# Module Catalog of the Study Program
# **Communication and Media Management Bachelor (KMMB)**

# Information Management and Media (IMM) Faculty

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Module summary

# KMMB4110 IT Basics A

**Module coordinator:**     Prof. Dr. Michael Tewes

**Credits (ECTS):**     6

**Semester:**     1

**Pre-requisites with regard to content:**

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**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

Students learn the basics of descriptive and inferential statistics including the basic concepts of probability theory.

After having successfully completed this module they will be able to deepen and appropriately use their knowledge of statistical theory and applications in all the other courses of the study program.

The students will

- be able to identify, systemize and solve statistical problems independently by applying the learned methods and principles of statistics
- be able to calculate and interpret the most important key figures of one- and two-dimensional measurement series and to graphically visualize the results of one-dimensional measurement series
- master thinking in and calculating with probabilities
- know the most important discrete and continuous distributions and be able to relate them to typical situations.
- be able to calculate ranges for parameters and to test hypotheses, taking into account possible wrong decisions, in order to evaluate applications of statistical methods in the context of practice and to be able to apply them.

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

This module is related to all the other modules within the study program, especially with those focusing on visualization, modules of engineering sciences, informatics and media technology, and modules of empirical linguistics/language technologies.

Course

# KMMB4111 Statistics | Lecture

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Michael Tewes |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

**Descriptive statistics** (introduction and basic concepts, tabular and graphical presentation of univariate data, measure of central tendency and measure of variation, empirical distribution function, classified data, measures of association, regression analysis). **Elements of probability theory**. **Inductive statistics** (basic issues, confidence intervals, estimations in a normal distribution, statistical test procedures, linear regression model).

**Recommended reading:**

Arens, Tilo et. al. (2015): Mathematik, Heidelberg

Arens, Tilo et. al. (2015): Arbeitsbuch Mathematik, Heidelberg

Bortz, J. / Döring, N. (2009): Forschungsmethoden und Evaluation für Human- und Sozialwissenschaftler, Heidelberg.

Bühner, M. (2006): Einführung in die Test- und Fragebogenkonzeption, München

Fahrmeir, L. et al. (2016): Statistik – Der Weg zur Datenanalyse, Berlin.

Hartung, J. et al. (2009): Statistik, München.

Rinne, H. (2008): Taschenbuch der Statistik, Franfurt a. M.

Sachs, L. / Hedderich, J. (2018): Angewandte Statistik, Berlin.

Toutenberg, H. & Heumann, C. ($^7$2009): Deskriptive Statistik, Berlin.

Tufte, E. R. ($^2$2007): Beautiful evidence, Cheshire, Conneticut.

Tufte, E. R. (2007): Visual explanations. Images and quantities, evidence and narrative, Cheshire, Connecticut.

**Comments:**

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Course

# KMMB4112 Statistics | Exercise course

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Michael Tewes |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

The students work on exercises dealing with the topics which have been discussed in the lecture by using computers and appropriate software.

**Recommended reading:**

See recommended reading for KMMB4111 Statistics | Lecture

**Comments:**

-

Module summary

# KMMB4120 Language and Linguistics

**Module coordinator:**     Prof. Dr. Petra Drewer

**Credits (ECTS):**     6

**Semester:**     1

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- be able to contrast basic issues and methods of Applied Linguistics and evaluate them
- be able to describe and justify regularities and characteristics in the areas of word classes and syntax
- be able to classify lexical and syntactic phenomena and categorize them
- know how to assign and apply the basic terminology of Applied Linguistics (esp. with regard to word classes and syntax)
- recognize cases of doubt in the German language and know how to avoid or solve problems in dealing with these cases
- have the ability to judge their own texts or texts of others with regard to formal (esp. lexical and syntactic) aspects

On the one hand, reaching these competences forms the foundation for continuing and deepening the knowledge in various courses in advanced semesters (also see "Usability" for reference). On the other hand, students will be prepared for the expectations they need to meet in professional life in language management (for instance, the professional use of standardizing methods and tools, applying and developing linguistic rules in companies, evaluating the influence of different lexical and syntactic structures on comprehensibility and processability of texts, assisting in designing a corporate language).

**Assessment/Examination:**

Written exam

**Usability of the module:**

Achieved learning objectives will be applied and deepened in different modules/courses in advanced studies KMMB4220 Text Linguistics A, KMMB4330 and KMMB4340 Technical Documentation C+D, KMMB4360 Text Linguistics B, KMMB4351 Applied Linguistics II, KMMB4440 Terminology Management

# KMMB4121 Applied Linguistics 1

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Petra Drewer |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

This lecture provides an overview of the most important topics, questions and methods of Applied Linguistics. Students will deepen their knowledge in the fields of word classes and syntax (classification of word classes, different kinds of flexion and flexion paradigms, clause elements, sentence structures, sentence types with regard to function, form and content). As parts of Applied Linguistics, these areas are of particular importance for adequate communication about language and an appropriate classification of texts and/or formulations. In this lecture, examples and exercises are used to apply, deepen and refine evaluation skills.

**Recommended reading:**

Bergmann, Rolf / Pauly, Peter / Stricker, Stefanie (2010): Einführung in die deutsche Sprachwissenschaft. 5. überarb. und erhebl. erw. Aufl. Heidelberg : Winter

Duden (2015): Duden – Fit für den Bachelor: Grundwissen Grammatik. 2., überarb. Aufl. Hrsg. von der Dudenredaktion. Bearb. von Mechthild Habermann, Gabriele Diewald, Maria Thurmair. Mannheim : Dudenverlag

Linke, Angelika / Nussbaumer, Markus / Portmann, Paul R. (2004): Studienbuch Linguistik. 5. erw. Aufl. Tübingen : Niemeyer

**Comments:**

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Course

# KMMB4122 Professional German

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Petra Drewer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

Being able to use the German language in a professional manner is an indispensable prerequisite for delivering appropriate professional texts to a determined target group in various communication contexts. This course addresses different problems of the German language, such as punctuation, which often are difficult to solve even by native speakers and have to be mastered by prospective communication and language managers. Teaching phases alternate with phases of analysis, phases of discussion and intense practical exercises. The course focuses on the training and improvement of practical language skills.

**Recommended reading:**

Deutsche Rechtschreibung: Regeln und Wörterverzeichnis. Aktualisierte Fassung des amtlichen Regelwerks entsprechend den Empfehlungen des Rats für deutsche Rechtschreibung 2016. Mannheim 2018. Available at
http://www.rechtschreibrat.com/DOX/rfdr_Regeln_2016_redigiert_2018.pdf

**Comments:**

-

Module summary

# KMMB4130 Design

| | |
|---|---|
| **Module coordinator:** | Prof. Anja Grunwald |
| **Credits (ECTS):** | 6 |
| **Semester:** | 1 |

**Pre-requisites with regard to content:**

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**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The goal of this module is to convey a basic understanding of the complexity of human visual perception. Students will learn how to apply creative means of visual communication.

The students will

- recognize mechanisms of action of human visual perception and be able to derive resulting requirements for design tasks
- be able to decide which media (text, picture, video) meet the different communicative requirements for the provision of information
- know and understand the psychology of colors and color models in order to design and apply their own color concepts
- know the advantages and disadvantages of different representation techniques as well as projection types and be able to explain their possible applications
- know visual techniques to structure information so as to increase understandability and know how to apply them in order to direct attention
- be able to reflect on basic design issues and discuss them
- be able to create complex vector graphics in order to visualize technical objects and issues

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

Basic knowledge for all the following courses in the fields of Design, Technical Documentation, Media Production and Visual Communication

Course

# KMMB4131 Design Basics

| | |
|---|---|
| **Lecturer:** | Prof. Anja Grunwald |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

This course introduces the students to concepts and parameters of visual design: perception theory, Gestalt psychology, proportion theory, color and form theory, layering of information, etc. Based on this knowledge, students learn about the different communication options of various representation techniques, projection types, guiding attention, image sequences as well as relations between text and image. By means of examples and exercises principles for evaluating and creating good design are taught.

**Recommended reading:**

Kompendium der visuellen Information und Kommunikation, Kerstin Alexander, Springer Verlag 2013, ISBN 978-3642354496

Wissensvermittlung, Steffen-Peter Ballstaedt, Beltz PVU 1997, ISBN 978-3621273817

Visualisieren: Bilder in wissenschaftlichen Texten, Steffen-Peter Ballstaedt, UTB 2011, ISBN 978-3825235086

Grundkurs Grafik und Gestaltung: Fit für Studium und Ausbildung, Claudia Korthaus, Rheinwerk Design 2017, ISBN 978-3836260008

Grundlagen der Mediengestaltung: Konzeption, Ideenfindung, Bildaufbau, Farbe, Typografie, Interface Design, Christian Fries, Hanser Verlag 2016, ISBN 978-3446447837

**Comments:**

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Course

# KMMB4132 Illustration

| | |
|---|---|
| **Lecturer:** | Prof. Anja Grunwald |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

This course teaches basic knowledge in vector-based programs (e. g. Adobe Illustrator). Students learn to create illustrations for visualizing and explaining technical objects or facts. With the help of basic knowledge in descriptive geometry students learn to make illustrations from scratch as well as to optically process given engineering drawings and CAD data. The course is completed by an insight into representation conventions as well as possibilities of attention guiding.

**Recommended reading:**

Adobe Illustrator CC: Das umfassende Handbuch, Monika Gause, Rheinwerk Design 2017, ISBN 978-3836245050

Adobe Illustrator CC: Der praktische Einstieg, Kai Flemming, Rheinwerk Design 2017, ISBN 978-3836245036

Illustrator CS6 – Einstieg, Praxis, Profitipps Dagmar Löffler, O'Reilly 2012, ISBN 978-3868992427

**Comments:**

-

Module summary

# KMMB4140 Engineering A

**Module coordinator:**    Prof. Dr.-Ing. Ulrich Schönauer
**Credits (ECTS):**    6
**Semester:**    1

**Pre-requisites with regard to content:**

Basic mathematical knowledge on upper secondary level.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

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**Learning outcomes:**

In this module, the students will acquire basic knowledge in physics, chemistry and materials science.

The students will

- understand scientific approaches and regularities in physics, chemistry and materials science.
- know how to communicate regarding technological concepts and scientific applications with the help of the acquired basics and also know how to describe them in a user-oriented way.

**Assessment/Examination:**

written exam, practical exercises

**Usability of the module:**

This module is related to other engineering science and engineering modules within the same study program.

## KMMB4141 Engineering 1

| | |
|---|---|
| **Lecturer:** | Prof. Dr.-Ing. Ulrich Schönauer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

The students acquire basic physical knowledge in the classical fields of mechanics, thermodynamics, and electrodynamics. Theoretical physical concepts and their relation to the technical practice are presented.

**Recommended reading:**

Rybach, Johannes (2013): Physik für Bachelors; 3., aktualisierte Aufl.; Carl Hanser Verlag

**Comments:**

-

## KMMB4142 Engineering 2

| | |
|---|---|
| **Lecturer:** | Prof. Dr.-Ing. Ulrich Schönauer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

The students get an overview of materials science and the related chemical fundamentals: periodic table and chemical bonds, states of matter and chemical solutions, crystallization; material types and groups, material laws, rigidity and stiffness, stress and strain, friction; material testing and characterization, stress-strain diagram, phase diagrams.

**Recommended reading:**

Bargel, Hans-Jürgen; Schulze, Günter (2012): Werkstoffkunde, 11. bearb. Aufl. Springer (Springer-Lehrbuch). ISBN: 978-3-642-17717-0

Mortimer, Charles E.; Müller, Ulrich; Beck, Johannes (2015): Chemie: Das Basiswissen der Chemie, 12. Aufl. Thieme. ISBN: 978-3-134-84312-5

Riedel, Erwin; Janiak, Christoph (2007); Anorganische Chemie, 6. Aufl. de Gruyter. ISBN: 978-3-110-18168-5

**Comments:**

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Module summary

# KMMB4150 Technical Documentation A

**Module coordinator:**     Prof. Jürgen Muthig

**Credits (ECTS):**     6

**Semester:**     1

**Pre-requisites with regard to content:**

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**Pre-requisites pursuant to the study and examination regulations (SPO):**

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**Learning outcomes:**

In this module, students learn how to use the text processing and DTP-program MS Word in a professional way that aims at a standardized document creation. Moreover, students learn the basics of programming logic and gain first practical experience in the creation of own programs.

The students will

- be able to create technical documentation with MS Word professionally
- know how to apply the knowledge gained in various exercises accompanying the lectures
- be able to analyze complex tasks and determine the necessary program functions for the optimal solution
- recognize deficiencies when applying Word functions in documents of technical text types
- learn how to create complex and sophisticated documents as well as about the functions listed below in the contents
- understand the basic principles of programming planning and typical logical programming elements
- be able set up simple programs using at least one procedural programming language

**Assessment/Examination:**

Exercises

**Usability of the module:**

-

Course

# KMMB4151 Technical Documentation 1

**Lecturer:** Prof. Jürgen Muthig

**Contact hours per week:** 2

**Offered:** Annually

**Type / Mode:** Exercise course/compulsory

**Language of instruction:** German

**Content:**

In the field of Technical Communication, MS Word still is and in the medium term will still be one of the most frequently used documentation tools. By means of practical exercises in the computer lab, the students systematically learn to produce standardized documents with MS Word.

The course particularly focuses on the professional handling of document templates and styles, and the visual design of complex documents:

- the professional use of styles for the following style types: paragraph, character, linked tables
- principle of inheritance for styles
- document templates and their implications
- layout planning
- designing a layout suitable for margins
- header and footer (referencing headings by means of fields, tabs, page numbers etc.)
- creative use of text boxes
- individually designed tables of contents
- inserting pictures and picture captions
- using tables
- section breaks
- creating indexes with reference document
- creating complex documents (front page, imprint, table of contents, chapter, list of figures, list of tables, index, appendix)

**Recommended reading:**

There are lecture notes available for this course. In addition, multiple guides are offered for MS Word in bookstores. Recommended manuals usually change with every new Word version.

