

Module Handbook Digital Economics Bachelor 2023 (Bachelor of Science (B.Sc.))

SPO 2023

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KIT DEPARTMENT OF BUSINESS AND ECONOMICS



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1 The Module Handbook: Your Guide Through Your Studies

Welcome to the **Module Handbook** for your study program at the KIT Department of Economics and Management. We are delighted to have you join us and wish you a successful start to the new semester! This handbook provides an essential introduction to the key terms and regulations governing the selection of modules, courses, and examinations within your program.

Your study program is structured around several disciplines (e.g., Business Administration, Economics, Operations Research). Each discipline is further divided into **modules**, with each module comprising one or more interrelated components that often lead to an examination. The scope of each module is defined by **Credit Points (CP)**, which are awarded upon successful completion. While some modules are compulsory, the program's interdisciplinary nature offers a wide range of individual specialization and deepening opportunities within many modules. This flexibility allows you to tailor the content and timeline of your studies according to your personal interests, career aspirations, and needs.

This module handbook serves as a comprehensive guide to the modules within your program. Specifically, it details:

- The **structure** of the modules
- Their **scope** (in CP)
- Module **dependencies**
- Expected **learning outcomes**
- **Assessment methods** and examinations

This handbook is an essential orientation and a helpful guide throughout your studies. Please note that it **complements, but does not replace, the course catalog**, which provides semester-specific and variable course details such as timetables and locations.

1.1 Module Selection and Completion

Each module and each examination can only be selected once. If an examination is selectable within multiple modules, the student's decision on its assignment to a specific module is made at the moment of registration for that examination.

A module is considered completed and passed when its module examination is successfully passed (achieving a grade of 4.0 or better). For modules where the module examination is subdivided into several partial examinations, the module is completed only when all necessary partial examinations have been successfully passed. If a module offers alternative partial examinations, the module examination is considered concluded with the examination that leads to or exceeds the required total credit points. The module grade, reflecting the weight of its predefined credit points, is then included in the overall grade calculation for the study program.

1.2 Module Versions and Revisions

Modules are periodically revised, for instance, due to the introduction of new courses or the cancellation of existing examinations. As a rule, a new module version is created, which applies to all students who are newly starting the module. Students who have already commenced a module, however, are generally "grandfathered" and remain subject to the conditions of the module version valid at the time they began. These students can complete the module under the same conditions as at the beginning (exceptions are regulated by the Examination Board). The decisive date for this is the student's "binding declaration" regarding the choice of the module, as defined by §5(2) of the Study and Examination Regulations. This binding declaration is established by registering for the first examination within that module.

1.3 Accessing Module Handbook Versions

All modules in this handbook are presented in their current version, with the version number indicated in each module description. Older module versions can be accessed via previous module handbooks in the archive at: http://www.wiwi.kit.edu/Archiv_MHB.php.

1.4 Examination Formats and Registration

Module examinations can be taken either as a comprehensive general examination or as partial examinations. If offered as a general examination, the entire learning content of the module will be assessed in a single examination. If the module examination is subdivided, the content of each constituent course will be examined in corresponding partial examinations.

Registration for examinations can be done online via the campus management portal. The following functions are available at <https://campus.studium.kit.edu/>:

- Register/unregister for examinations
- Check examination results
- Create transcript of records

For further and more detailed information, please refer to: <https://campus.studium.kit.edu/faq.php>.

1.5 Grading, Repetition Rules, and Types of Assessment

Examinations are categorized into written examinations, oral examinations, and alternative assessment types ("Prüfungsleistungen anderer Art"). All examinations are graded. Ungraded coursework ("Studienleistungen"), on the other hand, can be repeated multiple times and do not receive a grade.

Generally, a failed written exam, oral exam, or alternative assessment can be repeated only once. Should this repeat examination (including any provided oral repeat examination) also be failed, the right to take the examination is forfeited. A request for a second repetition must be submitted in writing to the Examination Board two months after forfeiting the examination right. For more information, please see: <http://www.wiwi.kit.edu/hinweiseZweitwdh.php>.

1.6 Examiners

The Examination Board has appointed the KIT examiners and lecturers listed in this module handbook for the modules and their respective courses as official examiners for the courses they offer.

1.7 Additional Achievements

Additional achievements are voluntarily undertaken graded assessments that do not impact the student's overall grade. They can pertain to single courses or entire modules. It is mandatory to declare an additional achievement as such at the time of registration for the respective assessment. Additional achievements totaling at most 30 CP may be listed on the final certificate.

1.8 Important Resources and Legal Framework

For current information regarding your studies at the KIT Department of Economics and Management, please visit our website www.wiwi.kit.edu, as well as our channels on Instagram, LinkedIn, and YouTube. Please also consult the current notices and announcements for students at: <https://www.wiwi.kit.edu/studium.php>.

Comprehensive information regarding the legal and regulatory framework of your study program can be found in the respective study and examination regulations. These documents are available under the Official Announcements of KIT at: <http://www.sle.kit.edu/amtlicheBekanntmachungen.php>.

1.9 Contact

If you have any questions about modules or exams, please contact the examination office of the KIT Department of Economics and Management:

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2 General Information

2.1 Study program details

KIT-Department	KIT Department of Business and Economics
Academic Degree	Bachelor of Science (B.Sc.)
Examination Regulations Version	2023
Regular semesters	6 semesters
Maximum semesters	9 semesters
Credits	180
Language	German and English
Grade calculation	Weighted by (Weight * CP)
Additional Information	Department https://www.wiwi.kit.edu/index.php

2.2 Content

In terms of content, the Bachelor's degree program operates at the interface of economics, informatics and social science topics from the fields of sociology, philosophy and law. From a decidedly interdisciplinary perspective, it focuses on the transformation processes in the economy and society associated with advancing digitalization and examines their effects on competition policy, macroeconomics and social policy.

In addition to the eponymous subject of Digital Economics, the curriculum of the course includes the subjects of Economics, Business Administration, Informatics, Mathematics, Statistics & Econometrics, Operations Research (OR) and Social Sciences.

The compulsory program, which you complete in this range of subjects, especially in the first semesters (but sometimes also in semesters 4 and 5), includes the modules

- Digital Economics: Introduction to Digital Economics (6 CP), Digital Economics (9 CP), Digital Financial Economics (9 CP)
- Economics: Introduction to Economics (10 CP)
- Business Administration: Management & Marketing (5 CP), Financing and Business Informatics (5 CP)
- Informatics: Introduction to Programming (5 CP), Fundamentals of Computer Science 1 (5 CP), Applied Computer Science and AI (9 CP)
- Mathematics: Mathematics 1 (8 CP), Mathematics 2 (8 CP)
- Statistics & Econometrics: Introduction to Statistics (10 CP), Introduction to Econometrics (5 CP)
- Operations Research: Introduction to OR (5 CP)
- Social Sciences: Legal Aspects of Digitalization (9 CP), Digitalization and Society (9 CP)

You take a first elective module worth 9 CP in the third and fourth semesters of economics. Here you can choose, for example, further microeconomic or macroeconomic content, further specializations in statistics and econometrics or economic policy or economic theory.

In addition, from semester 4, there is a separate compulsory elective area of 42 CP, in which you can choose between

- a further three elective modules (9 CP each) from economics, business administration, OR (max. two each), informatics, statistics (max. one each) and social sciences
- one seminar module (2x 3 CP) and
- a team project (9 CP) on the subject of business and technology

At the end of your Bachelor's degree, you will complete a Bachelor's thesis (12 CP). Further information on the course structure and content can be found in the module handbook.

Special features of the degree program

- Newly designed, interdisciplinary degree program
- First university degree course of its kind in Germany
- modern and innovative study concept at the interface of economics and informatics
- high proportion of computer science
- individual curriculum design and focus through extensive elective options from semester 3 onwards
- Promotion of soft skills through tutoring models, seminars and a team project
- High practical relevance through case studies, current applications and the team project
- Connection to the KIT Faculty of Humanities and Social Sciences (Philosophy, Sociology)
- Faculty-internal International Relations Office to support stays abroad
- Partner network with companies for company contacts and internships during your studies
- Bridge courses and semester-accompanying courses at the MINT-Kolleg
- Support for start-ups through the KIT start-up incubator

2.3 Qualification Goals

Graduates of the Bachelor's degree course in Digital Economics are familiar with the transformation processes in the economy and society associated with advancing digitalization and their effects on competition policy, macroeconomics and social policy. They are able to analyze these processes as they acquire sound methodological knowledge in mathematics, statistics, operations research, econometrics, economics and business administration, law, informatics and business informatics.

Graduates also have in-depth skills in the fields of digital economics, financial digital economics, economics, applied informatics with machine learning and artificial intelligence, as well as digitalization and society with ethical and sociological aspects of digital transformation.

Graduates work largely independently in the relevant and often interdisciplinary subject areas. They analyze and model subject-specific problems and select suitable methods and procedures to solve them and derive potential for improvement.

They know how to validate, illustrate and interpret the results obtained from an interdisciplinary perspective. Based on their experience with seminar papers, a Bachelor's thesis and a team project, they are able to methodically develop, present and discuss content in depth, both individually and in group work. They are familiar with the international relevance of the topics and are able to work on and communicate them in both German and English.

Graduates of the Bachelor's degree program in Digital Economics are able to assume responsibility in interdisciplinary teams, taking into account scientific, social and ethical aspects, argue in a subject-related and interdisciplinary manner and defend their point of view vis-à-vis specialist representatives and laypersons. They have the ability to apply the knowledge they have acquired in all areas of public administration, in non-governmental organizations and in all areas of the private sector affected by digitalization, as well as to take up the research-oriented Master's degree course in Digital Economics or a related course.

Interdisciplinary qualifications:

The Digital Economics degree program at the KIT Department of Business and Economics is characterized by an exceptional degree of interdisciplinary. With the combination of the subjects Digital Economics, Economics, Business Administration, Informatics, Operations Research, Mathematics and Law / Sociology, the integration of knowledge from different disciplines is an inherent part of the program.

Interdisciplinary thinking and thinking in contexts are promoted naturally. In addition, the tutorial models with over 20 semester hours in the Bachelor's degree program, the seminar papers and in particular the team project contribute significantly to the promotion of soft skills. The key qualifications taught throughout the entire degree program can be assigned to the following areas:

Basic skills (soft skills):

- Teamwork, social communication and creativity techniques
- Presentation preparation and presentation techniques
- Logical and systematic argumentation and writing
- Structured problem-solving and communication

Practical orientation (enabling skills):

- Knowledge and project management skills
- Basic economic and social knowledge
- English as a technical language

Orientation knowledge:

- Imparting interdisciplinary knowledge
- Institutional knowledge of economic and legal systems
- Knowledge of international organizations
- Media, technology, innovation and digitalization

The integrative teaching of interdisciplinary qualifications takes place in particular as part of a series of compulsory courses and modules:

- Compulsory lectures in digital economics, economics and business administration
- Seminar module for two seminars
- Bachelor's thesis supervision
- Team project in economics and technology

2.4 Employment Prospects

The Bachelor's degree in Digital Economics opens up career prospects for you as a specialist and manager in all areas of public administration, in non-governmental organizations and in all areas of the private sector that are shaped by digitalization. You also have the opportunity to work in consulting or in start-ups. Or you can opt for an academic career, the next stage of which leads to the research-oriented Master's in Digital Economics or a related degree program.

2.5 Acceptance Criterias

The program offers 40 places and admission is restricted.

Admission is granted for the first semester in the winter semester and for the higher semester in the winter and summer semesters.

Application deadline:

German or EU nationals

1. First semester: July 15

Second semester: July 15 for the winter semester, January 15 for the summer semester

Citizens from non-EU countries

1. 1st semester: 15 July

Higher semester: 15 July for the winter semester, 15 January for the summer semester

2.6 Studies and Examination Regulations

The legal basis for the degree program and the examinations in the degree program is the

[Study and Examination Regulations of the Karlsruhe Institute of Technology \(KIT\) for the Bachelor's degree program in Digital Economics](#)

2.7 Organizational issues

Dates and events:

Current information on the degree programs as well as dates for information events and examinations can be found on the [KIT department website](https://www.wiwi.kit.edu) (<https://www.wiwi.kit.edu>).

Recognition of achievements according to § 19 SPO

1. Achievements within the university system

According to § 19 of the Study and Examination Regulations, study and examination achievements that have been completed in study programs at state or state-recognized universities and vocational academies in the Federal Republic of Germany or at foreign state or state-recognized universities can be recognized upon application by the student.

2. Achievements outside the higher education system

Knowledge acquired outside the higher education system can also be recognized. A common example is the recognition of one or more internships through proof of relevant vocational training.

For detailed information on the recognition process and the link to the application forms, please refer to [the website of the KIT department](#).

Frequently asked questions

Answers to frequently asked questions from A for "thesis" to Z for "second repetition" can be found in our [Hints A-Z](#).

3 Curriculum

The Bachelor's degree program in Digital Economics has a standard duration of six semesters and comprises 180 credit points. The foundation program is methodologically oriented and leads to the acquisition of the fundamentals important for Digital Economics.

Figure 2 shows the subject and module structure with the allocation of credit points (CP) and an example of a possible distribution of modules that is considered appropriate.

Digital Economics (B.Sc.)											
Semester	LP	Digital Economics	Volks- wirtschaftslehre	Betriebs- wirtschaftslehre	Informatik	Mathematik	Statistik & Ökonometrie	Operations Research	Gesellschafts- wissenschaften	Wahlbereich	Bachelorarbeit
1	31	Introduction to Digital Economics 6 LP	Einführung in die Volks- wirtschaftslehre 10 LP	Management & Marketing 5 LP	Einführung in die Programmierung 5 LP	Mathematik I 8 LP			Rechtliche Aspekte der Digitalisierung 9 LP		
2	33			Finanzierung und Wirtschafts- informatik 5 LP	Grundlagen der Informatik I 5 LP	Mathematik II 8 LP	Einführung in die Statistik 10 LP	Einführung in das Operations Research 5 LP			
3	29	Topics in Digital Economics 9 LP	Wahlmodul Volks- wirtschaftslehre 9 LP						Digitalisierung und Gesellschaft 9 LP		
4	29	Digital Financial Economics 9 LP			Angewandte Informatik und KI 9 LP		Einführung in die Ökonometrie 5 LP			Seminare 6 LP	
5	28									1 Wahl- modul 9 LP	Team- projekt 9 LP
6	30									1 Wahl- modul 9 LP	1 Wahl- modul 9 LP
											Bachelorarbeit 12 LP
	180	24	19	10	19	16	15	5	18	42	12

Figure 2: Structure of the Bachelor's degree program in Digital Economics SPO 2023 (recommendation)

Figure 3 illustrates the examination load per semester in the Bachelor's degree program in Digital Economics based on an exemplary module selection.

3 CURRICULUM

Fach	Modul	Veranstaltung	Art	1. FS		2. FS		3. FS		4. FS		5. FS		6. FS	
				EK	LP	EK	LP	EK	LP	EK	LP	EK	LP	EK	LP
Digital Economics (24 LP)	Introduction to Digital Economics (6 LP)	Introduction to Digital Economics	V												
	Topics in Digital Economics (9 LP)	Platform Economy	V/U		(2)	sP	(4) 6*	sP	4,5						
	Digital Financial Economics (9 LP)	Seminar in Digital Economics	S					PaA	4,5						
Volkswirtschaftslehre (19 LP)	Digital Financial Economics (9 LP)	Digital Financial Economics	V/U							(3,5)	sP	(5,5) 9*			
	Einführung in die Volkswirtschaftslehre (10 LP)	Volkswirtschaftslehre I: Mikroökonomie	V/I	sP	5										
	Macroeconomics: Theory and Computation (9 LP)	Volkswirtschaftslehre II: Makroökonomie	V/I			sP	5			(3,5)	sP	(5,5) 9*			
Betriebswirtschaftslehre (10 LP)	Management und Marketing (5 LP)	Macroeconomics: Theory and Computation	V/U						(3,5)	sP	(5,5) 9*				
	Management und Marketing (5 LP)	Management & Marketing	V/U	sP	5										
	Finanzierung und Wirtschaftsinformatik (5 LP)	Finanzierung und Wirtschaftsinformatik	V/U/I				(1,5)	sP	(3,5) 5*						
Informatik (19 LP)	Einführung in die Programmierung (5 LP)	Programmieren I: Java	V/U/I	sP	5										
	Grundlagen der Informatik I (5 LP)	Grundlagen der Informatik I	V/U/I			sP	5								
	Angewandte Informatik und KI (9 LP)	Angewandte Informatik – Datenbanksysteme	V/U						sP	4,5					
Mathematik (16 LP)	Mathematik I (8 LP)	Angewandte Informatik – Modellierung	V/U								sP	4,5			
	Mathematik I (8 LP)	Mathematik I – Klausur	V/U/I	sP	7										
	Mathematik II (8 LP)	Mathematik I – Übung	V/U/I	SL	1										
Statistik & Ökonometrie (15 LP)	Mathematik II (8 LP)	Mathematik II – Klausur	V/U/I			sP	7								
	Einführung in die Statistik (10 LP)	Mathematik II – Übung	V/U/I			SL	1								
	Einführung in die Ökonometrie (5 LP)	Statistik I	V/U/I			sP	5								
Operations Research (5 LP)	Einführung in die Ökonometrie (5 LP)	Statistik II	V/U/I					sP	5						
	Einführung in das Operations Research für Digital Economics (5 LP)	Volkswirtschaftslehre III: Einführung in die Ökonometrie	V/U/I							sP	5				
	Einführung in das Operations Research für Digital Economics I und II	V/U/I					(1,5)	sP	(3,5) 5*						
Gesellschafts- wissenschaften (18 LP)	Rechtliche Aspekte der Digitalisierung (9 LP)	Geistiges Eigentum und Datenschutz	V	sP	6										
	Seminar aus Rechtswissenschaften I	Seminar aus Rechtswissenschaften I	V				PaA	3							
	Digitalisierung und Gesellschaft (9 LP)	Angewandte Informatik – Informationssicherheit	V/U							sP	4,5				
Wahlbereich (42)	Einführung in die Soziologie	Einführung in die Soziologie	V/U					sP	4,5						
	Seminare (6 LP)	Seminar Volkswirtschaftslehre (Bachelor)	S							PaA	3				
	Seminar Informatik (Bachelor)	Seminar Informatik (Bachelor)	S							PaA	3				
	Wirtschaftstheorie (9 LP) Financial Data Science (9 LP)**	Strategie und Wohlfahrt Financial Data Science	V/U											sP PaA	9
	eBusiness und Service Management (9 LP)	eFinance: Informationssysteme für den Wertpapierhandel	V/U									sP	4,5		
	Teamprojekt Wirtschaft und Technologie (9 LP)	Platform Economy	V/U									sP	4,5		
	Methodische Grundlagen des OR (9 LP)	Teamprojekt Wirtschaft und Technologie	P								PaA	9			
Bachelorarbeit (12)	Globale Optimierung I und II	V/U											sP	9	
Bachelorarbeit (12 LP)	Bachelorarbeit (12 LP)	Bachelorarbeit													12
Anzahl der Prüfungen:				5	6	6	6	6	5	2	30				
Leistungspunkte:				31	33	29	29	28	30	180					

* Die Arbeitsbelastung verteilt sich auf das Fachsemester der Prüfung und das Vorsemester entsprechend der in Klammern angegebenen Leistungspunkte.
 ** Das Modul "Wirtschaftstheorie" kann in allen geradzähligen Sommersemestern (erstmalig ab SS26) absolviert werden. In allen ungeraden Sommersemestern kann alternativ das Modul "Financial Data Science" belegt werden.
 V = Vorlesung
 U = Übung
 P = Praktikum
 S = Seminar
 sP = schriftliche Prüfung
 mP = mündliche Prüfung
 PaA = Prüfungsleistung anderer Art
 SL = Studienleistung
 SWS = Semesterwochenstunden
 EK = Erfolgskontrolle
 LP = Leistungspunkte
 FS = Fachsemester

Figure 3: Examination load per semester based on an exemplary module selection

It is up to the individual study planning (taking into account the relevant specifications in the study and examination regulations as well as any module regulations) in which semester the selected module examinations are started or completed. However, it is strongly recommended to follow the proposal for the foundation program. The content of the courses is coordinated accordingly, including across disciplines; the absence of overlaps between courses and examination dates is guaranteed within the semester of the curriculum. All modules of the foundation and specialization programme, including elective options within the modules, are described in this module handbook. Seminars that can be taken as part of the seminar module are published in the Wiwi portal at <https://portal.wiwi.kit.edu/Seminare>.

4 Study Program Structure

Mandatory	
Preliminary Exam <i>This field will not influence the calculated grade of its parent.</i>	
Bachelor's Thesis	12 CP
Digital Economics	24 CP
Economics	19 CP
Business Administration	10 CP
Informatics	19 CP
Mathematics	16 CP
Statistics and Econometrics	15 CP
Operations Research	5 CP
Society	18 CP
Electives	42 CP

4.1 Preliminary Exam

Mandatory					
M-WIWI-106421	Preliminary Exam		DE	WS+SS	0 CP

4.2 Bachelor's Thesis

Credits
12

Mandatory					
M-WIWI-106418	Bachelor's Thesis		DE	Once	12 CP

4.3 Digital Economics

Credits
24

Mandatory					
M-WIWI-106271	Introduction to Digital Economics		EN	WS+SS	6 CP
M-WIWI-106272	Topics in Digital Economics		DE/EN	WS+SS	9 CP
M-WIWI-106273	Digital Financial Economics		DE/EN	WS+SS	9 CP

4.4 Economics**Credits**
19

Mandatory				
M-WIWI-105204	Economics	DE	WS+SS	10 CP
Elective Module Economics (Election: at least 9 credits)				
M-WIWI-106472	Advanced Macroeconomics	EN	WS+SS	9 CP
M-WIWI-101499	Applied Microeconomics	DE	WS+SS	9 CP
M-WIWI-101403	Public Finance	DE	WS+SS	9 CP
M-WIWI-101420	Econometrics and Economics		WS+SS	9 CP
M-WIWI-101608	Statistics and Econometrics	DE	WS+SS	9 CP
M-WIWI-105414	Statistics and Econometrics II	DE/EN	WS+SS	9 CP
M-WIWI-101668	Economic Policy I	DE/EN	WS+SS	9 CP
M-WIWI-101501	Economic Theory	DE/EN	WS+SS	9 CP

4.5 Business Administration**Credits**
10

Mandatory				
M-WIWI-106279	Finance and Information Systems	DE	WS+SS	5 CP
M-WIWI-105768	Management and Marketing	DE	WS	5 CP

4.6 Informatics**Credits**
19

Mandatory				
M-WIWI-105879	Applied Informatics and KI	DE/EN	WS+SS	9 CP
M-WIWI-101581	Introduction to Programming	DE	WS	5 CP
M-WIWI-106032	Foundations of Informatics I	DE	WS+SS	5 CP

4.7 Mathematics**Credits**
16

Mandatory				
M-MATH-106282	Mathematics I	DE	WS	8 CP
M-MATH-106285	Mathematics II	DE	SS	8 CP

4.8 Statistics and Econometrics**Credits**
15

Mandatory				
M-WIWI-101432	Introduction to Statistics	DE	WS+SS	10 CP
M-WIWI-105203	Introduction in Econometrics	DE	WS+SS	5 CP

4.9 Operations Research**Credits**
5

Mandatory				
M-WIWI-106280	Introduction to Operations Research for Digital Economics	DE	WS+SS	5 CP

4.10 Society**Credits**
18

Mandatory				
M-WIWI-106281	Digitalization and Society	DE	WS+SS	9 CP
M-INFO-106424	Legal Aspects of Digitalization	DE	WS+SS	9 CP

4.11 Electives

Credits
42

Mandatory				
M-WIWI-106283	Seminars	DE/EN	WS+SS	6 CP
M-WIWI-105440	Team Project Management and Technology	DE/EN	WS+SS	9 CP
Economics (Election: at most 18 credits)				
M-WIWI-106472	Advanced Macroeconomics	EN	WS+SS	9 CP
M-WIWI-101499	Applied Microeconomics	DE	WS+SS	9 CP
M-WIWI-101403	Public Finance	DE	WS+SS	9 CP
M-WIWI-106274	Macroeconomics: Theory and Computation	DE/EN	WS+SS	9 CP
M-WIWI-101420	Econometrics and Economics		WS+SS	9 CP
M-WIWI-101608	Statistics and Econometrics	DE	WS+SS	9 CP
M-WIWI-105414	Statistics and Econometrics II	DE/EN	WS+SS	9 CP
M-WIWI-101668	Economic Policy I	DE/EN	WS+SS	9 CP
M-WIWI-101501	Economic Theory	DE/EN	WS+SS	9 CP
Business Administration (Election: at most 18 credits)				
M-WIWI-101498	Management Accounting	EN	see notes	9 CP
M-WIWI-101434	eBusiness and Service Management	DE	WS+SS	9 CP
M-WIWI-101402	eFinance	DE/EN	WS+SS	9 CP
M-WIWI-101464	Energy Economics	DE/EN	WS+SS	9 CP
M-WIWI-105610	Financial Data Science	EN	SS	9 CP
M-WIWI-107454	Financial Data Science in Practice	EN	WS+SS	9 CP
M-WIWI-102752	Fundamentals of Digital Service Systems	EN	WS+SS	9 CP
M-WIWI-101424	Foundations of Marketing	DE/EN	WS+SS	9 CP
M-WIWI-105928	HR Management & Digital Workplace	DE/EN	WS+SS	9 CP
M-WIWI-101437	Industrial Production I	DE/EN	WS+SS	9 CP
M-WIWI-105981	Information Systems & Digital Business	DE/EN	WS+SS	9 CP
M-WIWI-106860	Leadership & Sustainable HR-Management	DE	WS+SS	9 CP
M-WIWI-105482	Machine Learning and Data Science	EN	WS+SS	9 CP
M-WIWI-101425	Strategy and Organization	DE	WS+SS	9 CP
M-WIWI-101421	Supply Chain Management	DE/EN	WS+SS	9 CP
M-WIWI-107213	Topics in Finance I	DE/EN	WS+SS	9 CP
M-WIWI-107214	Topics in Finance II	DE/EN	WS+SS	9 CP
M-WIWI-107451	Entrepreneurial Thinking and Action: Fundamentals of Entrepreneurship	DE/EN	WS+SS	9 CP
Informatics (Election: at most 9 credits)				
M-WIWI-106906	Electives in Informatics		WS+SS	9 CP
Operations Research (Election: at most 18 credits)				
M-WIWI-101413	Applications of Operations Research	DE	WS+SS	9 CP
M-WIWI-101414	Methodical Foundations of OR	DE	WS+SS	9 CP
M-WIWI-103278	Optimization under Uncertainty	DE	WS+SS	9 CP
Statistics (Election: at most 9 credits)				
M-WIWI-101608	Statistics and Econometrics	DE	WS+SS	9 CP
M-WIWI-105414	Statistics and Econometrics II	DE/EN	WS+SS	9 CP
Society (Election: at most 9 credits)				
M-INFO-106754	Public Economic and Technology Law	DE/EN	WS+SS	9 CP
M-INFO-101215	Intellectual Property Law	DE	WS+SS	9 CP
M-INFO-101216	Private Business Law	DE	WS+SS	9 CP
M-GEISTSOZ-101167	Sociology/Empirical Social Research	DE	WS	9 CP

5 Modules

M

5.1 Module: Advanced Macroeconomics [M-WIWI-106472]

Coordinators: Prof. Dr. Johannes Brumm
Organisation: KIT Department of Business and Economics
Part of: [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	English	3	2

Compulsory Elective Courses (Election:)			
T-WIWI-112723	Computational Macroeconomics	4,5 CP	Brumm
T-WIWI-112735	Macroeconomics: Theory and Computation	9 CP	Brumm
T-WIWI-109121	Macroeconomic Theory	4,5 CP	Brumm

Assessment

The module examination takes place either in the form of an overall examination of 9 LP on the course Macroeconomic Theory and the course Computational Macroeconomics, or via two individual examinations of 4.5 LP each. The duration of the overall examination is 120 minutes. The duration of an individual exam is 60 minutes. The examinations are offered every semester and can be repeated at any regular examination date.

Competence Goal

The student

- acquires knowledge of modern macroeconomic models
- is able to analyze and discuss fiscal and monetary policy issues
- understands algorithms for solving dynamic, stochastic models
- is able to apply learned numerical methods independently

Content

The module focuses on teaching both theoretical foundations and solution procedures for macroeconomic models.

Additional Information

The two courses can be taken in any order. They complement each other, but do not build on each other.

Workload

The total workload for this module is approximately 270 hours. The exact distribution is made according to the credit points of the courses of the module.

