td>
<td>combination of:</td>
</tr>
<tr>
<td></td>
<td>• CV, application and handout in English</td>
</tr>
<tr>
<td></td>
<td>• presentation und discussion</td>
</tr>
<tr>
<td></td>
<td>• written exam</td>
</tr>
<tr>
<td>Teaching Media:</td>
<td>Seminar-type learning environment with varying language exercises using the language laboratories and relevant teaching materials, integrating self-study, online learning and independent Internet research.</td>
</tr>
<tr>
<td>Literature:</td>
<td>Current material from English language IT and computer magazines and online sources, e.g. MOOCs</td>
</tr>
<tr>
<td></td>
<td>Books: English for IT (Oxford); IT Matters (Cornelsen);</td>
</tr>
<tr>
<td>Modulbezeichnung:</td>
<td>Operating Systems/Computer Networks</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Study Semester:</td>
<td>3rd semester</td>
</tr>
<tr>
<td>Module Coordinator:</td>
<td>Prof. Dr.-Ing. Martin Schafföner</td>
</tr>
<tr>
<td>Main Lecturer(s):</td>
<td>Prof. Dr.-Ing. Martin Schafföner</td>
</tr>
<tr>
<td>Teaching Language:</td>
<td>Deutsch English for Applied Computer Science</td>
</tr>
<tr>
<td>Level within Curriculum:</td>
<td>B.Sc. Informatik, 3rd sem., mandatory module</td>
</tr>
<tr>
<td></td>
<td>B.Sc. Applied Computer Science, 3rd sem., mandatory module</td>
</tr>
<tr>
<td></td>
<td>B.Sc. Medizininformatics, 3rd sem., mandatory module</td>
</tr>
<tr>
<td>Teaching Methods:</td>
<td>Lecture: 2 hours weekly per semester</td>
</tr>
<tr>
<td></td>
<td>Exercise: 2 hours weekly per semester</td>
</tr>
<tr>
<td>Workload:</td>
<td>150 hrs = 60 contact hrs and 90 hrs directed self-study</td>
</tr>
<tr>
<td>Credit Points:</td>
<td>5</td>
</tr>
<tr>
<td>Prerequisites according to Study and Exam Regulations:</td>
<td>Operating Systems/Webcomputing</td>
</tr>
<tr>
<td>Learning Outcome / Skills:</td>
<td>Students have basic knowledge of programming with operating system APIs. They are able to design adequate programs under correctness and performance constraints. Students know basic concepts and technologies of modern computer networks. They understand selected protocols in detail and can evaluate different technology alternatives. Based on application requirements, students are able to design a suitable network. They are able to correctly design and implement simple distributed applications using sockets, threads, semaphores etc.</td>
</tr>
<tr>
<td>Course Content:</td>
<td>• Input/output, device management</td>
</tr>
<tr>
<td></td>
<td>• Persistent storage, clocks, terminals</td>
</tr>
<tr>
<td></td>
<td>• Filesystems: requirements, design, implementation</td>
</tr>
<tr>
<td></td>
<td>• Main memory management, especially virtual memory management and page swapping</td>
</tr>
<tr>
<td></td>
<td>• Concurrency with threads</td>
</tr>
<tr>
<td></td>
<td>• Operating system APIs for files, directories, sockets, shared memory, pipes, message queues, etc.</td>
</tr>
</tbody>
</table>
|                   | • Overview of typical problems, solution patterns and properties of network communication: error
Handling, flow control, access control, congestion control, addressing, routing and forwarding

- Detailed analysis of selected protocols with an emphasis on: TCP, IPv4 und IPv6, Ethernet, WiFi
- Fundamental design methodologies for computer networks; overview of network components like switches, routers, proxies, firewalls and wireless technologies

**Mode of Assessment:**
- written exam
  Additional assessments during the semester may be included in the final grading.