**Comments:**

The course ends with a non-graded exercise, which must be completed on the computer within a defined time frame.

Course

## KMMB4152 IT Basics 1

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Wolfgang Ziegler |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

This lecture and the corresponding exercises deal with the basics of programming and information processing. Students get to know the different elements of procedural programming (loops, conditions, procedures, functions, etc.) on the basis of one or several programming or scripting languages. The basics of data structures and data types are also taught.

**Recommended reading:**

Kersken, Sascha (2015): IT-Handbuch für Fachinformatiker: Für Fachinformatiker der Bereiche Anwendungsentwicklung und Systemintegration. Inkl. Prüfungsfragen und Praxisübungen. Bonn : Rheinwerk Computing

**Comments:**

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Module summary

# KMMB4210 IT Basics B

**Module coordinator:**      Prof. Dr. Wolfgang Ziegler

**Credits (ECTS):**            5

**Semester:**                2

**Pre-requisites with regard to content:**

Students should have basic knowledge of programming in order to be able to differentiate between data-oriented concepts and query languages in contrast to actual programming languages.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

In this module, students acquire a fundamental understanding of the concepts used for database-supported modeling and the processing of data. The focus is on relational data modelling and its importance in technical communication. References to related or alternative concepts are also conveyed.

The students will

- be able to transfer methods of data modeling to other areas of information technology and distinguish between different concepts.
- be able to describe methodical fundamentals of relational database modeling.
- be able to apply relational modeling in specific examples as well as in programming exercises and queries of databases using SQL.
- understand the meaning and use of databases for administrative and publication processes in technical communications and know how to phrase the requirements for the corresponding information systems.
- know alternative database concepts.

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

-

Course

# KMMB4211 IT Basics 2 | Lecture

**Lecturer:**                    Prof. Dr. Wolfgang Ziegler

**Contact hours per week:**  2

**Offered:**                     Annually

**Type / Mode:**                 Lecture/compulsory

**Language of instruction:**  German

**Content:**

In this course, students learn the fundamentals of relational databases (entity-relationship model, normalization, database design, SQL syntax, queries) with a focus on the processes occurring in technical information systems.

Students gain practical experience in applying the basics of relational database systems, resp. programs (e. g. MySQL, Access). In addition, students learn about the role of interfaces with regard to web systems and desktop publishing systems (PHP, ODBC). They will find out how to evaluate the meaning and application of these systems when it comes to administrative and publication processes in technical communication. Sometimes, the characteristics and use of alternative database concepts will be discussed, as well.

**Recommended reading:**

Däßler, Rolf (2011):  MySQL 5. Heidelberg : bhv, eine Marke der Verlagsgruppe Hüthig Jehle Rehm GmbH

Ramez A. Elmasri  /  Shamkant B. Navathe (2009): Grundlagen von Datenbanksystemen: Bachelorausgabe. München : Pearson Education Deutschland GmbH

**Comments:**

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Course

# KMMB4212 IT Basics 2 | Exercise course

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Wolfgang Ziegler |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

Students will learn how to put into practice subject matters in the fields of data modeling and query of relational data dealt with in the lecture. The students learn to apply the SQL syntax and other modeling and query technologies in client-server databases and learn to access databases via Office and web applications.

**Recommended reading:**

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**Comments:**

KMMB4212 IT Basics 2 | Exercise course

Module summary

# KMMB4220 Text Linguistics A

**Module coordinator:**     Prof. Dr. Michael Tewes

**Credits (ECTS):**     5

**Semester:**     2

**Pre-requisites with regard to content:**

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**Pre-requisites pursuant to the study and examination regulations (SPO):**

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**Learning outcomes:**

The students will

- have knowledge of the fundamentals of legibility and readability research and know how to apply this knowledge to simpler and more complex subject matters in common text types of Technical and Scientific Communication (including Technical Communication).
- generalize the principles acquired in the corresponding seminar and have the ability to evaluate common approaches in comprehension research and its implementation in the text grammar used in Technical Documentation by means of analysis and subsequent problematization:
  a) approaches from the side of the psychology of instruction (Hamburger and Karlsruher Verständlichkeitsmodell, comprehension model developed by Groeben),
  b) approaches from the side of cognitive psychology (semantic networks, schemas, frames, mental models),
  c) writing rules for Technical Editors (i.e. tekom guideline "Regelbasiertes Schreiben" and others),
  d) broadened by linguistic concepts of information structure, pragmatic grounding, etc. The students are able to use theoretical knowledge to analyze and optimize given texts with regard to grammar and text linguistics principles imparted in the lecture. The result of the optimization process will be evaluated in partner and group work.

- be able to apply their theoretical knowledge in a reflected way in the production of their own texts.
- phrase their own texts without any problems and learn how to evaluate texts of other writers in an objective and professional way.
- know how to identify, cluster and assess linguistic and stylistic errors, know about DIN correction marks and be able to apply them.

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

This module is related to all modules with a focus on linguistics.

Course

# KMMB4221 Text Linguistics 1

**Lecturer:** Prof. Dr. Michael Tewes

**Contact hours per week:** 4

**Offered:** Annually

**Type / Mode:** Lecture/compulsory

**Language of instruction:** German

## Content:

In this lecture, the students learn about the two branches of cognitive psychology and the psychology of instruction. The course starts with information on readability and legibility that is then practically deepened by exercises: The two most common models of the psychology of instruction branch are the Hamburger and the Karlsruher Verständlichkeitsmodell, from the viewpoint of cognitive psychology mental models are most important for text production for special purposes.

The course is accompanied by deepening thoughts on morpho-syntax and German syntax allowing to critically evaluate writing rules used in practice and to develop own writing rules based on scientific knowledge. Current linguistic issues for example on the connection between information structures and linguistic text composition, on grounding and the expansion of the speech act theory as well as on topologies serve to inform the students early about new developments in the interaction between linguistic science and practical work in all fields of Technical Documentation as well as of Technical and Scientific Communication.

## Recommended reading:

Brinker, Klaus et al. (eds., 2000). Text- und Gesprächslinguistik. Ein internationales Handbuch zeitgenössischer Forschung (= HSK 16.1), Berlin u.a.

Bublitz, Wolfram & Norrick, Neal R. (Hrsg., 2011). Foundations of Pragmatics (= Handbook of Pragmatics, Bd. 1), Berlin u.a.

Göpferich, Susanne (2001). Von Hamburg nach Karlsruhe. Ein kommunikationsorientierter Bezugsrahmen zur Bewertung der Verständlichkeit von Texten. In: Fachsprache / International Journal of LSP 3–4 (2001): 117–138. [= so called ´Karlsruher Modell´]

Göpferich, Susanne (2002). Ein kommunikationsorientiertes Modell zur Bewertung der Verständlichkeit von Texten. In: Strohner, Hans et al. (eds.). Kommunikationsoptimierung: verständlicher – instruktiver – überzeugender., Tübingen: 45–66

Groeben, Norbert & Christmann, Ursula (1989). Textoptimierung unter Verständlichkeitsperspektive. In: Antos, Gerd et al. (eds.), a.a.O.: 165–196.

Hentschel, Elke & Weydt, Harald (2004). Handbuch der deutschen Grammatik, Berlin u.a.

Hoffmann, Ludger (2000). Thema, Themenentfaltung, Makrostruktur. In: Brinker, Klaus et al. (eds.). Text- und Gesprächslinguistik (= HSK 16.1), Berlin u.a.: 344–356.

Langer, Inghard & Schulz v. Thun, Friedemann & Tausch, Reinhard (2006). Sich verständlich ausdrücken, München u.a.

Musan, Renate (2008). Satzgliedanalyse, Heidelberg.

Philippi, Jule & Tewes, Michael (2010). Basiswissen Generative Grammatik, Göttingen u.a.

Staffeldt, Sven (2009). Einführung in die Sprechakttheorie. Ein Leitfaden für den akademischen Unterricht, Tübingen.

Zifonun, Gisela u.a. (Hrsg.): Grammatik der deutschen Sprache, 3 Bde., Berlin u.a. 1997; (= IDS-Grammatik).

**Comments:**

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Module summary

# KMMB4230 Language and Design A

| | |
|---|---|
| **Module coordinator:** | Prof. Anja Grunwald, Prof. Dr. Petra Drewer |
| **Credits (ECTS):** | 5 |
| **Semester:** | 2 |

**Pre-requisites with regard to content:**

Participants of KMMB4231 Digital Image Editing should have heard KMMB4131 Design Basics, since basic knowledge of human visual perception and in particular knowledge of color theory is required.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

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**Learning outcomes:**

In the course KMMB4231 Digital Image Editing, students learn the professional evaluation, editing and design of pixel-oriented graphics.

The students will

- know the essential technical requirements of digital photography and have basic skills in creating images using exposure time, depth of field, focal length, perspective and cropping.
- know how to evaluate pixel images and be able to perform fundamental applications of digital image editing.
- be able to carry out simple tasks of image design using layers and masks.
- be able to edit pixel images according to the demands of different media.

Course KMMB4232 Professional English does not aim at general language acquisition but is specially designed to meet the needs of students majoring in Communication and Media Management (KMM). At the end of this course, students should

- be able to select adequate written and oral tools in the English language and apply them appropriately to reach certain target groups and meet specified text functions.
- know how to plan and set up documents in teams.
- have gained insight into the English terminology of KMM-relevant topics.
- be able to point out and explain the advantages of linguistic standardization.

**Assessment/Examination:**

Exercises

**Usability of the module:**

Basic knowledge for all the following courses in the fields of Design, Technical Documentation, Media Production and Visual Communication.

Course

# KMMB4231 Digital Image Editing

**Lecturer:**                     Prof. Anja Grunwald

**Contact hours per week:**  2

**Offered:**                     Annually

**Type / Mode:**               Lecture/compulsory

**Language of instruction:**  German

**Content:**

In this course, students learn the fundamentals of image design and pixel-oriented programs for digital image processing (e.g. Adobe Photoshop). Evaluation criteria of pixel images will be illustrated using various examples and the students will also test different correction options by means of practical exercises. Moreover, various retouching and montaging techniques will be taught. In addition, students learn how to set up media-compatible documents and are introduced to file formats.

**Recommended reading:**

Handbuch Digitale Dunkelkammer: Vom Kamera-File zum perfekten Print: Arbeitsschritte und Werkzeuge in der Digitalfotografie, Jürgen Gulbins, Uwe Steinmüller, Dpunkt Verlag 2011, ISBN 978-3898647410

Adobe Photoshop CC: Photoshop-Know-how für Einsteiger im Grafik- und Fotobereich, Robert Klaßen, Rheinwerk Design 2017, ISBN 978-3836256773

Adobe Photoshop CC: Das umfassende Handbuch, Sibylle Mühlke, Rheinwerk Design 2016, ISBN 978-3836240062

Adobe Photoshop CC: Schritt für Schritt zum perfekten Bild, Markus Wäger, Galileo Design 2018, ISBN 978-3836256537

**Comments:**

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Course

# KMMB4232 Professional English

| | |
|---|---|
| **Lecturer:** | NN (→ IFS) |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar |
| **Language of instruction:** | English |

**Content:**

Students majoring in KMM studies will deepen their knowledge of English interactively, with a special focus on Corporate Communication and Technical Documentation.

The previously-mentioned skills and competencies are acquired by means of the following content in class and home-work:

- Students will learn to write linguistically correct texts using a style appropriate to the corresponding text type (relevant text types are among others: manuals, instructions, online help, specialist articles, advertising texts, informative and advertising websites, press releases etc.).

- Students will create linguistically standardized texts – independently and in a team.

- Students will learn how to read, understand and comment on texts, especially specialist articles from relevant journals.

- Students will learn about culture specific differences using case studies (i.e. adapting learning material in German for different English-speaking cultures and target groups).

- Students will learn how to hold prepared and ad-hoc presentations on a selection of KMM topics; typical content of such presentations usually result from the knowledge acquired during the first semesters studying KMM.

**Recommended reading:**

Recommended reading for the lecture

**Comments:**

-

Module summary

# KMMB4240 Engineering B

**Module coordinator:** Prof. Dr.-Ing. Ulrich Schönauer
**Credits (ECTS):** 5
**Semester:** 2

**Pre-requisites with regard to content:**

Basic knowledge of physics, chemistry and materials science/testing

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- acquire knowledge of electrical engineering fundamentals and of simple electrical systems and acquire application knowledge of basic circuits (series connections, parallel connections, bridge connections, filters and sources).
- acquire essential knowledge of electronics (diodes, transistors, operational amplifiers).
- acquire knowledge of the functioning of electrical machines (motors, transformers).
- acquire knowledge of basic industrial production techniques in the fields of primary and secondary forming, cutting and joining, as well as surface finishing, composite materials, and blasting procedures.
- test the acquired knowledge by working on exercises and interpreting technical diagrams.

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

All modules in which electrical and manufacturing engineering contexts have to be explained and presented, e.g. modules KMMB4450 Engineering C and KMMB4620 Engineering D.

# KMMB4241 Engineering 3

| | |
|---|---|
| **Lecturer:** | Prof. Dr.-Ing. Ulrich Schönauer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

This lecture gives a basic, practice-oriented overview of the different aspects of manufacturing engineering. Among others, the following topics are covered: primary and secondary forming, cutting and joining, as well as surface finishing, composite materials, and blasting procedures.

**Recommended reading:**

N. Wegner, M. Müller, A. Schlüppmann: Fertigungstechnik: die Technik und ihre sprachliche Darstellung (Studien zu Sprache und Technik; Band 7). ISBN 3-487-11298

D. Muhs; H. Wittel, M. Becker, D. Jannasch, J. Voßiek: Roloff / Matek Maschinenelemente; ISBN 978-3642388903

K.-H. Grote, J. Feldhusen: Dubbel, Taschenbuch für den Maschinenbau; ISBN 978-3642388903.