M

5.2 Module: Applications of Operations Research [M-WIWI-101413]

Coordinators: Prof. Dr. Stefan Nickel
Organisation: KIT Department of Business and Economics
Part of: Electives (Operations Research)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German	3	9

Compulsory Elective Courses (Election: between 1 and 2 items)			
T-WIWI-102704	Facility Location and Strategic Supply Chain Management	4,5 CP	Nickel
T-WIWI-102714	Tactical and Operational Supply Chain Management	4,5 CP	Nickel
Supplementary Courses (Election: at most 1 item)			
T-WIWI-102726	Global Optimization I	4,5 CP	Stein
T-WIWI-106199	Modeling and OR-Software: Introduction	4,5 CP	Nickel
T-WIWI-106545	Optimization under Uncertainty	4,5 CP	Rebennack

Assessment

The assessment is carried out as partial exams (according to § 4(2), 1 of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module.

The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

At least one of the courses *Facility Location and strategic Supply Chain Management* and *Tactical and operational Supply Chain Management* has to be taken.

Competence Goal

The student

- is familiar with basic concepts and terms of Supply Chain Management,
- knows the different areas of Supply Chain Management and their respective optimization problems,
- is acquainted with classical location problem models (in the plane, on networks and discrete) as well as fundamental methods for distribution and transport planning, inventory planning and management,
- is able to model practical problems mathematically and estimate their complexity as well as choose and adapt appropriate solution methods.

Content

Supply Chain Management is concerned with the planning and optimization of the entire, inter-company procurement, production and distribution process for several products taking place between different business partners (suppliers, logistics service providers, dealers). The main goal is to minimize the overall costs while taking into account several constraints including the satisfaction of customer demands.

This module considers several areas of Supply Chain Management. On the one hand, the determination of optimal locations within a supply chain is addressed. Strategic decisions concerning the location of facilities like production plants, distribution centers or warehouses are of high importance for the rentability of supply chains. Thoroughly carried out, location planning tasks allow an efficient flow of materials and lead to lower costs and increased customer service. On the other hand, the planning of material transport in the context of Supply Chain Management represents another focus of this module. By linking transport connections and different facilities, the material source (production plant) is connected with the material sink (customer). For given material flows or shipments, it is considered how to choose the optimal (in terms of minimal costs) distribution and transportation chain from the set of possible logistics chains, which asserts the compliance of delivery times and further constraints.

Furthermore, this module offers the possibility to learn about different aspects of the tactical and operational planning level in Supply Chain Management, including methods of scheduling as well as different approaches in procurement and distribution logistics. Finally, issues of warehousing and inventory management will be discussed.

Additional Information

The planned lectures and courses for the next three years are announced online at <https://dol.ior.kit.edu/Lehrveranstaltungen.php>.

Workload

The total workload of the module is about 240 hours. The workload is proportional to the credit points of the individual courses.

Recommendations

The courses Introduction to Operations Research I and II are helpful.

M

5.3 Module: Applied Informatics and KI [M-WIWI-105879]

Coordinators: Professorenschaft des Instituts AIFB
Organisation: KIT Department of Business and Economics
Part of: Informatics

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	German/English	3	2

Elective Offer (Election: 2 items)			
T-WIWI-102707	Foundations of Informatics II	5 CP	Lazarova-Molnar
T-WIWI-110340	Applied Informatics – Applications of Artificial Intelligence	4,5 CP	Käfer
T-WIWI-110341	Applied Informatics – Database Systems	4,5 CP	Oberweis
T-WIWI-110338	Applied Informatics – Modelling	4,5 CP	Fritsch, Oberweis

Assessment

The assessment is carried out as two partial exams (according to Section 4(2) of the examination regulation) of the single courses of this module. For passing the module exam in every singled partial exam the respective minimum requirements has to be achieved.

- Partial exam I: *Advanced Programming - Java Network Programming* or alternatively *Advanced Programming - Application of Business Software*
- Partial exam II: all the rest

The examinations are offered every semester. Re-examinations are offered at every ordinary examination date. The assessment procedures are described for each course of the module seperately.

When every singled examination is passed, the overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Competence Goal

The student

- knows in depth methods and systems of a core area or a core application area of Informatics according to the contents dealt with in the lectures,
- can choose these methods and system situation adequately and can furthermore design and employ them for problem solving,
- is able to independently find strategic and creative answers in the finding of solutions to well defined, concrete, and abstract problems.

Content

Based on a core application area, basic methods and techniques of computer science are presented.

Workload

Total workload for 9 credit points: approx. 270 hours

The exact distribution is based on the credit points of the courses in the module.

Recommendations

It is strongly recommended to take the course "Fundamentals of Informatics II".

M

5.4 Module: Applied Microeconomics [M-WIWI-101499]

Coordinators: Prof. Dr. Johannes Philipp Reiß
Organisation: KIT Department of Business and Economics
Part of: [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
1 term

Language
German

Level
3

Version
6

Compulsory Elective Courses (Election: at least 9 credits)			
T-WIWI-112228	Digital Markets and Market Design	4,5 CP	Hillenbrand
T-WIWI-114598	Digital Markets and Mechanisms	4,5 CP	Rosar
T-WIWI-102892	Economics and Behavior	4,5 CP	Mill
T-WIWI-114622	Introduction to Econometrics	5 CP	Schienze
T-WIWI-102850	Introduction to Game Theory	4,5 CP	Puppe, Reiß
T-WIWI-115079	Experimental Economics (Bachelor)	4,5 CP	Rau
T-WIWI-102844	Industrial Organization	4,5 CP	Reiß
T-WIWI-102739	Public Revenues	4,5 CP	Wigger
T-WIWI-100005	Competition in Networks	4,5 CP	Mitusch

Assessment

The assessment is carried out as partial exams (according to Section 4 (2), 1-3 SPO) of the courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None.

Competence Goal

Students

- are introduced to the basic theoretical analysis of strategic interaction situations and shall be able to analyze situations of strategic interaction systematically and to use game theory to predict outcomes and give advice in applied economics settings, (course "Introduction to Game Theory");
- are exposed to the basic problems of imperfect competition and its implications for policy making; (course "Industrial Organization");
- are provided with the basic economics of network industries (e.g., telecom, utilities, IT, and transport sectors) and should get a vivid idea of the special characteristics of network industries concerning planning, competition, competitive distortion, and state intervention, (course "Competition in Networks").

Content

The module's purpose is to extend and foster skills in microeconomic theory by investigating a variety of applications. Students shall be able to analyze real-life problems using microeconomics.

Workload

Total workload for 9 credit points: approx. 270 hours.

The exact distribution is based on the credit points of the courses in the module.

Recommendations

Completion of the module Economics is strongly recommended.

M

5.5 Module: Bachelor's Thesis [M-WIWI-106418]

Coordinators: Studiendekan des KIT-Studienganges
Organisation: KIT Department of Business and Economics
Part of: [Bachelor's Thesis](#)

Credits
12 CP

Grading
graded

Recurrence
Once

Duration
1 term

Language
German

Level
3

Version
1

Mandatory			
T-WIWI-113002	Bachelor's Thesis	12 CP	Studiendekan des KIT-Studienganges

Assessment

The Bachelor Thesis is a written exam which shows that the student can autonomously investigate a scientific problem in Industrial Engineering and Management. The Bachelor Thesis is described in detail in the examination regulation. The review is carried out by at least two examiners of the Department of Economics and Management.

The regular processing time takes six months. On a reasoned request of the student, the examination board can extend the processing time of a maximum of one month. If the Bachelor Thesis is not completed in time, this exam is "failed", unless the student is not being responsible (e.g. maternity leave).

In addition to the written work on the topic, a presentation can be agreed as an obligatory and grade-relevant part of the final thesis. Depending on the agreement, this can take place before submission or after submission on an agreed date. The preparation time for the presentation does not count towards the processing time for the written part, unless it has been included in the total workload for the final project.

With consent of the examiner, the thesis can be written in English as well. Other languages require besides the consent of the examiner the approval of the examination board. The issue of the Bachelor Thesis may only be returned once and only within the first month of processing time. A new topic has to be released within four weeks.

The overall grade of the module is the grade of the Bachelor Thesis.

Prerequisites

The prerequisite for admission to the Bachelor's Thesis module is that the student has successfully passed module examinations amounting to 120 LP, all compulsory modules without elective from the subjects according to § 20 paragraph 2 number 1 to 8 and the seminar module.

The examination board decides on exceptions upon application by the student.

It is recommended to complete the Bachelor thesis in the 5th or 6th semester.

The respective institute-specific regulations for the supervision of the Bachelor thesis are to be observed.

The Bachelor thesis must bear the following statement:

„Ich versichere wahrheitsgemäß, die Arbeit selbstständig angefertigt, alle benutzten Hilfsmittel vollständig und genau angegeben und alles kenntlich gemacht zu haben, was aus Arbeiten anderer unverändert oder mit Abänderungen entnommen wurde.“

If this declaration is not included, the work will not be accepted.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. You need to have earned at least 120 credits in the following fields:
 - Business Administration
 - Digital Economics
 - Society
 - Informatics
 - Mathematics
 - Operations Research
 - Statistics and Econometrics
 - Economics
 - Electives
2. The module [M-WIWI-106271 - Introduction to Digital Economics](#) must have been passed.
3. The module [M-WIWI-106272 - Topics in Digital Economics](#) must have been passed.
4. The module [M-WIWI-106273 - Digital Financial Economics](#) must have been passed.
5. The module [M-WIWI-105204 - Economics](#) must have been passed.
6. The module [M-WIWI-105768 - Management and Marketing](#) must have been passed.
7. The module [M-WIWI-106279 - Finance and Information Systems](#) must have been passed.
8. The module [M-WIWI-106032 - Foundations of Informatics I](#) must have been passed.
9. The module [M-WIWI-101581 - Introduction to Programming](#) must have been passed.
10. The module [M-WIWI-105879 - Applied Informatics and KI](#) must have been passed.
11. The module [M-MATH-106282 - Mathematics I](#) must have been passed.
12. The module [M-MATH-106285 - Mathematics II](#) must have been passed.
13. The module [M-WIWI-101432 - Introduction to Statistics](#) must have been passed.
14. The module [M-WIWI-105203 - Introduction in Econometrics](#) must have been passed.
15. The module [M-WIWI-106280 - Introduction to Operations Research for Digital Economics](#) must have been passed.
16. The module [M-WIWI-106281 - Digitalization and Society](#) must have been passed.
17. The module [M-WIWI-106283 - Seminars](#) must have been passed.
18. The module [M-INFO-106424 - Legal Aspects of Digitalization](#) must have been passed.

Competence Goal

The student can independently work on a relevant topic in accordance with scientific criteria within the specified time frame.

He/she is in a position to research, analyze the information, abstract and identify basic principles and regulations from less structured information.

He/she reviews the task ahead, can select scientific methods and techniques and apply them to solve a problem or identify further potential. This is basically also done under consideration of social and/or ethical aspects.

He/she can interpret, evaluate and if required, graphically present the obtained results.

He/she is in a position to clearly structure a research paper and communicate in writing using the technical terminology.

Content

The Bachelor Thesis is the first major scientific work. The topic of the Bachelor Thesis will be chosen by the student themselves and adjusted with the examiner. The topic has to be related to Economics Engineering and has to refer to subject-specific or interdisciplinary problems.

Workload

The preparation and presentation of the Bachelor's thesis is expected to take a total of approx. 360 hours. In addition to writing the thesis, this figure includes all necessary activities such as literature research, familiarization with the topic, familiarization with any necessary tools, conducting studies/experiments, supervision meetings, etc.

Recommendations

None

M

5.6 Module: Digital Financial Economics [M-WIWI-106273]

Coordinators: Prof. Dr. Martin Ruckes
Organisation: KIT Department of Business and Economics
Part of: Digital Economics

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German/English

Level
3

Version
1

Compulsory Elective Courses (Election: 1 item)			
T-WIWI-112727	Digital Financial Economics	9 CP	Ruckes
T-WIWI-112694	FinTech	4,5 CP	Thimme
Elective Offer (Election: at most 1 item)			
T-WIWI-102604	Investments	4,5 CP	Uhrig-Homburg
T-WIWI-102605	Financial Management	4,5 CP	Ruckes

Assessment

The module examination takes place either in the form of an overall examination with a total of 9 LP for the course "FinTech" and the course "Financial Management", or in the form of two individual examinations with a total of 4.5 LP each for the course "FinTech" and one of the two courses "Investments" or "Financial Management". The duration of the overall examination is 120 minutes. The duration of the two individual examinations is 60 minutes.

The individual examinations are aimed in particular at temporary students who study at KIT for one to two semesters and are not aiming for a degree at KIT.

The examinations are offered every semester and can be repeated at any regular examination date.

Prerequisites

The examination must be taken for the FinTech course.

Competence Goal

The student

- has an overview of the modern financial industry including new developments through digital innovations,
- is able to understand and analyze digital business models,
- has basic knowledge of modern finance and the functioning of financial markets,
- applies concrete models for the assessment of investment decisions on financial markets as well as for investment and financing decisions of companies.

Content

The module Digital Financial Economics deals with the fundamental characteristics of modern finance with a focus on current digital developments. In the courses, the modern financial industry, which is characterized by digitalization, is examined as well as the use of central analytical methods on financial markets or in corporate finance is discussed.

Workload

The total workload for this module is approx. 270 hours (9 credit points).

The total number of hours results from the time required to attend the selected lectures and exercises, as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance. If the overall examination is chosen via the course "FinTech" and "Financial Management", the time required in the first semester is 105 hours (3.5 CP) and in the second semester 165 hours (5.5 CP).

Recommendations

Knowledge from the course Financing and Accounting is very helpful.

M

5.7 Module: Digitalization and Society [M-WIWI-106281]

Coordinators: Prof. Dr. Christof Weinhardt
Organisation: KIT Department of Business and Economics
Part of: [Society](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	German	3	2

Compulsory Elective Courses (Election:)			
T-WIWI-114156	Applied Informatics – Cybersecurity	4,5 CP	Volkamer
T-WIWI-114292	Consumer Psychology	4,5 CP	Scheibehenne
T-WIWI-111307	Digital Services: Foundations	4,5 CP	Holtmann
T-WIWI-109816	Foundations of Interactive Systems	4,5 CP	Mädche
T-WIWI-114178	HR-Management 2: Organization, Fairness & Leadership	4,5 CP	Nieken
T-GEISTSOZ-101131	Introduction to Sociology	6 CP	Mäs
T-GEISTSOZ-104601	Lecture Introduction to Sociology	0 CP	Mäs

Assessment

The assessment of success is described for each course of this module. The overall grade of the module is formed from the credit-weighted grades of the partial examinations and truncated after the first decimal place.

Prerequisites

Please check with individual courses for any prerequisites and recommendations.

Competence Goal

The student

- Is introduced to issues of sociology with regard to digitalization aspects - this concerns, among other things, measures in companies, organizations, communities, large-scale projects and politics
- understands concepts of digital security and privacy and learns about measures for user-friendly security, privacy protection, and awareness and education training
- learns the connection between digitalization and human resources in companies and the labor market; topics range from the future of work to the use of IT and AI in recruiting to aspects of crowdworking
- learns the basic principles of user-oriented design of interactive systems and reflects on their individual and social acceptance
- gets an overview of digital service ecosystems, their framework conditions, design options and networking.
- is introduced to issues of digital sovereignty on an individual and societal level
- learns to analyze empirical methods for evaluating consumer behavior on the basis of case studies

Content

The module "Digitalization and Society" deals with individual and societal aspects of digitalization. The courses present various aspects of sociology, information security, human resources policy and the design of information systems. The focal points covered vary depending on the course. In principle, all courses can be freely combined with each other.

Workload

The total workload for this module is approximately 270 hours (9 credit points).

The distribution is made according to the credit points of the courses of the module. The workload for courses with 4.5 credit points is approx. 135 hours.

The total number of hours per course is calculated from the time spent attending the lectures and exercises, as well as the examination times and the time required for an average student to achieve the learning objectives of the module.

M

5.8 Module: eBusiness and Service Management [M-WIWI-101434]

Coordinators: Prof. Dr. Christof Weinhardt
Organisation: KIT Department of Business and Economics
Part of: Electives (Business Administration)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German	3	12

Compulsory Elective Courses (Election: 9 credits)			
T-WIWI-111307	Digital Services: Foundations	4,5 CP	Holtmann
T-WIWI-110797	eFinance: Information Systems for Securities Trading	4,5 CP	Weinhardt
T-WIWI-113746	Enterprise Systems for Financial Accounting & Controlling	4,5 CP	Fleig, Mädche
T-WIWI-109816	Foundations of Interactive Systems	4,5 CP	Mädche
T-WIWI-107506	Platform Economy	4,5 CP	Weinhardt
T-WIWI-109940	Special Topics in Information Systems	4,5 CP	Weinhardt
T-WIWI-114596	Sustainability in E-Business	4,5 CP	Heßler, Pfeiffer

Assessment

The assessment is carried out as partial exams (according to Section 4 (2), 1-3 SPO) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None

Competence Goal

The students

- understand the strategic and operative design of information and information products,
- analyze the role of information on markets,
- evaluate case studies regarding information products,
- develop solutions in teams.

Content

This module gives an overview of the mutual dependencies of strategic management and information systems. The central role of information is exemplified by the structuring concept of the information life cycle.

The single phases of this life cycle from generation over allocation until dissemination and use of the information are analyzed from a business and microeconomic perspective, applying classical and new theories. The state of the art of economic theory on aspects of the information life cycle are presented. The lecture is complemented by exercise courses. The courses "Platform Economy", "eFinance: Information systems in finance" and "eServices" constitute three different application domains in which the basic principles of the Internet Economy are deepened. In the core lecture "Platform Economy" the focus is set on markets between two parties that act through an intermediary on an Internet platform. Topics discussed are network effects, peer-to-peer markets, blockchains and marketdesign. The course is held in English and teaches parts of the syllabus with the support of a case study in which students analyze a platform.

The course "eFinance: information systems for securities trading" provides theoretically profound and also practical-oriented background about the functioning of international financial markets. The focus is placed on the economic and technical design of markets as information processing systems.

In "eServices" the increasing impact of electronic services compared to the traditional services is outlined. The Information- und Communication Technologies enable the provision of services, which are mainly characterized by interactivity and individuality. This course provides basic knowledge about the development and management of ICT-based services.

The theoretic fundamentals of Information systems can be enriched by a practical experience in Special Topics in Information Engineering and Management. Any practical Seminar at the IM can be chosen for the course Special Topics in Information systems.

Additional Information

All practical Seminars offered at the IM can be chosen for *Special Topics in Information Systems*. Please update yourself on www.iism.kit.edu/im/lehre

Workload

The total workload of the module is about 240 hours. The workload is proportional to the credit points of the individual courses.

M

5.9 Module: Econometrics and Economics [M-WIWI-101420]**Coordinators:** apl. Prof. Dr. Wolf-Dieter Heller**Organisation:** KIT Department of Business and Economics**Part of:** [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)**Credits**
9 CP**Grading**
graded**Recurrence**
Each term**Duration**
2 terms**Level**
3**Version**
4

Compulsory Elective Courses (Election: 9 credits)			
T-WIWI-103063	Analysis of Multivariate Data	4,5 CP	Grothe
T-WIWI-103065	Statistical Modeling of Generalized Regression Models	4,5 CP	Heller
T-WIWI-102844	Industrial Organization	4,5 CP	Reiß

Assessment

The module examination is carried out in the form of partial examinations on the selected courses, with which the minimum LP requirement is fulfilled in total.

The assessment of success is described for each course.

The overall grade of the module is formed from the LP-weighted grades of the partial examinations and truncated after the first decimal place.

Prerequisites

Courses audited in connection with this module can no longer be credited in connection with modules from the master's program.

Competence Goal

The student

- Knows and understands the common statistical or econometric methods in the fields of quantitative finance for financial institutions,
- knows and understands the modern risk control or analysis methods,
- knows and understands the presentation of axiomatic decision theories, stochastic dominance principles or risk aversion concepts.

Content**Industrial Economics:**

- Hold-Up Problem (motivation and model)
- Wrap-Up: Introduction (History)
- Asymmetric Information
- Welfare analysis
- Market structures
- Barriers to entry
- Monopoly
- Welfare analysis
- Price discrimination
- Oligopoly: Cournot model and competitive intensity
- Stackelberg model (sequential quantity competition)
- Bertrand model
- GWB, obstacles to competition
- Merger
- Tacit Collusion
- Modeling of product differentiation
- Exogenous and Endogenous Product Differentiation
- Monopolistic competition (product variety)

Statistical modeling of general regression models:

The basic aim of the lecture will be to introduce regression techniques as a central tool of statistical modeling.

- Introduction and topic overview,
- Model classes in statistical analysis and model fitting,
- Generalized Linear Models,
- Multiple Linear Regression,
- Logistic Regression,
- Nonparametric Regression,
- Introduction Survival Time Analysis.

Analysis of Multivariate Data:

- Mathematical and statistical foundations for the analysis of multivariate data.
- Data inspection and pre-treatment
- Data structure analysis and reduction
- (Supervised) data analysis models
- Data model validation

Decision Theory:

- Decision under uncertainty
- Expected utility theory for risk decisions
- Risk measurement
- Stochastic Dominance
- Prospect Theory
- Personal equilibrium
- Ambiguity
- Epistemology

Workload

The total workload for this module is approximately 270 hours.

M

5.10 Module: Economic Policy I [M-WIWI-101668]

Coordinators: Prof. Dr. Ingrid Ott
Organisation: KIT Department of Business and Economics
Part of: [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
1 term

Language
German/English

Level
3

Version
10

Mandatory			
T-WIWI-103213	Basic Principles of Economic Policy	4,5 CP	Ott
Compulsory Elective Courses (Election: 1 item)			
T-WIWI-114178	HR-Management 2: Organization, Fairness & Leadership	4,5 CP	Nieken
T-WIWI-109121	Macroeconomic Theory	4,5 CP	Brumm
T-WIWI-102739	Public Revenues	4,5 CP	Wigger
T-WIWI-100005	Competition in Networks	4,5 CP	Mitusch

Assessment

The module examination takes place in the form of examinations (§4(2),1 SPO) of the selected partial module performance. The examination is carried out separately for each partial module and is described there. It is possible to repeat examinations at any regular examination date.

The grades of the partial module correspond to the grades of the passed examinations. The overall grade of the module is formed from the grades of the partial performances weighted with LP.

Prerequisites

The course "Introduction to Economic Policy" is mandatory in the module.

Competence Goal

Students shall be given the ability to

- understand and deepen basic concepts of micro- and macroeconomic theories
- apply those theories to economic policy issues
- understand government interventions in the market and their legitimization from the perspective of economic welfare
- learn how theory-based policy recommendations are derived

Content

- Intervention in the market: micro-economic perspective
- Intervention in the market: macroeconomic perspective
- Institutional economic aspects
- Economic policy and welfare economics
- Carriers of economic policy: political-economic aspects

Workload

Total effort for 9 credit points: approx. 270 hours. The distribution is made according to the credit points of the courses of the module.

Recommendations

Basic knowledge of micro- and macroeconomics is strongly recommended, as taught in the courses Economics I [2610012], and Economics II [2600014].

M

5.11 Module: Economic Theory [M-WIWI-101501]

Coordinators: Prof. Dr. Clemens Puppe
Organisation: KIT Department of Business and Economics
Part of: [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German/English

Level
3

Version
5

Compulsory Elective Courses (Election:)			
T-WIWI-102609	Advanced Topics in Economic Theory	4,5 CP	Brumm, Mitusch
T-WIWI-114598	Digital Markets and Mechanisms	4,5 CP	Rosar
T-WIWI-102892	Economics and Behavior	4,5 CP	Mill
T-WIWI-102850	Introduction to Game Theory	4,5 CP	Puppe, Reiß
T-WIWI-102844	Industrial Organization	4,5 CP	Reiß
T-WIWI-109121	Macroeconomic Theory	4,5 CP	Brumm
T-WIWI-102610	Welfare Economics	4,5 CP	Puppe

Assessment

The assessment is carried out as partial exams (according to Section 4(2), 1 or 2 of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None

Competence Goal

Students

- master concepts that are central to (micro-)economic theory and are familiar with their real-world applications,
- will be able to interpret and critically assess microeconomic models,
- attain in-depth knowledge of the theory of strategic decision making and of general equilibrium models,
- can apply methods from welfare economics to analyze issues like distributional fairness and equality of opportunity.

Content

The module covers central concepts in microeconomic theory as well as their applications. This includes an in-depth introduction to the modelling language and the equilibrium concepts (Nash equilibrium, sub-game-perfect Nash equilibrium, etc.) of non-cooperative game theory ("Introduction to Game Theory") as well as its applications to problems of imperfect competition and industrial organization ("Industrieökonomie") and the design of auctions and (incentive-)mechanisms ("Auction & Mechanism Design").

A further focus of the module is on the development of a micro-founded general equilibrium model in order to examine key macroeconomic issues such as public debt and labor market as well as monetary policies ("Macroeconomic Theory"). Students may also delve deeper into the basics of behavioral economics and experimental design ("Economics & Behavior") as well as into questions of equality of opportunity and the fairness and efficiency of economic allocations ("Wohlfahrtstheorie").

Additional Information

Please note that the course T-WIWI-102609 "Advanced Topics in Economic Theory" is currently not available.

Workload

The total workload for this module is approximately 270 hours (9 credit points). The distribution is done according to the credit points of the courses of the module. The workload for courses with 4.5 credit points is approx. 135 hours. The total number of hours per course is calculated from the time required for attending lectures and exercises, as well as examination times and the time required for an average student to achieve the learning objectives of the module.

Recommendations

None

M

5.12 Module: Economics [M-WIWI-105204]

Coordinators: Prof. Dr. Clemens Puppe
Organisation: KIT Department of Business and Economics
Part of: [Economics \(mandatory\)](#)

Credits
10 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German

Level
3

Version
1

Mandatory			
T-WIWI-102708	Economics I: Microeconomics	5 CP	Puppe, Reiß
T-WIWI-102709	Economics II: Macroeconomics	5 CP	Wigger

Assessment

The assessment mix of each course of this module is defined for each course separately. The final mark for the module is the average of the marks for each course weighted by the credits of the course.

Prerequisites

None

Competence Goal

The student

- knows and understands the basics of economic problems
- understands current economic policy problems which occur in a globalized world
- is able to find a solution strategies using an economical approach

Content

Essential concepts, methods and models of the micro and macroeconomic theory are discussed.

The lecture Economics I [2610012] discusses basics of game theory in addition to microeconomic decision theory, questions of market theory and problems of imperfect competition. Economics II [2600014] handles the economical organizational model, national accounts as well as international trade and monetary policy. Furthermore, complex growth, boom and economic speculations are discussed.

Additional Information

Notice: The lecture *Economics I: Microeconomics* [2610012] is part of the preliminary examination concerning § 8(1) of the examination regulation. This examination must be passed until the end of the examination period of the second semester. Any Re-examinations has to be passed until the end of the examination period of the third semester. Otherwise the examination claim will be lost.

Workload

The total workload for this module is approximately 300 hours.

Recommendations

It is recommended to attend the lectures in the following order: Economics I: Microeconomics [2610012], Economics II: Macroeconomics [2600014], Economics III: Introduction in Econometrics [2520016].

M

5.13 Module: eFinance [M-WIWI-101402]

Coordinators: Prof. Dr. Christof Weinhardt
Organisation: KIT Department of Business and Economics
Part of: Electives (Business Administration)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	German/English	3	9

Mandatory			
T-WIWI-110797	eFinance: Information Systems for Securities Trading	4,5 CP	Weinhardt
Supplementary Courses (Election: at least 4,5 credits)			
T-WIWI-102643	Derivatives	4,5 CP	Uhrig-Homburg
T-WIWI-112694	FinTech	4,5 CP	Thimme
T-WIWI-102646	International Finance	3 CP	Uhrig-Homburg

Assessment

The assessment is carried out as partial exams (according to Section 4 (2), 1-3 SPO) of the core course and further single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

The course *eFinance: Information Systems for Securities Trading* [2540454] is compulsory and must be examined.

Competence Goal

The students

- are able to understand and analyse the value creation chain in stock broking,
- are able to adequately identify, design and use methods and systems to solve problems in finance,
- are able to evaluate and criticize investment decisions by traders,
- are able to apply theoretical methods of econometrics,
- learn to elaborate solutions in a team.

Content

The module "eFinance" addresses current problems in the finance sector. It is investigated the role of information and knowledge in the finance sector and how information systems can solve or extenuate them. Speakers from practice will contribute to lectures with their broad knowledge. Core courses of the module deal with the background of banks and insurance companies and the electronic commerce of stocks in global finance markets. In addition the course Derivatives offers an insight into future and forward contracts as well as the assesment of options. Exchanges and International Finance are also alternatives which provide a supplementary understanding for capital markets.

Information management topics are the focus of the lecture "eFinance: Information Systems for Securities Trading". For the functioning of the international finance markets, it is necessary that there is an efficient information flow. Also, the regulatory frameworks play an important role. In this context, the role and the functioning of (electronic) stock markets, online brokers and other finance intermediaries and their platforms are presented. Not only IT concepts of German finance intermediaries are presented, but also international system approaches will be compared. The lecture is supplemented by speakers from the practice (and excursions, if possible) coming from the Deutsche Börse and the Stuttgart Stock Exchange.