**Teaching Media:**
- Lecture with mixed media (mostly interactively filled slides), computer lab exercises

**Literature:**
- Glatz E.: Betriebssysteme: Grundlagen, Konzepte, Systemprogrammierung, dpunkt Verlag, 2. aktual. Aufl. 2010

<table>
<thead>
<tr>
<th>Module Name:</th>
<th>Fundamentals of Cloud Computing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Semester:</td>
<td>3rd semester</td>
</tr>
<tr>
<td>Module Coordinator:</td>
<td>Prof. Dr. Thomas Preuss</td>
</tr>
<tr>
<td>Main Lecturer(s):</td>
<td>Prof. Dr. Thomas Preuss</td>
</tr>
<tr>
<td>Teaching Language:</td>
<td>German or English</td>
</tr>
<tr>
<td>Level within Curriculum:</td>
<td>B.Sc. Informatik, B.Sc. Applied Computer Science, B.Sc. Medizininformatik: 3rd semester (core elective module)</td>
</tr>
</tbody>
</table>
| Teaching Methods: | Lecture: 2 hours weekly per semester
  Exercise: 2 hours weekly per semester |
| Workload: | 150 hrs = 60 contact hrs and 90 hrs directed self-study |
| Credit Points: | 5 |
| Prerequisites according to Study and Exam Regulations: | |
| Recommended Prerequisites: | Programming 1 and 2, Operating Systems & Web computing |
| Learning Outcome / Skills: | Students know and understand the specifics and basic concepts of distributed and cloud based systems. |
They are able to estimate the strength, weaknesses, opportunities and threads using such systems. Students are able to apply technologies to implement distributed and cloud based applications. In the lab students will step by step design and implement a cloud based distributed application using appropriate technologies.

**Course Content:**

- Motivation and problems using distributed and cloud-based systems
- Cloud Service Models (IaaS, PaaS, SaaS)
- Cloud Delivery Models (Public, private, community, hybrid)
- Accounting models for clouds
- Cloud-Technologies
  - Data Center
  - Virtualization
  - Multi tenancy
- Classification of communication
- Failure Semantics
- Scalability & Replication
- C/S and P2P architectures
- Middleware Technologies (Sockets, RPC, RMI)
- Webservices (REST & SOAP)
- DCOM, .NET und JEE (Overview)
- Trends in cloud and distributed systems

**Mode of Assessment:**

Written or oral exams (Announced at the beginning of the teaching period). Additional assessments during the semester may be included in the final grading.

**Teaching Media:**

Lecture with mixed media (blackboard and mostly interactively slides), exercises in small groups, computer based exercises

**Literature:**

<table>
<thead>
<tr>
<th><strong>Module title:</strong></th>
<th>Foley and Sounddesign</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Studiensemester:</strong></td>
<td>5th semester</td>
</tr>
<tr>
<td><strong>Module coordinator:</strong></td>
<td>Prof. Alexander Urban</td>
</tr>
<tr>
<td><strong>Lecturer/s:</strong></td>
<td>Prof. Alexander Urban, Prof. Stefan Kim</td>
</tr>
<tr>
<td><strong>Language of instruction:</strong></td>
<td>German and English</td>
</tr>
</tbody>
</table>
| **Level within curriculum:** | B.Sc. Informatik, 5th semester, core elective module  
B.Sc. Applied Computer Science, 3rd semester, core elective module |
| **Teaching strategy / weekly hours:** | Lecture: 4 hours weekly, Laboratory course: 4 hours weekly |
| **Study hours:** | 150 hrs. = 60 contact hrs. and 90 hrs. directed study |
| **Credit points:** | 5 |
| **Prerequisites according to study regulations:** | 
**Recommended prerequisites:** Fundamentals of Audio/Video |
| **Learning outcomes / skills:** | This module teaches the basics of recording and producing sounds of all kinds. The field of audio application extends beyond conventional media such as film, radio and television to digital media. The production of atmospheric background noises, recordings of complete music ensembles or the underlaying of sound to a computer game play an equally important role.  