A. Fritz, G. Schulze: Fertigungstechnik; ISBN: 978–3662465547

Warnecke, H.-J., Westkämper, E,: Einführung in die Fertigungstechnik; ISBN: 978–3834808356

J. Dietrich: Praxis der Zerspantechnik; ISBN 978-3-658-14052-6

**Comments:**

-

Course

# KMMB4242 Engineering 4

| | |
|---|---|
| **Lecturer:** | Prof. Dr.-Ing. Ulrich Schönauer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

This lecture gives a basic overview of electrical engineering fundamentals and simple electrical systems. It is divided into the following parts: basic electrical circuits (series connections, parallel connections, bridge connections, filters, sources), electronics (diodes, transistors, operational amplifiers), electrical machines (motors, generators, transformers).

**Recommended reading:**

Beuth, Klaus / Beuth, Olaf (2013): Elementare Elektronik - Mit Grundlagen der Elektrotechnik, Vogel Business Media GmbH & Co. KG

Frohne, Heinrich / Lörcherer, Karl-Heinz / Müller, Hans / Moeller, Franz (2011): Grundlagen der Elektrotechnik; Teubner-Verlag

Eberhard Gamm / Schenk, Christoph / Tietze, Ulrich (2016): Halbleiter-Schaltungstechnik; Springer-Verlag

Kories, Ralf Rüdiger / Schmidt-Walter, Heinz (2017): Taschenbuch der Elektrotechnik: Grundlagen und Elektronik. Verlag Harri Deutsch

**Comments:**

-

Module summary

# KMMB4250 Internet Technologies

**Module coordinator:**      Prof. Martin Schober

**Credits (ECTS):**      5

**Semester:**      2

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- be able to create and layout web pages with web technologies (HTML, CSS, JavaScript), and add interactivity.
- be able to use the server-side programming language PHP to create programs that generate web pages.
- know about XAMPP and Apache server and have knowledge of HTML5, Frameworks and AJAX.
- know WCMS Systems and how to use them
- be familiar with the use of the programming language PHP to access MySQL database content in order to publish such content on web pages.
- know how to integrate multimedia data (images, videos, 3D-models) in HTML.
- be able to set up internet presences on a web server.
- know how to create JavaScript functions and to integrate them in HTML documents.

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

Fundamentals for T4B730 Media Management

Course

# KMMB4251 Internet Technologies | Lecture

| | |
|---|---|
| **Lecturer:** | Prof. Martin Schober |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

In this lecture, students learn about the technical requirements for using the internet and how to set up internet pages. Technologies such as FTP, HTML, e-mail, provider, web server and browser will be explained.  Students will learn how to design websites with the help of an editor and learn about the interaction of the layout techniques Cascading-Style-Sheets with HTML and how to use them. It is taught and practiced how to add HTML to the client-side programming language JavaSript. The basics of web design, interactive dialog design, usability and accessibility will also be looked at. PHP as server-side programming language with the possibility to read and fill databases with SQL commands is part of the lecture.

**Recommended reading:**

Hauser, T./ Wenz, C. / Maurice, F. (2016): Das Website Kompendium. München : Markt + Technik Verlag

http://www.w3schools.com

http://de.selfhtml.org/

https://www.codecademy.com

**Comments:**

All exercises and solutions as well as old exams will be available on the internet. On the website there are links to lecture notes and other links to important topics. An e-learning with exercises is available at http://technischeredaktion.com/webtech.

## KMMB4252  Internet Technologies | Exercise course

| | |
|---|---|
| **Lecturer:** | Prof. Martin Schober |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

Web technologies will be created with an editor and executed and tested with different browsers. HTML, CSS, JavaScript and PHP programming will be learned through different exercises. The use HTML 5 technologies is learned and deepened on the basis of exercises. Students will use multimedia data in combination with HTML, create dynamic websites using PHP and access a database via SQL commands by means of small exercises. Students will learn how to access a database using PHP programming technology and how to exchange XML and JSON data with AJAX (Asynchronous JavaScript and XML) technology.

**Recommended reading:**

https://www.w3schools.com
https://wiki.selfhtml.org/

Hauser, T./ Wenz, C. / Maurice, F. (2018): Das Website Kompendium. Markt + Technik Verlag, München

**Comments:**

All exercises and solutions as well as old exams will be available on the internet. On the website there are links to lecture notes and other links to important topics.

Module summary

# KMMB4260 Technical Documentation B

| | |
|---|---|
| **Module coordinator:** | Prof. Jürgen Muthig |
| **Credits (ECTS):** | 5 |
| **Semester:** | 2 |

**Pre-requisites with regard to content:**

None, though it is advisable that students know MS Word as taught in course KMMB4151 Technical Documentation 1.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

Students get to know the main tasks of Technical Editors in industry and at service providers. They learn the basic concepts of project management and how to develop a simple project plan. They become acquainted with the basics of team building and are able to identify criteria for good team work. Moreover, they know the phases of a documentation project and are able to name the central work packages for each of these phases. They know the most important quality criteria for technical documentation, especially for print documentation, and are able to use these criteria to evaluate documentation. They also know methods for describing target groups of technical documentation as well as the most important laws and standards concerning technical documentation. Students know the standardizing method Functional Design and know how to develop Functional Design Standards with this method.

**Assessment/Examination:**

Written exam

**Usability of the module:**

This course is also suitable for students majoring in engineering studies who are interested in the fundamentals of the professional creation of documents. The main focus of this KMM course is the teaching of fundamentals which are deepened in the 3rd semester in a project-oriented manner.

Course

# KMMB4261 Technical Documentation 2

**Lecturer:**              Prof. Jürgen Muthig

**Contact hours per week:**  4

**Offered:**               Annually

**Type / Mode:**           Seminar/compulsory

**Language of instruction:**  German

**Content:**

- presentation of the fields of activity of technical editors
- introduction to the basic concepts of project management
- description of roles in teams
- external and self-assessment of own strengths and weaknesses for working in teams
- description of phases of a prototypical documentation project
- target group analysis, Persona Method, who-does-what-matrix, target group characteristics-decision fields-matrix
- development of quality criteria for technical documentation
- legislation, standards and guidelines/directives
- introduction into the Functional Design method, exercises, applications
- overview: Current topics in the field of Technical Documentation

**Recommended reading:**

Dobrin, Sidney I./Keller, Christopher J./Weisser, Christian R. 2014: Technical Communication in the twenty-first century. 2nd edition. Harlow, Essex: Pearson.

Hargis, Gretchen/Hernandez, Ann Kilty/Hughes, Polly/Ramaker, Jim et. al. 2014: Developing quality technical information. A handbook for writers and editors. 3rd edition. Upper Saddle River, NJ: Prentice Hall PTR.

Juhl, Dietrich 2015: Technische Dokumentation. Praktische Anleitungen und Beispiele. 3. überarb. Auflage. Berlin, Heidelberg, New York: Springer. ISBN: 978-3-662-46865-4

Mulder, Steve/Yaar, Ziv 2006: The User Is Always Right. A Practical Guide to Creating and Using Personas for the Web. Berkley, CA: New Riders. ISBN: 0321434536

Muthig, Jürgen (Hg.) 2014: Standardisierungsmethoden für die Technische Dokumentation. 2. unveränderte Auflage. Stuttgart: tcworld. (tekom - Hochschulschriften, Bd. 16) ISBN13: 9783944449357

Muthig, Jürgen/Schäflein-Armbruster, Robert 2012: Merkmale von Zielgruppen und Technischer Dokumentation verknüpfen. Weil Redakteure verstehen müssen, was sich Nutzer wünschen. In: technische kommunikation 4, Jg. 34, S. 18-25.

**Comments:**

The course's content lays the foundation for the project-oriented module KMMB4330 / 40 Technical Documentation C+D in the third semester.

Module summary

# KMMB4310 Information Technology

**Module coordinator:**     Prof. Sissi Closs

**Credits (ECTS):**          5

**Semester:**               3

**Pre-requisites with regard to content:**

Knowledge in HTML and CSS

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- have basic knowledge about the overall purpose of XML
- know the characteristics of XML meta-language
- be capable of describing components of the XML grammar
- be able to declare notations for an XML grammar, in particular document type definitions (DTD)
- know how to tag contents by use of a suitable XML language
- be able to set up Cascading Style Sheets (CSS) in order to format tagged content
- be able to develop an XML language for a simple document type
- be able to evaluate the pros and cons of XML based content creation in contrast to content creation by means of desktop publishing tools (DTP)
- know several XML authoring tools
- be able to demonstrate how to format XML sources
- be able to contrast the formatting with Cascading Style Sheets (CSS) with a tool-specific means of formatting (for instance using Adobe FrameMaker)
- be able to describe the characteristics of the XML language XSLT
- know how to develop XSLT programs for simple transformations
- be capable of using standardized XML languages such as XHTML, SVG, DITA

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

Module descriptions                                                                                    41 | 114

Basic module for KMMB4610 Information Systems A, KMMB4710 Information Systems B, KMMB4720 Information Architecture.

Course

# KMMB4311 Information Technology 1

| | |
|---|---|
| **Lecturer:** | Prof. Sissi Closs |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

A central basis for the information world is XML with the corresponding methods and techniques. XML is the core technology for structuring contents and for data exchange. This lecture provides the students with an introduction into XML and the concepts of logical structuring from the perspective of information development. The history, the background and the central language constructs of XML metalanguage are covered with regard to their relevance to Technical Documentation. Students develop their own vocabulary and grammar for exemplary content and create individual XML instances with their own XML language. They use XML authoring tools like Adobe FrameMaker and Syncro Soft Oxygen.

**Recommended reading:**

Elliotte Rusty Harold und W. Scott Mean, XML in a Nutshell. Deutsche Ausgabe (2005)
    ISBN-10: 3897213397 / ISBN-13: 978–3897213395

Magnus Stein, Workshop XML (2001) ISBN-10: 382731867X, ISBN-13: 978–3827318671

Simon St. Laurent und Michael Fitzgerald, XML kurz und gut. (2006)
    ISBN-10: 3897215160 / ISBN-13: 978–3897215160

**Comments:**

-

Course

# KMMB4312 Information Technology 2

| | |
|---|---|
| **Lecturer:** | Prof. Sissi Closs |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

XSLT (Extensible Stylesheet Language Transformation) is the transformation language of the XML world. It is used to automatically exchange, convert and adapt XML data. The XSLT programming methods and language constructs are introduced and trained in practical exercises using small examples.

**Recommended reading:**

Frank Bongers, XSLT 2.0 und XPath 2.0 (2008)
ISBN-10: 3898426947 / ISBN-13: 978–3898426947

Marco Skulschus, XSLT und XPath für HTML, Text und XML (2005)
ISBN-10: 3826615328 / ISBN-13: 978–3826615320

**Comments:**

Module summary

# KMMB4320 User Experience

**Module coordinator:**     Prof. Dipl.-Ing. Martin Schober
**Credits (ECTS):**     5
**Semester:**     3

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- know methods to evaluate hardware and software with regard to their user experience.
- understand the difference between user experience and usability.
- acquire the capability to plan and execute an evaluation project for an information product in technical communication using evaluative processes, above all user experience and usability tests.
- be able to question and assess if certain methodological approaches qualify for designing tests to check the usability and user-friendliness of information products.
- know how to develop both scientific and practical questions which are to be answered by evaluative procedures, in particular usability tests.
- be able to plan a usability test and carry it out as well.
- be able to evaluate the test and formulate findings from this test.
- be able to elaborate proposals for optimizing the information products based on the knowledge gained.
- be able to develop questionnaires and interviews using scientific methods to evaluate the user experience of products.
- implement these optimization proposals (at least prototypically).

**Assessment/Examination:**

Exercises, student research project

**Usability of the module:**

-

Course

# KMMB4321 User Experience | Seminar

| | |
|---|---|
| **Lecturer:** | Prof. Dipl.-Ing. Martin Schober |
| **Contact hours per week:** | 1 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

In this lecture the methods and technologies for determining user experience and usability of products are presented. Standards and laws on usability and user experience are explained. The creation of video documentation of user experience and usability test projects is taught. On the basis of expert evaluations and usability tests the strengths and weaknesses of the individual evaluation methods are presented. The development of hypotheses, interview questions and product questionnaires are shown and discussed. A selection of project topics is presented, the project rules and the project procedures are discussed.

**Recommended reading:**

Hennig, Jörg/Sobhani, Marita Tjarks (Hgg.) 2007a: Usability und Technische Dokumentation. Lübeck: Schmidt-Römhild. (tekom - Schriften zur technischen Kommunikation, Bd. 11) ISBN: 3-7950-70241-4

Jacobsen J. & Meyer L.: Usability und UX. Rheinwerk Verlag, Bonn, 2017.

Leventhal, Laura/Barnes, Julie 2007: Usability Engineering. Process, Products, and Examples. Upper Saddle River, N.J.: Pearson: Prantice Hall. ISBN: 0-13-157008-0

**Comments:**

Proof of performance consists of a student research paper that presents and critically reflects upon the project that has been carried out. The paper is not graded, but must meet high demands to pass.

Course

# KMMB4322 User Experience | Project

| | |
|---|---|
| **Lecturer:** | Prof. Dipl.-Ing. Martin Schober |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German |

**Content:**

The students acquire the "Learning outcomes" stated above by working on video-documented user experience and usability test projects. The tests and evaluations are supplemented by the creation of hypotheses, interviews and questionnaires on the tested products. Expert evaluations are also possible under certain conditions. The projects are carried out in groups and are complemented by meetings with the lecturer providing technical advice.

**Recommended reading:**

Hennig, Jörg/Sobhani, Marita Tjarks (Hgg.) 2007a: Usability und Technische Dokumentation. Lübeck: Schmidt-Römhild. (tekom - Schriften zur technischen Kommunikation, Bd. 11) ISBN: 3-7950-70241-4

Jacobsen J. & Meyer L.: Usability und UX. Rheinwerk Verlag, Bonn, 2017.

Leventhal, Laura/Barnes, Julie 2007: Usability Engineering. Process, Products, and Examples. Upper Saddle River, N.J.: Pearson: Prantice Hall. ISBN: 0-13-157008-0

**Comments:**

Proof of performance consists of a student research paper that presents and critically reflects upon the project that has been carried out. The paper is not graded, but must meet high demands to pass.