Additional Information

The current seminar courses for this semester, which are complementary to this module, are listed on following webpage: the <http://www.iism.kit.edu/im/lehre>

Workload

The total workload of the module is about 240 hours. The workload is proportional to the credit points of the individual courses.

M

5.14 Module: Electives in Informatics [M-WIWI-106906]

Coordinators: Dr.-Ing. Tobias Käfer
Prof. Dr. Andreas Oberweis
Prof. Dr. Melanie Volkamer

Organisation: KIT Department of Business and Economics

Part of: Electives (Informatics)

Credits
9 CPGrading
gradedRecurrence
Each termDuration
1 termLevel
3Version
3

Compulsory Elective Area (Election: between 1 and 2 items)			
T-WIWI-110340	Applied Informatics – Applications of Artificial Intelligence	4,5 CP	Käfer
T-WIWI-114156	Applied Informatics – Cybersecurity	4,5 CP	Volkamer
T-WIWI-110341	Applied Informatics – Database Systems	4,5 CP	Oberweis
T-WIWI-113957	Applied Informatics – Mobile Computing	4,5 CP	Schiefer
T-WIWI-110338	Applied Informatics – Modelling	4,5 CP	Fritsch, Oberweis
T-WIWI-110343	Applied Informatics – Software Engineering	4,5 CP	Oberweis
T-WIWI-110711	Supplement Applied Informatics	4,5 CP	Professorenschaft des Instituts AIFB
T-WIWI-104679	Foundations of Mobile Business	4,5 CP	Oberweis
T-WIWI-102747	Advanced Programming - Java Network Programming	4,5 CP	Ratz, Zöllner
T-WIWI-102748	Advanced Programming - Application of Business Software	4,5 CP	Klink, Oberweis, Schreiber, Ullrich
Advanced Labs (Election: at most 1 item)			
T-WIWI-111127	Advanced Lab Blockchain Hackathon (Bachelor)	4,5 CP	Sunyaev
T-WIWI-111124	Advanced Lab Sociotechnical Information Systems Development (Bachelor)	4,5 CP	Sunyaev
T-WIWI-110541	Advanced Lab Informatics (Bachelor)	4,5 CP	Professorenschaft des Instituts AIFB
T-WIWI-112915	Advanced Lab Realization of Innovative Services (Bachelor)	4,5 CP	Oberweis
T-WIWI-108439	Advanced Lab Security, Usability and Society	4,5 CP	Volkamer

Assessment

The assessment is carried out as two partial exams (according to Section 4(2) of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. For passing the module exam in every singled partial exam the respective minimum requirements has to be achieved.

The examinations are offered every semester. Re-examinations are offered at every ordinary examination date. The assessment procedures are described for each course of the module separately.

When every singled examination is passed, the overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None

Competence Goal

The student

- knows and has mastered methods and systems for core topics and core application areas of computer science,
- can choose these methods and system situation adequately and can furthermore design and employ them for problem solving,
- is able to independently find strategic and creative answers in the finding of solutions to well defined, concrete, and abstract problems.

Content

The elective module conveys advanced knowledge in the area of applied computer science. This includes, for example, the efficient design and optimization of technical systems, the design and management of database applications or the systematic development of large software systems. Moreover, modeling of complex systems, the use of computer science methods to support knowledge management, and the design and implementation of service-oriented architectures are discussed in this module.

Workload

Total workload for 9 credit points: approx. 270 hours

The exact distribution is based on the credit points of the courses in the module.

M

5.15 Module: Energy Economics [M-WIWI-101464]

Coordinators: Prof. Dr. Wolf Fichtner
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German/English	3	4

Mandatory			
T-WIWI-102746	Introduction to Energy Economics	5,5 CP	Fichtner
Supplementary Courses (Election: 3,5 credits)			
T-WIWI-102607	Energy Policy	3,5 CP	Wietschel
T-WIWI-100806	Renewable Energy-Resources, Technologies and Economics	3,5 CP	Jochem

Assessment

The assessment is carried out as partial written exams (according to Section 4(2), 1 of the examination regulation) about the lecture *Introduction into Energy Economics* [2581010] and one optional lecture of the module. The examinations are offered every semester. Re-examinations are offered at every ordinary examination date. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

The lecture *Introduction into Energy Economics* [2581010] has to be examined.

Competence Goal

The student

- is able to understand interdependencies in energy economics and to evaluate ecological impacts in energy supply,
- is able to assess the different energy carriers and their characteristics,
- knows the energy political framework conditions,
- gains knowledge about new market-based conditions and the cost and potentials of renewable energies in particular.

Content

Introduction to Energy Economics: Characterisation (reserves, suppliers, cost, technologies) of different energy carriers (coal, gas, oil, electricity, heat etc.)

Renewable Energy - Resources, Technology and Economics: Characterisation of different renewable energy carriers (wind, solar, hydro, geothermal etc.)

Energy Policy: Management of energy flows, energy-political targets and instruments (emission trading etc.)

Additional Information

Additional study courses (E.g. from other universities) can be transferred to the grade of the module on special request at the institute.

Workload

The total workload for this module is approx. 270 hours (9 credits). The allocation is based on the credit points of the courses in the module. The workload for courses with 3.5 credits is approx. 105 hours, for courses with 5.5 credits approx. 165 hours.

The total number of hours per course is calculated from the time required to attend the lectures and exercises, as well as the examination times and the time required for an average student to achieve the learning objectives of the module for an average performance.

Recommendations

The courses are conceived in a way that they can be attended independently from each other. Therefore, it is possible to start the module in winter and summer term.

M

5.16 Module: Entrepreneurial Thinking and Action: Fundamentals of Entrepreneurship [M-WIWI-107451]

Coordinators: Prof. Dr. Orestis Terzidis
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German/English	3	1

Compulsory Elective Courses (Election:)			
T-WIWI-114637	Entrepreneurship Basics	4,5 CP	Terzidis
T-WIWI-114636	Student2Startup	4,5 CP	Terzidis
T-WIWI-114635	SIL-LaunchLab	9 CP	Terzidis

Assessment

The assessment of success takes place in the form of partial examinations on the courses of the module amounting to a total of 9 CP. The assessment is described for each course in this module.

The overall grade of the module is calculated from the grades of the partial examinations weighted with credit points and cut off after the first decimal place.

Prerequisites

None

Competence Goal

Students will:

- experience experiential learning by independently developing solutions to entrepreneurial challenges, reflecting on them, and understanding the underlying theoretical concepts,
- acquire knowledge about developing and implementing business ideas,
- apply methods such as Lean Startup, Business Model Canvas, and Prototyping,
- analyze real-world problems faced by customers, users, or startups,
- collaboratively develop innovative solutions in teams,
- practice entrepreneurial thinking in a hands-on environment,
- improve their skills in teamwork, communication, and project management.

Content

This module teaches entrepreneurial thinking and action in a project-based and practice-oriented format. In interdisciplinary teams, students tackle real-world challenges and go through key phases of the entrepreneurial process:

In **Entrepreneurship Basics**, participants independently develop a business idea, validate customer needs, and test solutions using modern innovation tools (e.g., Value Proposition Canvas, Business Model Canvas, Rapid Prototyping).

In **Student2Startup**, students collaborate with real pre-seed startups to solve current strategic challenges in teams, supported by experts from the field.

In the **SIL LaunchLab**, students develop solutions for real technical or entrepreneurial challenges proposed by participants from the Student Innovation Lab (SIL). The goal is to contribute to the implementation and potential spin-off of these projects through innovative input.

The module fosters both analytical and creative thinking, collaborative work, and entrepreneurial practice in a real-world setting.

Workload

Total workload for 9 ECTS credits: approx. 270 hours. The workload is distributed according to the credit points assigned to each course in the module.

Recommendations

An interest in entrepreneurial thinking and action, teamwork, and interdisciplinary project work is recommended. Basic knowledge in business administration and/or innovation methods is helpful but not required.

M

5.17 Module: Finance and Information Systems [M-WIWI-106279]**Coordinators:** Prof. Dr. Martin Ruckes**Organisation:** KIT Department of Business and Economics**Part of:** [Business Administration](#)**Credits**
5 CP**Grading**
graded**Recurrence**
Each term**Duration**
2 terms**Language**
German**Level**
3**Version**
2

Compulsory Elective Courses (Election: at most 5 credits)			
T-WIWI-112821	Introduction to Finance and Accounting	3 CP	Luedecke, Ruckes, Strych, Uhrig-Homburg, Wouters
T-WIWI-114972	Information Systems	2 CP	Mädche
T-WIWI-112736	Finance and Information Systems	5 CP	Mädche, Ruckes

Assessment

The module examination takes the form of either two individual examinations on the course "Introduction to Finance and Accounting" (90 minutes) and the course "Information Systems" (60 minutes) worth 3 CP and 2 CP respectively, or an overall examination worth 5 CP (150 minutes). The partial examinations are offered every semester and can be repeated individually on each regular examination date. The overall examination is offered regularly every winter semester.

Competence Goal

The student

- has basic knowledge in financial assessment of important business decisions and the functioning of financial markets,
- has an understanding of problems, interrelationships and solutions of internal accounting of companies,
- knows the structures and functions of external accounting,
- has basic knowledge of the interaction of information technologies, people and organizational structures,
- is familiar with the structures of information systems.

Content

The fundamentals for the financial analysis of important business decisions are taught and an understanding of the basic aspects of internal and external accounting is created. The fundamentals of business information systems are also taught.

Workload

The total workload for this module is 150 hours (5 credit points), of which approx. 90 hours (3 credit points) in the second semester and 60 hours (2 credit points) in the third semester.

The total number of hours per course results from the time required to attend the lectures and exercises, as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

M

5.18 Module: Financial Data Science [M-WIWI-105610]

Coordinators: Prof. Dr. Maxim Ulrich
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each summer term	1 term	English	3	2

Mandatory			
T-WIWI-111238	Financial Data Science	9 CP	Ulrich

Assessment

The module examination takes the form of an examination of a different type (see partial performance description for details).

Prerequisites

None

Competence Goal

The primary objective of this course is to introduce students to data-driven financial analysis and equip them with a broad set of machine learning techniques for capital markets. The program begins with practical MBA-style case studies on fundamental finance concepts, ensuring that all participants—regardless of prior finance knowledge—establish a strong foundational understanding. In parallel, students develop essential Python programming and data handling skills (e.g., with Pandas, Statsmodels, and scikit-learn).

Building on these fundamentals, the course covers key topics such as forecasting equity and option returns, option pricing (e.g., the Black-Scholes model), and advanced portfolio construction techniques, including distributionally robust optimization and end-to-end reinforcement learning. By integrating financial theory with sophisticated data science methods, students learn to address complex challenges in risk management and empirical asset pricing. Upon completion, they will be able to apply state-of-the-art machine learning approaches to real-world financial data and meet the demands of a rapidly evolving, data-centric financial industry.

Content

This course offers a blend of financial fundamentals and modern data analysis. The content is structured as follows:

- Introduction to Finance
- Introduction to valuation concepts and portfolio theory
- Risk premiums and the CAPM
- Case studies for the practical application of financial theories
- Python Basics and Data Processing
- Efficient data management and cleaning
- Regression analyses and constrained optimization
- Introduction to essential libraries (e.g., NumPy, Pandas, PyTorch)
- Machine Learning in Finance
- Linear vs. non-linear prediction models
- Neural networks, random forests, and other ML methods
- Feature selection and out-of-sample performance
- Options and Volatility Analysis
- Construction and analysis of implied volatility structures
- ML-based option pricing and risk premium models
- Systematic vs. idiosyncratic risks
- Advanced ML Applications
- Deep learning for equity and option return forecasts
- Statistical arbitrage and end-to-end portfolio optimization
- Distributionally robust optimization
- Practical Examples and Case Studies
- Use of modern ML libraries (PyTorch, TensorFlow)
- Real-world datasets and empirical financial analysis
- Discussion of challenges (e.g., big data, computational effort)

Workload

The total workload for this module is approximately 270 hours (equivalent to 9 credit points). This workload includes:

1. Independent study of financial fundamentals (e.g., valuation, CAPM, portfolio theory) and preparation for case studies.
2. Programming exercises in Python (e.g., regression analyses, data cleaning, constrained optimization).
3. Weekly assignments and in-depth questions on the topics covered in class.
4. Preparation and follow-up of lectures, particularly using lecture notes, online videos, and recommended reading materials.
5. Project and case study work applying the learned material to real-world data.
6. Final exam preparation, revisiting essential concepts and practical programming skills.

M

5.19 Module: Financial Data Science in Practice [M-WIWI-107454]

Coordinators: Prof. Dr. Maxim Ulrich
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	English	3	1

Mandatory			
T-WIWI-114633	Financial Data Science in Practice	9 CP	Ulrich

Assessment

The examination is structured as an alternative exam assessment and consists of the following components:

- **Interim Presentations (Formative Milestones)**
- **Quality of Implementation** (Reproducibility, Code Documentation, Tests)
- **Final Written Paper** (15 – 20 pages, scientific standard)
- **Final Presentation** (approx. 30 minutes, public research talk)

The overall grade is determined by the weighted evaluation of the individual components of this assessment. The exact weighting of these components for grade calculation will be announced at the beginning of the course.

Prerequisites

The course T-WIWI-111238 "Financial Data Science" must be passed.

Competence Goal

Students

- Select and apply modern ML / financial-data-science techniques to real-world problems,
- work effectively in agile, cross-functional teams,
- extend their technical skill-set and transfer it to live market data,
- solve a finance-oriented research question with DS/ML algorithms,
- document, present and defend their results to a specialist audience.

Content

Targeted at Bachelor students specialising in Data Science, Machine Learning or Quantitative Finance. Teams of 3 – 6 tackle a hands-on research question at the intersection of financial markets, data science and ML. Deliverables include a scientific report and a fully reproducible research codebase (Git). Data typically come from high-frequency prices, intraday options, ESG feeds, etc.

Projects are coached by KABFI PhD researchers; selected topics may be co-supervised by partner universities.

Additional Information

The language of instruction for this module is English. Project supervision can also be provided in German.

Workload

The total workload for this module is approximately 270 hours (equivalent to 9 credit points). This workload includes:

- Team communication & supervision: 30 hours
- Presentations: 10 hours
- Problem analysis & solution design: 70 hours
- Implementation: 110 hours
- Testing & QA: 50 hours
- Total: 270 hours

M

5.20 Module: Foundations of Informatics I [M-WIWI-106032]

Coordinators: Dr.-Ing. Tobias Käfer
Organisation: KIT Department of Business and Economics
Part of: [Informatics](#)

Credits
5 CP

Grading
graded

Recurrence
Each term

Duration
1 term

Language
German

Level
3

Version
1

Mandatory			
T-WIWI-102749	Foundations of Informatics I	5 CP	Käfer

Assessment

The module examination is a written examination (60 minutes) on the course "Foundations of Informatics I" of the module. The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Competence Goal

The student

- knows the essential principles, methods and systems of Informatics,
- is able to use this knowledge for applications in advanced Informatic lectures and other areas appropriate to the situation to solve problems,
- is able to find strategic and creative answers in the search for solutions to well-defined, concrete and abstract problems.
- The student will be able to reinforce the learned concepts, methods and systems of Informatics in advanced Informatic lectures.

Content

In this module, the topics of modeling, logic, algorithms, sorting and search methods, complexity theory, problem specifications, and data structures are addressed. In the area of theoretical computer science, formal models for automata, languages, and algorithms are introduced. In addition, there is an introduction to technical computer science, from maximum integration to computer architecture and computer arithmetic to operating systems and programming languages as well as file organization.

Workload

The total workload for this module is approximately 150 hours.

M

5.21 Module: Foundations of Marketing [M-WIWI-101424]

Coordinators: Prof. Dr. Martin Klarmann
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German/English	3	9

Mandatory			
T-WIWI-102805	Managing the Marketing Mix	4,5 CP	Klarmann
Supplementary Courses (Election: at least 4,5 credits)			
T-WIWI-111367	B2B Sales Management	4,5 CP	Klarmann
T-WIWI-112156	Brand Management	4,5 CP	Kupfer
T-WIWI-114292	Consumer Psychology	4,5 CP	Scheibehenne

Assessment

The assessment is carried out as partial exams (according to Section 4 (2), 1-3 SPO) of the core course and further single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

The course *Marketing Mix* is compulsory and must be examined.

Competence Goal

The aim of this module is to prepare students for a job in marketing or sales. Especially in technically oriented companies, employees who have a certain technical background as industrial engineers or business informatics specialists are often fit for this purpose.

Students

- are familiar with the most important concepts, procedures and theories of the four instruments of the marketing mix (product management, price management, communication management and sales management)
- have the knowledge to make decisions regarding current and future products (product innovations, e.g. by using conjoint analysis)
- know how customers perceive brands and how this perception can be influenced by the company
- understand how customers react to prices (e.g. using price-sales functions)
- can determine prices on the basis of conceptual and quantitative considerations
- know the basics of price differentiation
- are familiar with various communication instruments (e.g. TV advertising) and can design them accurately
- make communication decisions systematically (e.g. by means of media planning)
- can segment the market and position the product
- know how to assess the importance and satisfaction of customers.

Additionally when taking the course "B2B Sales Management":

- can shape the relationship with customers and sales partners and know the basics of sales organization as well as essential sales channel decisions
- know about specifics of marketing in B2B
- are able to identify different B2B business types and their peculiarities in marketing and sales
- are able to prioritize customers and calculate B2B customer lifetime value
- are able to determine value-based prices and prepare and conduct B2B sales presentations.

Additionally when taking the course "Consumer Behavior":

- know about the influences of social factors, neuronal processes and cognitive resources on consumer behavior
- know about the influences of evolutionary factors, emotions, individual differences and motivation on consumer behavior.

Content

The core course of the module is "Marketing Mix". This course is compulsory and must be examined. "Marketing Mix" contains instruments and methods that enable you to goal-oriented decisions in the operative marketing management (product management, pricing, promotion and sales management). In the "B2B Sales Management" course, we impart knowledge about marketing and sales in environments in which companies themselves distribute and market (often technically highly complex) products to other companies ("business-to-business"). In the "Consumer Behavior" course, we provide an understanding of situational, biological, cognitive, and evolutionary factors that influence consumer behavior. This understanding is provided from an interdisciplinary perspective, incorporating relevant theories and empirical research findings from psychology, cognitive science, biology, and economics.

Additional Information

The courses "Services Marketing and B2B Marketing" and "International Marketing" were offered for the last time in the winter semester 2020/21 and will be replaced by the course "B2B Sales Management" from the winter semester 2021/22 on. The course "Marketing Mix" will continue to be offered as normal in the summer semester 2021 and will also be retained in the long term.

For further information please contact the Marketing & Sales Research Group (marketing.iism.kit.edu).

Workload

Total effort for 9 credit points: approx. 270 hours.

The exact distribution is done according to the credit points of the courses of the module.

M

5.22 Module: Fundamentals of Digital Service Systems [M-WIWI-102752]

Coordinators: Prof. Dr. Gerhard Satzger
Prof. Dr. Christof Weinhardt

Organisation: KIT Department of Business and Economics

Part of: [Electives \(Business Administration\)](#)

Credits
9 CPGrading
gradedRecurrence
Each termDuration
2 termsLanguage
EnglishLevel
3Version
7

Compulsory Elective Courses (Election: 9 credits)			
T-WIWI-111307	Digital Services: Foundations	4,5 CP	Holtmann
T-WIWI-109816	Foundations of Interactive Systems	4,5 CP	Mädche
T-WIWI-110888	Practical Seminar: Digital Services	4,5 CP	Satzger

Assessment

The assessment is carried out as partial exams (according to Section 4 (2), 1-3 SPO), whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None

Competence Goal

Students

- understand services from different perspectives and the concept of value creation in service networks
- know about the concepts, methods and tools for the design, modelling, development and management of digital services and are able to use them
- understand the basic characteristics and effects of integrated information system as a an integral element of digital services
- gain experience in group work as well as in the analysis of case studies and the professional presentation of research results
- practice skills in the English language in preparation of jobs in an international environment

Content

Global economy is increasingly determined by services: in industrialized countries nearly 70% of gross value added is achieved in the tertiary sector. Unfortunately, for the design, development and the management of services traditional concepts focused on goods are often insufficient or inappropriate. Besides, the rapid technical advance in the information and communication technology sector pushes the economic importance of digital services even further thus changing the competition environment. ICT-based interaction and individualization open up completely new dimensions of shared value between clients and providers, dynamic and scalable "service value networks" replace established value chains, digital services are provided globally crossing geographical boundaries. This module establishes a basis for further specialization in service innovation, service economics, service design, service modelling, service analytics as well as the transformation and coordination of service networks.

Additional Information

This module is part of the KSRI teaching profile "Digital Service Systems". Further information on a service-specific profiling is available under www.ksri.kit.edu/teaching.

Workload

Total workload for 9 credit points: approx. 270 hours. The allocation is based on the credit points of the courses in the module.

Recommendations

None

M

5.23 Module: HR Management & Digital Workplace [M-WIWI-105928]

Coordinators: Prof. Dr. Alexander Mädche
Prof. Dr. Petra Nieken

Organisation: KIT Department of Business and Economics

Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	German/English	3	2

Elective Offer (Election:)			
T-WIWI-113745	HR-Management 1: HR Strategies in the Age of AI	4,5 CP	Nieken
T-WIWI-111858	Topics in Human Resource Management	3 CP	Nieken
T-WIWI-109816	Foundations of Interactive Systems	4,5 CP	Mädche
T-WIWI-111914	Practical Seminar: Interactive Systems	4,5 CP	Mädche

Assessment

The assessment is carried out as partial exams of the courses in this module. The assessment procedures are described for each course in the module separately.

The overall grade of the module is the average of grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

Please refer to the course descriptions for potential restrictions regarding an individual course.

Competence Goal

The student

- understands and analyses challenges and objectives within organizations
- applies economic models and empirical methods to analyze and solve challenges with a focus on the future of work
- understands the impact of digitalization and new information and communication technology on the work life and HR decisions
- knows how to apply scientific research methods and understands the underlying problems

Content

The module „HR Management & Digital Workplace“ offers an interdisciplinary approach and brings together knowledge about Human Resource Management, Leadership and Digitalization. The module specifically focuses on topics related to the future of work in organizations. The topics range from interactive systems at the digital workplace and human-centered design, to recruiting, training and development, as well as (digital) leadership. All courses in the module foster active participation and allow students to learn state-of-the-art concepts and methods and apply them to real-world challenges.

Additional Information

Please refer to the course descriptions for potential restrictions regarding an individual course.

Workload

Total workload for 9 credits: approx. 270 hours.

M

5.24 Module: Industrial Production I [M-WIWI-101437]

Coordinators: Prof. Dr. Frank Schultmann
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German/English

Level
3

Version
4

Mandatory			
T-WIWI-102606	Fundamentals of Production Management	5,5 CP	Schultmann
Supplementary Courses (Election: 3,5 credits)			
T-WIWI-102870	Logistics and Supply Chain Management	3,5 CP	Schultmann
T-WIWI-102820	Production Economics and Sustainability	3,5 CP	Schultmann

Assessment

The assessment is carried out as partial exams (according to section 4 (2), 1 SPO) of the core course “Fundamentals of Production Management” [2581950] and one further single course of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

The course “Fundamentals of Production Management” [2581950] and one additional activity have to be chosen.

Competence Goal

- Students shall be aware of the important role of industrial production and logistics for production management.
- Students shall use relevant concepts of production management and logistics in an adequate manner.
- Students shall be able to reflect on decision principles in firms and their circumstances in the light of the production management aspects studied.
- Students shall be proficient in describing essential tasks, difficulties and solutions to problems in production management and logistics
- Students shall be able to describe relevant approaches of modeling production and logistic systems.
- Students shall be aware of the important role of material and energy-flows in production systems.
- Students shall be proficient in using exemplary methods for solving selected problems.

Content

This module is designed to introduce students into the wide area of industrial production and logistics management. It focuses on strategic production management under the aspect of sustainability. The courses use interdisciplinary approaches of systems, also theory to describe the central tasks of industrial production management and logistics. Herein, attention is drawn upon strategic corporate planning, research and development as well as site selection. Students will obtain knowledge in solving internal and external transport and storage problems with respect to supply chain management and disposal logistics.

Workload

Total effort will account to 270 hours (9 credit points) and can be allocated according to the credit point rating. Therefore, a course with 3.5 credits requires an effort of approximately 105h and a course with 5.5 credits 165h.

The total effort for each course consists of attending lectures and tutorials, examination times and the time an average student needs to prepare himself in order to pass the exam with an average grade.

M

5.25 Module: Information Systems & Digital Business [M-WIWI-105981]

Coordinators: Prof. Dr. Alexander Mädche
Prof. Dr. Gerhard Satzger
Prof. Dr. Christof Weinhardt

Organisation: KIT Department of Business and Economics

Part of: [Electives \(Business Administration\)](#)

Credits
9 CPGrading
gradedRecurrence
Each termDuration
2 termsLanguage
German/EnglishLevel
3Version
3

Compulsory Elective Courses (Election: at least 1 item)			
T-WIWI-111307	Digital Services: Foundations	4,5 CP	Holtmann
T-WIWI-110797	eFinance: Information Systems for Securities Trading	4,5 CP	Weinhardt
T-WIWI-113746	Enterprise Systems for Financial Accounting & Controlling	4,5 CP	Fleig, Mädche
T-WIWI-109816	Foundations of Interactive Systems	4,5 CP	Mädche
T-WIWI-107506	Platform Economy	4,5 CP	Weinhardt
T-WIWI-114596	Sustainability in E-Business	4,5 CP	Heßler, Pfeiffer
Complementary Offer (Election: at most 1 item)			
T-WIWI-110888	Practical Seminar: Digital Services	4,5 CP	Satzger
T-WIWI-111914	Practical Seminar: Interactive Systems	4,5 CP	Mädche
T-WIWI-112154	Practical Seminar: Platform Economy	4,5 CP	Weinhardt

Assessment

The module examination takes place in the form of partial examinations via courses of the module amounting to a total of at least 9 LP.

The overall score of the module is formed from the credit-weighted scores of the partial examinations and truncated after the first decimal place.

Competence Goal

Students

- understand the basic concepts of interactive systems as well as the economic foundations and key components of platforms
- explore the theoretical grounding of interactive systems leveraging theories from reference disciplines such as psychology
- understand business models, network effects of digital platforms and get to know different market forms and market mechanisms
- gain experience in group work as well as in the analysis of case studies and the professional presentation of research results

Content

The “Information Systems & Digital Business” modules of the research groups of Prof. Dr. Alexander Mädche (Information Systems & Service Design), Prof. Dr. Gerhard Satzger (Digital Service Innovation) and Prof. Dr. Christof Weinhardt (Information & Market Engineering), offer a comprehensive overview on important topics of digitalization – blending aspects of digital interaction, digital services and the platform economy. Courses in this module cover the aspects of interaction between humans and information systems as well as the economic foundations of platform businesses:

Foundations of Interactive Systems:

Advanced information and communication technologies (ICT) make interactive systems ever-present in the users’ private and business life. They are an integral part of E-Commerce portals or social networking sites as well as at the workplace, e.g. in the form of collaboration portals or analytical dashboards. Furthermore, with the ever-increasing capabilities of ICT, the design of human-computer interaction is becoming increasingly important. The aim of this module is to introduce the foundations, related theories, key concepts, and design principles as well as current practice of contemporary interactive systems. The students get the necessary knowledge to guide the successful implementation of interactive systems in business and private life.

Platform Economy:

Apple, Alphabet, Amazon, Microsoft, and Facebook; five of the most valuable companies worldwide create large portions of their profits by employing a digital platform model. This module teaches the key design considerations of digital platforms: their foundations in economic theory, their core components and design aspects, the adequate selection of market mechanisms for achieving certain goals, and the role of user behavior in the context of digital platforms. The theoretic foundations are enriched by discussions of several real-world examples, e.g. from the finance sector. Thus, the students are enabled to a) analyze given platforms and make recommendations for improvements and b) independently design new platforms for given use cases.

Additional Information

The module can no longer be taken as of winter semester 2022/2023.