Basically, students should be able to record audio of any kind and produce sounds of any genre. The understanding of the signal-technical connections and the operation of the usual tools are expected as further key competences. |
| **Course content:** | 1. Foley  
2. Recording Studio Technology  
3. Audio and Video Postproduction  
4. Creating own Sounds  
5. Processing Sound Material  
6. Application of Sound Effects  
7. Editing Audio |
| **Mode of assessment:** | Documentary work with oral conversation  
Additional assessments during the semester may be included in the final grading. |
| **Types of media:** | Film, Foto, Audio, Text |
| **Indicative reading:** | Steve Wright: Digital Compositing for Film and Video, Waltham 2010 |
### Department of Engineering

<table>
<thead>
<tr>
<th>Course of Studies</th>
<th>Technical Energy Efficiency (M.Eng.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person in Charge</td>
<td>Prof. Robert J. Flassig</td>
</tr>
<tr>
<td>Module Name</td>
<td>Energy Management</td>
</tr>
<tr>
<td>Semester</td>
<td>1./2. Semester</td>
</tr>
<tr>
<td>Language</td>
<td>German/English (slides in English)</td>
</tr>
<tr>
<td>Credits</td>
<td>2 ECTS</td>
</tr>
<tr>
<td>Teaching Method / SWS</td>
<td>Lecture + Exercise = 2 SWS</td>
</tr>
<tr>
<td>Requirement</td>
<td>Bachelor</td>
</tr>
</tbody>
</table>

**Learning Goals**

- State of the art: building technology, including energy-conversion, -distribution, -storage.
- Ability to implement the standard ISO 50001
- Identification and estimation of saving potential based on technical and economical assessment

**Content**

1. Introduction to energy management
2. Industry standards EN16001 / ISO 50001, certification for companies
3. Energy monitoring, optimization, implementation, reporting, funding
4. Applications and Examples (building technology, urban development, smart grids)

| Literature | - lecture slides
|            | - additional material will be announced and given during the lecture |
| Workload   | - attendance time: Lecture 2 SWS
|            | - independent work, rework lecture, exam |

| Course of Studies | Technical Energy Efficiency (M.Eng.) |
| Person in Charge  | Prof. Robert J. Flassig |
| Module Name       | **Life Cycle Analysis and Sustainability of Energy systems** |
| Semester          | 1./2. Semester |
| Language          | |
| Credits           | |
| Teaching Method / SWS | |
| Requirement       | |
| Learning Goals    | |
| Content           | |
| Literature        | |
| Workload          | |

**Additional Subjects**

<p>| Brief module label: | DaF A1 |
| Module description | German as a Foreign Language A 1 |
| Type of module     | Seminar |
| Duration of module | one semester |
| Classification in the curriculum | Extra offer |</p>
<table>
<thead>
<tr>
<th><strong>Usability of the module</strong></th>
<th>The module can be used regularly for exchange students without any knowledge of German.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency:</strong></td>
<td>each semester</td>
</tr>
<tr>
<td><strong>Author:</strong></td>
<td>Jutta Kunze, M.A.</td>
</tr>
<tr>
<td><strong>Lecturer:</strong></td>
<td>N.N.</td>
</tr>
<tr>
<td><strong>Language of instruction:</strong></td>
<td>English and German</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>ECTS-Credits:</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total workload and its composition:</strong></td>
<td>75 h: 60 h contact hours, 15 h self-study</td>
</tr>
<tr>
<td><strong>Form of teaching /semester hours per week:</strong></td>
<td>4 semester hours per week</td>
</tr>
<tr>
<td><strong>Study and examination achievements:</strong></td>
<td>Written examination</td>
</tr>
<tr>
<td><strong>Weighting of the grade in the overall grade:</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Learning outcomes:</strong></td>
<td>Students acquire a basic vocabulary of high frequency words and can communicate in everyday language situations by using simple grammatical structures.</td>
</tr>
</tbody>
</table>
| **Contents:**              | Students acquire a basic knowledge of German at A-1 level. The topics are based on everyday speech acts which are relevant for getting along in everyday life. These are:  
- greetings  
- Talk about oneself as well as others  
- to make appointments  
- Ask for places and the way  
- to do small talk while shopping  
- to give time information  
- to talk about events  
- to order and pay at a restaurant  
- to make appointments by phone |
<p>| <strong>Teaching and learning methods:</strong> | Teacher input, pair work, group work, learners lecture, exercises in teams, work with audio and video files. |
| <strong>Literature:</strong>            | Netzwerk / Kurs-und Arbeitsbuch A1, Teilband 1 und 2 mit 2 Audio-CDs und DVD, Klett-Verlag 2013. |</p>
<table>
<thead>
<tr>
<th><strong>Brief module label:</strong></th>
<th>DaF B1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module description</strong></td>
<td>German as a Foreign Language B 1</td>
</tr>
<tr>
<td><strong>Type of module:</strong></td>
<td>Seminar</td>
</tr>
<tr>
<td><strong>Duration of module:</strong></td>
<td>one semester</td>
</tr>
<tr>
<td><strong>Classification in the curriculum:</strong></td>
<td>Extra offer</td>
</tr>
<tr>
<td><strong>Usability of the module</strong></td>
<td>The module can be used regularly for exchange students.</td>
</tr>
<tr>
<td><strong>Frequency:</strong></td>
<td>each semester</td>
</tr>
<tr>
<td><strong>Author:</strong></td>
<td>G.Handschuck</td>
</tr>
<tr>
<td><strong>Lecturer:</strong></td>
<td>G.Handschuck</td>
</tr>
<tr>
<td><strong>Language of instruction:</strong></td>
<td>German</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong></td>
<td>At least B1 level</td>
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<td><strong>ECTS-Credits:</strong></td>
<td>3</td>
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<tr>
<td><strong>Form of teaching /semester hours per week</strong></td>
<td>4 semester hours per week</td>
</tr>
<tr>
<td><strong>Study and examination achievements</strong></td>
<td>Tests, Presentation</td>
</tr>
<tr>
<td><strong>Weighting of the grade in the overall grade:</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Learning outcomes:**