Module summary

# KMMB4330 Technical Documentation C

**Module coordinator:**       Prof Jürgen Muthig
**Credits (ECTS):**       4
**Semester:**       3

**Pre-requisites with regard to content:**

None. However successful attendance of the modules KMMB4150 Technical Documentation A and KMMB4260 Technical Documentation B is strongly recommended.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- know how to plan documentation production as a service project.
- be able to work in teams cooperatively with distributed tasks.
- be able to present a project plan in different software environments (e.g. Mindmanager, Excel, MS Project) and know the possibilities and limits.
- be able to develop a standardization concept for technical documentation systematically and in a reflected way.

**Assessment/Examination:**

Student research project

**Usability of the module:**

In this project-preparatory module, students will apply numerous competencies from the first and second semester, for instance the professional application of Word, method-supported planning skills, target-oriented information preparation as well as graphic design.

Course

## KMMB4331 Technical Documentation 3 | Exercise course

| | |
|---|---|
| **Lecturer:** | Prof. Jürgen Muthig |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

The students prepare the documentation project, which will be worked on in a compact way in the module KMMB4340 Technical Documentation D in the second half of the semester. The skills and knowledge acquired in the basic studies, especially in the modules KMMB4140/KMMB4260 Technical Documentation A and B, are applied: Project planning, target group analysis or profiling, team building, development of specifications for standardized documentation creation.

**Recommended reading:**

Grünwied, Getrud 2014: Software-Dokumentation. Grundlagen - Praxis - Lösungen. 3. aktualisierte Auflage. Renningen: Expert. ISBN13: 978–3816926825

Juhl, Dietrich 2015: Technische Dokumentation. Praktische Anleitungen und Beispiele. 3. überarb. Auflage. Berlin, Heidelberg, New York: Springer. ISBN: 978-3-662-46865-4

Kusay-Merkle, Ursula 2018: Agiles Projektmanagement im Berufsalltag. Für mittlere und kleine Projekte. Berlin, Heidelberg, New York: Springer.

tekom (Hg.) 2014: Leitfaden Betriebsanleitungen. 4. Auflage. Stuttgart: tekom

**Comments:**

This project-preparatory exercise is carried out in a compacted way in the first half of the semester and concludes with all project-preparatory activities.

Module summary

# KMMB4340 Technical Documentation D

**Module coordinator:**      Prof Jürgen Muthig
**Credits (ECTS):**      4
**Semester:**      3

**Pre-requisites with regard to content:**

None. However, the module KMMB4340 Technical Documentation D is closely linked to the module KMMB4330 Technical Documentation C, so the two modules can only be attended together.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- be able to create a technical documentation as a print version based on the state of the art.
- know what requirements exist for the documentation of residual risks and
- be able to develop and use a standard-compliant safety concept for these residual risks.
- know the advantages and limitations of standardized documentation creation.
- be able to competently apply the Functional Design method (or a categorically similar standardization method) and
- be able to document the standardization rules both appropriately in an editorial guide and use them for consistent document creation.
- be able to write for specific target groups.

**Assessment/Examination:**

Student research project

**Usability of the module:**

In this project-preparatory module, students will apply numerous competencies from the first and second semester, for instance the professional application of Word, method-supported planning skills, target-oriented information preparation, graphic design as well as the project-preparatory works from the previous module KMMB4330 Technical Documentation C.

# KMMB4341 Technical Documentation 4 | Project

| | |
|---|---|
| **Lecturer:** | Prof. Jürgen Muthig |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Project |
| **Language of instruction:** | German |

**Content:**

The students work in groups on a documentation project specified by the lecturer or chosen by themselves. Prototypically, a user manual or a similar type of documentation should be created. For this purpose, students will apply the standardizing method Functional Design. The students use the project plan developed in module KMMB4330 Technical Documentation C and document the work progress in detail. The allocation of tasks within the team ensures that responsibilities are clearly assigned. The student designated as controller monitors the schedule. Students and lecturer meet on a regular basis to discuss the progress of their project.

**Recommended reading:**

Grünwied, Getrud 2014: Software-Dokumentation. Grundlagen - Praxis - Lösungen. 3. aktualisierte Auflage. Renningen: Expert. ISBN13: 978–3816926825

Juhl, Dietrich 2015: Technische Dokumentation. Praktische Anleitungen und Beispiele. 3. überarb. Auflage. Berlin, Heidelberg, New York: Springer. ISBN: 978-3-662-46865-4

Kusay-Merkle, Ursula 2018: Agiles Projektmanagement im Berufsalltag. Für mittlere und kleine Projekte. Berlin, Heidelberg, New York: Springer.

tekom (Hg.) 2014: Leitfaden Betriebsanleitungen. 4. Auflage. Stuttgart: tekom

**Comments:**

In the second half of the semester, the academic project directly follows on from module KMMB4330 Technical Documentation C and is usually carried out in groups of four. The challenge is to set an individual course within the narrow time frame and to meet high quality standards in all areas.

Module summary

# KMMB4350 Language and Design B

**Module coordinator:**       Prof. Dr. Petra Drewer, Prof. Anja Grunwald
**Credits (ECTS):**           6
**Semester:**                 3

**Pre-requisites with regard to content:**

Participants of course KMMB4351 Applied Linguistics 2 should have attended course KMMB4121 Applied Linguistic 1, since basic knowledge of the core areas of applied linguistics as well as theoretical and practical knowledge in the areas of word classes/word formation and syntax are required.

Participants of course KMMB4352 Typography should have attended course KMMB4131 Design Basics, since practical and theoretical knowledge in the field of human visual perception is required as a basis for the assessment of legibility and readability.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

In this module, students acquire basic knowledge in order to develop texts that are easy to understand from both a linguistic and visual perspective.

The students will

- be able to distinguish and differentiate between various word formation methods and evaluate them with regard to various criteria (e.g. productivity, comprehensibility, suitability in different contexts).
- be able decompose (also more complex) words into morphemes, make word-internal structures visible and understand them.
- know how to describe, distinguish and classify different semiotic models.
- be able to describe and compare different semantic approaches and methods.
- be able to recognize and describe semantic relations and to derive consequences for text production from this competence.
- have knowledge of the basic techniques of linguistic work and the ability to put this knowledge into practice.
- know the basic typographical terms and will be able to formulate and implement issues of professional typesetting correctly.
- be able to classify fonts according to classification systems and to use them in a meaningful and functionally appropriate way.

- be capable of visualizing linguistic structure by means of typographic parameters in order to support the pre-attentive perception of text in a way that increases understandability.
- be able to adequately represent different text types according to their function.

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

The knowledge and skills acquired in the course KMMB4351 Applied Linguistics 2 serve as a basis for in-depth considerations and applications in the module KMMB4440 Terminology Management. Especially the acquired knowledge of word semantics, morphology and word formation will be taken up again, applied and deepened thoroughly in the latter module. In addition, there are linkages with KMMB4330 Technical Documentation C and KMMB4340 Technical Documentation D and KMMB4360 Text Linguistics B. The knowledge and skills from the course KMMB4352 Typography are the basis for all modules in which texts are produced, e.g. KMMB4340 Technical Documentation D, KMMB4430 Media Production or KMMB4630 Visual Communication.

Course

# KMMB4351 Applied Linguistics 2

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Petra Drewer |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

This course deepens the knowledge in the core fields of applied linguistics, which were taught in the previous course KMMB4121 Applied Linguistics 1. The main focus is on the topics word formation/morphology, semantics and semiotics. In particular, knowledge and skills are conveyed on the following topics and issues: Morpheme types and analyses, symbol types and semiotic models, semantic models and methods, diachronic and synchronic aspects of semantics, semantic relations, semasiology vs. onomasiology. Students will apply and deepen their theoretical knowledge in practical exercises.

**Recommended reading:**

Bergmann, Rolf / Pauly, Peter / Stricker, Stefanie (2010): Einführung in die deutsche Sprachwissenschaft. 5. überarb. und erhebl. erw. Aufl. Heidelberg : Winter

Busch, Albert / Stenschke, Oliver (2018): Germanistische Linguistik: Eine Einführung. 4., akt. Aufl. Tübingen: Narr

**Comments:**

Course

# KMMB4352 Typography

| | |
|---|---|
| **Lecturer:** | Prof. Anja Grunwald |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

In this course, typographic basics are taught. Students learn the classification of fonts, the basic concepts of typesetting and thus also criteria of legibility and readability. Using various examples, they test the effect of typographical parameters in instructive and knowledge-transmitting texts in order to make complex content easier to understand and to support learning capacity and retentiveness.

**Recommended reading:**

Wegweiser Schrift: Was passt - was wirkt - was stört?, Hans-Peter Willberg, Hermann Schmidt Verlag 2017, ISBN 978-3874398893

Erste Hilfe Typografie, Hans-Peter Willberg, Friedrich Forssmann, Hermann Schmidt Verlag 1999, ISBN 978-3874394741

Schriften erkennen: Eine Typologie der Satzschriften für Studenten, Grafiker, Setzer, Kunsterzieher und alle PC-User, Daniel Sauthoff, Gilmar Wendt, Hans Peter Wilberg, Hermann Schmidt Verlag 2011, ISBN 978-3874393737

Lesetypografie, Friedrich Forssmann, Hans Peter Willberg, Herrmann Schmidt Verlag 2010, ISBN 978-3874398008

Detailtypografie, Friedrich Forssmann, Ralf de Jong, Hermann Schmidt Verlag 2004, ISBN 978-3874396424

Schrift wirkt! Einfache Tipps für den täglichen Umgang mit Schrift, Jim Williams, Gesine Hildebrandt, Hermann Schmidt Verlag 2013, ISBN 978-3874398367

**Comments:**

Module summary

# KMMB4360 Text Linguistics B

**Module coordinator:**      Prof. Dr. Michael Tewes

**Credits (ECTS):**          6

**Semester:**              3

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

Students should acquire an overview of the key areas of text linguistics by means of this lecture and specified reading. In particular, they will

- deepen their knowledge in text type linguistics regarding text sorts typically found in the field of scientific/technical communication, including technical documentation, by writing their own texts.
- recognize typical writing process models/phases of text production and their consequences for creating texts (in TD departments) and with regard to collaborative writing.
- understand how to classify typical text types in science and technology, to describe them using technical vocabulary and to demonstrate their macro and micro structures.
- write texts from the field of science and technology (including technical documentation) independently and/or in partner/group work for different target groups and media, taking into account common standardization methods.
- be able to analyze texts with regard to their function and target groups and to incorporate the conclusions for text production into the conception and results of their work.

**Assessment/Examination:**

Exercises

**Usability of the module:**

All modules with a linguistic focus.

# KMMB4361 Text Linguistics 2

**Lecturer:** Prof. Dr. Michael Tewes

**Contact hours per week:** 4

**Offered:** Annually

**Type / Mode:** Seminar/compulsory

**Language of instruction:** German

**Content:**

This lecture focuses on the systematic and – with regard to function, content and recipient – appropriate production of different types of texts typically found in scientific and technical communication. The students learn about different writing process models and their didactic implications and will critically reflect and test this knowledge in their own writing and writing in teams. In addition, the lecture deals with the importance of text function and target group analyses, with the classification and description of typical text types and their macro-structures in the above-mentioned fields as well as with the creation and use of style guides, especially in collaborative writing or for hypertexts. Furthermore, basic practical knowledge in language technologies used for text production is taught.

**Recommended reading:**

Antos, Gerd (2000). Phasen und Verfahren zur Erforschung der Textproduktion. In: Brinker, Klaus et al. (eds.). Text- und Gesprächslinguistik (= HSK 16.1), Berlin u.a.: 105–113

Ballstaedt, Steffen-Peter (ed., 1997). Wissensvermittlung. Gestaltung von Lernmaterial, Weinheim

Becker-Mrotzek, Michael (2006). Schreibkompetenz entwickeln und beurteilen, Berlin: 24–39

Brinker, Klaus (2001). Linguistische Textanalyse. Eine Einführung in Grundbegriffe und Methoden, Berlin

Brinker, Klaus et al. (eds., 2000). Text- und Gesprächslinguistik. Ein internationales Handbuch zeitgenössischer Forschung (= HSK 16.1), Berlin u.a.

Göpferich, Susanne (1998). Interkulturelles Technical Writing. Fachliches adressatengerecht vermitteln. Ein Lehr- und Arbeitsbuch, Tübingen

Göpferich, Susanne (2002). Textproduktion im Zeitalter der Globalisierung, Tübingen

Hayes, John R. (1996). A new framework for understanding cognition and affect in writing. In: Levy, M.C. et al. (eds.). The science of writing. Theories, methods, individual differences and applications, New Jersey: 1–27

Kruse, Otto et al. (eds., 2006). Prozessorientierte Schreibdidaktik, Bern u.a.

Lehrndorfer, Anne et al. (2001). Schreibprozess-Steuerung durch sprachliche Standardisierung in der technischen Dokumentation. In: Möhn, D. et al. (eds.). Mediensprache und Medienlinguistik (= Sprache in der Gesellschaft. Beiträge zur Sprachwissenschaft 26), Frankfurt a.M. u.a.: 145–166

Muthig, Jürgen & Schäflein-Armbruster, Robert (2008). Funktionsdesign – methodische Entwicklung von Standards. In: Muthig, Jürgen (ed.). Standardisierungsmethoden für die Technische Redaktion (= tekom-Hochschulschriften 16), Lübeck: 41- 73

**Comments:**

-

Module summary

# KMMB4410 User Assistance

**Module coordinator:** Prof. Sissi Closs

**Credits (ECTS):** 5

**Semester:** 4

**Pre-requisites with regard to content:**

Knowledge in HTML and CSS

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

In this module, students acquire knowledge of topic-based structuring techniques allowing them to create and apply professional digital ranges of information. In particular, students learn about the special features of User Assistance for software. One of the questions that occurs is: "How can we support users in special situations in the best way available?" User Assistance comprises texts in user interfaces, digital help, assistants, tool tips, videos, chatbots, tutorials and book-like content in form of PDFs.