Workload

Total effort for 9 credit points: approx. 270 hours. The distribution is based on the credit points of the courses of the module (120-135h for courses with 4.5 credit points). The total number of hours per course results from the effort required to attend lectures and exercises, as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

M

5.26 Module: Intellectual Property Law [M-INFO-101215]**Coordinators:** N.N.**Organisation:** KIT Department of Informatics**Part of:** [Electives \(Society\)](#)**Credits**
9 CP**Grading**
graded**Recurrence**
Each term**Duration**
2 terms**Language**
German**Level**
3**Version**
5

Intellectual Property Law (Election: at least 1 item as well as at least 9 credits)			
T-INFO-101308	Copyright	3 CP	N.N.
T-INFO-101313	Trademark and Unfair Competition Law	3 CP	Matz
T-INFO-101307	Internet Law	3 CP	N.N.
T-INFO-108462	Selected Legal Issues of Internet Law	3 CP	N.N.
T-INFO-101310	Patent Law	3 CP	Straßburger

Assessment

see partial achievements

Prerequisites

None

Competence Goal

The student

- has detailed knowledge of the main intellectual property rights,
- analyzes and evaluates complex issues and leads them to a legal solution,
- translates the legal principles into contracts on the use of intellectual property and solves more complex infringement cases
- knows and understands the main features of registration procedures and has a broad overview of legal issues raised by the Internet.
- analyzes, assesses and evaluates relevant legal issues from a legal, information technology and legal policy perspective, economic and legal policy perspectives

Content

The module provides knowledge in the core areas of intellectual property law and core topics of internet law. It explains the requirements and the necessary procedure for protecting inventions and industrial marks nationally and internationally. In addition, the necessary know-how is taught to use intellectual property rights and to defend intellectual property rights against attacks by third parties.

Workload

The total workload for this module is approximately 270 hours (9 credits). The allocation is based on the credits of the courses of the module. The workload for courses with 3 credits is about 90 hours. The total number of hours per course results from the effort required to attend the lectures as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

M

5.27 Module: Introduction in Econometrics [M-WIWI-105203]**Coordinators:** Prof. Dr. Melanie Schienle**Organisation:** KIT Department of Business and Economics**Part of:** [Statistics and Econometrics](#)**Credits**
5 CP**Grading**
graded**Recurrence**
Each term**Duration**
1 term**Language**
German**Level**
3**Version**
2

Mandatory			
T-WIWI-114622	Introduction to Econometrics	5 CP	Schienle

Assessment

See course description.

Prerequisites

None.

Competence Goal

- Familiarity with the basic concepts and methods of econometrics
- Preparation of simple econometric surveys

Content

In Economics III [2520016] the students learn about quantitative economic relations. The basic problems of econometrics are applied to simple economic studies.

Workload

The total workload for this module is approximately 150 hours.

M

5.28 Module: Introduction to Digital Economics [M-WIWI-106271]

Coordinators: Prof. Dr. Johannes Philipp Reiß
Organisation: KIT Department of Business and Economics
Part of: [Digital Economics](#)

Credits
6 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
English

Level
3

Version
1

Mandatory			
T-WIWI-112722	Introduction to Digital Economics	6 CP	Brumm, Reiß

Assessment

The module examination takes the form of an overall examination of the two courses "The Digital Economy: Cases and Models" and "The Digital Economy: Micro and Macro Perspective" lasting 120 minutes. The exam is offered every semester and can be repeated at any regular exam date. The module grade corresponds to the exam grade.

Prerequisites

None

Competence Goal

The student

- Can classify the subject of Digital Economics and relate it to Economics.
- Knows and understands essential phenomena of Digital Economics and can view them from an economic perspective.
- Can analyze the Digital Economy from a micro and macro perspective.

Content

The digitalization of the economy is one of the most important transformations of our time. This module introduces the subject "Digital Economics" as part of economics. In the course "The Digital Economy: Cases and Models" essential phenomena of the digital economy are considered. Building on the knowledge gained in this course and in Economics I, the course "The Digital Economy: Micro and Macro Perspective" focuses on the analysis of key issues from a micro and macro perspective.

Additional Information

The course "The Digital Economy: Cases and Models" will be offered for the first time in the winter semester 2023/24. The course "The Digital Economy: Micro and Macro Perspective" will be offered for the first time in the summer semester 2024.

Workload

The total workload for this module is 180 hours (6 credit points), of which approx. 60 hours (2 credit points) in the first semester and 120 hours (4 credit points) in the second semester.

The total number of hours per course results from the time required to attend the lectures and exercises, as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

M**5.29 Module: Introduction to Operations Research for Digital Economics [M-WIWI-106280]**

Coordinators: Prof. Dr. Stefan Nickel
 Prof. Dr. Steffen Rebennack
 Prof. Dr. Oliver Stein

Organisation: KIT Department of Business and Economics

Part of: [Operations Research](#)

Credits
5 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German

Level
3

Version
1

Mandatory			
T-WIWI-112737	Introduction to Operations Research for Digital Economics	5 CP	Nickel, Rebennack, Stein

Assessment

The module examination takes the form of a written comprehensive examination (60 min.). The written exam is offered every semester (usually in March and July) and can be repeated at any regular exam date. The module grade corresponds to the written exam grade.

Prerequisites

None.

Competence Goal

The student

- knows and describes the basic concepts of the decisive subareas in Operations Research (Linear Optimization, Graphs, Integer Optimization, Nonlinear Optimization, Dynamic Optimization),
- knows the methods and models indispensable for quantitative analysis,
- models and classifies optimization problems and selects appropriate solution procedures to solve simple optimization problems independently,
- validates, illustrates and interprets obtained solutions.

Content

After an introductory thematization of the basic concepts of Operations Research, linear optimization, graph theory, integer optimization, nonlinear optimization and dynamic optimization are treated in particular. This module forms the basis of a series of advanced courses on theoretical and practical aspects of Operations Research.

Workload

The total workload for this module is 150 hours (5 credit points), of which approx. 45 hours (1.5 credit points) in the first semester and 105 hours (3.5 credit points) in the second semester.

The total number of hours per course results from the time required to attend the lectures and exercises, as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

Recommendations

Knowledge of Mathematics I and II is assumed, as well as programming knowledge for the calculator exercises.

M

5.30 Module: Introduction to Programming [M-WIWI-101581]

Coordinators: Prof. Dr.-Ing. Johann Marius Zöllner
Organisation: KIT Department of Business and Economics
Part of: [Informatics](#)

Credits
5 CP

Grading
graded

Recurrence
Each winter term

Duration
1 term

Language
German

Level
3

Version
1

Mandatory			
T-WIWI-102735	Introduction to Programming with Java	5 CP	Zöllner

Assessment

The assessment consists of a written resp. computer-based exam (60 min) according to Section 4 (2),1 of the examination regulation.

The successful completion of the compulsory tests in the computer lab is prerequisites for admission to the written resp. computer-based exam.

The examination takes place every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Competence Goal

- Knowledge of the fundamental principles, methods and systems of informatics.
- Students acquire the ability to independently solve algorithmic problems in the programming language Java, which is predominant in the field of business applications.
- This enables them to find strategic and creative answers in the search for solutions to precisely defined, concrete and abstract problems.

Content

With an introduction to systematic programming, the module provides essential practical foundations for all advanced computer science lectures. Based on considerations on the structured and systematic design of algorithms, the most important constructs of modern higher programming languages and programming methods are explained and illustrated using examples. One focus is on teaching the concepts of object-oriented programming. Java is used as the programming language. Knowledge of this language is assumed in the advanced computer science lectures.

Workload

Total workload for 5 credit points: approx. 150 hours

Attendance time: 45 hours

Preparation and follow-up of the course: 67.5 hours

Exam and exam preparation: 37.5 hours

M

5.31 Module: Introduction to Statistics [M-WIWI-101432]

Coordinators: Prof. Dr. Oliver Grothe
Prof. Dr. Melanie Schienle

Organisation: KIT Department of Business and Economics

Part of: [Statistics and Econometrics](#)

Credits
10 CPGrading
gradedRecurrence
Each termDuration
2 termsLanguage
GermanLevel
3Version
2

Mandatory			
T-WIWI-102737	Statistics I	5 CP	Grothe, Schienle
T-WIWI-102738	Statistics II	5 CP	Grothe, Schienle

Assessment

The assessment of this module consists of two written examinations according to Section 4(2), 1 of the examination regulation (one for each of the courses Statistics I and II).

The overall grade of the module is the average of the grades of these two written examinations.

Prerequisites

Keine

Competence Goal

The student

- knows and understands the basic concepts of statistical data analysis and applies them independently to limited objects of investigation,
- knows and understands the basic definitions and statements of probability theory and applies them independently,
- transfers the theoretical foundations of statistical data analysis and probability theory to the issues of parametric estimation and test theory.

Content

The module contains the fundamental methods and scopes of Statistics.

A. Descriptive Statistics: univariate und bivariate analysis

B. Probability Theory: probability space, conditional and product probabilities, transformation of probabilities, parameters of location and dispersion, most important discrete and continuous distributions, covariance and correlation, limit distributions

C. Theory of estimation and testing: sufficiency of statistics, point estimation (optimality, ML-method), interval estimations, linear regression

Module Grade Calculation

The overall grade of the module is the average of the grades of these two written examinations.

Workload

The total workload for this module is approx. 300 hours (10 credits). The distribution is based on the credit points of the courses of the module.

The total number of hours per course is calculated from the time required to attend the lectures and exercises, the examination time and the time required for an average student to achieve the learning objectives of the module for an average performance.

Recommendations

It is strongly recommended to complete the course *Statistics I* [25008/25009] before the course *Statistics II* [25020/25021].

The lecture is accompanied by an exercise and a tutorial as well as a computer practical course, which are recommended.

M

5.32 Module: Leadership & Sustainable HR-Management [M-WIWI-106860]

Coordinators: Prof. Dr. Petra Nieken
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	German	3	4

Mandatory			
T-WIWI-113745	HR-Management 1: HR Strategies in the Age of AI	4,5 CP	Nieken
Elective Offer (Election:)			
T-WIWI-114178	HR-Management 2: Organization, Fairness & Leadership	4,5 CP	Nieken
T-WIWI-111858	Topics in Human Resource Management	3 CP	Nieken

Assessment

The assessment is carried out as partial exams according to § 4 paragraph 2 Nr. 1 – Nr. 3 SPO of the examination regulation of the core course and further single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Competence Goal

The student

- understands and analyzes relevant processes, methods, and instruments in HR management and leadership, evaluating their usefulness,
- analyzes various processes and assesses their strengths and weaknesses, particularly regarding the use of AI in the workplace and sustainability aspects,
- understands the current challenges in HR management and leadership, considering their alignment with corporate strategy,
- evaluates the strengths and weaknesses of existing structures and regulations based on systematic criteria,
- possesses knowledge of the applicability and challenges of different scientific research methods.

Content

The module provides comprehensive knowledge in the areas of sustainable HR management, leadership, fair working conditions, and diversity and inclusion. Students engage deeply with the future of work. Topics range from classic HR themes such as recruiting and employee retention to AI in the workplace, fair working conditions, and sustainability.

Drawing on microeconomic and behavioral economic approaches, we analyze various processes and instruments, evaluating their alignment with corporate strategy. All courses within the module encourage active participation and empower students to learn cutting-edge concepts and methods, applying them to real-world challenges

Workload

Total workload for 9 credits: approx. 270 hours.

Recommendations

Completion of the core module "Management and Marketing" is recommended.
 There is no fixed order for the courses of this module.

M

5.33 Module: Legal Aspects of Digitalization [M-INFO-106424]**Coordinators:** N.N.**Organisation:** KIT Department of Informatics**Part of:** [Society](#)**Credits**
9 CP**Grading**
graded**Recurrence**
Each term**Duration**
1 term**Language**
German**Level**
3**Version**
2

Legal Aspects of Digitalization (Election: between 9 and 12 credits)			
T-INFO-109840	Intellectual Property and Data Protection	6 CP	N.N.
T-INFO-101307	Internet Law	3 CP	N.N.
T-INFO-101997	Seminar: Legal Studies I	3 CP	N.N.

M

5.34 Module: Machine Learning and Data Science [M-WIWI-105482]

Coordinators: Prof. Dr. Andreas Geyer-Schulz
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
English

Level
3

Version
1

Mandatory			
T-WIWI-111028	Introduction to Machine Learning	4,5 CP	Geyer-Schulz, Nazemi
T-WIWI-111029	Introduction to Neural Networks and Genetic Algorithms	4,5 CP	Geyer-Schulz

Assessment

The module examination is carried out in the form of partial examinations of the selected courses of the module, with which in total the minimum requirement of credit points is fulfilled. The kind of examination is described in detail for each course of this module.

Prerequisites

None

Competence Goal

The student

- knows the main families of machine learning methods, their basic principles, assumptions and restrictions.
- can use these methods to solve data analysis problems, to support decision making or for process automation in companies and use the solutions interpreted and evaluated accordingly.
- can compare and evaluate the performance of solutions.

Content

The module mainly focuses on methods from statistical learning (linear and logistic learning, regression, tree methods, SVMs, and shrinkage estimators) and from the field of neural and genetic procedures were presented. Furthermore, data transformations and -representations (e.g. dimension reduction, clustering, imputation in case of missing data) and visualization techniques and appropriate inference, diagnosis and validation techniques are presented.

Workload

Total effort for 9 credit points: approx. 270 hours. The allocation is based on the credit points of the courses of the module.

M

5.35 Module: Macroeconomics: Theory and Computation [M-WIWI-106274]

Coordinators: Prof. Dr. Johannes Brumm
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Economics\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	German/English	3	1

Compulsory Elective Courses (Election:)			
T-WIWI-112735	Macroeconomics: Theory and Computation	9 CP	Brumm
T-WIWI-109121	Macroeconomic Theory	4,5 CP	Brumm
T-WIWI-112723	Computational Macroeconomics	4,5 CP	Brumm

Assessment

The module examination takes place either in the form of an overall examination of 9 LP on the course Macroeconomic Theory and the course Computational Macroeconomics, or via two individual examinations of 4.5 LP each. The duration of the overall examination is 120 minutes. The duration of an individual exam is 60 minutes. The examinations are offered every semester and can be repeated at any regular examination date.

Competence Goal

The student

- has comprehensive knowledge of macroeconomic issues and the models used to analyze them,
- acquires comprehensive knowledge of advanced methods for the numerical solution of macroeconomic models,
- validates, illustrates and interprets models developed in economic research.

Content

The module deals with macroeconomic issues in the context of dynamic and partly stochastic equilibrium models. The macroeconomic theory is consistently microfounded and numerical methods are developed to analyze complex dynamic models. On this basis, the module deals, among other things, with questions of labor market economics, monetary policy and fiscal policy.

Additional Information

The course Computational Macroeconomics will be offered for the first time in SS 2024 or SS 2025. The individual examinations are aimed in particular at temporary students who study at KIT for one or two semesters and are not aiming for a degree at KIT.

Workload

The total workload for this module is approx. 270 hours (9 credit points). The total number of hours per course is calculated from the time required to attend the lectures and exercises, as well as the examination times and the time required for an average student to achieve the learning objectives of the module for an average performance. If the overall examination is chosen, the workload is distributed over approx. 105 hours (3.5 CP) in the first semester and 165 hours (5.5 CP) in the second semester.

Recommendations

Prior attendance of the module Introduction to Economics is recommended.

M

5.36 Module: Management Accounting [M-WIWI-101498]

Coordinators: Prof. Dr. Marcus Wouters
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits
9 CP

Grading
graded

Recurrence
see Annotations

Duration
2 terms

Language
English

Level
3

Version
3

Mandatory			
T-WIWI-102800	Management Accounting 1	4,5 CP	Wouters
T-WIWI-102801	Management Accounting 2	4,5 CP	Wouters

Assessment

The course "Management Accounting 1" and the corresponding assessment for first-time examinees will be offered for the last time in the **summer semester 2026**.

The course "Management Accounting 2" and the corresponding assessment for first-time examinees will be offered for the last time in the **winter semester 2026/2027**.

The assessment is carried out as partial exams (according to Section 4 (2), 13 SPO) of the courses of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Competence Goal

Students

- are familiar with various management accounting methods,
- can apply these methods for cost estimation, profitability analysis, and product costing,
- are able to analyze short-term and long-decisions with these methods,
- have the capacity to devise instruments for organizational control.

Content

The module consists of two courses "Management Accounting 1" and "Management Accounting 2". The emphasis is on structured learning of management accounting techniques.

Additional Information

The course "Management Accounting 1" and the corresponding assessment for first-time examinees will be offered for the last time in the **summer semester 2026**.

The course "Management Accounting 2" and the corresponding assessment for first-time examinees will be offered for the last time in the **winter semester 2026/2027**.

Workload

Total workload for 9 credit points: approx. 270 hours

The exact distribution is based on the credit points of the courses in the module.

M**5.37 Module: Management and Marketing [M-WIWI-105768]**

Coordinators: Prof. Dr. Martin Klarmann
 Prof. Dr. Hagen Lindstädt
 Prof. Dr. Petra Nieken
 Prof. Dr. Orestis Terzidis

Organisation: KIT Department of Business and Economics

Part of: [Business Administration](#)

Credits
5 CP

Grading
graded

Recurrence
Each winter term

Duration
1 term

Language
German

Level
3

Version
2

Mandatory			
T-WIWI-111594	Management and Marketing	5 CP	Klarmann, Lindstädt, Nieken, Terzidis

Assessment

The module examination is in written form on the two courses "Management" and "Marketing". The examination is offered at the beginning of each lecture-free period. Repeat examinations are possible at any regular examination date.

Competence Goal

The student

- has basic knowledge of central issues in business administration,
- has an understanding of problems, interrelationships and solutions in strategic management,
- is able to analyze and evaluate central areas of activity, functions and decisions in a company operating in a market economy,
- has an overview of important marketing-relevant questions and well-founded approaches to their solution.

With the knowledge acquired in the three basic business administration modules, the prerequisites are created in the area of business administration to expand this knowledge in the specialization program.

Content

An understanding of the basic functions of managing businesses is provided. In addition, the basics of marketing are taught.

Workload

Total workload required for 5 credit points: approx. 150 hours

M**5.38 Module: Mathematics I [M-MATH-106282]**

Coordinators: Prof. Dr. Andreas Rieder
Prof. Dr. Christian Wieners

Organisation: KIT Department of Mathematics

Part of: [Mathematics](#)

Credits
8 CP

Grading
graded

Recurrence
Each winter term

Duration
1 term

Language
German

Level
3

Version
1

Mandatory			
T-MATH-112738	Mathematics I for Digital Economics - Exam	7 CP	Rieder, Weiß, Wieners
T-MATH-112744	Mathematics I for Digital Economics - Exercise	1 CP	Rieder, Weiß, Wieners

Assessment

The assessment in this module consists of

1. a nongraded certificate (following §4(3) of the examination regulations), which is earned by successfully completing exercises during the exercise sessions of Mathematics I in the lecture hall, and
2. a written examination of 90 minutes on the lecture mathematics I following §4(2), 1 of the examination regulations (7 credits).

Competence Goal

Mathematical models are an important part in economical sciences. Therefore, the students need a basic knowledge in mathematics. The aim is the instruction in a comprehension of basic methods in analysis and linear algebra.

The students learn

- to use simple concepts and structures in mathematics;
- to recognize the mathematical structure of practical applications and to solve in simple cases mathematical problems;
- to comprehend the mathematical structure of more complex applications;
- to understand the mathematical basics to develop mathematical models for applications in cooperation with experts;
- to explain as a group member in the tutorial elementary mathematical structures and to stimulate in the discussion of examples the success of the group;
- to be in time for the tutorial group and for the preparation of homeworks;
- to work with basic mathematical literature.

The provides the foundations for

- comprehending the mathematical structure of more complex applications;
- developing mathematical models for applications in cooperation with experts;
- constructing algorithmical solutions of mathematical models for applications in cooperation with experts.

Content

The lectures Mathematics I and II give an overview in basic mathematical knowledge which is required to understand modern computer science and economical sciences. Part I consist of linear algebra including the basic algebraic structures, vector spaces and linear mappings. Many algebraic concepts are important for computer science. Part II consists of analysis including an introduction into the calculus of functions of one or several variables.

Module Grade Calculation

The grade of the module is the grade of the written examination.

Workload

See German version.



5.39 Module: Mathematics II [M-MATH-106285]

Coordinators: Prof. Dr. Andreas Rieder
Prof. Dr. Christian Wieners

Organisation: KIT Department of Mathematics

Part of: [Mathematics](#)

Credits
8 CP

Grading
graded

Recurrence
Each summer term

Duration
1 term

Language
German

Level
3

Version
1

Mandatory			
T-MATH-112745	Mathematics II for Digital Economics - Exam	7 CP	Rieder, Weiß, Wieners
T-MATH-112746	Mathematics II for Digital Economics - Exercise	1 CP	Rieder, Weiß, Wieners

Assessment

The assessment in this module consists of

1. a nongraded certificate (following §4(3) of the examination regulations), which is earned by successfully completing exercises during the exercise sessions of Mathematics II in the lecture hall, and
2. a written examination of 90 minutes on the lecture Mathematics II (following §4(2), 1 of the examination regulations).

Prerequisites

None

Competence Goal

Mathematical models are an important part in economical sciences. Therefore, the students need a basic knowledge in mathematics. The aim is the instruction in a comprehension of basic methods in analysis and linear algebra.

The students learn

- to use simple concepts and structures in mathematics;
- to recognize the mathematical structure of practical applications and to solve in simple cases mathematical problems;
- to comprehend the mathematical structure of more complex applications;
- to understand the mathematical basics to develop mathematical models for applications in cooperation with experts;
- to explain as a group member in the tutorial elementary mathematical structures and to stimulate in the discussion of examples the success of the group;
- to be in time for the tutorial group and for the preparation of homeworks;
- to work with basic mathematical literature.

The provides the foundations for

- comprehending the mathematical structure of more complex applications;
- developing mathematical models for applications in cooperation with experts;
- constructing algorithmical solutions of mathematical models for applications in cooperation with experts.

Content

The lectures Mathematics I and II give an overview in basic mathematical knowledge which is required to understand modern computer science and economical sciences. Part I consist of linear algebra including the basic algebraic structures, vector spaces and linear mappings. Many algebraic concepts are important for computer science. Part II consists of analysis including an introduction into the calculus of functions of one or several variables.

Module Grade Calculation

The grade of the module is the grade of the written examination.

Workload

See German version.

M

5.40 Module: Methodical Foundations of OR [M-WIWI-101414]

Coordinators: Prof. Dr. Oliver Stein
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Operations Research\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German	3	10

Compulsory Elective Courses (Election: at least 1 item as well as between 4,5 and 9 credits)			
T-WIWI-102726	Global Optimization I	4,5 CP	Stein
T-WIWI-103638	Global Optimization I and II	9 CP	Stein
T-WIWI-102724	Nonlinear Optimization I	4,5 CP	Stein
T-WIWI-103637	Nonlinear Optimization I and II	9 CP	Stein
Supplementary Courses (Election:)			
T-WIWI-106546	Introduction to Stochastic Optimization	4,5 CP	Rebennack
T-WIWI-102727	Global Optimization II	4,5 CP	Stein
T-WIWI-102725	Nonlinear Optimization II	4,5 CP	Stein
T-WIWI-102704	Facility Location and Strategic Supply Chain Management	4,5 CP	Nickel

Assessment

The assessment is carried out as partial written exams (according to Section 4(2), 1 of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

At least one of the courses *Nonlinear Optimization I* [2550111] and *Global Optimization I* [2550134] has to be examined.

Competence Goal

The student

- names and describes basic notions for optimization methods, in particular from nonlinear and from global optimization,
- knows the indispensable methods and models for quantitative analysis,
- models and classifies optimization problems and chooses the appropriate solution methods to solve also challenging optimization problems independently and, if necessary, with the aid of a computer,
- validates, illustrates and interprets the obtained solutions.

Content

The modul focuses on theoretical foundations as well as solution algorithms for optimization problems with continuous decision variables. The lectures on nonlinear programming deal with local solution concepts, whereas the lectures on global optimization treat approaches for global solutions.

Additional Information

The planned lectures and courses for the next three years are announced online (<http://www.ior.kit.edu>).

Workload

The total workload for this module is approx. 270 hours (9 credits). The allocation is based on the credit points of the courses in the module.

The total number of hours per course results from the time required to attend the lectures and exercises, as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

Recommendations

The courses *Introduction to Operations Research I* and *II* are helpful.

M

5.41 Module: Optimization under Uncertainty [M-WIWI-103278]

Coordinators: Prof. Dr. Steffen Rebennack
Organisation: KIT Department of Business and Economics
Part of: Electives (Operations Research)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
1 term

Language
German

Level
3

Version
5

Compulsory Elective Courses (Election: between 1 and 2 items)			
T-WIWI-106546	Introduction to Stochastic Optimization	4,5 CP	Rebennack
T-WIWI-106545	Optimization under Uncertainty	4,5 CP	Rebennack
Supplementary Courses (Election: at most 1 item)			
T-WIWI-102724	Nonlinear Optimization I	4,5 CP	Stein
T-WIWI-102714	Tactical and Operational Supply Chain Management	4,5 CP	Nickel

Assessment

The assessment is carried out as partial exams (according to § 4(2), 1 of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module.

The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

At least one of the courses *Introduction to Stochastic Optimization* and *Optimization approaches under uncertainty* has to be taken.

Competence Goal

The student

- denominates and describes basic notions for optimization methods under uncertainty, in particular from stochastic optimization,
- knows the indispensable methods and models for quantitative analysis,
- models and classifies optimization problems under uncertainty and chooses the appropriate solution methods to solve also challenging optimization problems independently and, if necessary, with the aid of a computer,
- validates, illustrates and interprets the obtained solutions, in particular of
- stochastic optimization problems.

Content

The module focuses on modeling and analyzing mathematical optimization problems where certain data is not fully present at the time of decision-making. The lectures on the introduction to stochastic optimization deal with methods to integrate distribution information into the mathematical model. The lectures on the optimization approaches under uncertainty offer alternative approaches such as robust optimization.

Additional Information

The curriculum, planned for three years in advance, can be found on the Internet at <http://sop.ior.kit.edu/28.php>.

Workload

The total workload of the module is about 240 hours. The workload is proportional to the credit points of the individual courses.

Recommendations

Knowledge from the lectures "Introduction to Operations Research I" and "Introduction to Operations Research II" are helpful.

M

5.42 Module: Preliminary Exam [M-WIWI-106421]

Organisation: University

Part of: Preliminary Exam

Credits
0 CP

Grading
pass/fail

Recurrence
Each term

Duration
2 terms

Language
German

Level
3

Version
1

Mandatory			
T-WIWI-102737	Statistics I	5 CP	Grothe, Schienle
T-WIWI-102708	Economics I: Microeconomics	5 CP	Puppe, Reiß

Modeled Deadline

This module must be passed until the end of the 3. semester.

Prerequisites

none

M

5.43 Module: Private Business Law [M-INFO-101216]

Coordinators: N.N.
Organisation: KIT Department of Informatics
Part of: [Electives \(Society\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German

Level
3

Version
6

Private Business Law (Election: at least 1 item as well as at least 9 credits)			
T-INFO-111405	Seminar: Commercial and Corporate Law in the IT Industry	3 CP	Nolte
T-INFO-101288	Corporate Compliance	3 CP	Herzig
T-INFO-102036	Computer Contract Law	3 CP	Menk
T-INFO-111436	Employment Law	3 CP	Hoff
T-INFO-111437	Tax Law	3 CP	Dietrich

Assessment

see partial achievements

Prerequisites

None

Competence Goal

The student

- has gained in-depth knowledge of German company law, commercial law and civil law;
- is able to analyze, evaluate and solve complex legal and economic relations and problems;
- is well grounded in individual labour law, collective labour law and commercial constitutional law, evaluates and critically assesses clauses in labour contracts;
- recognizes the significance of the parties to collective labour agreements within the economic system and has differentiated knowledge of labour disputes law and the law governing the supply of temporary workers and of social law;
- possesses detailed knowledge of national earnings and corporate tax law and is able to deal with provisions of tax law in a scientific manner and assesses the effect of these provisions on corporate decision-making.

Content

The module covers a range of special topics in corporate law, knowledge of which is essential in order to make sensible business decisions. Building on the knowledge previously acquired in private law, students gain practical insights into how contracts are drafted, as well as even more detailed knowledge of civil law and German commercial and company law. In addition, they will acquire solid knowledge of labor and tax law.

Workload

The total workload for this module is approximately 270 hours (9 credits). The allocation is based on the credits of the courses of the module. The workload for courses with 3 credits is about 90 hours. The total number of hours per course results from the effort required to attend the lectures as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

M

5.44 Module: Public Economic and Technology Law [M-INFO-106754]

Coordinators: TT-Prof. Dr. Frederike Zufall
Organisation: KIT Department of Informatics
Part of: [Electives \(Society\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German/English

Level
3

Version
2

Public Economic and Technology Law (Election: at least 1 item as well as at least 9 credits)			
T-INFO-101309	Telecommunications Law	3 CP	
T-INFO-101312	European and International Law	3 CP	Brühann
T-INFO-111404	Seminar: IT- Security Law	3 CP	Schallbruch
T-INFO-113381	Public International Law	3 CP	Zufall
T-INFO-113887	EU Data Protection Law	3 CP	Gil Gasiola

Assessment

see partial achievement

Prerequisites

see partial achievement

Competence Goal

Students

- have in-depth knowledge and understanding of selected legal areas of public commercial and technology law,
- understand the international and European dimensions of the legal system
- can make connections between technical and legal issues, classify them legally and evaluate them.