- Development of general language vocabulary (informal and formal level)
- Development of communication skills for successful participation in discussions in everyday communication and study situations
- Development of competences in reading, writing and listening with different types of texts
- Intercultural findings from the comparison of culturally selected priorities (Germany - home country)
- Improving grammatical skills (depending on the initial level)

**Contents:**

- Different forms of vocabulary work
- Oral and written communication tasks and work on adapted and/or original, partly current reading and listening texts (depending on proficiency level) on various topics (for example, work/profession, sports, doping, media ...)

**Teaching and learning methods**

- Exercises, partly in the language lab, lectures, work in groups

**Literature:**

different books for German as a foreign language
### Special information:

<table>
<thead>
<tr>
<th>journals and newspapers, websites</th>
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</thead>
</table>

- Use of Moodle
- Since the language level of the participating students varies from semester to semester, the design of this course needs to be frequently adjusted according to the needs of the participants.

### Brief module label:

<table>
<thead>
<tr>
<th>Brandenburg</th>
</tr>
</thead>
</table>

### Module description

<table>
<thead>
<tr>
<th>History of the city of Brandenburg</th>
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</table>

### Type of module:

<table>
<thead>
<tr>
<th>Seminar</th>
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</table>

### Duration of module:

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<thead>
<tr>
<th>one semester</th>
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</thead>
</table>

### Classification in the curriculum:

<table>
<thead>
<tr>
<th>Extra offer</th>
</tr>
</thead>
</table>

### Usability of the module

The module can be used regularly for exchange students.

### Frequency:

<table>
<thead>
<tr>
<th>each semester</th>
</tr>
</thead>
</table>

### Author:

Dr. Hans-Georg Kohnke

### Lecturer:

Dr. Hans-Georg Kohnke

### Language of instruction:

<table>
<thead>
<tr>
<th>German and English</th>
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</thead>
</table>

### Prerequisites:

None

### ECTS-Credits:

2 – winter semester, 3 – summer semester

### Total workload and its composition:

| 50 h: 50 h contact hours – winter semester |
| 75 h: 75 h contact hours – summer semester |

### Form of teaching /semester hours per week

| 5 blocked sessions winter semester, 6-7 blocked sessions summer semester |

### Study and examination achievements

Oral exam

### Weighting of the grade in the overall grade:

The students gain knowledge about over a thousand years history of the Brandenburg city and Germany in general by visiting several museums and cultural sites