The students will

- recognize the advantages of topic-based structures
- be able to present the typical characteristics of topic-based and digital information products
- know the differences between book-oriented and topic-based structures
- be able to assess digital ranges of information qualitatively
- be able to design topic-based class concepts® for exemplary content
- know different delivery platforms and authoring tools
- know how to create topic-based, digital ranges of information using an authoring tool
- know about the standards of software documentation

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

Basic knowledge for KMMB4610 Information Systems A, KMMB4720 Information Architecture

Course

## KMMB4411 User Assistance | Lecture

| | |
|---|---|
| **Lecturer:** | Prof. Sissi Closs |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

User Assistance is the collective term for any kind of information to support users, typically when using a product. Successful user assistance requires well structured, written and presented content. It requires a good understanding of user needs and sound technical knowledge to present content on different media. Central topics of this lecture are:  basic concepts for user assistance, topic-based structuring, class concept technique®, characteristic features of user assistance, delivery platforms, authoring tools, context-sensitive user assistance, web-based and mobile user assistance standards for software documentation.

**Recommended reading:**

Closs, Sissi: Single-Source-Publishing – Modularer Content für ePub & Co. ISBN: 978-3-86802-078-6

**Comments:**

-

Course

# KMMB4412 User Assistance | Exercise course

| | |
|---|---|
| **Lecturer:** | Prof. Sissi Closs |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

The theoretical basics learned in the lecture are implemented in example projects using common authoring tools (like RoboHelp, Flare).

**Recommended reading:**

See KMMB4411 User Assistance | Lecture

**Comments:**

-

Module summary

# KMMB4420 Information Management

**Module coordinator:** Prof. Dr. Wolfgang Ziegler

**Credits (ECTS):** 6

**Semester:** 4

**Pre-requisites with regard to content:**

Basic knowledge in structuring methods of technical communication, in the common DTP tools (Word, InDesign) and in data modelling, basics of programming and databases.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

In this module, the basics of management, publication and delivery technologies in technical communication are acquired.

The students will

- be able to compare and describe the different concepts of technical communication for the modularized creation of hardware and software products and apply them to practical examples.
- understand the importance of meta data for content or information and knowledge management.
- be able to transfer classification concepts to practical applications.
- know the concepts of the aggregation of modular content as well as of version, variant and language management as applied in Content Management Systems.
  be able to discuss and explain the options of cross media publishing, in particular the technological and methodological requirements of information modeling and of automated media generation.

**Assessment/Examination:**

Written exam, practical exercises

**Usability of the module:**

Basic knowledge for the project-oriented modules KMMB4610 Information Systems A and KMMB4710 Information Systems B

Course

# KMMB4421 Information Management 1

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Wolfgang Ziegler |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German, English, if necessary |

**Content:**

In this course, students learn about the methods of modularization and the reuse of modular content as well as the administration of content in technical communication. Version and variant management and the aggregation of contents into documents and publications are dealt with in depth. One focus is the conception and application of metadata (including PI Classification) for corresponding administrative and publication systems. Additionally, information models and models of information networking for the intelligent distribution of information (content delivery) are dealt with.

**Recommended reading:**

Rockle, Ann / Cooper, Charles (2012): Managing Enterprise Content – A Unified Content Strategy. Pearson Education

Drewer, Petra / Ziegler, Wolfgang (2014): Technische Dokumentation: Übersetzungsgerechte Texterstellung und Content-Management. 2. Aufl. Vogel Verlag 2014
ISBN 978-3834333483

**Comments:**

Course

# KMMB4422 Information Management 2

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Wolfgang Ziegler |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German; English, if necessary |

**Content:**

The students will use different systems to implement the topics of planning metadata-based information dealt with in the lecture and work on typical tasks of technical communication. The systems belong to the following fields, among others: Content Management, Content Delivery, Content Modeling (metadata systems, ontology systems), product information management, etc.

**Recommended reading:**

System and user documentation of the software applied

**Comments:**

Module summary

# KMMB4430 Media Production

| | |
|---|---|
| **Module coordinator:** | Prof. Anja Grunwald, Prof. Dr. Michael Tewes |
| **Credits (ECTS):** | 7 |
| **Semester:** | 4 |

**Pre-requisites with regard to content:**

Participants of course KMMB4431 should have basic knowledge of the common DTP tools (Photoshop, Illustrator, InDesign) and should have attended all previous courses in the field of design, as theoretical and practical knowledge of visual perception, representation techniques and typography is required.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

This module provides knowledge about the development and production of print media, supported by the basics in technology and media law as well as techniques of scientific work.

The students will

- be aware of different layout grids and know how to use them to develop text-type specific and target-oriented layouts.
- know how to design and create sophisticated print materials while taking into account standardization methods like sample pages, style sheets or libraries in layout programs such as InDesign.
- know the common printing techniques as well as the needs of the pre-print stage and be capable of creating data for high quality print products.
- acquire knowledge of basic principles regarding techniques of scientific work in all fields of technical and scientific communication and apply these specifically to their own projects after thorough analysis of the problem.
- be able to recognize and analyze legally relevant problems in the field of technology and media law, design their own media products accordingly and evaluate technical and media law issues with the help of relevant literature.

**Assessment/Examination:**

Student research project, written exam, exercise

**Usability of the module:**

This module is related to all modules of the study program

# KMMB4431 Media Production | Project

| | |
|---|---|
| **Lecturer:** | Prof. Anja Grunwald |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German |

**Content:**

This course teaches the basics of desktop publishing programs (e. g. Adobe InDesign) for creating sophistically designed and structured documents. By means of practical exercises, students learn to develop layout principles and design grids, taking into account different types of text and different concepts of text-image relationships. In addition, the course provides an overview of the production flows in desktop publishing and teaches the requirements for the engineering of high-quality artwork. This includes knowledge of font management and color management as well as knowledge of common industrial printing processes, finishing and further processing of printed products.

**Recommended reading:**

Layout-Basic: Die wichtigsten Prinzipien für die Verwendung von Rastern, Beth Tondreau, Stiebner 2009, ISBN 978-3830713753

Praxishandbuch Gestaltungsraster. Effizientes Arbeiten mit typografischen Rastern, Andreas und Regina Maxbauer, Verlag Hermann Schmidt 2002, ISBN 978-3874395717

Printproduktion well done!, Kaj Johansson, Peter Lundberg, Robert Ryberg, Hermann Schmidt Verlag 2008, ISBN 978-3874397315

Druckreif: Ein Begleiter durch Vorstufe, Papier, Druck, Veredelung und Verarbeitung, Annette Gevatter, Anette Siegle, avedition 2010 ISBN 978-3899861266

Communicating in Print, Jürg Trösch, Max Baltis, Jürg Neuenschwander, Werdverlag 2001, ISBN 978-3859322974

Druck und Veredelung, Gavin Ambrose, Paul Harris, Stiebner Verlag 2007, ISBN 978-3830713282

Das ABC der Farbe: Theorie und Praxis für Grafiker und Fotografen, Markus Wäger, Rheinwerk Design 2017, ISBN 978-3836245012

PDF in der Druckvorstufe. PDF-Dateien erstellen, prüfen, korrigieren, automatisieren und ausgeben, Hans-Peter Schneeberger, Galileo Press 2014, ISBN 978-3836217507

PDF/X und Colormanagement 2016, Christian Piskulla, Cleverprinting 2016
http://www.cleverprinting.de/pdfx-und-colormanagement-2016/

**Comments:**

Course

# KMMB4432 Technological and Media Law

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Michael Tewes |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

The students will

- know about the structure and tasks of the German legal system
- recognize the elements of so-called "liability-proof" documentation by identifying legal issues along the workflow of documentation engineering in order to classify them within the company structure
- know about European and national legislation relating to technical products, including software, and research and analyze these standards with a view to their application in the field of technical documentation
- be aware of the subject area "product liability", know and identify liability prerequisites and hazards according to the German Civil Code and the German Product Liability Act, apply their knowledge to selected cases and derive maxims for writing legally secure texts of technology-related products
- be aware of the importance and development of standards for Technical Documentation (pre-standards, DIN, EN and ISO standards) including the most important specialized standards such as equipment safety law, product safety law, machinery standards and know about the consequences for warnings and safety instructions
- know about the core components of internal and external Technical Documentation and can give concrete examples
- distinguish examples of differing regulations in non-EU countries (contract law, product liability law) from EU law and know how to apply this knowledge to cases from practice and case law
- be able to name the areas of media law and explain their main features
- have knowledge in relevant areas of copyright law and data protection in the context of media, including law concerning multimedia applications

**Recommended reading:**

StGB, BGB as well as national/EU/ISO standards and directives/guidelines from all relevant areas of technology-related products

Fechner, Frank (2014): Medienrecht, Tübingen

Own lecture notes, as there is no sufficiently comprehensive and concise literature on technology law that is suitable for target groups and this course.

**Comments:**

Course

# KMMB4433 Introduction to Scholarly Methods

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Michael Tewes |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

This course introduces students to the various techniques of writing scientific papers in all fields of Technical and Scientific Communication.

The students will

- be aware of the process of finding topics for scientific papers
- know about existing legal formalities with regard to academic and exam achievements, in particular in the context of the Bachelor Thesis (examination regulations, search for examiners, requirements for exam registration)
- learn about the electronically supported literature search and administration and apply this knowledge actively to selected subject areas within the framework of a literature search
- learn the principles of the formal structure of scientific papers and use this knowledge for their own, small project and create a structure
- know how to use quotes and set up a bibliography correctly in the context of scientific papers (citation techniques, footnotes, bibliography)
- be able to analyze selected texts of authors and identify (different) categories of plagiarism/ plagiarism types and have learned how to avoid them in their own texts
- know about the legal consequences of plagiarism
- know and respect linguistic formalities when writing scientific papers (spelling, grammar, punctuation) and try out ways of correcting spelling and grammar
- understand salient aspects of time management in scientific research
- be able to assess opportunities and risks of empiric methods in scientific work and apply them with data from the fields of science and technology by means of data visualization and descriptive statistics
- be able to set up questionnaires according to the principles of empiric social sciences and know how to evaluate them professionally
- perform creative writing exercises and evaluate the resulting texts in partner and group work
- practice how to deal with writing crises during the writing of academic papers

**Recommended reading:**

PDFs downloadable from lecturer directory:

- Study and examination regulations BA KMM in the current version
- Drewer, Petra und Tewes, Michael (2019): Zitier- und Bibliographierregeln für den Studiengang KMM

**Guides to scientific work and writing:**

Esselborn-Krumbiegel, Helga (2017). Von der Idee zum Text. Eine Anleitung zum wissenschaftlichen Schreiben, Paderborn

Franck, Norbert & Stary, Joachim (2011). Die Technik wissenschaftlichen Arbeitens, Paderborn

Herrmann, Friederike (Hrsg., 2006). Unter Druck. Die journalistische Textwerkstatt. Erfahrungen, Analysen, Übungen, Wiesbaden

Kornmeier, Martin (2011). Wissenschaftlich Schreiben leicht gemacht. Für Bachelor, Master und Dissertation, Bern

**Comments:**

-

Module summary

# KMMB4440 Terminology Management

**Module coordinator:**      Prof. Dr. Petra Drewer

**Credits (ECTS):**      6

**Semester:**      4

**Pre-requisites with regard to content:**

Students should have a good knowledge of morphology, word formation and semantics, as acquired in the course KMMB4351 Applied Linguistics 2. In addition, it is helpful to have basic knowledge of databases (as acquired in the module KMMB4210 IT Basics B).

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

Professional terminology work forms the basis for consistent and targeted use of terms for clearly defined concepts. These standardization measures not only improve the quality of texts or documents in terms of comprehensibility and translatability but also support companies when defining a corporate language as an essential part of their corporate identity.

At the same time, terminological concept systems and classified terminology form the basis of knowledge management systems, artificial intelligence applications or assistance systems. Such applications use knowledge representations and knowledge systems which are made available by terminology management.

The students will

- be able to explain and apply terminological knowledge and methods
- know how to plan and organize terminology management projects
- be capable of identifying and creating adequate terminology management processes for different scenarios
- be able to distinguish between different tools in terminology (i.e. terminology extraction tools, terminology management systems, term checkers) and recognize meaningful areas of application and know how to define them
- be able to choose and implement suitable terminology management systems for different application purposes. In particular, they will be capable of choosing the right data categories and designing the corresponding entry structure
- know how to evaluate and pick terms according to different criteria (derivability, transparency, pronounceability, etc.)

- be able to create different kinds of concept systems (hierarchical, non-hierarchical, mixed) and use them in terminology projects and process these data for other knowledge management applications (in form of ontologies, for instance)

**Assessment/Examination:**

Written exam, student research project

**Usability of the module:**

In this module the knowledge and competences acquired in KMMB4351 (Applied Linguistics 2) are applied and deepened.

Students will be able to apply some of the contents and knowledge acquired in this module throughout their further studies, in particular in module KMMB4650 Language Management, which deals with language management in a broader sense. Knowledge in terminology science and terminological methods is a key component there.

This module only exists in the KMM course of study, so far. This module is also suitable for students majoring in engineering or in natural sciences studies if they are interested in broadening their knowledge in the terminological/specialist language area. In company practice, a close collaboration between technical and linguistic experts exists and therefore, an interdisciplinary collaboration is also very desirable during teaching.