Content

The module covers a range of special topics in public commercial and technology law. In addition to the areas of telecommunications law and IT security law, this also includes an in-depth examination of the European and international legal framework. Current legal aspects of the platform economy, the digital single market and the regulation of artificial intelligence are addressed.

Workload

The total workload for this module is approx. 270 hours (9 credits). The distribution is based on the credit points of the courses in the module. The workload for courses with 3 credits is approx. 90 hours. The total number of work hours per course results from the time required to attend the lectures, the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

Recommendations

see partial achievement

M

5.45 Module: Public Finance [M-WIWI-101403]

Coordinators: Prof. Dr. Berthold Wigger
Organisation: KIT Department of Business and Economics
Part of: [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
1 term

Language
German

Level
3

Version
7

Compulsory Elective Courses (Election: 9 credits)			
T-WIWI-102877	Introduction to Public Finance	4,5 CP	Wigger
T-WIWI-108711	Basics of German Company Tax Law and Tax Planning	4,5 CP	Gutekunst, Wigger
T-WIWI-102739	Public Revenues	4,5 CP	Wigger

Assessment

The assessment is carried out as partial written exams (according to Section 4(2), 1 of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The exams are offered at the beginning of the recess period about the subject matter of the latest held lecture. Re-examinations are offered at every ordinary examination date. The assessment procedures are described for each course of the module separately.

The overall grade for the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Competence Goal

The student

- has advanced knowledge of the theory and policy of taxation and public debt.
- understand the scope, structure and forms of government borrowing.
- is familiar with the structure of German and international tax law
- is able to interpret and motivate fiscal policy issues.

Content

As a branch of Economics, Public Finance is concerned with the theory and policy of the public sector and its interrelations with the private sector. It analyzes the economic role of the state from a normative as well as from a positive point of view. The normative view examines efficiency- and equity-oriented motives for government intervention and develops fiscal policy guidelines. The positive view explains the actual behavior of economic agents in public sector affairs. Special fields of Public Finance are public revenues, i.e. taxes and public debt, public expenditures for publicly provided goods, and welfare programs.

Additional Information

The course T-WIWI-102790 "Specific Aspects in Taxation" will no longer be offered in the module as of winter semester 2018/2019.

Workload

Total workload for 9 credit points: approx. 270 hours

The exact distribution is based on the credit points of the courses in the module.

Recommendations

It is recommended to attend the course 2560129 after having completed the course 2560120.

M

5.46 Module: Seminars [M-WIWI-106283]

Coordinators: Studiendekan des KIT-Studienganges
Organisation: KIT Department of Business and Economics
Part of: Electives (mandatory)

Credits	Grading	Recurrence	Duration	Language	Level	Version
6 CP	graded	Each term	1 term	German/English	3	2

Mandatory			
T-WIWI-103487	Seminar in Economics (Bachelor)	3 CP	Professorenschaft des Fachbereichs Volkswirtschaftslehre
Compulsory Elective Courses (Election: 3 credits)			
T-WIWI-103486	Seminar in Business Administration (Bachelor)	3 CP	Professorenschaft des Fachbereichs Betriebswirtschaftslehre
T-WIWI-103485	Seminar in Informatics (Bachelor)	3 CP	Professorenschaft des Instituts AIFB
T-WIWI-114958	Seminar Mathematics Bachelor (subject to approval)	3 CP	Studiendekan des KIT-Studienganges
T-WIWI-103488	Seminar in Operations Research (Bachelor)	3 CP	Nickel, Rebennack, Stein
T-WIWI-103489	Seminar in Statistics (Bachelor)	3 CP	Grothe, Schienle
T-WIWI-112739	Seminar in Economics (Bachelor)	3 CP	Professorenschaft des Fachbereichs Volkswirtschaftslehre
T-INFO-115024	Seminar: Legal Studies Bachelor	3 CP	Professorenschaft des Fachbereichs Recht

Assessment

The module examination takes place through the proof of an economics seminar and another seminar from the elective offer.
The success control is described with the respective course.

Prerequisites

An economics seminar is mandatory in the module.

Competence Goal

- Students are able to independently deal with a defined problem in a specialized field based on scientific criteria.
- They are able to research, analyze the information, abstract and derive basic principles and regularities from unstructured information.
- They can solve the problems in a structured manner using their interdisciplinary know-how.
- They know how to validate the obtained results.
- Finally, they are able to logically and systematically present the results both orally and in written form in accordance with scientific guidelines (structuring, technical terminology, referencing). They can argue and defend the results professionally in the discussion.
- Students are familiar with the DFG's Code of Conduct "Guidelines for Safeguarding Good Research Practice" and base their scientific work on it.

Content

Competences which are gained in the seminar module especially prepare the student for composing the final thesis. Within the term paper and the presentation the student exercises himself in scientific working techniques supported by the supervisor.

Beside advancing skills in techniques of scientific working there are gained integrative key qualifications as well. A detailed description of these qualifications is given in the section "Key Qualifications" of the module handbook.

Furthermore, the module also includes additional key qualifications provided by the KQ-courses.

Additional Information

The listed seminar titles are placeholders. Currently offered seminars of each semester will be published on the websites of the institutes and in the course catalogue of the KIT. In general, the current seminar topics of each semester are already announced at the end of the previous semester. Furthermore for some seminars there is an application required.

The available places are listed on the internet: <https://portal.wiwi.kit.edu>.

Workload

The total workload for this module is approximately 180 hours (6 credits).

The distribution is done according to the credit points of the courses of the module. The workload for courses with 3 credit points is approx. 90 hours. The total number of hours per course is calculated from the time required to attend the seminar and the time required to achieve the learning objectives of the module for an average student for an average performance.

M

5.47 Module: Sociology/Empirical Social Research [M-GEISTSOZ-101167]

Coordinators: Prof. Dr. Gerd Nollmann
Organisation: KIT Department of Humanities and Social Sciences
Part of: [Electives \(Society\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each winter term

Duration
2 terms

Language
German

Level
3

Version
2

Mandatory			
T-GEISTSOZ-109047	Analysis of Social Structures (WiWi)	3 CP	Nollmann
T-GEISTSOZ-109048	Social Science A (WiWi)	3 CP	Nollmann
T-GEISTSOZ-109049	Social Science B (WiWi)	3 CP	Nollmann

Competence Goal

The student

- Gains theoretical and methodical knowledge of social processes and structures
- Is able to apply acquired knowledge practically
- Is able to present work results in a precise and clear way

Content

This module offers students the possibility to get to know research problems and to answer these theoretically as well as empirically. For example: Who does earn how much in his job and why? How do subcultures emerge? Why are boys' grades in school always worse than those of girls? Do divorces have negative influences on the development of children? How does mass consumption influence the individual? Is there a world society emerging? In addition, this module contains courses on sociological methods that are essential to answer such questions scientifically.

The lecture on social structure analysis gives an overview of large social structures such as the education system, labour market, institutions, demography, etc. for Germany and in international comparison. The content of the social research seminars is determined individually by the lecturers. Students are free to choose one seminar each for Social Research A/B.

M

5.48 Module: Statistics and Econometrics [M-WIWI-101608]

Coordinators: Prof. Dr. Oliver Grothe
Prof. Dr. Melanie Schienle

Organisation: KIT Department of Business and Economics

Part of: [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)
[Electives \(Statistics\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
2 terms

Language
German

Level
3

Version
3

Compulsory Elective Courses (Election: 9 credits)			
T-WIWI-103063	Analysis of Multivariate Data	4,5 CP	Grothe
T-WIWI-114622	Introduction to Econometrics	5 CP	Schienle
T-WIWI-103064	Financial Econometrics	4,5 CP	Schienle
T-WIWI-110939	Financial Econometrics II	4,5 CP	Schienle
T-WIWI-103065	Statistical Modeling of Generalized Regression Models	4,5 CP	Heller

Assessment

The assessment is carried out as partial written exams (according to Section 4(2), 1 of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The examinations are offered every semester. Re-examinations are offered at every ordinary examination date. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Competence Goal

The student

- shows an advanced understanding of Econometric techniques and statistical model building.
- is able to develop Econometric models for applied problems based on available data
- is able to apply techniques and models with statistical software, to interpret results and to judge on different approaches with appropriate statistical criteria.

Content

The courses provide a solid Econometric and statistical foundation of techniques necessary to conduct valid regression, time series and multivariate analysis.

Additional Information

New module starting winter term 2015/2016. It replaces the old module "Statistical Applications of Financial Risk Management" [WW3STAT].

Workload

The total workload for this module is approximately 270 hours.

Recommendations

None

M

5.49 Module: Statistics and Econometrics II [M-WIWI-105414]

Coordinators: Prof. Dr. Melanie Schienle
Organisation: KIT Department of Business and Economics
Part of: [Economics \(Elective Module Economics\)](#)
[Electives \(Economics\)](#)
[Electives \(Statistics\)](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
1 term

Language
German/English

Level
3

Version
5

Compulsory Elective Courses (Election:)			
T-WIWI-103063	Analysis of Multivariate Data	4,5 CP	Grothe
T-WIWI-114622	Introduction to Econometrics	5 CP	Schienle
T-WIWI-103064	Financial Econometrics	4,5 CP	Schienle
T-WIWI-110939	Financial Econometrics II	4,5 CP	Schienle
T-WIWI-112153	Microeconometrics	4,5 CP	Krüger
T-WIWI-103065	Statistical Modeling of Generalized Regression Models	4,5 CP	Heller

Assessment

The assessment is carried out as partial exams of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None

Competence Goal

The student

- shows an advanced understanding of Econometric techniques and statistical model building.
- is able to develop advanced Econometric models for applied problems based on available data
- is able to apply techniques and models efficiently with statistical software, to interpret results and to judge on different approaches with appropriate statistical criteria.

Content

The courses provide foundations of advanced Econometric and statistical techniques for regression, time series and multivariate analysis.

Workload

The total workload for this module is approximately 270 hours.

M

5.50 Module: Strategy and Organization [M-WIWI-101425]

Coordinators: Prof. Dr. Hagen Lindstädt
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	2 terms	German	3	7

Strategy and Organization (Election: at least 9 credits)			
T-WIWI-102630	Managing Organizations	4,5 CP	Lindstädt
T-WIWI-113090	Strategic Management	4,5 CP	Lindstädt

Assessment

The module examination takes the form of written partial examinations (according to §4(2), 1 SPO) on the individual courses of the module. The examinations are offered every semester and can be repeated at any regular examination date.

The competence certificate is described for each course in this module. The grade of the individual partial examinations corresponds to the respective examination grade. The overall grade of the module is calculated from the CP-weighted grades of the partial examinations and cut off after the first decimal place.

Competence Goal

- Students can prepare strategic decisions along the ideal-typical strategy process and classify them strategically.
- Students evaluate the strengths and weaknesses of existing organizational structures and regulations using systematic criteria and can review the management of organizational change.
- Students can make effective decisions by structuring problems and communicating solutions, taking into account the situation and the personalities involved.
- Students learn to apply and discuss the theoretical content of the course to real-life situations through intensive engagement with a variety of practice-relevant case studies.

Content

The module has a practical and action-oriented structure. Students learn about central frameworks of strategic management along the ideal-typical strategy process. The aim is to provide an overview of basic models and to achieve action-oriented integration by transferring theory to practical issues. Students also learn concepts for designing organizational structures, regulating organizational processes and managing organizational change. This enables a well-founded assessment of existing organizational structures and regulations. Participants are also enabled to identify, structure, analyze and effectively communicate problems.

Workload

The total workload for this module is approx. 270 hours (9 credit points). The allocation is based on the credit points of the courses in the module. The workload for courses with 4.5 credit points is approx. 135 hours. The total number of hours per course results from the time required to attend the lectures and exercises, as well as the examination times and the time required to achieve the learning objectives of the module for an average student for an average performance.

M

5.51 Module: Supply Chain Management [M-WIWI-101421]

Coordinators: Prof. Dr. Stefan Nickel
Organisation: KIT Department of Business and Economics
Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German/English	3	11

Mandatory			
T-WIWI-107506	Platform Economy	4,5 CP	Weinhardt
Supplementary Courses (Election: 1 item)			
T-WIWI-102704	Facility Location and Strategic Supply Chain Management	4,5 CP	Nickel
T-WIWI-102714	Tactical and Operational Supply Chain Management	4,5 CP	Nickel

Assessment

The assessment is carried out as partial exams (according to Section 4 (2), 1-3 SPO) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

The course T-WIWI-107506 "Platform Economy" has to be taken.

Competence Goal

The students

- are able to understand and evaluate the control of cross-company supply chains based on a strategic and operative view,
- are able to analyse the coordination problems within the supply chains,
- are able to identify and integrate adequate information system infrastructures to support the supply chains,
- are able to apply theoretical methods from the operations research and the information management,
- learn to elaborate solutions in a team

Content

The module "Supply Chain Management" gives an overview of the mutual dependencies of information systems and of supply chains spanning several enterprises. The specifics of supply chains and their information needs set new requirements for the operational information management. In the core lecture "Platform Economy" the focus is set on markets between two parties that act through an intermediary on an Internet platform. Topics discussed are network effects, peer-to-peer markets, blockchains and market design. The course is held in English and teaches parts of the syllabus with the support of a case study in which students analyze a platform.

The module is completed by an elective course addressing appropriate optimization methods for the Supply Chain Management and for modern logistic approaches.

Additional Information

The planned lectures in the next terms can be found on the websites of the respective institutes IISM, IFL and IOR.

Workload

The total workload of the module is about 240 hours. The workload is proportional to the credit points of the individual courses.

M

5.52 Module: Team Project Management and Technology [M-WIWI-105440]

Coordinators: Prof. Dr. Martin Klarmann
Prof. Dr. Alexander Mädche

Organisation: KIT Department of Business and Economics

Part of: [Electives \(mandatory\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German/English	3	1

Election Notes

The team project can only be credited within the elective area. Accordingly, it can be credited either in the elective block 'Business Administration or Engineering Sciences' or in the elective block 'Team Project'.

Mandatory			
T-WIWI-110968	Team Project Management and Technology	9 CP	Klarmann, Mädche

Assessment

Alternative exam assessment. The basis for grading is the documents produced, the presentations during the course of the project, the artifact to be produced (e.g. algorithm, method, model, software, component) and the final presentation.

Prerequisites

The team project can only be credited within the elective area. Accordingly, it can be credited either in the elective block 'Business Administration or Engineering Sciences' or in the elective block 'Team Project'.

Competence Goal

After successful completion of the team project, the students can:

- select and apply the methods, techniques and tools required for problem solving
- systematically analyze a given problem in an interdisciplinary team and develop and evaluate an artifact-centered solution
- constructively solve challenges and conflicts that arise in teamwork.

Content

The team project "Management and Technology" aims to prepare students for working in heterogeneously composed teams. A team of 4-5 students will work on defined interdisciplinary questions at the interface of economics and MINT subjects. The result of the projects should typically not only be a presentation or a report, but an artifact, e.g. a method, an algorithm, a model, a software or a component. The team projects already implement the concept of research-oriented teaching in the Bachelor's degree and aim to build up problem-solving competence in the students.

Additional Information

Participation in the "Team Project Management and Technology " course is subject to **limited capacity**. Mandatory registration must be completed through the **WIWI-Portal** at the following address: <https://portal.wiwi.kit.edu/ys>

Workload

The total of 270 working hours (9 credit points) per team member (4-5 members per team) are divided into the following tasks:

- communication:
 - Team meetings: 30 h (2h per week, 15 weeks),
 - Electronic exchange: 20 h,
 - Final presentation: 10
- Documentation and development:
 - Analysis and design: 70 h,
 - Development: 90 h,
 - Tests and quality assurance: 50 h

M**5.53 Module: Topics in Digital Economics [M-WIWI-106272]**

Coordinators: Prof. Dr. Johannes Brumm
Prof. Dr. Clemens Puppe

Organisation: KIT Department of Business and Economics

Part of: [Digital Economics](#)

Credits
9 CP

Grading
graded

Recurrence
Each term

Duration
1 term

Language
German/English

Level
3

Version
2

Compulsory Elective Courses (Election:)			
T-WIWI-112723	Computational Macroeconomics	4,5 CP	Brumm
T-WIWI-112228	Digital Markets and Market Design	4,5 CP	Hillenbrand
T-WIWI-102850	Introduction to Game Theory	4,5 CP	Puppe, Reiß
T-WIWI-102844	Industrial Organization	4,5 CP	Reiß
T-WIWI-109936	Platform Economy	4,5 CP	Weinhardt
T-WIWI-112726	Seminar in Digital Economics Bachelor	4,5 CP	Rosar
T-WIWI-100005	Competition in Networks	4,5 CP	Mitusch
T-WIWI-114598	Digital Markets and Mechanisms	4,5 CP	Rosar

Assessment

The module examination is carried out in the form of partial examinations on the selected courses of the module, with which in total the minimum requirements of credit points are fulfilled. The assessment of success is described for each course. The overall grade of the module is formed from the grades of the partial examinations weighted with credit points and truncated after the first decimal place.

Prerequisites

None.

Competence Goal

The student

- has comprehensive knowledge of the substantive problems and economic issues raised by digitization, e.g., in the areas of industrial economics, game theory, mechanism design, macroeconomics, and the analysis of networks and platforms,
- acquires comprehensive knowledge of advanced methods of economic modeling,
- validates, illustrates, and interprets models developed in economic research.

Content

The module offers a comprehensive portfolio of economic models and methods that are applied, among other things, to the analysis of various issues related to digitalization.

Additional Information

The course "Computational Macroeconomics" will be offered for the first time in SS 2024 or SS 2025.

Workload

Total effort for 9 credit points: approx. 270 hours.

Recommendations

Prior attendance of the module "Introduction to Economics" is required.

M

5.54 Module: Topics in Finance I [M-WIWI-107213]

Coordinators: Prof. Dr. Martin Ruckes
Prof. Dr. Marliese Uhrig-Homburg

Organisation: KIT Department of Business and Economics

Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German/English	3	1

Compulsory Elective Courses (Election:)			
T-WIWI-102643	Derivatives	4,5 CP	Uhrig-Homburg
T-WIWI-110797	eFinance: Information Systems for Securities Trading	4,5 CP	Weinhardt
T-WIWI-107505	Financial Accounting for Global Firms	4,5 CP	Luedecke
T-WIWI-102605	Financial Management	4,5 CP	Ruckes
T-WIWI-102623	Financial Intermediation	4,5 CP	Ruckes
T-WIWI-112694	FinTech	4,5 CP	Thimme
T-WIWI-108711	Basics of German Company Tax Law and Tax Planning	4,5 CP	Gutekunst, Wigger
T-WIWI-102646	International Finance	3 CP	Uhrig-Homburg
T-WIWI-102604	Investments	4,5 CP	Uhrig-Homburg
T-WIWI-114340	Quantitative Finance	4,5 CP	Thimme

Assessment

The assessment is carried out as partial exams (according to Section 4(2) of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The examinations are offered every semester. Re-examinations are offered at every ordinary examination date. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None

Competence Goal

The student

- has advanced skills in modern finance
- is able to apply these skills in practice in the fields of finance and accounting, financial markets and banking

Content

The courses deal with advanced issues concerning the fields of finance and accounting, financial markets and banking from a theoretical and practical point of view.

Workload

The total workload for this module is approx. 270 hours (9 credit points). The allocation is based on the credit points of the courses in the module. The workload for courses with 4.5 credit points is approx. 135 hours, for courses with 3 credit points approx. 90 hours and for courses with 1.5 credit points 45 hours.

The total number of hours per course is calculated from the time required to attend the lectures and exercises, as well as the examination times and the time required for an average student to achieve the learning objectives of the module for an average performance.

M

5.55 Module: Topics in Finance II [M-WIWI-107214]

Coordinators: Prof. Dr. Martin Ruckes
Prof. Dr. Marliese Uhrig-Homburg

Organisation: KIT Department of Business and Economics

Part of: [Electives \(Business Administration\)](#)

Credits	Grading	Recurrence	Duration	Language	Level	Version
9 CP	graded	Each term	1 term	German/English	3	2

Compulsory Elective Courses (Election: 9 credits)			
T-WIWI-102643	Derivatives	4,5 CP	Uhrig-Homburg
T-WIWI-110797	eFinance: Information Systems for Securities Trading	4,5 CP	Weinhardt
T-WIWI-107505	Financial Accounting for Global Firms	4,5 CP	Luedecke
T-WIWI-102605	Financial Management	4,5 CP	Ruckes
T-WIWI-102623	Financial Intermediation	4,5 CP	Ruckes
T-WIWI-112694	FinTech	4,5 CP	Thimme
T-WIWI-108711	Basics of German Company Tax Law and Tax Planning	4,5 CP	Gutekunst, Wigger
T-WIWI-102646	International Finance	3 CP	Uhrig-Homburg
T-WIWI-102604	Investments	4,5 CP	Uhrig-Homburg
T-WIWI-114340	Quantitative Finance	4,5 CP	Thimme

Assessment

The assessment is carried out as partial exams (according to Section 4(2) of the examination regulation) of the single courses of this module, whose sum of credits must meet the minimum requirement of credits of this module. The examinations are offered every semester. Re-examinations are offered at every ordinary examination date. The assessment procedures are described for each course of the module separately.

The overall grade of the module is the average of the grades for each course weighted by the credits and truncated after the first decimal.

Prerequisites

None

Competence Goal

The student

- has advanced skills in modern finance
- is able to apply these skills in practice in the fields of finance and accounting, financial markets and banking

Content

The courses deal with advanced issues concerning the fields of finance and accounting, financial markets and banking from a theoretical and practical point of view.

Workload

Total workload for 9 credit points: approx. 270 hours

The exact distribution is based on the credit points of the courses in the module.

6 Module components

T

6.1 Module component: Advanced Lab Blockchain Hackathon (Bachelor) [T-WIWI-111127]

Coordinators: Prof. Dr. Ali Sunyaev
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	graded	see Annotations	1

Assessment

The examination will no longer be offered from summer semester 2025.

Prerequisites

None

Additional Information

The course is no longer offered.

Workload

135 hours

T

6.2 Module component: Advanced Lab Informatics (Bachelor) [T-WIWI-110541]

Coordinators: Professorenschaft des Instituts AIFB
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type
Examination of another type

Credits
4,5 CP

Grading
graded

Term offered
Each term

Version
1

Courses					
WT 25/26	2512204	Lab Realisation of innovative services (Bachelor)	3 SWS	Practical course / ☼	Schiefer, Toussaint
WT 25/26	2512554	Praktikum Security, Usability and Society (Bachelor)	3 SWS	Practical course / ☼	Volkamer, Strufe, Berens, Fallahi, Ballreich, Hennig, Länge, Mossano, Hilt
ST 2026	2512204	Lab Realisation of innovative services (Bachelor)	3 SWS	Practical course / ●	Schiefer, Toussaint, Kruse
ST 2026	2512206	Lab Agentic AI im Smart IoT Office (Bachelor)	3 SWS	Practical course / ●	Oberweis, Rybinski, Ullrich
ST 2026	2512554	Practical Course: Security, Usability and Society	3 SWS	Practical course / ☼	Volkamer, Strufe, Hennig, Länge, Fallahi, Ballreich, Sikra, Hilt, Reimer, Algedri, Mack
Exams					
WT 25/26	7900042	Advanced Lab Programming 3 (Bachelor)			Oberweis
WT 25/26	7900047	Advanced Lab Realization of Innovative Services (Bachelor)			Oberweis
WT 25/26	7900116	Advanced Lab Security, Usability and Society (Bachelor)			Volkamer
ST 2026	7900029	Practical lab Security, Usability and Society (Bachelor)			Volkamer, Strufe
ST 2026	7900032	Advanced Lab Agentic AI im Smart IoT Office (Bachelor)			Oberweis
ST 2026	7900085	Advanced Lab Realization of innovative services (Bachelor)			Oberweis, Schiefer

Legend: ☼ Online, ☼ Blended (On-Site/Online), ● On-Site, ✕ Cancelled

Assessment

The alternative exam assessment consists of:

- a practical work
- a presentation and
- a written seminar thesis

Practical work, presentation and written thesis are weighted according to the course.

Prerequisites

None

Additional Information

The title of this course is a generic one. Specific titles and the topics of offered seminars will be announced before the start of a semester in the internet at <https://portal.wiwi.kit.edu>.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Lab Realisation of innovative services (Bachelor)

2512204, WS 25/26, 3 SWS, Language: German, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

As part of the lab, the participants should work together in small groups to realize innovative services (mainly for students).

Organizational issues

Informationen zu Themen und die Anmeldung erfolgt vor Praktikumsbeginn im Wiwi-Portal

<https://portal.wiwi.kit.edu/ys>

**Praktikum Security, Usability and Society (Bachelor)**

2512554, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

In the lab course "Security, Usability and Society", students explore practical and interdisciplinary topics in the field of IT security and privacy at the cutting edge of society. In addition to the programming of data-saving apps, the development or implementation of user studies can also be possible tasks in this course.

The course can be credited towards the KASTEL certificate. Further information about the KASTEL certificate can be found on the SECUSO website: https://secuso.aifb.kit.edu/Studium_und_Lehre.php

Prerequisites:

The internship is aimed at Bachelor's and Master's students from the Industrial Engineering and Management, Business Informatics and Computer Science degree programs as well as related degree programs.

Organization:

There are two **mandatory** attendance dates: The kick-off is scheduled for the first week of the lectures, and the final presentations will take place in the second-to-last week of lectures. Additional dates will be arranged individually with the supervisors. All in-person lectures will be held in English. The main components of the course are the work on the respective topic, a final presentation, and a final report. After consultation with the supervisor, all components can be completed in either German or English.

Please note: In-person attendance at the kick-off and final presentation is mandatory to be allocated a topic.

If you have any questions about the course or the registration, please contact contact@secuso.org.

Registration:

The topics for the course, as well as the registration, are organized via the WiWi Portal. To reserve a place and select a topic, students register for the course in the WiWi Portal. A description of the current topics as well as important dates and deadlines can also be found there.

Please note that the number of topics is limited, and topics are allocated in the order of registration.

**Lab Realisation of innovative services (Bachelor)**

2512204, SS 2026, 3 SWS, Language: German, [Open in study portal](#)

Practical course (P)
On-Site

Content

As part of the lab, the participants should work together in small groups to realize innovative services (mainly for students).

Organizational issues

Informationen zu Themen und die Anmeldung erfolgt bis Mitte März im Wiwi-Portal

<https://portal.wiwi.kit.edu/ys>

**Lab Agentic AI im Smart IoT Office (Bachelor)**

2512206, SS 2026, 3 SWS, Language: German, [Open in study portal](#)

Practical course (P)
On-Site

Content

As part of the lab, various topics on everyday automation are offered. During the lab, the participants will gain an insight into problem-solving oriented project work and work on a project together in small groups.

In case of questions, please contact fabian.rybinski@kit.edu.

Organizational issues

Informationen zu Themen und die Anmeldung erfolgt vor Praktikumsbeginn im Wiwi-Portal

<https://portal.wiwi.kit.edu/ys>

Bei Fragen bitte an fabian.rybinski@kit.edu wenden.

**Practical Course: Security, Usability and Society**

2512554, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

In the lab-course “Security, Usability and Society”, students deal with practical and interdisciplinary topics from the field of IT security and privacy at the cutting edge of society. In addition to the programming of data-saving apps, the development or implementation of user studies can also be possible tasks in this course.

The course can be credited towards the KASTEL certificate. Further information about the KASTEL certificate can be found on the SECUSO website: https://secuso.aifb.kit.edu/Studium_und_Lehre.php

Prerequisites:

The internship is aimed at Bachelor's and Master's students from the Industrial Engineering and Management, Business Informatics and Computer Science degree programs as well as related degree programs.

Organization:

There are two mandatory attendance dates: The kick-off is scheduled for the first week of the lectures, and the final presentations will take place in the second to last week of lectures. Additional dates will be arranged individually with the supervisors. All in-person lectures will be held in English. The main components of the course is the work on the respective topic, a final presentation and a final report. After consultation with the supervisor, all components can be either completed in German or English.

If you have any questions about the course or the registration, please contact contact@secuso.org.

Registration:

The topics for the course as well as the registration is organized via the WiWi-Portal. To reserve a place and choose a topic, students register for the course in the WiWi-Portal. A description of the current topics as well as important dates and deadlines can also be found there.

Please note that the number of topics is limited and topics are allocated in the order of registration.

T

6.3 Module component: Advanced Lab Realization of Innovative Services (Bachelor) [T-WIWI-112915]

Coordinators: Prof. Dr. Andreas Oberweis
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	Graded	Each term	1

Courses					
WT 25/26	2512204	Lab Realisation of innovative services (Bachelor)	3 SWS	Practical course / 	Schiefer, Toussaint
ST 2026	2512204	Lab Realisation of innovative services (Bachelor)	3 SWS	Practical course / 	Schiefer, Toussaint, Kruse
Exams					
WT 25/26	7900047	Advanced Lab Realization of Innovative Services (Bachelor)	Oberweis		
ST 2026	7900085	Advanced Lab Realization of innovative services (Bachelor)	Oberweis, Schiefer		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The alternative exam assessment consists of:

- a practical work
- a presentation and
- a written seminar thesis

Practical work, presentation and written thesis are weighted according to the course.