### Learning outcomes:

- Over thousand years of German history in the Town Museum and city walk
- Brandenburg Cathedral and Cathedral Museum
- Industrial Museum in the old Steelworks
- Brandenburg Archaeological State Museum

### Contents:
| Teaching and learning methods | Guided tours and discussions, presentations |

| program of study: | **Master Mechanical Engineering** |
| module name: | **Artistic Research** |
| abbreviation: | AR |
| subtitle: | Phenomenologically oriented artistic research for students of technically oriented master study courses |
| subcourses: | - |
| semester: | any |
| turnus: | Annually, winter semester |
| responsible: | Prof. Dr.-Ing. Guido Kramann |
| professor: | Prof. Dr.-Ing. Guido Kramann |
| language: | German and English |
| part of curriculum: | Compulsory module (also selectable in all master study courses of TH-Brandenburg) |
| way of lecturing: | 2h lecture and 2h exercise / 4SWS |
| work load: | 180 h (60 h presence and 120 h self-study) |
| credits: | 6 CP |
| requirements according to examination regulations | none |
| recommended requirements: | none |

**Educational objective and competences:**

After completing this course, the students are able to identify the possibly concealing and distorting character of certain presentation and reflection methods in their professional context to a far greater degree than before. What is more, they are able to take a more unprejudiced attitude that allows them to take into account more levels of perception when assessing the functionality and the effects of a technical systems to be developed.

**Contents:**

Technical systems do not exist in isolation for themselves, but their operation is based on an embedding in and interaction with their environment. Success and efficiency in the design and development of such systems therefore presuppose an intensive examination of the various possibilities for realization and operation of such systems. However, the efficiency of modern development methods is mainly due to the fact that the developers are guided in a rigerose way
towards an abstractive view of the development object, in which the real system is mapped to a specific schema. Examples of such schemes are the use of block diagrams with transmission functions in mechatronics and cybernetics; in computer science -- in object-oriented programming -- things are represented by so-called objects with characteristics and abilities, and in automation engineering and business management theory, production processes are described using diagrams that describe the material and information flow between transformation and transport stations.

For the application of these mapping methods – which are common in the development process – there does not exist any particular control method how this mapping is done in a suitable manner and, above all, the real system to be developed and its context are masked by the models generated during mapping.

The phenomenological approach, according to the philosophical school founded by Edmund Husserl is intended to enable the students in this course in an excellent way to bring back to their focus, initially, the covert features and effects of technical systems. A prejudice-free, not yet categorizing way of looking into the subject, especially is established when the focussed subject undergoes a change of context, as is typical in the conceptual art founded by Marcel Duchamp. The theoretical exploration and the concrete practical reception of conceptual art thus forms a practice-oriented approach to phenomenology within this course.

Overall, the course is divided into two parts: In the first half of the semester, the concept of phenomenological observation is mediated according to the philosophy of Edmund Husserl; while in the second part each participant of the course has to identify from her or his own study context an aspect that is expressed in a distorted and/or inadequate way or just in an unilateral manner, as described above. An artistic performance in form of a self-developed example of conceptual art (context-changing), should make this deficiency (without phenomenological training) experienceable for others. Alternatively, the students may choose to build a functional model which then would be the result of a development process taking into account a phenomenological point of view.

**form of exam:**
Housework in a special form: Art performance or alternatively the development of a functional model. In addition for both: introductory lecture and written preparation of at least 10 pages.

**media:**
Black board, beamer, practical work in laboratories, visitation of special places, visits of galeries

**literature (excerpt):**


Other Subjects (No further information available)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course of Study</th>
<th>Bachelor/Master</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media concepts and - theory II = Introduction to Visual Effects - subject partly in English, please ask beforehand</td>
<td>Digital Media</td>
<td>Master</td>
<td>6</td>
</tr>
<tr>
<td>Project (several subjects)</td>
<td>Informatics</td>
<td>Bachelor &amp; Master</td>
<td>6</td>
</tr>
</tbody>
</table>