Course

# KMMB4441 Terminology Science

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Petra Drewer |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

The lecture Terminology Science provides the theoretical foundation for the academic project done in the same semester. The lecture deals with the following subjects:

- defining and distinguishing languages for special purposes and specialized communication
- concepts, methods and principles of terminology science
- Semiotic basis, e. g. triangle of reference, including the theory of reference, referent and symbol
- Forms and methods of terminology work
- planning, organization and implementation of terminology processes in practice
- quality management in the terminological sector
- concept characteristics, concept relations
- knowledge structuring and knowledge representation: concept systems, ontologies, taxonomies (knowledge management)
- in-depth knowledge regarding terminology management systems and other specialized terminology applications like terminology extraction tools, terminology checkers
- national and international standards on terminology principles (DIN, ISO) as well as guidelines from the field of terminology science and work
- terminology/terminology work in technical standardization and language policy

**Recommended reading:**

Arntz, Reiner / Picht, Heribert / Schmitz, Klaus-Dirk (2014): Einführung in die Terminologiearbeit. 7. vollständig überarb. und akt. Auflage. Hildesheim: Olms

DIN 2330 (2013): Begriffe und Benennungen – Allgemeine Grundsätze. Berlin: Beuth

DIN 2331 (2019): Begriffssysteme und ihre Darstellung. Berlin: Beuth

DIN 2342 (2011): Begriffe der Terminologielehre. Berlin: Beuth

Drewer, Petra / Mayer, Felix / Schmitz, Klaus-Dirk (Hrsg.) (2014): Rechte, Rendite, Ressourcen: Wirtschaftliche Aspekte des Terminologiemanagements. Akten des DTT-Symposions 2014. Köln: Deutscher Terminologie-Tag / SDK Systemdruck

Drewer, Petra / Mayer, Felix / Schmitz, Klaus-Dirk (Hrsg.) (2016): Terminologie und Kultur. Akten des DTT-Symposions 2016. Köln: Deutscher Terminologie-Tag / SDK Systemdruck

Drewer, Petra / Mayer, Felix / Schmitz, Klaus-Dirk (Hrsg.) (2018): Terminologie und Text(e). Akten des DTT-Symposions 2018. Köln: Deutscher Terminologie-Tag / SDK Systemdruck

Drewer, Petra / Schmitz, Klaus-Dirk (2017): Terminologiemanagement : Grundlagen – Methoden – Werkzeuge. Berlin/Heidelberg: Springer Vieweg (Kommunikation und Medienmanagement 1)

Hennig, Jörg / Tjarks-Sobhani, Marita (Hrsg.) (2016): Terminologiearbeit für Technische Dokumentation. 2., vollständig überarb. Auflage. Lübeck: Schmidt-Römhild (Schriften zur Technischen Kommunikation 21)

Mayer, Felix / Reineke, Detlef / Schmitz, Klaus-Dirk (Hrsg.) (2010): Best Practices in der Terminologiearbeit. Akten des 12. DTT-Symposions in Heidelberg. Köln : SDK

**Comments:**

Course

# KMMB4442 Terminology Management

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Petra Drewer |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German |

**Content:**

This practical project focuses on compiling, recording and managing terminological data. Multilingual terminology management and the management of terminological data and processes in companies (creating and standardizing terminology and achieving terminological consistency) are especially important features. Not only term-oriented questions and solutions are examined (linguistic standardization, establishment of a corporate language, etc.), but above all concept-oriented phenomena and possible applications (knowledge management, knowledge engineering, ontology engineering, etc.).

The processes of installing and maintaining terminology management systems play a key role in terminology management and are considered from a conceptual and a practical point of view (selecting appropriate data categories, creating databases and entry structures, managing databases, import and export of data, making content of termbases available in other applications, working with one's own as well as with unknown terminology data).

**Recommended reading:**

Drewer, Petra / Pulitano, Donatella (Hrsg.) (2019) – Terminologie: Epochen, Schwerpunkte, Umsetzungen. Zum 25-jährigen Bestehen des Rats für Deutschsprachige Terminologie. Heidelberg: Springer (Kommunikation und Medienmanagement 3)

DTT – Deutscher Terminologie-Tag (2014) (Hrsg.): Terminologiearbeit – Best Practices 2.0. 2. überarb. und ergänzte Aufl. Köln: Deutscher Terminologie-Tag e.V. Koordination und Redaktion: Petra Drewer, Donatella Pulitano, Klaus-Dirk Schmitz

KÜDES – Konferenz der Übersetzungsdienste europäischer Staaten (2018): Empfehlungen für die Terminologiearbeit. 3. vollst. überarb. u. erw. Aufl. <https://www.bk.admin.ch/bk/de/home/dokumentation/sprachen/publikationen-zur-terminologie.html>

**Comments:**

Module summary

# KMMB4450 Engineering C

**Module coordinator:**      Prof. Dr.-Ing. Ulrich Schönauer

**Credits (ECTS):**      6

**Semester:**      4

**Pre-requisites with regard to content:**

Basic knowledge of physics, chemistry and materials science/testing as well as manufacturing and electrical engineering

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- acquire basic knowledge of the most important concepts and physical principles of automotive and mechanical engineering
- test the acquired knowledge by working on exercises and interpreting technical diagrams
- acquire application knowledge, understand the physical principles and apply the corresponding calculation formulas
- gain an overview of the most important technologies in the field of mechanical and automotive engineering
- recognize the interrelationships and interfaces of technologies and be able to identify the individual components within a vehicle or machine system (e.g. power plant or car drive train)

**Assessment/Examination:**

Practical Exercises, written exam

**Usability of the module:**

## KMMB4451 Engineering 5

| | |
|---|---|
| **Lecturer:** | Prof. Dr.-Ing. Ulrich Schönauer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

Students are introduced to types of vehicles and their differences and specific purposes. They will acquire knowledge of the basics of automotive engineering and the corresponding simple calculation formulas. They will learn about the internal combustion motor including buildup, components, emissions, fuel injection and electronic components. Basic knowledge of mechanic and automatic transmission (buildup, shifting) will be taught. Moreover, students will learn about the drive train with axle design and mode of operation as well as about the different drive configurations in this course.

**Recommended reading:**

Appel, Wolfgang / Hoepke, Erich / Breuer, Stefan / et. al. (2012): Nutzfahrzeugtechnik: Grundlagen, Systeme, Komponenten (ATZ/MTZ-Fachbuch), 7. Aufl.; Vieweg+Teubner Verlag

Haken, Karl-Ludwig (2015): Grundlagen der Kraftfahrzeugtechnik, 4. Aufl.; Hanser Verlag

**Comments:**

Course

# KMMB4452 Engineering 6

**Lecturer:** Prof. Dr.-Ing. Ulrich Schönauer

**Contact hours per week:** 2

**Offered:** Annually

**Type / Mode:** Lecture/compulsory

**Language of instruction:** German

**Content:**

This lecture deals with the basic concepts and components of machines as well as physical and technical principles of thermodynamics, fluidics, steam generation in boilers, steam, gas, and water turbines, compressors, pumps, heat engines and machine tools. In addition, students will learn about the basic concepts of energy production from hydropower, wind power, nuclear, fossil and solar energy.

**Recommended reading:**

Decker, Karl-Heinz (2018): Maschinenelemente: Funktion, Gestaltung und Berechnung; Hanser-Verlag

Dubbel H. / Feldhusen J. / Grote K.-H. / (2018): Dubbel; Taschenbuch für den Maschinenbau; Springer-Verlag

Fehmel, Gerd / Behrends, Peter (2004): Elektrische Maschinen. Vogel-Verlag

Meister, Heinz (2012): Elektronik 1 − Elektrotechnische Grundlagen. Vogel-Verlag

Niemann, G. / Winter H. / Höhn B.-R. (2005): Maschinenelemente: Band 1: Konstruktion und Berechnung von Verbindungen, Lagern, Wellen. Springer-Verlag

Quaschning, Volker (2015): Regenerative Energiesysteme. Hanser-Verlag

Strauß, Karl (2016): Kraftwerkstechnik. Springer-Verlag

Wegner, Norbert / Feldmann, Tanja / Sommer, Daniela (1997): Kraft- und Arbeitsmaschinen: Die Technik und ihre sprachliche Darstellung. Olms-Verlag

**Comments:**

Module summary

# KMMB45P0 Internship Semester

**Module coordinator:**      Prof. Jürgen Muthig

**Credits (ECTS):**          30

**Semester:**              5

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

Students are not permitted to attend the internship semester unless they have successfully completed all courses of the basic studies.

**Learning outcomes:**

The students will

- know about the requirements of form and content for the internship semester and be aware of the demands that companies in different industries place on them and be able to correlate these demands with the skills acquired during the first four semesters of their studies
- know the formal and substantive requirements for a successful application for the internship semester
- be able to apply the knowledge and skills acquired during their studies independently and under guidance in one of the various fields of activity for KMM students.

**Assessment/Examination:**

Exercise, practical work, student research project, presentation

**Usability of the module:**

-

Course

# KMMB45P1 Preparation for Internship Semester

| | |
|---|---|
| **Lecturer:** | Prof. Jürgen Muthig |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

- Students will become acquainted with the formal and organizational requirements for the internship semester.
- They will analyze the occupational fields in which the skills acquired in the study course KMM are required.
- There will be guest lectures and discussions with people working in these occupational fields.
- Students will prepare to visit a symposium.
- One or two-day visit of such a symposium (currently this is the Conference for Technical Communication and Information Management including lectures and the international trade fair).
- Students are asked to write a journalistic article about this experience.
- They will learn about the requirements for applications for the internship semester.

**Recommended reading:**

http://www.tekom.de/beruf-bildung/arbeitsmarkt.html

http://www.tekom.de/beruf-bildung/kompetenzrahmen-fuer-die-technische-kommunikation.html

**Comments:**

In addition, students are recommended to attend some sessions of the course Follow-up of Internship Semester in order to profit from the experiences of the students having already performed the internship semester.

Course

# KMMB45P2 Internship Semester

**Lecturer:** Prof. Jürgen Muthig

**Contact hours per week:** 6 months (at least 95 days of attendance)

**Offered:** Annually

**Type / Mode:** practical work

**Language of instruction:** German

**Content:**

- Six months of practical full-time work in one of the professional fields of communication and media management

**Recommended reading:**

http://www.tekom.de/beruf-bildung/arbeitsmarkt.html

http://www.tekom.de/beruf-bildung/kompetenzrahmen-fuer-die-technische-kommunikation.html

**Comments:**

The requirements for the internship semester are defined in more detail in the internship semester guidelines (see website of the KMM program) and in the study and examination regulations (SPO) (Part A and B).

Course

# KMMB45P3 Follow-up of Internship Semester

| | |
|---|---|
| **Lecturer:** | Prof. Jürgen Muthig |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

- Presentation of the experiences from the internship semester.
- Discussion of the knowledge gained.
- Interrelationship with past and future courses.

**Recommended reading:**

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**Comments:**

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Module summary

# KMMB4610 Information Systems A

**Module coordinator:**     Prof. Dr. Wolfgang Ziegler

**Credits (ECTS):**     6

**Semester:**     6

**Pre-requisites with regard to content:**

KMMB4420 Information Management

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

In this module, students will acquire a profound knowledge of process analysis and process optimization and the selection of information systems - usually using content management systems as an example.

The students will

- be able to analyze and define content management processes and know how to use this information to derive the requirements for information systems
- know how to implement methods of system concept and of content engineering
- know how to apply methods to evaluate software systems
- be able to evaluate the functioning of specific systems for the creation and delivery of modular and reusable information

**Assessment/Examination:**

Exercise, student research project

**Usability of the module:**

This module is related to other modules within the same study program, in particular modules and courses on terminology, translation management, project management, layout design and automated publishing processes.

Course

# KMMB4611 Information Systems 1, Lecture

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Wolfgang Ziegler |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German, English, if necessary |

**Content:**

In this course, students learn about different methods of process analysis and process optimization on the basis of creation and publication processes of technical communication. The students are introduced to the functions of content management or related systems for the creation and delivery of information; in addition, they learn the methodology of the selection of software systems, including the creation of requirement and, in part, functional specifications.

**Recommended reading:**

Straub D., Ziegler W. „Effizientes Informationsmanagement durch spezielle Content-Management-Systeme." tcworld Stuttgart (current edition)

**Comments:**

-

Course

# KMMB4612 Information Systems 1, Project

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Wolfgang Ziegler |
| **Contact hours per week:** | 3 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German, English, if necessary |

**Content:**

Within the framework of a project, students learn how to handle and design information systems for technical communication. They use these systems for the practical implementation of real content. The students determine the requirements appropriate IT Systems have to meet with regard to the modularization of content, and the creation, management and delivery of content in multiple media. A system will be evaluated as in practice by means of writing requirement and, if necessary, functional specifications.

**Recommended reading:**

Straub D., Ziegler W. „Effizientes Informationsmanagement durch spezielle Content-Management-Systeme." tcworld Stuttgart (current edition)

Drewer P., Ziegler W., „Technische Dokumentation", 2. Auflage Vogel Verlag 2014, ISBN 978-3834333483

**Comments:**

Module summary

# KMMB4620 Engineering D

| | |
|---|---|
| **Module coordinator:** | Prof. Dr.-Ing. Ulrich Schönauer, Prof. Martin Schober |
| **Credits (ECTS):** | 6 |
| **Semester:** | 6 |

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- learn basic engineering knowledge from the fields of development and construction
- be able to use the knowledge acquired of 3D animation systems and the use of CAD data in knowledge transfer for technical documentation and e-learning
- know how to create animations, movies and graphics with given 3D models and improve these means didactically (interactively), using programming skills
- realize the interrelationship and interfaces of 3D and 2D technologies and know how to use them to create new media like movies, vector graphics and pixel images
- acquire knowledge of the stylistic elements of technical didactics and are able to apply various didactic methods in the creation of e.g. technical courses or documentation tasks

**Assessment/Examination:**

Practical Exercises, written exam

**Usability of the module:**

-

# KMMB4621 3D Technologies

| | |
|---|---|
| **Lecturer:** | Prof. Martin Schober |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

This course provides basic knowledge in creating and reading technical 3D models as well as 3D CAD system knowledge. By means of exercises, the students learn to work with 3D CAD animation programs. This includes the creation of simple CAD models, animations, animated movies and illustrations. Students learn how to process a 3D model for the creation of images, vector graphics, movies and animated 3D models which can then be used in print or digital documents. The different possibilities of further use of 3D CAD data and their formats in the areas of training, documentation and marketing are explained and practiced on exercises.

**Recommended reading:**

Anyuru, Andreas (2012): Professional WebGL Programming – Developing 3D Graphics for the Web. Chichester : John Wiley & Sons, Ltd.

Ihde H., Blender – Ihr Einstieg in die professionelle 3D-Grafik und Animation, Addison-Wesley Verlag

Kloss J., X3D: Programmierung interaktiver 3D-Anwendungen für das Internet, Addison-Wesley Verlag

CADMAI SOFTWARE GMBH (2019):  WebGL-Publisher Online Hilfe.