Additional Information

As part of the lab, the participants should work together in small groups to produce innovative services (mainly for students).

Further information can be found on the ILIAS page of the lab.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Lab Realisation of innovative services (Bachelor)

2512204, WS 25/26, 3 SWS, Language: German, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

As part of the lab, the participants should work together in small groups to realize innovative services (mainly for students).

Organizational issues

Informationen zu Themen und die Anmeldung erfolgt vor Praktikumsbeginn im Wiwi-Portal

<https://portal.wiwi.kit.edu/ys>

V

Lab Realisation of innovative services (Bachelor)

2512204, SS 2026, 3 SWS, Language: German, [Open in study portal](#)

Practical course (P)
On-Site

Content

As part of the lab, the participants should work together in small groups to realize innovative services (mainly for students).

Organizational issues

Informationen zu Themen und die Anmeldung erfolgt bis Mitte März im Wiwi-Portal

<https://portal.wiwi.kit.edu/ys>

T

6.4 Module component: Advanced Lab Security, Usability and Society [T-WIWI-108439]

Coordinators: Prof. Dr. Melanie Volkamer
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	Graded	Each term	3

Courses					
WT 25/26	2512554	Praktikum Security, Usability and Society (Bachelor)	3 SWS	Practical course / 	Volkamer, Strufe, Berens, Fallahi, Ballreich, Hennig, Länge, Mossano, Hilt
WT 25/26	2512555	Praktikum Security, Usability and Society (Master)	3 SWS	Practical course / 	Volkamer, Strufe, Berens, Fallahi, Ballreich, Hennig, Länge, Mossano, Hilt
ST 2026	2512554	Practical Course: Security, Usability and Society	3 SWS	Practical course / 	Volkamer, Strufe, Hennig, Länge, Fallahi, Ballreich, Sikra, Hilt, Reimer, Algedri, Mack
ST 2026	2512555	Praktikum Security, Usability and Society (Master)	3 SWS	Practical course / 	Volkamer, Strufe, Hennig, Fallahi, Länge, Ballreich, Hilt, Sikra, Algedri, Reimer, Mack
Exams					
WT 25/26	7900116	Advanced Lab Security, Usability and Society (Bachelor)			Volkamer
WT 25/26	7900307	Advanced Lab Security, Usability and Society (Master)			Volkamer
ST 2026	7900029	Practical lab Security, Usability and Society (Bachelor)			Volkamer, Strufe

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Assessment takes the form of an alternative exam. It consists of a practical assignment, a presentation, and, if required, a written report. The lectures and the presentations will be in English. The written report can be written in either English or German after consultation with the supervisor.

Practical work, presentation, and written thesis are weighted according to the course.

Prerequisites

None

Recommendations

Knowledge from the lecture "Applied Informatics - Cybersecurity" is recommended.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Praktikum Security, Usability and Society (Bachelor)

2512554, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

In the lab course “Security, Usability and Society”, students explore practical and interdisciplinary topics in the field of IT security and privacy at the cutting edge of society. In addition to the programming of data-saving apps, the development or implementation of user studies can also be possible tasks in this course.

The course can be credited towards the KASTEL certificate. Further information about the KASTEL certificate can be found on the SECUSO website: https://secuso.aifb.kit.edu/Studium_und_Lehre.php

Prerequisites:

The internship is aimed at Bachelor's and Master's students from the Industrial Engineering and Management, Business Informatics and Computer Science degree programs as well as related degree programs.

Organization:

There are two **mandatory** attendance dates: The kick-off is scheduled for the first week of the lectures, and the final presentations will take place in the second-to-last week of lectures. Additional dates will be arranged individually with the supervisors. All in-person lectures will be held in English. The main components of the course are the work on the respective topic, a final presentation, and a final report. After consultation with the supervisor, all components can be completed in either German or English.

Please note: In-person attendance at the kick-off and final presentation is mandatory to be allocated a topic.

If you have any questions about the course or the registration, please contact contact@secuso.org.

Registration:

The topics for the course, as well as the registration, are organized via the WiWi Portal. To reserve a place and select a topic, students register for the course in the WiWi Portal. A description of the current topics as well as important dates and deadlines can also be found there.

Please note that the number of topics is limited, and topics are allocated in the order of registration.



Praktikum Security, Usability and Society (Master)

2512555, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

In the lab course “Security, Usability and Society”, students explore practical and interdisciplinary topics in the field of IT security and privacy at the cutting edge of society. In addition to the programming of data-saving apps, the development or implementation of user studies can also be possible tasks in this course.

The course can be credited towards the KASTEL certificate. Further information about the KASTEL certificate can be found on the SECUSO website: https://secuso.aifb.kit.edu/Studium_und_Lehre.php

Prerequisites:

The internship is aimed at Bachelor's and Master's students from the Industrial Engineering and Management, Business Informatics and Computer Science degree programs as well as related degree programs.

Organization:

There are two **mandatory** attendance dates: The kick-off is scheduled for the first week of the lectures, and the final presentations will take place in the second-to-last week of lectures. Additional dates will be arranged individually with the supervisors. All in-person lectures will be held in English. The main components of the course are the work on the respective topic, a final presentation, and a final report. After consultation with the supervisor, all components can be completed in either German or English.

Please note: In-person attendance at the kick-off and final presentation is mandatory to be allocated a topic.

If you have any questions about the course or the registration, please contact contact@secuso.org.

Registration:

The topics for the course, as well as the registration, are organized via the WiWi Portal. To reserve a place and select a topic, students register for the course in the WiWi Portal. A description of the current topics as well as important dates and deadlines can also be found there.

Please note that the number of topics is limited, and topics are allocated in the order of registration.



Practical Course: Security, Usability and Society

2512554, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

In the lab-course “Security, Usability and Society”, students deal with practical and interdisciplinary topics from the field of IT security and privacy at the cutting edge of society. In addition to the programming of data-saving apps, the development or implementation of user studies can also be possible tasks in this course.

The course can be credited towards the KASTEL certificate. Further information about the KASTEL certificate can be found on the SECUSO website: https://secuso.aifb.kit.edu/Studium_und_Lehre.php

Prerequisites:

The internship is aimed at Bachelor's and Master's students from the Industrial Engineering and Management, Business Informatics and Computer Science degree programs as well as related degree programs.

Organization:

There are two mandatory attendance dates: The kick-off is scheduled for the first week of the lectures, and the final presentations will take place in the second to last week of lectures. Additional dates will be arranged individually with the supervisors. All in-person lectures will be held in English. The main components of the course is the work on the respective topic, a final presentation and a final report. After consultation with the supervisor, all components can be either completed in German or English.

If you have any questions about the course or the registration, please contact contact@secuso.org.

Registration:

The topics for the course as well as the registration is organized via the WiWi-Portal. To reserve a place and choose a topic, students register for the course in the WiWi-Portal. A description of the current topics as well as important dates and deadlines can also be found there.

Please note that the number of topics is limited and topics are allocated in the order of registration.

**Praktikum Security, Usability and Society (Master)**

2512555, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

In the lab-course “Security, Usability and Society”, students deal with practical and interdisciplinary topics from the field of IT security and privacy at the cutting edge of society. In addition to the programming of data-saving apps, the development or implementation of user studies can also be possible tasks in this course.

The course can be credited towards the KASTEL certificate. Further information about the KASTEL certificate can be found on the SECUSO website: https://secuso.aifb.kit.edu/Studium_und_Lehre.php

Prerequisites:

The internship is aimed at Bachelor's and Master's students from the Industrial Engineering and Management, Business Informatics and Computer Science degree programs as well as related degree programs.

Organization:

There are two mandatory attendance dates: The kick-off is scheduled for the first week of the lectures, and the final presentations will take place in the second to last week of lectures. Additional dates will be arranged individually with the supervisors. All in-person lectures will be held in English. The main components of the course is the work on the respective topic, a final presentation and a final report. After consultation with the supervisor, all components can be either completed in German or English.

If you have any questions about the course or the registration, please contact contact@secuso.org.

Registration:

The topics for the course as well as the registration is organized via the WiWi-Portal. To reserve a place and choose a topic, students register for the course in the WiWi-Portal. A description of the current topics as well as important dates and deadlines can also be found there.

Please note that the number of topics is limited and topics are allocated in the order of registration.

T**6.5 Module component: Advanced Lab Sociotechnical Information Systems Development (Bachelor) [T-WIWI-111124]**

Coordinators: Prof. Dr. Ali Sunyaev
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	graded	see Annotations	1

Assessment

The examination will no longer be offered from summer semester 2025.

Prerequisites

None

Additional Information

The course is no longer offered.

Workload

135 hours

T

6.6 Module component: Advanced Programming - Application of Business Software [T-WIWI-102748]

Coordinators: Prof. Dr. Stefan Klink
 Prof. Dr. Andreas Oberweis
 Dr.-Ing. Clemens Schreiber
 Dr.-Ing. Meike Ullrich

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Graded	Each winter term	3

Courses					
WT 25/26	2511026	Advanced Programming - Application of Business Software	2 SWS	Lecture /	Ullrich
WT 25/26	2511027	Exercises Advanced Programming - Application of Business Software	1 SWS	Practice /	Ullrich
WT 25/26	2511028	Computer lab Advanced Programming - Application of Business Software	2 SWS	Practice /	Ullrich
Exams					
WT 25/26	7900019	Advanced Programming - Application of Business Software	Oberweis, Ullrich, Schreiber		
ST 2026	7900049	Advanced Programming - Application of Business Software	Klink, Ullrich, Schreiber		

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The success control takes place in the form of a written examination. The duration of the exam is 60 minutes. The examination is offered every semester and can be repeated at any regular examination date.

The prerequisite for taking the exam is successful participation in a computer lab during the lecture in the winter semester. Attendance is compulsory for individual dates of the computer lab. More detailed information on registration to the computer lab and exercise sessions will be announced in the first lecture and on the lecture homepage on ILIAS.

Admission to take the exam can only be acquired in the winter semester and is valid indefinitely.

Prerequisites

None.

Recommendations

Knowledge of the course "Foundations of Informatics I und II" are helpful.

Workload

150 hours

Below you will find excerpts from courses related to this module component:

V

Advanced Programming - Application of Business Software

2511026, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

Business (or Enterprise) Information Systems (BIS), which are often implemented as standard software, form the backbone of modern organizations. They enable, support, and accelerate digital business processes and new forms of collaboration. In an era of platform economies, data-driven decision-making, and hybrid work models, BIS constitute a central infrastructure for economic activity.

This course provides theoretical and practical foundations for the design, adaptation, and implementation of enterprise information systems. Through lectures, exercises, and practical computer sessions, students acquire in-depth knowledge in the following areas:

- Advantages and disadvantages of business standard software, as well as selection criteria
- Modeling and analysis of business processes with standard software
- Types and application areas of business information systems
- Methods and challenges related to the introduction of standard software
- Sustainability in the context of business information systems

This course cannot be taken together with *Advanced Programming - Java Network Programming* [2511020].

Learning objectives:

Students

- explain fundamental concepts, criteria, and application areas of information systems,
- identify and describe types and components of information systems,
- apply standard software to model, analyze, and evaluate business processes using exemplary scenarios,
- analyze the implementation, use, and impact of business standard software.

Recommendations:

Knowledge of the courses "Grundlagen der Informatik I und II" are helpful.

Notes:

- No registration is required for the lecture
- An registration is required for the exercises for participation in the Computer Lab and the subsequent exam admission
- The registration phase for the exercises starts in the first week after lecture begin and ends with the first exercise session
- Important informations regarding the registration, exact dates and deadlines will be communicated on the lecture website (ILIAS)

Workload:

- Lecture 30h
- Exercise course 15h
- Review and preparation of lectures 23h
- Review and preparation of exercises 10h
- Computer Lab 30h
- Exam preparation 26h
- Exam 1h
- Total 135h
- Exercise courses are done by student tutors

Literature

- Schönthaler, Vossen, Oberweis, Karle: Business Processes for Business Communities: Modeling Languages, Methods, Tools. Springer 2012.
- Hasenkamp, Stahlknecht: Einführung in die Wirtschaftsinformatik. Springer 2012.
- Hansen, Neumann: Wirtschaftsinformatik I. Grundlagen betrieblicher Informationsverarbeitung. UTB 2009.
- Mertens et al.: Grundzüge der Wirtschaftsinformatik. Springer 2012.

Weitere Literatur wird in der Vorlesung bekannt gegeben.

T

6.7 Module component: Advanced Programming - Java Network Programming [T-WIWI-102747]

Coordinators: Prof. Dr. Dietmar Ratz
Prof. Dr.-Ing. Johann Marius Zöllner

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
6

Courses					
ST 2026	2511020	Advanced Programming - Java Network Programming	2 SWS	Lecture / 	Ratz
ST 2026	2511021	Übungen zu Programmierung kommerzieller Systeme - Anwendungen in Netzen mit Java	1 SWS	Practice / 	Ratz, Stegmaier, Boualili
ST 2026	2511023	Rechnerpraktikum zu Programmierung kommerzieller Systeme - Anwendungen in Netzen mit Java	2 SWS	/ 	Ratz, Stegmaier, Boualili
Exams					
WT 25/26	7900020	Advanced Programming - Java Network Programming			Ratz
ST 2026	7900041	Advanced Programming - Java Network Programming			Ratz

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

At the end of the lecture period, a written examination (90 min.) is offered (according to §4(2), 1 SPO), for which - through successful participation in the exercises during the semester - admission must be obtained. The exact details will be announced in the lecture. The examination is offered every semester and can be repeated at any regular examination date.

A bonus can be earned through successful participation in the exercises. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by one grade level (0.3 or 0.4). Details will be announced in the lecture

Prerequisites

None.

Additional Information

The registration for the participation in the computer lab (precondition for the exam participation) already takes place in the first lecture week!

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Advanced Programming - Java Network Programming

2511020, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

In the lecture, the exercises and computer labs to this course the practical handling with the programming language Java dominating within the range of economical applications is obtained. The basis for this is the current language standard. The knowledge from the lecture Introduction to Programming with Java will be deepened and extended. This is done, among other things, by addressing commercially relevant topics such as object-oriented modeling and programming, class hierarchy and inheritance, threads, applications and applets, AWT and Swing components for graphical user interfaces, exception and event processing, lambda expressions, input/output via streams, applications in networks, Internet communication, client and server programming, remote method invocation, servlets, Java Server Pages and Enterprise Java Beans.

This course cannot be taken together with *Advanced Programming - Application of Business Software* [2540886/2590886].

Learning objectives:

- Students learn the practical use of the object-oriented programming language Java and are enabled to design and implement component-based Internet applications using the latest technologies and tools.
- The ability to select and design these methods and systems appropriate to the situation and to use them for solving problems is imparted.
- Students are empowered to find strategic and creative answers in the search for solutions to well-defined, concrete and abstract problems.

Workload:

The total workload for this course is approximately 150 hours.

Organizational issues

Die Anmeldung zur Teilnahme am Rechnerpraktikum (Vorbedingung zur Klausurteilnahme) findet bereits in der ersten Vorlesungswoche statt!

Literature

Ratz, D. Schulmeister-Zimolong, D. Seese, J. Wiesenberger. Grundkurs Programmieren in Java. 9. Aktualisierte und erweiterte Auflage, Hanser 2024.

Weiterführende Literatur:

- S. Zakhour, S. Hommel, J. Royal. Das Java Tutorial. Addison Wesley 2007
- W. Eberling, J. Lessner. Enterprise JavaBeans 3. Hanser Verlag 2007.
- R. Oechsle. Parallele und verteilte Anwendungen. 2. Auflage. Hanser Verlag 2007.
- Weitere Literatur wird in der Vorlesung bekannt gegeben.

T

6.8 Module component: Advanced Topics in Economic Theory [T-WIWI-102609]

Coordinators: Prof. Dr. Johannes Brumm
Prof. Dr. Kay Mitusch

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101501 - Economic Theory](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	Irregular	1

Assessment

The assessment consists of a written exam (60min) (following §4(2), 1 of the examination regulation) at the end of the lecture period or at the beginning of the following semester.

Prerequisites

None

Recommendations

This course is designed for advanced Master students with a strong interest in economic theory and mathematical models. Bachelor students who would like to participate are free to do so, but should be aware that the level is much more advanced than in other courses of their curriculum.

T

6.9 Module component: Analysis of Social Structures (WiWi) [T-GEISTSOZ-109047]**Coordinators:** Prof. Dr. Gerd Nollmann**Organisation:** KIT Department of Humanities and Social Sciences**Part of:** [M-GEISTSOZ-101167 - Sociology/Empirical Social Research](#)**Type**
Written examination**Credits**
3 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	5011004	Analysis of Social Structures	2 SWS	Lecture / 	Nollmann
WT 25/26	5011007	Analysis of Social Structures	2 SWS	Practice / 	Nollmann
Exams					
WT 25/26	7400029	Analysis of Social Structures (WiWi)			Nollmann

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.10 Module component: Analysis of Multivariate Data [T-WIWI-103063]**Coordinators:** Prof. Dr. Oliver Grothe**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101420 - Econometrics and Economics](#)[M-WIWI-101608 - Statistics and Econometrics](#)[M-WIWI-105414 - Statistics and Econometrics II](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	Irregular	1

Exams			
WT 25/26	7900297	Analysis of Multivariate Data	Grothe

Assessment

The assessment of this course is a written examination (60 min) according to §4(2), 1 of the examination regulation. The exam is offered every semester. Re-examinations are offered only for repeaters.

Prerequisites

None

Recommendations

Attendance of the courses Statistics 1 [2600008] and Statistics 2 [2610020] is recommended.

Additional Information

The lecture is not offered regularly. The courses planned for three years in advance can be found online.

Workload

135 hours

T

6.11 Module component: Applied Informatics – Applications of Artificial Intelligence [T-WIWI-110340]

Coordinators: Dr.-Ing. Tobias Käfer

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-105879 - Applied Informatics and KI](#)
[M-WIWI-106906 - Electives in Informatics](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
2

Courses					
WT 25/26	2511314	Applied Informatics - Applications of Artificial Intelligence	2 SWS	Lecture / 	Käfer, Kinder, Li
WT 25/26	2511315	Exercises to Applied Informatics - Applications of Artificial Intelligence	1 SWS	Practice / 	Käfer, Kinder, Li
Exams					
WT 25/26	79AIFB_AKI_C1	Applied Informatics – Applications of Artificial Intelligence (Registration extended until 16.02.2026)	Käfer		
ST 2026	791-AIFB-AIAKI-HK	Applied Informatics - Applications of AI (Registration until 20.07.2026)	Käfer		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Written Examination (60 min) according to §4, Abs. 2, 1 of the examination regulations or oral examination of 20 minutes according to §4, Abs. 2, 2 of the examination regulations. The exam takes place every semester and can be repeated at every regular examination date.

Prerequisites

None.

Recommendations

Basics in logic, e.g. from lecture Foundations of Informatics 1 are important.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Applied Informatics - Applications of Artificial Intelligence

2511314, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
Blended (On-Site/Online)

Content

The lecture provides insights into the fundamentals of artificial intelligence. Basic methods of artificial intelligence and their applications in industry are presented.

Applications of the AI is a sub-area of computer science dealing with the automation of intelligent behavior. In general, it is a question of mapping human intelligence. Methods of artificial intelligence are presented in various areas such as, for example, question answering systems, speech recognition and image recognition.

The lecture gives an introduction to the basic concepts of artificial intelligence. Essential theoretical foundations, methods and their applications are presented and explained.

This lecture aims to provide students with a basic knowledge and understanding of the structure, analysis and application of selected methods and technologies on artificial intelligence. The topics include, among others, knowledge modeling, machine learning, text mining, uninformed search, and intelligent agents.

Learning objectives:

The students

- consider current research topics in the field of artificial intelligence and in particular learn about the topics of knowledge modeling, machine learning, text mining and uninformed search.
- interdisciplinary thinking.
- technological approaches to current problems.

Workload:

- The total workload for this course is approximately 135 hours
- Time of presentness: 45 hours
- Time of preparation and postprocessing: 60 hours
- Exam and exam preparation: 30 hours

**Exercises to Applied Informatics - Applications of Artificial Intelligence**

2511315, WS 25/26, 1 SWS, Language: German, [Open in study portal](#)

**Practice (Ü)
On-Site**

Content

The exercises are oriented on the lecture applications of AI.

Multiple exercises are held that capture the topics, held in the lecture Applications of AI and discuss them in detail. Thereby, practical examples are given to the students in order to transfer theoretical aspects into practical implementation.

This lecture aims to provide students with a basic knowledge and understanding of the structure, analysis and application of selected methods and technologies on artificial intelligence. The topics include, among others, knowledge modeling, machine learning, text mining, uninformed search, and intelligent agents.

Learning objectives:

The students

- consider current research topics in the field of artificial intelligence and in particular learn about the topics of knowledge modeling, machine learning, text mining and uninformed search.
- interdisciplinary thinking.
- technological approaches to current problems.

T

6.12 Module component: Applied Informatics – Cybersecurity [T-WIWI-114156]**Coordinators:** Prof. Dr. Melanie Volkamer**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-106281 - Digitalization and Society](#)
[M-WIWI-106906 - Electives in Informatics](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
2

Courses					
ST 2026	2511550	Applied Informatics – Cybersecurity	2 SWS	Lecture / 🗣️	Volkamer
ST 2026	2511551	Exercise Applied Informatics – Cybersecurity	1 SWS	Practice / 🗣️	Volkamer, Berens, Ballreich
Exams					
WT 25/26	79AIFB_CS_A2	Applied Informatics – Cybersecurity (Registration extended until 16.02.2026)			Volkamer
ST 2026	79AIFB_CS_A1	Applied Informatics – Cybersecurity (Registration until 14.09.2026)			Volkamer

Legend: 🗣️ Online, 🗣️🗣️ Blended (On-Site/Online), 🗣️ On-Site, ✕ Cancelled

Assessment

The assessment of this course is a written examination (60 min) according to §4(2), 1 of the examination regulation or an oral exam (30 min) following §4, Abs. 2, 2 of the examination regulation, for which admission must be obtained through successful participation in the exercise during the semester.

The exam takes place every semester and can be repeated at every regular examination date.

Additional Information**Competence Goal**

The student

- can explain and apply the basics of information security
- knows appropriate measures to achieve different protection goals and can implement these measures
- can assess the quality of organizational protective measures, i.e. among other things
- knows what has to be taken into account when using the individual measures
- understands the differences between information security in the enterprise and in the private context
- knows the areas of application of a variety of relevant standards and knows their weaknesses
- knows and can explain the problems of information security which may arise from human-machine interaction
- can assess messages about detected security problems in a critical way
- can structure a software project in the field of information security and explain and present results in oral and written form
- can use the techniques of Human Centred Security and Privacy by Design to create user-friendly software.

Content

- Basics and concepts of information security
- Understanding the protection objectives of information security and various attack models (including associated assumptions)
- introduction of measures to achieve the respective protection goals, taking into account different attack models
- Note: In contrast to the IT Security lecture, measures such as encryption algorithms are treated only abstractly, i.e. the idea of the measure, assumptions to the attacker and the deployment environment.
- Presentation and analysis of problems of information security arising from human-machine interaction and presentation of the Human Centered Security by Design approach.
- Introduction into organizational protective measures and standards to be observed for companies.

Workload

135 hours

Below you will find excerpts from courses related to this module component:



Applied Informatics – Cybersecurity

2511550, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

- Basics and concepts of information security
- Understanding the protection objectives of information security and various attack models (including associated assumptions)
- introduction of measures to achieve the respective protection goals, taking into account different attack models
- Note: In contrast to the IT Security lecture, measures such as encryption algorithms are treated only abstractly, i. e. the idea of the measure, assumptions to the attacker and the deployment environment.
- Presentation and analysis of problems of information security arising from human-machine interaction and presentation of the Human Centered Security by Design approach.
- Introduction into organisational protective measures and standards to be observed for companies

Learning objectives:

The student

- can explain the basics of information security
- knows suitable measures to achieve different protection goals
- can assess the quality of organisational protective measures, i. e. among other things knows what has to be taken into account when using the individual measures
- understands the differences between information security in the organisational and in the private context
- knows the areas of application of different standards and knows their weaknesses
- knows and can explain the problems of information security that which arise from human-machine interaction
- is able to deal with messages concerning found security problems in a critical way.

This course can also be credited for the KASTEL certificate. Further information about obtaining the certificate can be found on the SECUSO website https://secuso.aifb.kit.edu/Studium_und_Lehre.php.

Literature

- P. Gerber, M. Ghiglieri, B. Henhapl, O. Kulyk, K. Marky, P. Mayer, B. Reinheimer, and M. Volkamer, *Human Factors in Security*. Springer, Jan. 2018, pp. 83–98.
- C. Eckert, *IT-Sicherheit: Konzepte-Verfahren-Protokolle*. Walter de Gruyter, 2013



Exercise Applied Informatics – Cybersecurity

2511551, SS 2026, 1 SWS, Language: German, [Open in study portal](#)

Practice (Ü)
On-Site

Content

This course can also be credited for the KASTEL certificate. Further information about obtaining the certificate can be found on the SECUSO website https://secuso.aifb.kit.edu/Studium_und_Lehre.php.

T

6.13 Module component: Applied Informatics – Database Systems [T-WIWI-110341]**Coordinators:** Prof. Dr. Andreas Oberweis**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105879 - Applied Informatics and KI](#)
[M-WIWI-106906 - Electives in Informatics](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
2

Courses					
ST 2026	2511200	Applied Informatics - Database Systems	2 SWS	Lecture / 	Sommer
ST 2026	2511201	Exercises Applied Informatics - Database Systems	1 SWS	Practice / 	Sommer
Exams					
WT 25/26	79AIFB_DBS_C5	Applied Informatics – Database Systems (Registration extended until 16.02.2026)			Oberweis
ST 2026	791-AIFB-DBS-HK	Applied Informatics - Database Systems (Registration until 20.07.2026)			Oberweis

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment consists of a written exam (60 minutes) in the first week after lecture period.

Additional Information

Replaces from summer semester 2020 T-WIWI-102660 "Database Systems".

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Applied Informatics - Database Systems2511200, SS 2026, 2 SWS, Language: German, [Open in study portal](#)**Lecture (V)**
On-Site

Content

As the foundation of business information systems, database systems (DBS) play a central role in companies. Internal and external data are stored and processed in the company's databases. Proper management and organization of this data helps resolve numerous issues, enables simultaneous queries by multiple users, and serves as the organizational and operational foundation for all of the company's workflows and processes. The course introduces students to the field of database theory, covers the fundamentals of database languages and database systems, examines basic concepts of object-oriented and XML databases, and teaches the principles of multi-user database control and physical data organization. In addition, it provides an overview of database problems frequently encountered in business practice, such as those related to data correctness (operational and semantic integrity), restoring a consistent database state, and synchronizing parallel transactions.

Learning objectives:

Students

- explain the concepts and principles of database models, languages, and systems, as well as their potential applications,
- design relational databases based on a solid theoretical foundation,
- create queries for relational database systems,
- gain an overview of advanced database issues in business practice.

Workload:

- Attendance time – Lecture (2 SWS × 15 weeks): 30 h
- Attendance time – Tutorial (1 SWS × 15 weeks): 15 h
- Self-study – Lecture: 45 h
- Self-study – Tutorial: 25 h
- Exam preparation: 20 h
- Total workload: 135 h

Literature

- Gunter Schlageter, Wolffried Stucky: Datenbanksysteme: Konzepte und Modelle. 2., neubearb. u. erw. Aufl. Teubner, Stuttgart 1983.
- Alfons Kemper, André Eickler: Datenbanksysteme: Eine Einführung. 10., erw. und aktual. Aufl. De Gruyter Oldenbourg, Berlin, 2015.
- Ramez Elmasri, Sham Navathe: Fundamentals of Database Systems. 7. ed. Pearson, Harlow, 2016.
- Gunter Saake, Kai-Uwe Sattler, Andreas Heuer: Datenbanken. Konzepte und Sprachen. 6. Aufl. mitp, Heidelberg u. a., 2018.
- Weitere Literatur wird in der Vorlesung bekannt gegeben. / Additional reading material will be announced during the lecture.

**Exercises Applied Informatics - Database Systems**

2511201, SS 2026, 1 SWS, Language: German, [Open in study portal](#)

**Practice (Ü)
On-Site**

Content

As the foundation of business information systems, database systems (DBS) play a central role in companies. Internal and external data are stored and processed in the company's databases. Proper management and organization of this data helps resolve numerous issues, enables simultaneous queries by multiple users, and serves as the organizational and operational foundation for all of the company's workflows and processes. The course introduces students to the field of database theory, covers the fundamentals of database languages and database systems, examines basic concepts of object-oriented and XML databases, and teaches the principles of multi-user database control and physical data organization. In addition, it provides an overview of database problems frequently encountered in business practice, such as those related to data correctness (operational and semantic integrity), restoring a consistent database state, and synchronizing parallel transactions.