CADMAI SOFTWARE GMBH (n.d.): <http://www.webgl-publisher.com/TechInfoDe.html> [Status: n.s. Access: 3-22-2019, 12:45 CEST]

KHRONOS GROUP (n.d.): <http://www.khronos.org/webgl/> [Status: n.s. Access: 3-22-2019, 1:30 PM CEST]

O.A. (2011): <http://www.khronos.org/webgl/wiki/WebGL_and_OpenGL> [Status: 4-10-2011. Access: 12-20-2013, 9:00 am CEST]

KHRONOS GROUP (n.d.): <https://www.khronos.org/gltf/> [Status: n.s. Access: 3-22-2019, 1:30 PM CEST]

Zins, Philipp (2012): „Einstieg in WebGL mit three.js". <www.senaeh.de/einstieg-in-webgl-mit-three-js/> [Status: March 2019. Access: 3-22-2019, 1:30 PM CEST].

**Comments:**

Course

# KMMB4622 Engineering 7

| | |
|---|---|
| **Lecturer:** | Prof. Dr.-Ing. Ulrich Schönauer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

The students will

- learn about stylistic elements of technology didactics, such as experiment, design task, production task, maintenance/repair task, recycling task, technical analysis and technology study.
- learn to combine different didactic methods to a combination of methods in order to realize for example technical courses, experiments or documentation tasks.
- become acquainted with core components of technical didactics and documentation and will be able to design examples from the fields of
  - work and production
  - transport and traffic
  - supply and disposal
  - information and communication

**Recommended reading:**

Zinn, Bernd et. al. (2018): Technikdidaktik: Eine interdisziplinäre Bestandsaufnahme, Franz Steiner Verlag

Tenberg, Ralf et. al. (2018): Didaktik technischer Berufe – Theorie & Grundlagen; Franz Steiner Verlag

Bonz, Bernhard; Ott, Bernd (2003): Allgemeine Technikdidaktik –Theorieansätze und Praxisbezüge. Schneider Verlag

**Comments:**

Module summary

# KMMB4630 Visual Communication

| | |
|---|---|
| **Module coordinator:** | Prof. Anja Grunwald |
| **Credits (ECTS):** | 6 |
| **Semester:** | 6 |

**Pre-requisites with regard to content:**

Participants of course KMMB4631 Visual Communication, Projects, should have basic knowledge of the common DTP tools (Photoshop, Illustrator, InDesign) and should have attended all courses in the field of design, since knowledge in the core areas of visual communication as well as theoretical and practical knowledge of visual perception, representation techniques, typography and layout are required.

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

Students apply the skills acquired in the previous design courses in a complex project in which they familiarize themselves with the content of a topic and design and produce various analogue and digital media for knowledge transfer.

The students will

- be able to differentiate and analyze the challenges of visual communication and develop target group-oriented design concepts
- be able to coordinate visual parameters and combine them into an overall concept
- take into account comprehensibility and cultural viewing habits as well as emotions and memorability during the design process
- choose the appropriate techniques and tools of visual communication, apply them according to the specific task and know how to produce printed as well as digital media in a professional way
- organize work processes in groups and are able to solve problems
- be able to describe, reflect, argue and present their projects in a differentiated way using appropriate media

**Assessment/Examination:**

Exercises, student research project

**Usability of the module:**

The module Visual Communication forms the basis for all design issues arising in the following modules.

## KMMB4631 Visual Communication | Project

| | |
|---|---|
| **Lecturer:** | Prof. Anja Grunwald |
| **Contact hours per week:** | 4 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German |

**Content:**

The students work in groups on demanding information-providing projects that require all of their design competencies acquired in previous courses.

On the basis of analyses, students will learn to define visual parameters in the sense of a corporate design and derive a comprehensive, creative overall concept. This concept is used to produce various analogue and digital media, such as brochures, flyers, posters, business papers, websites, apps, etc.

**Recommended reading:**

Kompendium der Mediengestaltung Digital und Print, Joachim Böhringer, Peter Bühler, Patrick Schlaich, Springer Verlag, X Media Press, 2011, ISBN 978-3642206542

Grafik und Gestaltung. Das umfassende Handbuch, Markus Wäger, Galileo Design, 2010, ISBN 978-3836212069

Grundkurs Grafik und Gestaltung, Claudia Runk, Galileo Design, 2010, ISBN 978-3836214377

Keine Angst vor Weißraum!: Ein Crashkurs in Print- und Webdesign, Kim Golombisky und Rebecca Hagen, Dpunkt Verlag, 2011, ISBN 978-3898647144

Corporate Design und Corporate Identity: Neues Kompendium, Petra Kiedaisch, Matthias Beyrow, Norbert W. Daldrop, Av Edition 2007, ISBN  978-3899860931

Farbe, Gavin Ambrose, Paul Harris, Stiebner Verlag 2006, ISBN 3-8307-1312-6

Bild und Grafik, Gavin Ambrose, Paul Harris, Stiebner Verlag 2006, ISBN 3-8307-1311-8

Designraster, Gavin Ambrose, Paul Harris, Stiebner Verlag 2008, ISBN 978-3830713579

Formate, Gavin Ambrose, Paul Harris, Stiebner Verlag 2005, ISBN 3-8307-1299-5

Layout Gavin Ambrose, Paul Harris, Stiebner Verlag 2005, ISBN 3-8307-1304-5

Experimentelle Formate 1, Roger Fawcett-Tang, Chris Foges, John O`Reily, Stiebner Verlag 2002, ISBN 3-8307-1353-3

Kribbeln im Kopf, Mario Pricken, Hermann Schmidt Verlag 2010, ISBN 978-3874397971

**Comments:**

-

Module summary

# KMMB4640 Intercultural Communication

**Module coordinator:**     Prof. Dr. Michael Tewes

**Credits (ECTS):**     6

**Semester:**     6

**Pre-requisites with regard to content:**

Professional English B2 (IFS)

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- be aware of the characteristics and distinguishing criteria of text types typical for Technical Documentation and know how to implement them in oral and written communication practically and systematically
- be able to write linguistically correct texts using an appropriate style and reader-centered forms of technical communication elements
- know how to handle different written texts individually and in teams and evaluate them according to technical language
- hold presentations in English

At the end of these professionally-oriented courses at C1-level of the Common European Framework of Reference (GER), the students should

- have broadened their implicit and explicit understanding and be able to hold detailed presentations on complex and abstract subject matters, especially in business contexts
- understand a variety of detailed and complex written business texts and be able to express their opinion on complex subject matters fluently and spontaneously communicating with the use of a great variety of vocabulary, using a rich syntax and different conjunctional clauses.
- convincingly express their opinion on subject matters from both his/her own and other disciplines and be able to produce long and complex written texts and business correspondence with a good structure and cohesion
- know how to build coherent and organizational sets of phrases and dispose of expanded vocabulary with simple and complex grammar structures, in order to apply them adequately in business contexts

**Assessment/Examination:**

Written exam, student research project, exercises

**Usability of the module:**

All modules with focus on communication and/or the English language.

Course

# KMMB4641 Intercultural Communication and Linguistics | Lecture

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Michael Tewes |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Lecture/compulsory |
| **Language of instruction:** | German |

**Content:**

The lecture deals with intra- and intercultural communication and communication processes with regard to psychology, social sciences as well as linguistics using the respective methods and terms. The students get to know and evaluate the most important features of verbal and non-verbal communication as well as their representation in communication models. They learn to apply them by means of exercises. A main issue of the course is reflecting on their own communicative and meta-communicative acts as well as on the conditions and frames for communication in the context of and between different cultures within and outside of Technical Documentation including sensitization for cultural empathy.

**Recommended reading:**

Dilthey, Wilhelm (1883 and all subsequent editions): Einleitung in die Geisteswissenschaften. Versuch einer Grundlegung für das Studium der Gesellschaft und der Geschichte, Leipzig

Dilthey, Wilhelm (1900 and all subsequent editions): Die Entstehung der Hermeneutik, Leipzig

Gadamer, Hans-Georg (2010): Wahrheit und Methode. Grundzüge einer philosophischen Hermeneutik, 2 Bde., Tübingen.

Habermas, Jürgen (1981): Theorie des kommunikativen Handelns, 2 Bde., Frankfurt a. M.

Heringer, Hans Jürgen (2004 and all subsequent editions): Interkulturelle Kommunikation. Grundlagen und Konzepte, Tübingen u. a.

Holliday, Adrian et al. (2010): Intercultural Communication. An advanced resource book for students, London u. a.

**Comments:**

-

Course

# KMMB4642  Intercultural Communication and Linguistics | Exercise course

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Michael Tewes |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | German |

**Content:**

The project deepens the theoretical knowledge acquired in the course KMMB4641 Intercultural Communication and Linguistics through a concrete project applying a specific question to a selected political, geographical or cultural area.

**Recommended reading:**

Heringer, Hans Jürgen (2004 and all subsequent editions): Interkulturelle Kommunikation. Grundlagen und Konzepte, Tübingen u. a.

Holliday, Adrian et al. (2010): Intercultural Communication. An advanced resource book for students, London u. a.

Further literature in the seminar, depending on the question and the cultural area.

**Comments:**

-

Course

# KMMB4643 Business English

| | |
|---|---|
| **Lecturer:** | NN (→ IFS) |
| **Contact hours per week:** | 2 |
| **Offered:** | every semester |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | English |

**Content:**

With the support of cooperative and collaborative learning methods, students simulate a business interaction in teams. Throughout a semester, teams design and develop a systematic business concept. Polite and discreet language knowledge is practiced by means of meetings, discussions and debates simulating future working surroundings. Moreover, students participate in a simulated trade fair discussing with customers and business partners. Students also have to present their business concepts with the aim of convincing investors of the profitability of their business concept in order to achieve its financing. A polite business language is practiced in oral and written communication. Written communication is learnt by means of letters, e-mails, reports and offers. Each step of the simulation will be accompanied by relevant reading and listening comprehension (including audio and video activities) as well as discussions in pairs, groups and as plenum for every business topic. Topics include basic economic knowledge, corporate structure, distribution, marketing and advertisement, meetings and negotiations, recruiting and financing. Spoken and written text types may include: lectures, presentations, authentic radio broadcast and interviews as well as news and business-related articles from professional journals or product brochures.

**Recommended reading:**

Course book or lecture notes depending on the professor's recommendation

**Comments:**

This course is based on a learning-centered and interactive learning method.

Module summary

# KMMB4650 Language Management

**Module coordinator:**     Prof. Dr. Petra Drewer

**Credits (ECTS):**         6

**Semester:**               6

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

-

**Learning outcomes:**

The students will

- be able to set up and coordinate text production and translation workflows with regard to multilingual corporate communication
- be able to evaluate and decide which GILT software products (translation memory systems, machine translation systems, Controlled Language Checker and so on) should be applied depending on certain scenarios and what kind of environment has to be created
- be capable of writing well translatable source texts (helping human translators to achieve a good translation quality and also favoring the use of translation software) and evaluating existing texts with regard to their translatability
- be aware of and sensitive to cultural ties and typical difficulties in the field of intercultural cooperation
- be able to distinguish between interdisciplinary and intradisciplinary communication, recognize transfer issues and derive strategies for popular scientific communication, for instance
- be able to apply linguistic and didactic strategies, especially in interdisciplinary "expert-layperson-communication" for processing and conveying specialized knowledge
- be able to classify "creative" text types and produce them themselves – on the one hand in the field of corporate language management, especially in marketing/advertising, and public relations, and on the other hand in the field of mass media (especially print editors)

Depending on the focus of the respective semester the competences are taught in varying depth and composition.

**Assessment/Examination:**

Written exam, student research project

**Usability of the module:**

Competences and knowledge acquired in module KMMB4440 Terminology Management serve as a foundation for this module. This knowledge is applied and the point of view is broadened from word level to phrase, text and process level. The focus is on holistic strategies for the internationalization and localization of texts the students already know from a terminological perspective from the module KMMB4440 Terminology Management.

# KMMB4651 Language Management | Lecture

**Lecturer:** Prof. Dr. Petra Drewer

**Contact hours per week:** 2

**Offered:** Annually

**Type / Mode:** Lecture/compulsory

**Language of instruction:** German

**Content:**

Language management in companies comprises various aspects. In each semester the lecture focuses on one or two key aspects. In general, the lecture deals with the following subjects (on their own or in combination, each with a different depth):

- Translation management:
  Authors of professionally produced and professionally used texts must not only be able to present facts in a way that is appropriate to the purpose and target group, but they must also be able to foresee and take into account linguistic and cultural barriers. Since they frequently write texts to be translated in the next step, they should have profound knowledge about translation theories and translation processes. Besides transferring knowledge on the translatability of texts and on problems and solution strategies in the GILT area (globalization, internationalization, localization, translation) tools such as Controlled Language Checkers, Translation Memory Systems and Machine Translation Systems are also discussed and analyzed with all their possibilities and limitations.
- expert-layperson-communication and popular scientific communication:
  Another side of language management in companies is writing entertaining, persuasive or advertising texts. Especially important in this context are the areas of popular scientific communication, didactic and linguistic aspects of knowledge processing, linguistic marketing issues and other areas of corporate communication (focus on advertising and/or creative texts).

**Recommended reading:**

Drewer, Petra / Ziegler, Wolfgang (2014): Technische Dokumentation: Eine Einführung in die übersetzungsgerechte Texterstellung und in das Content-Management. 2. überarbeitete und aktualisierte Auflage. Würzburg : Vogel

Göpferich, Susanne (1998): Interkulturelles Technical Writing: Fachliches adressatengerecht vermitteln. Ein Lehr- und Arbeitsbuch. Tübingen : Narr (Forum für Fachsprachen-Forschung 40)

Hennig, Jörg / Tjarks-Sobhani, Marita (Hrsg.) (2002): Lokalisierung von Technischer Dokumentation. Lübeck : Schmidt-Römhild (Schriften zur Technischen Kommunikation 6)

Niederhauser, Jürg (1999): Wissenschaftssprache und populärwissenschaftliche Vermittlung. Tübingen : Narr (Forum für Fachsprachen-Forschung 53)

Schmitt, Peter A. (2016): Handbuch Technisches Übersetzen. 2. akt. Aufl. Berlin: BDÜ

**Comments:**

Course

# KMMB4652 Language Management | Project

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Petra Drewer |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German |

**Content:**

The Language Management project ties in with the theoretical contents presented in the lecture. By means of academic projects, the students have to find answers to the following questions: Which requirements do texts have to meet to be both comprehensible and suitable for translation? Which tools can be used to help text producers meet these demands (i.e. Authoring Memory Systems to support and implement re-use, Controlled Language Checkers to ensure language quality and consistency of the texts)? To what extent do translation tools affect the production of the source texts? What is the role of linguistic standardization/consistency and controlled languages?