Learning objectives:

Students

- explain the concepts and principles of database models, languages, and systems, as well as their potential applications,
- design relational databases based on a solid theoretical foundation,
- create queries for relational database systems,
- gain an overview of advanced database issues in business practice.

Workload:

- Attendance time – Lecture (2 SWS × 15 weeks): 30 h
- Attendance time – Tutorial (1 SWS × 15 weeks): 15 h
- Self-study – Lecture: 45 h
- Self-study – Tutorial: 25 h
- Exam preparation: 20 h
- Total workload: 135 h

Literature

- Gunter Schlageter, Wolffried Stucky: Datenbanksysteme: Konzepte und Modelle. 2., neubearb. u. erw. Aufl. Teubner, Stuttgart 1983.
- Alfons Kemper, André Eickler: Datenbanksysteme: Eine Einführung. 10., erw. und aktual. Aufl. De Gruyter Oldenbourg, Berlin, 2015.
- Ramez Elmasri, Sham Navathe: Fundamentals of Database Systems. 7. ed. Pearson, Harlow, 2016.
- Gunter Saake, Kai-Uwe Sattler, Andreas Heuer: Datenbanken. Konzepte und Sprachen. 6. Aufl. mitp, Heidelberg u. a., 2018.
- Weitere Literatur wird in der Vorlesung bekannt gegeben. / Additional reading material will be announced during the lecture.

T

6.14 Module component: Applied Informatics – Mobile Computing [T-WIWI-113957]

Coordinators: Dr.-Ing. Gunther Schiefer
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Graded	Each summer term	1

Courses					
ST 2026	2511226	Applied Informatics - Mobile Computing	2 SWS	Lecture / 🗎	Schiefer
ST 2026	2511227	Exercises Applied Informatics - Mobile Computing	1 SWS	Practice / 🗎	Schiefer
Exams					
ST 2026	791-AIFB-AIMC-HK	Applied Informatics – Mobile Computing (Registration until 20.07.2026)	Schiefer		

Legend: 🗎 Online, 🗎 Blended (On-Site/Online), 🗎 On-Site, ✕ Cancelled

Assessment

Success is assessed in the form of a written (60 min) or oral examination.

Prerequisites

None

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Applied Informatics - Mobile Computing

2511226, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture covers the basics of mobile computing. These are interlinked with the economic background in Germany.

Contents are:

1. organizational matters
2. introduction & definitions
3. mobile devices
4. mobile radio technologies
5. mobile communications market
6. mobile applications
7. digital radio technologies
8. location & context

Note: The teaching units listed above each have a different scope.

Learning objectives:

If you are confronted with a question in your job which affects "Mobile Computing", you should be able to provide answers quickly and competently:

Market structures
 technique
 Possibilities for applications
 lawsuits
 issues

Workload:

The total workload for this course unit is approx. 135 hours (4.5 credit points).

Organizational issues

Vorlesung und Übung werden integriert angeboten.

Literature

- Jochen Schiller: Mobilkommunikation (2. Aufl. 2003)
http://www.mi.fu-berlin.de/inf/groups/ag-tech/teaching/resources/Mobile_Communications/course_Material/index.html
- Martin Sauter: Grundkurs Mobile Kommunikationssysteme (6. Aufl. 2015)
<http://link.springer.com/book/10.1007%2F978-3-658-08342-7>
- Küpper, A.: Location-based Services. Fundamentals and Operation. Wiley & Sons, 2005.
- Roth, J.: Mobile Computing. Grundlagen, Technik, Konzepte. Dpunkt.verlag, 2. Auflage, 2005.
- Mansfeld, W.: Satellitenortung und Navigation:
Grundlagen, Wirkungsweise und Anwendung globaler Satellitennavigationssysteme
- Dodel, H., Häupler, D.: Satellitennavigation

Einige relevante Informationen im Web

- Bundesnetzagentur <http://www.bundesnetzagentur.de>
u.a. Jahresbericht und Marktbeobachtung
- VATM-Marktstudien
<http://www.vatm.de/vatm-marktstudien.html>
- Verbände, bspw. BITKOM (bitkom.org), eco e.V. (eco.de)
- Presse, bspw. Teltarif, Heise, Golem, ...
- Statistiken (Statista Lizenz des KIT)

T

6.15 Module component: Applied Informatics – Modelling [T-WIWI-110338]

Coordinators: Andreas Fritsch
Prof. Dr. Andreas Oberweis

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-105879 - Applied Informatics and KI](#)
[M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Graded	Each winter term	2

Courses					
WT 25/26	2511030	Applied Informatics - Modelling	2 SWS	Lecture / 	Fritsch
WT 25/26	2511031	Exercises to Applied Informatics - Modelling	1 SWS	Practice / 	Rybinski, Thompson
Exams					
WT 25/26	79AIFB_AI1_C4	Applied Informatics – Modelling	Oberweis, Fritsch		
ST 2026	791-AIFB-AIM-NK	Applied Informatics - Modelling (Registration extended until 20 July 2026)	Oberweis, Fritsch		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written examination (60 min) in the first week after lecture period (according to Section 4 (2),1 of the examination regulation).

Prerequisites

None

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Applied Informatics - Modelling

2511030, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

In the context of complex information systems, modelling is of central importance, e.g. – in the context of systems to be developed – for a better understanding of their functionality or in the context of existing systems for supporting maintenance and further development.

Modelling, in particular modelling of information systems, forms the core part of this lecture. The lecture is organized in two parts. The first part mainly covers the modelling of static aspects, the second part covers the modelling of dynamic aspects of information systems.

The lecture sets out with a definition of modelling and the advantages of modelling. After that, advanced aspects of UML, the Entity Relationship model (ER model) and logics as a means of modelling static aspects will be explained. This will be complemented by the relational data model and the systematic design of databases based on ER models. For modelling dynamic aspects, different types of petri-nets together with their respective analysis techniques will be introduced.

Learning objectives:**Students**

- explain the strengths and weaknesses of various modeling approaches for Information Systems and choose an appropriate method for a given problem,
- create UML models, ER models and Petri nets for given problems,
- modelling given situations in propositional and predicate logic and can interpret them,
- analyze various properties in propositional and predicate logic,
- create and evaluate a relational database schema and express queries in relational algebra.

Workload:

- Total effort: 120-135 hours
- Presence time: 45 hours
- Self study: 75-90 hours

Literature

- Bernhard Rumpe. Modellierung mit UML, Springer-Verlag, 2004.
- R. Elmasri, S. B. Navathe. Fundamentals of Database Systems. Pearson Education 2009.
- W. Reisig. Petrinetze, Springer-Verlag, 2010.

Weiterführende Literatur:

- U. Kastens, H. Kleine Büning. Modellierung – Grundlagen und Formale Methoden. Carl Hanser Verlag, 2014
- J.L. Peterson. Petri Net Theory and Modeling of Systems, Prentice Hall, 1981.
- U. Schöning. Logik für Informatiker. Spektrum Akademischer Verlag, 2000

**Exercises to Applied Informatics - Modelling**

2511031, WS 25/26, 1 SWS, Language: German, [Open in study portal](#)

**Practice (Ü)
On-Site**

Content

In the context of complex information systems, modelling is of central importance, e.g. – in the context of systems to be developed – for a better understanding of their functionality or in the context of existing systems for supporting maintenance and further development.

Modelling, in particular modelling of information systems, forms the core part of this lecture. The lecture is organized in two parts. The first part mainly covers the modelling of static aspects, the second part covers the modelling of dynamic aspects of information systems.

The lecture sets out with a definition of modelling and the advantages of modelling. After that, advanced aspects of UML, the Entity Relationship model (ER model) and logics as a means of modelling static aspects will be explained. This will be complemented by the relational data model and the systematic design of databases based on ER models. For modelling dynamic aspects, different types of petri-nets together with their respective analysis techniques will be introduced.

Learning objectives:**Students**

- explain the strengths and weaknesses of various modeling approaches for Information Systems and choose an appropriate method for a given problem,
- create UML models, ER models and Petri nets for given problems,
- modelling given situations in propositional and predicate logic and can interpret them,
- analyze various properties in propositional and predicate logic,
- create and evaluate a relational database schema and express queries in relational algebra.

Workload:

- Total effort: 120-135 hours
- Presence time: 45 hours
- Self study: 75-90 hours

Literature

- ◦ Bernhard Rumpe. Modellierung mit UML, Springer-Verlag, 2004.
- ◦ R. Elmasri, S. B. Navathe. Fundamentals of Database Systems. Pearson Education 2009.
- ◦ W. Reisig. Petrinetze, Springer-Verlag, 2010.

Weiterführende Literatur:

- ◦ U. Kastens, H. Kleine Büning. Modellierung – Grundlagen und Formale Methoden. Carl Hanser Verlag, 2014
- ◦ J.L. Peterson. Petri Net Theory and Modeling of Systems, Prentice Hall, 1981.
- ◦ U. Schöning. Logik für Informatiker. Spektrum Akademischer Verlag, 2000

T

6.16 Module component: Applied Informatics – Software Engineering [T-WIWI-110343]

Coordinators: Prof. Dr. Andreas Oberweis
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	see Annotations	2

Exams			
WT 25/26	79AIFB_SE_B1	Applied Informatics – Software Engineering	Oberweis

Assessment

The examination will be offered for the last time in the summer semester 2025 for first-time students. The last examination opportunity (only for repeaters) is in the winter semester 2025/2026. The assessment takes the form of a written examination (60 minutes) in accordance with §4(2), 1 SPO. It takes place in the first week after the lecture period.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-100809 - Software Engineering](#) must not have been started.

Additional Information

The lecture will no longer be offered from summer semester 2025. Parts of the lecture will be integrated into the new course "Applied Computer Science - Mobile Computing".

Workload

135 hours

T

6.17 Module component: B2B Sales Management [T-WIWI-111367]**Coordinators:** Prof. Dr. Martin Klarmann**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101424 - Foundations of Marketing](#)**Type**
Examination of another type**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2572187	B2B Sales Management	2 SWS	Lecture / 	Klarmann
WT 25/26	2572188	Exercises B2B Sales Management	1 SWS	Practice / 	Daumann, Weber
Exams					
WT 25/26	7900125	B2B Sales Management			Klarmann
ST 2026	7900021	B2B Sales Management			Klarmann

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment of success takes place through the preparation and presentation of a sales presentation based on a case study (max 30 points) and a written exam with additional aids in the sense of an open book exam (max. 60 points). In total, a maximum of 90 points can be achieved in the course. Further details will be announced during the lecture.

Prerequisites

None.

Additional Information

For further information, please contact Marketing and Sales Research Group (marketing.iism.kit.edu).

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

B2B Sales Management2572187, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Lecture (V)**
On-Site

Content**Content**

The event is designed to teach you taking on marketing responsibility in a very special business environment. This involves companies that sell and market their (often technically highly complex) products themselves to other companies, which is referred to as "business-to-business" (B2B) marketing and sales. Since traditional communication instruments (e.g. advertising) often hardly work in this environment and many projects lead to a long-term cooperation between supplier and customer, (personal) sales play a special role in marketing. Therefore, this event introduces marketing in B2B markets on the one hand and deals with questions of sales and distribution on the other hand.

Topics with regard to B2B sales management are:

- Basic aspects of B2B sales and B2B purchasing
- Understanding of marketing challenges in specific B2B business types (commodities, systems, solutions)
- Value pricing and value-based selling
- Organizational buying behavior
- Basics of B2B customer relationship management (e.g. key account management, reference customer management)
- Sales process (lead generation, sales presentations, customer-oriented selling, closing)
- Sales automation

Learning objectives

Students

- Are familiar with marketing and sales peculiarities and challenges in B2B environments
- Are able to identify different B2B business types and their marketing characteristics
- Are familiar with central theories of organizational buying behavior
- Are familiar with central objectives of Customer Relationship Management in B2B environments and are able to implement them with appropriate tools
- Are able to prioritize customers and calculate B2B Customer Lifetime Value
- Know how B2B sales presentations work and have also gained practical experience in this area
- Are able to determine value-based prices

Workload

The total workload for this course is approximately 135.0 hours.

Attendance time: 35.0 hours

Self-study: 100.0 hours

Organization

A detailed schedule will be announced.

Literature

Homburg, Christian (2016), Marketingmanagement, 6. Aufl., Wiesbaden.

T

6.18 Module component: Bachelor's Thesis [T-WIWI-113002]

Coordinators: Studiendekan des KIT-Studienganges
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106418 - Bachelor's Thesis](#)

Type
Final Thesis

Credits
12 CP

Grading
graded

Version
1

Assessment

See module description

Prerequisites

See module description

Final Thesis

This module component represents a final thesis. The following periods have been supplied:

Submission deadline	6 months
Maximum extension period	1 months
Correction period	6 weeks

Recommendations

See module description

Additional Information

See module description

T

6.19 Module component: Basic Principles of Economic Policy [T-WIWI-103213]

Coordinators: Prof. Dr. Ingrid Ott

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101668 - Economic Policy I](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
see Annotations

Version
1

Courses					
ST 2026	2560280	Basic Principles of Economic Policy	2 SWS	Lecture / 	Ott
ST 2026	2560281	Exercises of Basic Principles of Economic Policy	1 SWS	Practice / 	Ghoniem
Exams					
WT 25/26	7900079	Basic Principles of Economic Policy			Ott
ST 2026	7900106	Basic Principles of Economic Policy			Ott

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of a written examination (60 minutes). The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Recommendations

Basic knowledge of micro- and macroeconomics is assumed, as taught in the courses Economics I [2610012], and Economics II [2600014].

Additional Information

Please note that the lecture will not be held in summer semester 2026. The exam is offered.

Description:

Theory of general economic policy and discussion of current economic policy topics:

- Goals of economic policy,
- Instruments and institutions of economic policy,
- Triad of regional, national and European economic policies,
- special fields of economic policy, in particular growth, employment, provision of public infrastructure and climate policy.

Learning objectives:

Students learn:

- To apply basic concepts of micro- and macroeconomic theories to economic policy issues.
- to develop arguments on how state intervention in the market can be legitimized from a welfare economic perspective
- to derive theory-based policy recommendations.

Learning content:

- Market interventions: microeconomic perspective
- Market interventions: macroeconomic perspective
- Institutional economic aspects
- Economic policy and welfare economics
- Economic policy makers: Political-economic aspects

Workload:

- Total effort at 4.5 LP: approx. 135 hours
- Presence time: approx. 30 hours
- Self-study: approx. 105 hours

Media:

See course announcement

References:

See course announcement

Below you will find excerpts from courses related to this module component:

**Basic Principles of Economic Policy**

2560280, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture deals with theories of general economic policy and discussion of current economic policy topics:

- Goals of economic policy,
- Instruments and institutions of economic policy,
- Triad of regional, national and European economic policies,
- special fields of economic policy, in particular growth, employment, provision of public infrastructure and climate policy.

Learning objectives:

Students shall be given the ability to

- apply basic concepts of micro- and macroeconomic theories to economic policy issues
- develop arguments on how state intervention in the market can be legitimized from a welfare economic perspective
- derive theory-based policy recommendations

Recommendations:

Basic micro- and macroeconomic knowledge is required, especially as taught in the courses Economics I [2610012] and Economics II [2600014].

Workload:

Total effort at 4.5 LP is approx. 135 hours and consists of:

- Presence time: approx. 30 hours
- Self-study: approx. 105 hours

Assessment:

The examination takes place in the form of a written examination (60min) (according to §4(2), 1 SPO). The examination is offered every semester and can be repeated at any regular examination date.

Organizational issues

Zugehörige Veranstaltung: Übungen zur Einführung in die Wirtschaftspolitik [2560281]
Vorbereitungsmaterialien finden Sie im Ilias.

Literature

- Klump, Rainer (2013): Wirtschaftspolitik. Pearson Studium
- Baldwin, Richard und Charles Wyplosz (2019): The Economics of European Integration, 6. Edition, McGraw-Hill Education, London
- Foliensatz zur Vorlesung
- Übungsaufgaben

**Exercises of Basic Principles of Economic Policy**

2560281, SS 2026, 1 SWS, Language: German, [Open in study portal](#)

**Practice (Ü)
On-Site**

Organizational issues

Zugehörige Veranstaltung: [2560280] Einführung in die Wirtschaftspolitik

Literature

- Klump, Rainer (2013): Wirtschaftspolitik. Pearson Studium
- Baldwin, Richard und Charles Wyplosz (2019): The Economics of European Integration, 6. Edition, McGraw-Hill Education, London
- Foliensatz zur Vorlesung
- Übungsaufgaben

T

6.20 Module component: Basics of German Company Tax Law and Tax Planning [T-WIWI-108711]

Coordinators: Prof. Dr. Gerd Gutekunst
Prof. Dr. Berthold Wigger

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101403 - Public Finance](#)
[M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
2

Courses					
WT 25/26	2560134	Basics of German Company Tax Law and Tax Planning	3 SWS	Lecture / 	Wigger, Gutekunst
Exams					
WT 25/26	790unbe	Basics of German Company Tax Law and Tax Planning			Wigger
ST 2026	790unbe	Basics of German Company Tax Law and Tax Planning			Wigger

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of a written examination (90 minutes). The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Recommendations

Knowledge of the collection of public revenues is assumed. Therefore it is recommended to attend the course "Öffentliche Einnahmen" beforehand.

Below you will find excerpts from courses related to this module component:

V

Basics of German Company Tax Law and Tax Planning

2560134, WS 25/26, 3 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content**Workload:**

The total workload for this course is approximately 135.0 hours. For further information see German version.

T

6.21 Module component: Brand Management [T-WIWI-112156]

Coordinators: Prof. Dr. Ann-Kristin Kupfer
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101424 - Foundations of Marketing](#)

Type
Examination of another type

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2572190	Brand Management	2 SWS	Lecture /	Kupfer
WT 25/26	2572191	Brand Management Exercise	1 SWS	Practice /	Cinar
Exams					
WT 25/26	7900158	Brand Management			Kupfer
ST 2026	7900047	Brand Management			Kupfer

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The assessment of success will be done by the preparation and presentation of a case study as well as a written exam. Further details will be announced during the lecture.

Prerequisites

None

Recommendations

Students are highly encouraged to actively participate in class.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Brand Management

2572190, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

Students learn the theoretical foundations of brand management and its most important concepts. They learn both about the importance of brands for consumers as well as the importance of brands for firms. Special emphasis will be given to the development of brand strategies. Furthermore, students will learn how to evaluate and apply brand instruments. A tutorial offers the opportunity to apply the key learnings of the lecture using case studies.

The learning objectives are as follows:

- Getting to know the theoretical foundations of brand management
- Evaluating strategic branding options (e.g., relating to the development of the core of the brand and the brand architecture) and operative brand instruments (e.g., relating to the brand name and logo)
- Fostering critical and analytical thinking skills and the application of knowledge to marketing problems
- Improving English skills

Total time required for 4.5 credit points: approx. 135 hours

Attendance time: 30 hours

Self-study: 105 hours

T

6.22 Module component: Competition in Networks [T-WIWI-100005]**Coordinators:** Prof. Dr. Kay Mitusch**Organisation:** KIT Department of Business and Economics

Part of: [M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-101668 - Economic Policy I](#)
[M-WIWI-106272 - Topics in Digital Economics](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
3

Courses					
WT 25/26	2561204	Competition in Networks	2 SWS	Lecture / 	Mitusch
WT 25/26	2561205	Übung zu Wettbewerb in Netzen	1 SWS	Practice / 	Mitusch, Corbo
Exams					
WT 25/26	7900221	Competition in Networks	Mitusch		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Result of success is made by a 60 minutes written examination during the semester break (according to §4(2), 1 ERSC). Examination is offered every semester and can be retried at any regular examination date.

Prerequisites

None.

Recommendations

Basics of microeconomics obtained within the undergraduate programme (B.Sc) of economics are required.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Competition in Networks

2561204, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
Blended (On-Site/Online)

Content

Network or infrastructure industries like telecommunication, transport, and utilities form the backbone of modern economies. The lecture provides an overview of the economic characteristics of network industries. The planning of networks is complicated by the multitude of aspects involved (like spatial differentiation and the like). The interactions of different companies - competition or cooperation or both - are characterized by complex interdependencies within the networks: network effects, economies of scale, effects of vertical integration, switching costs, standardization, compatibility etc. appear increasingly in these sectors and even tend to appear in combination. Additionally, government interventions can often be observed, partly driven by the aims of competition policy and partly driven by the aims industrial policy. All these issues are brought up, analyzed formally (in part) and illustrated by several examples in the lecture

Literature

Literatur und Skripte werden in der Veranstaltung angegeben.

T

6.23 Module component: Computational Macroeconomics [T-WIWI-112723]

Coordinators: Prof. Dr. Johannes Brumm

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106272 - Topics in Digital Economics](#)
[M-WIWI-106274 - Macroeconomics: Theory and Computation](#)
[M-WIWI-106472 - Advanced Macroeconomics](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
2

Courses					
ST 2026	2500162	Computational Macroeconomics	2 SWS	Lecture / 	Schang, Brumm
ST 2026	2500164	Übung zu Computational Macroeconomics	1 SWS	Practice / 	Schang
Exams					
WT 25/26	7900076	Computational Macroeconomics	Brumm		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment takes place in the form of a written 60 min. examination during the lecture-free period of the semester. The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Additional Information

New lecture starting summer semester 2024.

Workload

135 hours

T

6.24 Module component: Computer Contract Law [T-INFO-102036]

Coordinators: Dr. Michael Menk
Organisation: KIT Department of Informatics
Part of: [M-INFO-101216 - Private Business Law](#)

Type	Credits	Grading	Term offered	Version
Written examination	3 CP	Graded	Each winter term	2

Courses					
WT 25/26	2411604	Computer Contract Law	2 SWS	Lecture / 	Menk
Exams					
WT 25/26	7500065	Computer Contract Law			Matz
ST 2026	7500066	Computer Contract Law			Sattler

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-INFO-101316 - Law of Contracts](#) must not have been started.

Below you will find excerpts from courses related to this module component:

V

Computer Contract Law

2411604, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The course deals with contracts from the following areas:

- Contracts of programming, licencing and maintaining software
- Contracts in the field of IT employment law
- IT projects and IT Outsourcing
- Internet Contracts

From these areas single contracts will be chosen and discussed (e.g. software maintenance, employment contract with a software engineer). Concerning the respective contract the technical features, the economic background and the subsumption in the national law of obligation (BGB-Schuldrecht) will be discussed. As a result different contractual clauses will be developed by the students. Afterwards typical contracts and conditions will be analysed with regard to their legitimacy as standard business terms (AGB). It is the aim to show the effects of the german law of standard business terms (AGB-Recht) and to point out that contracts are a means of drafting business concepts and market appearance.

It is the aim of this course to provide students with knowledge in the area of contract formation and formulation in practice that builds upon the knowledge the students have already acquired concerning the legal protection of computer programs. Students shall understand how the legal rules depend upon, and interact with, the economic background and the technical features of the subject. The contract drafts shall be prepared by the students and will be corporately completed during the lecture. It is the aim of the course that students will be able to formulate contracts by themselves.

Literature

- Langenfeld, Gerrit Vertragsgestaltung Verlag C.H.Beck, III. Aufl. 2004
- Heussen, Benno Handbuch Vertragsverhandlung und Vertragsmanagement Verlag C.H.Beck, II. Aufl. 2002
- Schneider, Jochen Handbuch des EDV-Rechts Verlag Dr. Otto Schmidt KG, III. Aufl. 2002

Weiterführende Literatur

Ergänzende Literatur wird in den Vorlesungsfolien angegeben.

T

6.25 Module component: Consumer Psychology [T-WIWI-114292]

Coordinators: Prof. Dr. Benjamin Scheibehenne
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101424 - Foundations of Marketing](#)
[M-WIWI-106281 - Digitalization and Society](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	Grading graded	Each summer term	1

Assessment

The assessment of success takes the form of a presentation (weighting 30%) as part of the exercise, evaluations of weekly assignments throughout the semester (30%) and a written examination (90 minutes, weighting 40%). The details of the assessment will be announced at the beginning of the course.

Prerequisites

None.

Additional Information

Please note: Due to a research sabbatical of Prof. Scheibehenne, this course will not be offered in the summer semester 2026. The course is expected to be available again in the summer semester 2027.

Important information

Due to the interactive nature of the class, it is important to regularly participate in the weekly meetings and to regularly submit written assignments in preparation of these meetings. The assignments and active participation is part of the final grade. The 'Übung' associated with this course is mandatory: Students will be asked to do presentations in groups (introduce and discuss academic papers assigned by the lecturer). This will take place over one day (as a blocked event) during the semester (When and where will be announced at the beginning of the semester). The presentation also counts towards the final grade. There will be no weekly or bi-weekly Übung besides this event.

Goal

The goal of the class is to gain a better understanding of the psychological factors that influence consumer behavior. This includes situational, biological, cognitive, social, and evolutionary factors. We will address these questions from an interdisciplinary perspective. While the main focus is on theories from psychology, we will also incorporate relevant research from Marketing, Cognitive Science, Biology, and Economics.

Description

Just like Physics is an important foundation for Engineering, Psychology is an important basis for Economics, Management, and Marketing. Hence, getting a better understanding of the 'human condition' provides deeper insights into economic theory. This is particularly true for consumer behavior. Consumer decisions are ubiquitous in daily life, and they can have long-ranging and important consequences for individual (financial) well-being and health but also for societies and the planet as a whole. We will explore how consumer behavior is shaped by social influences, situational and cognitive constraints, as well as by emotions, motivations, evolutionary forces, neuronal processes, and individual differences. Across all topics covered in class, we will engage with basic theoretical work as well as with groundbreaking empirical research and current scientific debates. The class will be taught in English.

Grading

Grading is based on three pillars: Active participation during the semester (homework assignments, in-class participation, 30%), your presentation in the Übung (30%) and a written exam at the end of the semester (40%). The grading of the homework will be based on two randomly selected weeks throughout the semester. The exam will cover the content of the class. The exam questions will be in English. You are allowed to bring a language dictionary into the exam, but you are not allowed to bring notes. Details about the content and the format of the exam will be announced in the lecture. All part-grades and the final grade will be communicated by the end of the semester.

Workload

The total workload for this course is approximately 135 hours:

Presence time: 30 hours

Preparation and wrap-up of the course: 45 hours

Exam and exam preparation: 60 hours

For further information, please contact the research group Cognition and Consumer Behavior (<http://cub.iism.kit.edu/>).

Workload

135 hours

T

6.26 Module component: Copyright [T-INFO-101308]

Coordinators: N.N.

Organisation: KIT Department of Informatics

Part of: [M-INFO-101215 - Intellectual Property Law](#)

Type
Written examination

Credits
3 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	24121	Copyright	2 SWS	Lecture / 	Hartmann
Exams					
WT 25/26	7500064	Copyright			Matz
ST 2026	7500064	Copyright			Sattler

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment is carried out as a written examination (§ 4 Abs. 2 No. 1 SPO) lasting 60 minutes.

Prerequisites

None.

Recommendations

None.

T

6.27 Module component: Corporate Compliance [T-INFO-101288]

Coordinators: Andreas Herzig

Organisation: KIT Department of Informatics

Part of: [M-INFO-101216 - Private Business Law](#)

Type	Credits	Grading	Term offered	Version
Written examination	3 CP	graded	Each winter term	1

Courses					
WT 25/26	2400087	Corporate Compliance	2 SWS	Lecture / 	Herzig, Siddiq
Exams					
WT 25/26	7500063	Corporate Compliance	Matz		
ST 2026	7500063	Corporate Compliance	Sattler		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.28 Module component: Derivatives [T-WIWI-102643]

Coordinators: Prof. Dr. Marliese Uhrig-Homburg
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101402 - eFinance](#)
[M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Graded	Each summer term	1

Courses					
ST 2026	2530550	Derivatives	2 SWS	Lecture / 	Uhrig-Homburg
ST 2026	2530551	Übung zu Derivate	1 SWS	Practice / 	Dinger, Uhrig-Homburg
Exams					
WT 25/26	7900051	Derivatives			Uhrig-Homburg
ST 2026	7900111	Derivatives			Uhrig-Homburg

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of a written examination (60 minutes). The examination is offered every semester and can be repeated at any regular examination date.

A bonus can be earned for successful participation in the exercises by submitting correct solutions to at least 50% of the bonus exercises set. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by up to one grade level (0.3 or 0.4). Details will be announced in the lecture.