The project regarding expert-layperson communication / popular scientific communication also ties in with the theoretical contents presented in the corresponding lecture. Working with/between inter- and intradisciplinary communication and transferring specialized knowledge from experts to laypersons is trained in different projects. Of particular interest are texts, text types and forms of presentation that convey knowledge on the one hand and "market" it on the other.

**Recommended reading:**

Recommended reading for the lecture

**Comments:**

Module summary

# KMMB4710 Information Systems B

**Module coordinator:**    Prof. Dr. Wolfgang Ziegler
**Credits (ECTS):**        6
**Semester:**              7

**Pre-requisites with regard to content:**

KMMB4420 Information Management, KMMB4610 Information Systems A

**Pre-requisites pursuant to the study and examination regulations (SPO):**
-

**Learning outcomes:**

In this module, students will acquire an understanding of the methods and technologies for the automated processing and output of XML and other structured data.

The students will

- know how to classify and evaluate different XML-based processing and publication methods.
- be able to configure and program output systems that are linked to content management systems, for example.
- be able to evaluate interfaces and system architectures of other publication and information systems.
- have a profound application knowledge of XML-based publication technologies.

**Assessment/Examination:**

Exercises, student research project

**Usability of the module:**
-

Course

# KMMB4711 Information Systems 2 | Seminar

**Lecturer:** Prof. Dr. Wolfgang Ziegler

**Contact hours per week:** 2

**Offered:** Annually

**Type / Mode:** Seminar/compulsory

**Language of instruction:** German; English, if necessary

**Content:**

This course will provide an introduction to

- concepts of automated publication of XML and database-oriented content.
- configuration and programming of IT applications with a focus on XML-based technologies for automated publishing and delivery.
- conceptual differences and similarities to publication technologies of related information systems such as catalogue and parts list systems, web-publishing or marketing and communication systems.

**Recommended reading:**

Drewer, Petra / Ziegler, Wolfgang (2014): Technische Dokumentation: Übersetzungsgerechte Texterstellung und Content-Management. 2. Aufl. Vogel Verlag 2014

Krüger, Manfred (2014): XSL-FO verstehen und anwenden. 2. Aufl. Welsch, Ursula

**Comments:**

-

Course

# KMMB4712 Information Systems 2 | Project

| | |
|---|---|
| **Lecturer:** | Prof. Dr. Wolfgang Ziegler |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German; English, if necessary |

**Content:**

By means of practically relevant examples, the students of this course learn to configure and program information, publishing and delivery systems within the framework of a project. Depending on the state of technological development, one focus is on information processing with XSL-T, XSL-FO and, if necessary, related or alternative programming languages for XML processing.

**Recommended reading:**

Manfred Krüger (2014): XSL-FO verstehen und anwenden, 2. Aufl. Welsch, Ursula
ISBN 978-3-937211-73-2

**Comments:**

-

Course

# KMMB4713 Technical English

| | |
|---|---|
| **Lecturer:** | NN (→ IFS) |
| **Contact hours per week:** | 2 |
| **Offered:** | every semester |
| **Type / Mode:** | Exercise course/compulsory |
| **Language of instruction:** | English |

**Content:**

In order to develop and strengthen receptive capabilities (listening and reading comprehension), students will be acquainted with authentic, complex audio and video segments, just like interviews, documentations, presentations with a reference to historical and contemporary technologies and innovations as well as long and complex technical texts just like news articles, newspaper articles, instructions/manuals or technical documentation. Group discussions and presentations in teams and alone will help students to strengthen their productive competencies. Students will use technical terms and subject specific grammar and syntax structures in order to set up definitions or product and process descriptions. Thematic contexts can be abstract and taken from materials science or from practice just like from automotive technology, aeronautics, robotics or from the area of workplace safety. In this course, students acquire their knowledge by means of numerous interactive activities and communicative exercises.

**Recommended reading:**

Course book or lecture notes depending on the professor's recommendation

**Comments:**

After successfully finishing this course and obtaining the certificate, students will have succeeded in level C1.

Module summary

# KMMB4720 Information Architecture

**Module coordinator:**      Prof. Sissi Closs

**Credits (ECTS):**      4

**Semester:**      7

**Pre-requisites with regard to content:**

XML, topic-oriented structuring

**Pre-requisites pursuant to the study and examination regulations (SPO):**

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**Learning outcomes:**

The students will

- become acquainted with the discipline of information architecture and its many facets
- get to know the characteristics of modeling
- be able to analyze the information architecture of given contents
- be able to design information architectures for different requirements
- be able to evaluate information architectures according to appropriate quality criteria
- become acquainted with the standardized XML language DITA (Darwin Information Typing Architecture)
- be able to implement designed information architectures in DITA
- learn how to generate deliverables for different usage contexts from a DITA topic pool.

**Assessment/Examination:**

Written exam, exercises, student research project

Course

# KMMB4721 Information Architecture | Lecture

**Lecturer:**                     Prof. Sissi Closs
**Contact hours per week:**  2
**Offered:**                      Annually

**Type / Mode:**                  Lecture/compulsory

**Language of instruction:**  German

**Content:**

The task of information architecture is to develop a suitable framework for developing and maintaining information products. This lecture is an introduction to information architecture. It deals with the goals and history of information architecture, explains its tasks by means of examples starting with the most common basic structures and explains important concepts and methods for information architecture just like modeling, metadata and techniques for class concepts. In addition, the relationship between information architecture, user experience and usability are explained and illustrated by examples. With this knowledge, students develop their own information architectures for selected projects and check their suitability by implementing DITA in a suitable XML-based authoring system.

**Recommended reading:**

Closs, Sissi: Single-Source-Publishing – Modularer Content für ePub & Co. ISBN: 978-3-86802-078-6

Closs, Sissi: DITA - der topic-basierte XML-Standard: Ein schneller Einstieg
ISBN-10: 3658116145 / ISBN-13: 978–3658116149

Louis Rosenfeld: Information Architecture for the World Wide Web: For the Web and Beyond
ISBN-10: 1491911689 / ISBN-13: 978–1491911686

Steve Krug: Don't Make Me Think: A Common Sense Approach to Web Usability (Voices That Matter)
ISBN-10: 0321965515 / ISBN-13: 978–0321965516

**Comments:**

-

**Usability of the module:**

KMMB4T00 Bachelor Thesis

Course

# KMMB4722 Information Architecture | Project

| | |
|---|---|
| **Lecturer:** | Prof. Sissi Closs |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German |

**Content:**

With the knowledge gained in the information architecture lecture students develop their own information architectures for selected projects and check their suitability by implementing DITA in a suitable XML-based authoring system.

**Recommended reading:**

**Comments:**

Module summary

# KMMB4730 Media Management

**Module coordinator:**       Prof. Dipl.-Ing. Martin Schober

**Credits (ECTS):**       5

**Semester:**       7

**Pre-requisites with regard to content:**

Knowledge of the web technologies HTML and CSS, programming skills in JavaScript and PHP, knowledge of XML, 3 D animations and video rendering

**Pre-requisites pursuant to the study and examination regulations (SPO):**

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**Learning outcomes:**

The students will

- acquire the ability to plan and design multimedia projects.
- apply methods for selecting texts suitable for multimedia implementation.
- learn about the most important multimedia tools and basic animation techniques
- learn how to produce videos using camera, screen-grabber software and 3D CAD systems
- deepen their skills regarding web-technologies like HTML5/JavaScript and JavaScript Frameworks as well as their knowledge in the creation of web apps and hybrid apps.
- practice the use of XML technologies in connection with animation techniques and be able to create interactive animations using programming languages
- learn how to create 2D and 3D animations and gain basic knowledge in didactics for e-learning applications
- know about the goals and history of information architecture
- acquire knowledge about the advantages of good information architecture and the tasks of information architects
- acquire the knowledge to analyze information offerings from the perspective of information architecture and acquire the skills to evaluate and design own information architectures for selected example projects

**Assessment/Examination:**

Exercises, student research project

**Usability of the module:**

Develop bachelor's theses and master's theses in the fields of multilingual, multimedia, interactive, mobile technical documentation as well as multilingual, multimedia, interactive, mobile e-learning.

Course

# KMMB4731 Multimedia | Seminar

| | |
|---|---|
| **Lecturer:** | Prof. Dipl.-Ing. Martin Schober |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Seminar/compulsory |
| **Language of instruction:** | German |

**Content:**

In this lecture, students will learn and discuss about the use of multimedia in technical documentation and e-learning under the aspect: "Which medium can I use to best convey certain contents?". Suitable tools for multimedia projects will be presented and applied. The conceptual design and implementation of multimedia projects (planning, defining target groups, estimate of costs, script writing, production, testing, legal aspects) will be taught. A criteria model for determining text passages that can be replaced or supplemented by multimedia technologies is presented and explained using examples from the industry. Moreover, students will learn about the basics of didactics (behaviorism, cognitivism, constructivism). Further learning contents are the basics of 3D animation, the basics of digital video creation and processing as well as the creation and processing of screen-grabbing videos for training purposes.

**Recommended reading:**

Issing, Ludwig J. / Klimsa, Paul (2008): Information und Lernen mit Multimedia und Internet. 3. vollst. überarb. Aufl. Weinheim: Verlagsgruppe Beltz, Psychologie Verlags Union

Michael Kerres: (2018) Mediendidaktik. De Gruyter Oldenbourg Verlag

Kirkpatrick DL. (1994): Evaluating training programs: the four levels. San Francisco: Berrett-Koehler;

Kosslyn, S. M (1980). Image and Mind. Cambridge, Mass.: Harvard University Press.

Mayer, R. E. (2009): Multimedia Learning Second Edition, Cambridge University Press

Rey, Günter Daniel (2010): E-Learning Theorien, Gestaltungsempfehlungen und Forschung URL: http://www.elearning-psychologie.de/index.html [Status: October 2011. Access 10-17-2011, 09:00 AM CEST]

Schober, Martin (2012): Mobil, mehrsprachig und multimedial – Grundlagen von HTML5, in Technische Kommunikation 34. Jahrgang Heft 6/12 S. 36-42, Stuttgart: Gesellschaft für technische Kommunikation e.V.

**Comments:**

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Course

# KMMB4732 Multimedia | Project

| | |
|---|---|
| **Lecturer:** | Prof. Dipl.-Ing. Martin Schober |
| **Contact hours per week:** | 2 |
| **Offered:** | Annually |
| **Type / Mode:** | Project/compulsory |
| **Language of instruction:** | German |

**Content:**

Students acquire the knowledge and skills listed under "Learning outcomes" by working on multimedia projects in the field of e-learning or technical documentation. The projects are carried out in individual or group work and are accompanied by meetings and expert advice from the lecturer. In this lecture, students will learn and discuss about the use of multimedia in technical documentation and e-learning under the aspect: "Which medium can I use to best convey certain contents?". In the Project, students deal with the engineering of multimedia, multilingual, interactive applications. Further project topics are the basics of 3D animation, the basics of digital video creation and processing as well as the creation and processing of screen-grabbing videos for training purposes.

**Recommended reading:**

Issing, Ludwig J. / Klimsa, Paul (2008): Information und Lernen mit Multimedia und Internet. 3. vollst. überarb. Aufl. Weinheim: Verlagsgruppe Beltz, Psychologie Verlags Union

Michael Kerres: (2018) Mediendidaktik. De Gruyter Oldenbourg Verlag

Kirkpatrick DL. (1994): Evaluating training programs: the four levels. San Francisco: Berrett-Koehler;

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Schober, Martin (2012): Mobil, mehrsprachig und multimedial – Grundlagen von HTML5, in Technische Kommunikation 34. Jahrgang Heft 6/12 S. 36-42, Stuttgart: Gesellschaft für technische Kommunikation e.V.

**Comments:**

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Module summary

# KMMB4T00 Bachelor Thesis

**Module coordinator:**      Prof. Dr. Wolfgang Ziegler

**Credits (ECTS):**             12

**Semester:**                   7

**Pre-requisites with regard to content:**

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**Pre-requisites pursuant to the study and examination regulations (SPO):**

The bachelor thesis may only be started if a maximum of 10 credit points is still missing from the courses of the main study period up to and including the sixth semester.

**Learning outcomes:**

The students will

- apply professional knowledge as well as scientific methods learnt during their studies in a practical and problem-oriented manner.
- plan projects independently and organize them within a limited time frame.
- choose adequate literature and know how to use it.
- come up with individual issues and start an investigation on them.
- document the results accordingly.

**Assessment/Examination:**

Bachelor Thesis

**Usability of the module:**

KMMB4T01 Final oral exam

Module summary

# KMMB4T01 Final Colloquium

| | |
|---|---|
| **Module coordinator:** | Prof. Dr. Wolfgang Ziegler |
| **Credits (ECTS):** | 3 |
| **Semester:** | 7 |

**Pre-requisites with regard to content:**

-

**Pre-requisites pursuant to the study and examination regulations (SPO):**

This final oral examination may only take place after all preceding examinations and study requirements of the curriculum have been passed, including the Bachelor Thesis.

**Learning outcomes:**

Students will defend their Bachelor Thesis.

They should be able to

- orally present and defend their scientific ideas and methods.
- deal with critical evaluation in a constructive manner.
- classify their topics into the subject areas of their course of study and link them to knowledge acquired during their degree course.

**Assessment/Examination:**

Oral exam, presentation

**Usability of the module:**

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