Prerequisites

None

Recommendations

None

Below you will find excerpts from courses related to this module component:

V

Derivatives

2530550, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Literature

- Hull (2012): Options, Futures, & Other Derivatives, Prentice Hall, 8th Edition

Weiterführende Literatur:

Cox/Rubinstein (1985): Option Markets, Prentice Hall

T

6.29 Module component: Digital Financial Economics [T-WIWI-112727]

Coordinators: Prof. Dr. Martin Ruckes
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106273 - Digital Financial Economics](#)

Type	Credits	Grading	Term offered	Version
Written examination	9 CP	graded	Each term	1

Assessment

The module examination takes the form of an overall examination of the course "FinTech" and the course "Financial Management" lasting 120 minutes. The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Additional Information

Teaching and learning format: Lectures and exercises

Workload

270 hours

T

6.30 Module component: Digital Markets and Market Design [T-WIWI-112228]**Coordinators:** Prof. Dr. Adrian Hillenbrand**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-106272 - Topics in Digital Economics](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2500035	Digital Markets and Market Design	2 SWS	Lecture / 🗎	Hillenbrand
WT 25/26	2500036	Digital Markets and Market Design	1 SWS	Practice / 🗎	Hillenbrand
Exams					
WT 25/26	7900016	Digital Markets and Market Design			Hillenbrand
WT 25/26	7900026	Digital Markets and Market Design			Hillenbrand

Legend: 🗎 Online, 🗎 Blended (On-Site/Online), 🗎 On-Site, ✕ Cancelled

Assessment

Success is assessed in the form of a written examination (60 min.). The examination is only offered in the winter semester; two examination dates are offered during this period.

Prerequisites

None

Additional Information

The lecture will be held in English.

Below you will find excerpts from courses related to this module component:

V

Digital Markets and Market Design2500035, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
On-Site**Content**

Online Markets determine our everyday lives. At the same time rapid technological advancements quickly change the landscape of online markets posing challenges for market design and consumer protection. In this course we apply theoretical economic models in the area of digital markets in order to make sense of current developments. Topics include consumer search, algorithmic pricing, recommender systems and steering, price discrimination and matching markets. We also discuss the potential effects of current policies like the Digital Markets Act and Digital Services Act on market outcomes.

V

Digital Markets and Market Design2500036, WS 25/26, 1 SWS, Language: English, [Open in study portal](#)**Practice (Ü)**
On-Site**Content**

Exercise Session for the course "Digital Markets and Market Design"

Organizational issues

Jede zweite Woche eine Übung

T

6.31 Module component: Digital Markets and Mechanisms [T-WIWI-114598]

Coordinators: Dr. Frank Rosar
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-101501 - Economic Theory](#)
[M-WIWI-106272 - Topics in Digital Economics](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
1

Courses					
ST 2026	2560550	Digital Markets and Mechanisms	2 SWS	Lecture / 	Rosar
ST 2026	2560551	Digital Markets and Mechanisms	1 SWS	Practice / 	Rosar
Exams					
WT 25/26	7900007	Exam Digitale Märkte und Mechanismen (2)			Puppe
ST 2026	7900161	Exam Digitale Märkte und Mechanismen			Puppe

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 minutes) (following §4(2), 1 of the examination regulation).
The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

A bonus can be earned through successful participation in the exercise. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by one grade level (0.3 or 0.4). The exact criteria for awarding a bonus will be announced at the beginning of the course.

Prerequisites

None

Recommendations

Basic knowledge of microeconomics (in particular game theory) as well as statistics (especially the use of probabilities and expected values) is desirable, but not required.

Below you will find excerpts from courses related to this module component:

V

Digital Markets and Mechanisms

2560550, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

Auctions are a central instrument of the digital economy—sometimes visible, as on eBay, but also operating behind the scenes, for example automatically in the background of every Google search or in the price formation of electricity markets. But which strategic incentives shape the behavior of bidders? And how can auction mechanisms be designed to maximize efficiency or revenue?

This course conveys the theoretical foundations and methodological tools for analyzing and designing auctions and mechanisms. Students will learn equilibrium concepts of strategic interaction in auction markets, compare auction formats in terms of efficiency and revenue, and become familiar with the principles of (Bayesian) mechanism design. Mechanism design can be understood as the deliberate design of games to achieve specific economic objectives. The concepts and methods taught in this course are also applicable in many other economic contexts.

The course is aimed at students interested in the game-theoretic modeling of markets as well as in the design of economic incentive mechanisms and strategic games. The necessary game-theoretic foundations will be introduced in the course.

V

Digital Markets and Mechanisms

2560551, SS 2026, 1 SWS, Language: German, [Open in study portal](#)

Practice (Ü)
On-Site

Content

See course description.

T

6.32 Module component: Digital Services: Foundations [T-WIWI-111307]**Coordinators:** Dr. Carsten Holtmann**Organisation:** KIT Department of Business and Economics

Part of: [M-WIWI-101434 - eBusiness and Service Management](#)
[M-WIWI-102752 - Fundamentals of Digital Service Systems](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)
[M-WIWI-106281 - Digitalization and Society](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
3

Courses					
ST 2026	2595466	Digital Services: Foundations	2 SWS	Lecture / 	Holtmann
ST 2026	2595467	Exercise Digital Services: Foundations	1 SWS	Practice / 	Holtmann
Exams					
WT 25/26	7900034	Digital Services: Foundations			Satzger
ST 2026	7900079	Digital Services: Foundations			Satzger

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment of success takes place through a written exam (60 minutes) with additional aids (according to § 4(2), 1 SPO). Further details regarding the assessment of success will be announced during the lecture.

A bonus can be acquired by successful completion of a practically-oriented assignment (written report + short in-class presentation) during the semester. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by one grade level (0.3 or 0.4). Further details regarding the acquisition of a bonus will be announced at the beginning of the course.

Additional Information

The course will be offered as a pure in-person lecture starting in the summer semester of 2026. Please check the announcements in the ILIAS forum.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Digital Services: Foundations

2595466, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

The world has been moving towards “service-led” economies: In many developed countries, services already account for more than 70% of the gross domestic product. In order to design, engineer, and manage services, traditional “goods-oriented” business models are often inappropriate. At the same time, the rapid development of information and communication technology (ICT), such as Artificial Intelligence (AI), pushes “servitization” and the economic importance of digital services. This drives competition and opens up novel opportunities: Services can instantly be delivered anywhere across the globe; dynamic and scalable service ecosystems replace static value chains; increased interaction options allow “value co-creation” between providers and customers; and the analysis of big data enables service optimization and personalization.

Building on a systematic categorization of different types of services and on the general notion of “value co-creation”, we cover concepts for managing, developing, and analyzing digital services, as well as current technological advances in digital services, allowing for further specialization in master level courses. Topics in this course include an introduction to digital services, human-centered development of services, and service analytics based on big data. Additionally, we cover emerging technologies and trends as well as essential design concepts for AI-based services, such as bias and fairness in AI, explainable AI, and sovereign AI. Finally, the lecture lays the practical foundations for implementing, analyzing, and managing digital services at scale. Besides those contents, the lecture entails first-hand research insights, exercises and discussion sessions, and guest lectures from practitioners that will illustrate the relevance of digital services in today’s world.

Literature

- Bartelheimer, C., Heinz, D., Hönigsberg, S., et al. (2025). Conceptualizing hybrid intelligent service ecosystems. *Electronic Markets*, 35, Article 63.
- Böhmman, T., Leimeister, J. M., & Möslin, K. (2014). Service systems engineering. *Business & Information Systems Engineering*, 6(2), 73-79.
- Brasse, J., Broder, H. R., Förster, M., Klier, M., & Sigler, I. (2023). Explainable artificial intelligence in information systems: A review of the status quo and future research directions. *Electronic Markets*, 33(1), 26.
- Cardoso, J., Fromm, H., Nickel, S., Satzger, G., Studer, R., & Weinhardt, C. (Eds.). (2015). *Fundamentals of service systems* (Vol. 12). Heidelberg: Springer.
- Fromm, H., Habryn, F., & Satzger, G. (2012). Service analytics: Leveraging data across enterprise boundaries for competitive advantage. In *Globalization of professional services* (pp. 139-149). Springer, Berlin, Heidelberg.
- Ostrom, A. L., Parasuraman, A., Bowen, D. E., Patrício, L., & Voss, C. A. (2015). Service research priorities in a rapidly changing context. *Journal of Service Research*, 18(2), 127-159.
- Spohrer, J., Maglio, P. P., Bailey, J., & Gruhl, D. (2007). Steps toward a science of service systems. *Computer*, 40(1), 71-77.
- Satzger, G., Benz, C., Böhmman, T., & Roth, A. (2022). Servitization and digitalization as “Siamese Twins”: Concepts and research priorities. In B. Edvardsson & B. Tronvoll (Eds.), *The Palgrave Handbook of Service Management*. Palgrave Macmillan.

T

6.33 Module component: Economics and Behavior [T-WIWI-102892]

Coordinators: Jun.-Prof. Dr. Wladislaw Mill
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-101501 - Economic Theory](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2560137	Economics and Behavior	2 SWS	Lecture / 🗣️	Mill
WT 25/26	2560138	Übung zu Economics and Behavior	1 SWS	Practice / 🗣️	Mill
Exams					
WT 25/26	7900134	Exam Economics and Behavior			Mill
ST 2026	7900154	Exam Economics and Behavior (2)			Mill, Puppe

Legend: 🗣️ Online, 🗣️🗣️ Blended (On-Site/Online), 🗣️ On-Site, ✕ Cancelled

Assessment

The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Recommendations

Basic knowledge of microeconomics and statistics are recommended. A background in game theory is helpful, but not absolutely necessary.

Additional Information

The lecture will be held in English.

Below you will find excerpts from courses related to this module component:

V

Economics and Behavior

2560137, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

The course covers topics from behavioral economics with regard to contents and methods. In addition, the students gain insight into the design of economic experiments. Furthermore, the students will become acquainted with reading and critically evaluating current research papers in the field of behavioral economics.

The students

- gain insight into fundamental topics in behavioral economics;
- get to know different research methods in the field of behavioral economics;
- learn to critically evaluate experimental designs;
- get introduced to current research papers in behavioral economics;
- become acquainted with the technical terminology in English.

The assessment consists of a written exam (60 minutes) (following §4(2), 1 of the examination regulation).

The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

The grade will be determined in a final written exam. Students can earn a bonus to the final grade by successfully participating in the exercises.

The total workload for this course is approximately 135.0 hours. For further information see German version.

The lecture will be held in English.

Recommendations:

Basic knowledge of microeconomics and statistics are recommended. A background in game theory is helpful, but not absolutely necessary.

Literature

Kahnemann, Daniel: Thinking, Fast and Slow. Farrar, Straus and Giroux, 2011.

T

6.34 Module component: Economics I: Microeconomics [T-WIWI-102708]

Coordinators: Prof. Dr. Clemens Puppe
Prof. Dr. Johannes Philipp Reiß

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-105204 - Economics](#)
[M-WIWI-106421 - Preliminary Exam](#)

Type	Credits	Grading	Term offered	Version
Written examination	5 CP	Graded	Each winter term	1

Courses					
WT 25/26	2610012	Economics I: Microeconomics	3 SWS	Lecture / 	Puppe, Okulicz
WT 25/26	2610013		2 SWS	Tutorial / 	Puppe, Okulicz
Exams					
WT 25/26	7900255	Economics I: Microeconomics			Puppe
WT 25/26	7900259	Economics I: Microeconomics			Puppe

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (120 min) following §4, Abs. 2, 1 of the examination regulation.

The main exam takes place subsequent to the lectur. The re-examination is offered at the same examination period. As a rule, only repeating candidates are entitled for taking place the re-examination. For a detailed description on the exam regulations see the information of the respective chair.

Prerequisites

None

Below you will find excerpts from courses related to this module component:

V

Economics I: Microeconomics

2610012, WS 25/26, 3 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

This course provides a solid grounding in microeconomic theory. The two main parts of the course deal with questions of microeconomic decision theory (household and firm decisions) and questions of market theory (equilibria and efficiency on competitive markets). The last part of the lecture deals with problems of imperfect competition (oligopoly markets) as well as the basics of game theory and welfare economics.

Learning objectives:

The main aim of the course is to teach students the basics of thinking in microeconomic models. In particular, students should be able to analyze goods markets and the determinants of market outcomes. In detail, students will learn

- to name and define the basic microeconomic terms.
- to explain the interrelationships in microeconomic models.
- to calculate the important parameters of microeconomic models.
- to judge the possible effects of economic policy measures on the behavior of economic agents (in simple decision problems) and possibly propose alternative measures.
- to analyze as a participant in a tutorial simple microeconomic problems by solving written exercises and presenting the results of the exercises on the blackboard.
- to become familiar with the basic literature on microeconomics.

In this way, students acquire the necessary basic knowledge

- to recognize the structure of economic problems on a microeconomic level and develop proposals for solutions.
- to provide active decision support for simple economic decision problems.

Workload:

Total workload for 5 credit points: approx. 150 hours

Attendance: 45 hours

Self-study: 105 hours

Literature

- Varian, H. R. 2016. *Grundzüge der Mikroökonomik*. 9. Auflage. De Gruyter Oldenburg Verlag.
- Pindyck, R. S. und Rubinfeld, D. L. 2015. *Mikroökonomie*. 8. Auflage. Pearson.
- Frank, R. H. 2006. *Microeconomics and Behavior*. 6. Auflage. McGraw-Hill/Irwin.

T

6.35 Module component: Economics II: Macroeconomics [T-WIWI-102709]**Coordinators:** Prof. Dr. Berthold Wigger**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105204 - Economics](#)**Type**
Written examination**Credits**
5 CP**Grading**
graded**Term offered**
Each summer term**Version**
1

Courses					
ST 2026	2600014	Economics II: Macroeconomics	4 SWS	Lecture	Brumm
ST 2026	2660015	Economics II : Macroeconomics, Tutorial	2 SWS	Tutorial	Brumm, Kissling
Exams					
WT 25/26	790vwl2	Economics II: Macroeconomics			Wigger

Assessment

Success is assessed in the form of a written examination (120 minutes). The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Below you will find excerpts from courses related to this module component:

V

Economics II: Macroeconomics2600014, SS 2026, 4 SWS, Language: German, [Open in study portal](#)**Lecture (V)**

Content**Classical Theory of Macroeconomic Production**

Chapter 1: Gross domestic product

Chapter 2: Money and Inflation

Chapter 3: Open Economy I

Chapter 4: Unemployment

Growth: The economy in the long term

Chapter 5: Growth I

Chapter 6: Growth II

Business cycle: The economy in the short term

Chapter 7: Economy and aggregate demand I

Chapter 8: Economy and aggregate demand II

Chapter 9: Open Economy II

Chapter 10: Macroeconomic supply

Advanced topics of macroeconomics

Chapter 11: Dynamic model of the economy as a whole

Chapter 12: Microeconomic foundations

Chapter 13: Macroeconomic economic policy

Learning goals:

The students. . .

- can name the basic indicators, technical terms and concepts of macroeconomics.
- can use models to reduce complex relationships to their basic components.
- can analyse economic policy debates and form their own opinion on them.

Workload:

Total effort for 5 credit points: approx. 150 hours

Presence time: 45 hours

Before and after the LV: 67.5 hours

Exam and exam preparation: 37.5 hours

Literature

Als Grundlage dieser Veranstaltung dient das bekannte Lehrbuch „Makroökonomik“ von Greg Mankiw vom Schäffer Poeschel Verlag in der aktuellen Fassung.

T

6.36 Module component: eFinance: Information Systems for Securities Trading [T-WIWI-110797]

Coordinators: Prof. Dr. Christof Weinhardt
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101402 - eFinance](#)
[M-WIWI-101434 - eBusiness and Service Management](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)
[M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Grading graded	Each winter term	2

Courses					
WT 25/26	2540454	eFinance: Information Systems for Securities Trading	2 SWS	Lecture / 	Weinhardt
WT 25/26	2540455	Übungen zu eFinance: Information Systems for Securities Trading	1 SWS	Practice / 	Motz, Motz
Exams					
WT 25/26	7900182	eFinance: Information Engineering and Management for Securities Trading	Weinhardt		
ST 2026	7900269	eFinance: Information Systems for Securities Trading	Weinhardt		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is monitored by means of ongoing elaborations and presentations of tasks and an examination (60 minutes) at the end of the lecture period. The scoring scheme for the overall evaluation will be announced at the beginning of the course.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-102600 - eFinance: Information Engineering and Management for Securities Trading](#) must not have been started.

Additional Information

The course "eFinance: Information Systems for Securities Trading" covers different actors and their function in the securities industry in-depth, highlighting key trends in modern financial markets, such as Distributed Ledger Technology, Sustainable Finance, and Artificial Intelligence. Security prices evolve through a large number of bilateral trades, performed by market participants that have specific, well-regulated and institutionalized roles. Market microstructure is the subfield of financial economics that studies the price formation process. This process is significantly impacted by regulation and driven by technological innovation. Using the lens of theoretical economic models, this course reviews insights concerning the strategic trading behaviour of individual market participants, and models are brought market data. Analytical tools and empirical methods of market microstructure help to understand many puzzling phenomena in securities markets.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

eFinance: Information Systems for Securities Trading

2540454, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Literature

- Picot, Arnold, Christine Bortenlänger, Heiner Röhl (1996): "Börsen im Wandel". Knapp, Frankfurt
- Harris, Larry (2003): "Trading and Exchanges - Market Microstructure for Practitioners". Oxford University Press, New York

Weiterführende Literatur:

- Gomber, Peter (2000): "Elektronische Handelssysteme - Innovative Konzepte und Technologien". Physika Verlag, Heidelberg
- Schwartz, Robert A., Reto Francioni (2004): "Equity Markets in Action - The Fundamentals of Liquidity, Market Structure and Trading". Wiley, Hoboken, NJ

T

6.37 Module component: Employment Law [T-INFO-111436]

Coordinators: Dr. Alexander Hoff
Organisation: KIT Department of Informatics
Part of: [M-INFO-101216 - Private Business Law](#)

Type
Written examination

Credits
3 CP

Grading
graded

Term offered
Each summer term

Version
2

Courses					
ST 2026	24668	Employment Law	2 SWS	Lecture / 	Steg
Exams					
WT 25/26	7500001	Employment Law			Matz
ST 2026	7500082	Employment Law			Sattler

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.38 Module component: Energy Policy [T-WIWI-102607]

Coordinators: Prof. Dr. Martin Wietschel
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101464 - Energy Economics](#)

Type
Written examination

Credits
3,5 CP

Grading
graded

Term offered
Each summer term

Version
3

Courses					
ST 2026	2581959	Energy Policy	2 SWS	Lecture / 	Wietschel
Exams					
WT 25/26	7981959	Energy Policy			Wietschel
ST 2026	7981959	Energy Policy			Fichtner

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 minutes) (following §4(2) of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None.

Below you will find excerpts from courses related to this module component:

V

Energy Policy

2581959, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The availability of cheap, environmentally friendly and secure energy is crucial for human welfare. However, the increasing scarcity of resources and increasing environmental pressures, with a particular focus on climate change, threaten human welfare through economic action. Energy contributes significantly to environmental pollution. The energy industry is characterised by high regulation and a significant influence of political decisions.

At the beginning of the lecture different perspectives on energy policy will be presented and the analysis of political decision-making processes will be discussed. Then the current energy policy challenges in the area of environmental pollution, regulation and the role of energy for households and industry will be discussed. Then the actors of energy policy and energy responsibilities in Europe will be discussed. The economic approaches from traditional environmental economics and sustainability as a new policy approach will then be discussed. Finally, energy policy instruments such as the promotion of renewable energies or energy efficiency are discussed in detail and how they can be evaluated.

The lecture emphasizes the relationship between theory and practice and presents some case studies.

Literature

Wird in der Vorlesung bekannt gegeben.

T

6.39 Module component: Enterprise Systems for Financial Accounting & Controlling [T-WIWI-113746]

Coordinators: Christian Fleig
Prof. Dr. Alexander Mädche

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101434 - eBusiness and Service Management](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)

Type
Examination of another type

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
2

Courses					
WT 25/26	2500060	Enterprise Systems for Financial Accounting & Controlling	3 SWS	Lecture / 	Mädche, Fleig
Exams					
WT 25/26	7900074	Enterprise Systems for Financial Accounting & Controlling			Mädche
ST 2026	7900210	Enterprise Systems for Financial Accounting & Controlling			Mädche

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of an alternative exam assessment. It consists of a one-hour exam and the implementation of a capstone project.

The final grade is made up of 60% of the exam grade and 40% of the capstone project grade.

Details on the structure of the assessment will be announced during the lecture.

Prerequisites

Keine.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Enterprise Systems for Financial Accounting & Controlling

2500060, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

Enterprise Systems building on enterprise resource planning (ERP) packaged software such as SAP S/4HANA are information systems that target large-scale integration of business processes and data across a company's functional areas. These systems are crucial for financial accounting and controlling as they enable organizations to streamline and integrate their financial operations, ensuring accurate decision-making based on real-time financial data. Contemporary packaged ERP software provide modules that integrate core business processes in financial accounting including general ledger, accounts receivable, payable and asset accounting. The information generated in these processes serves as a major source of cost-related decision-making, reporting and data analyses in internal accounting ("controlling"). Packaged ERP software typically rely on industry best practices captured in the form of product software with a standardized structure of master data. Thereby, they also support regulatory compliance and analyzability of processes in approaches such as process mining which enhances overall business efficiency and competitiveness. However, implementing enterprise systems in practice imposes substantial challenges to organizations.

First, the B.Sc. lecture "Enterprise Systems for Financial Accounting & Controlling" introduces fundamental business processes and concepts in finance and controlling and explains how these processes are implemented in packaged ERP software such as SAP S/4HANA. Students learn the basic and most important terms and master data structures in the SAP FI/CO module. Second, students learn about the principles of packaged ERP software, gaining hands-on experience SAP S4/HANA. Third, the lecture introduces the challenges in enterprise system projects such as SAP S/4HANA implementations, Fourth, students actively apply their knowledge in collaborative team efforts when working with exemplary SAP data in Microsoft SQL Server to analyze finance and controlling master data processes (capstone project)

Learning Objectives:

The students ...

- understand modern business concepts of financial accounting & controlling for large enterprises
- the importance of enterprise systems supporting the implementation of modern business concepts
- know the underlying principles of packaged software for enterprise resource planning and process intelligence
- Understand the opportunities and challenges of Enterprise Systems implementation at large enterprises
- Get hands-on knowledge about financial accounting & controlling with commercial product software (e.g., SAP S4/HANA)
- Apply their knowledge on enterprise systems implementation for financial accounting and controlling on real-world data in team effort

T

6.40 Module component: Entrepreneurship Basics [T-WIWI-114637]**Coordinators:** Prof. Dr. Orestis Terzidis**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-107451 - Entrepreneurial Thinking and Action: Fundamentals of Entrepreneurship](#)**Type**
Examination of another type**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2545010	Entrepreneurship Basics (Track 1)	3 SWS	Seminar / 	Hirte
WT 25/26	2545011	Entrepreneurship Basics (Track 2)	3 SWS	Seminar / 	Lau
ST 2026	2545010	Entrepreneurship Basics (Track 1)	3 SWS	Seminar / 	Hirte, Terzidis
Exams					
WT 25/26	7900085	Entrepreneurship Basics (Track 1)	Terzidis		
ST 2026	7900056	Entrepreneurship Basics (Track 1)	Terzidis		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is conducted as an alternative exam assessment. The specific form of assessment depends on the course and may include, for example, the following components:

- Project Report or Reflection Paper
- Mid-term and Final Presentation
- Group Work with Individual Contribution
- Active Participation and Mandatory Attendance

The overall grade is determined by the weighted evaluation of these individual assessment components. The detailed weighting of these components for grade calculation will be communicated to students at the beginning of the course.

Prerequisites

None

Recommendations

An interest in entrepreneurial thinking and action, teamwork, and interdisciplinary project work is recommended. Basic knowledge in business administration and/or innovation methods is helpful but not required.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Entrepreneurship Basics (Track 1)2545010, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)**Seminar (S)**
Blended (On-Site/Online)

Content**Course Content:**

This seminar explains important factors for becoming an entrepreneur and guides you through a structured process from the first business idea to a pitch of your final business model. Therefore, a business idea will be developed in the context of the UN Sustainable Development Goals. In small teams you create, develop, validate and present your business model. It simulates the basics of a start-up process up to the investor pitch.

Learning Objectives

After completing this course, the course participants will be able to

- Reflect on and define your personal and team core values
- Reflect on and define your personal and team competencies
- Reflect on and recall a definition for business opportunity
- Define your field of interest for opportunity recognition using the UN SDGs
- Analyze a specific domain to identify business opportunities
- Develop a first draft for your business model by using the Business Model Canvas
- Pitch / present your business idea

Credentials:

Registration is via the Wiwi portal.

Exam:

Presentation + active participation + paper.

Target group:

Bachelor students

Organizational issues

Registration is via the Wiwi portal.

In the seminar you will work on a project in teams of max. 5 persons. The groups are formed in the seminar

**Entrepreneurship Basics (Track 2)**

2545011, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Seminar (S)
Blended (On-Site/Online)

Content**Course Content:**

This seminar provides a hands-on introduction to entrepreneurial thinking and acting. Students will be guided through a structured, evidence-based process, from identifying a first business idea to designing a validated business model. This simulates the early stages of a start-up journey, culminating in an investor-style pitch. Working in interdisciplinary teams, participants will ideate, test, and refine their concepts using real-world methods and tools.

Starting from team formation and problem exploration, students will learn how to discover and validate customer needs. They will design and test hypotheses through customer interviews and rapid experiments, build Value Proposition and Business Model Canvases, and analyze unit economics and go-to-market options.

The seminar emphasizes teamwork, evidence-based decision-making, and communication skills. By the end, each team will deliver a tested business concept, a concise pitch deck, and an investor-style presentation.

Learning Objectives

After completing this seminar, students will have learned and actually practiced the whole business model development process. In particular this means that students will know:

- Develop core entrepreneurial skills through practice.
- Understand how to create and validate customer value.
- Learn to derive, prioritize, and test business hypotheses.
- Translate ideas into viable business models and economics.
- Build and test low-fidelity prototypes to generate evidence.
- Gain experience in pitching and convincing stakeholders with evidence.

Format & Deliverables:

- 2.5 days of in-class sessions (inputs, team sprints, coaching).
- Homework assignments between sessions (interviews, experiments, prototyping, deck iterations).
- Final deliverables: team pitch, pitch deck, evidence dossier, and reflection.

Target group:

Bachelor students

Credentials:

Registration is via the Wiwi portal.

Organizational issues

Registration is via the Wiwi portal.

In the seminar you will work on a project in teams of 4-5 persons. The groups are formed in the seminar.

**Entrepreneurship Basics (Track 1)**

2545010, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content**Content**

This seminar explains important factors for becoming an entrepreneur and guides you through a structured process from the first business idea to a pitch of your final business model. Therefore, a business idea will be developed in the context of the UN Sustainable Development Goals. In small teams you create, develop, validate and present your business model. It simulates the basics of a start-up process up to the investor pitch.

Learning Objectives

After completing this course, the course participants will be able to

- Reflect on and define your personal and team core values
- Reflect on and define your personal and team competencies
- Reflect on and recall a definition for business opportunity
- Define your field of interest for opportunity recognition using the UN SDGs
- Analyze a specific domain to identify business opportunities
- Develop a first draft for your business model by using the Business Model Canvas
- Pitch / present your business idea

Exam:

Presentation + active participation + paper.

Target group:

Bachelor students

Organizational issues

Registration is via the Wiwi-Portal.

In the seminar you will work on a project in teams of max. 5 persons. The groups are formed in the seminar.

T

6.41 Module component: EU Data Protection Law [T-INFO-113887]**Coordinators:** Gustavo Gil Gasiola**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-106754 - Public Economic and Technology Law](#)**Type**
Written examination**Credits**
3 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2424019	EU Data Protection Law	2 SWS	Lecture / 	Gil Gasiola
Exams					
WT 25/26	7500378	EU Data Protection Law			Zufall

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is carried out as a written examination (§ 4 Abs. 2 No. 1 SPO) lasting 60 minutes.

Prerequisites

None

Additional Information**Competency Goals:**

Students are able to comprehend the EU data protection regulation, including the General Data Protection Regulation and related EU data regulations.

They know the foundations of data protection rules, including fundamental concepts (e.g., “personal data”, “processing”, “data subject”). They are also familiar with the principles of personal data processing (lawfulness, limited purpose, transparency, accountability) as well as the rights of the data subject.

They can identify the main obligations of the controller and the processor.

Students understand the conditions for the transfer of personal data to third countries.

They can identify the other regulations that govern data in the European Union.

Students are able to read and understand legal text related to data regulation.

They can understand and solve simple data protection cases.

Content:

The General Data Protection Regulation (GDPR) of the European Union is a milestone in protecting individuals from the unlawful use of their data. In a data-driven society, economy, and government, this protection has become essential to guarantee fundamental rights. In addition to its direct impact on the legal systems of all Member States, the GDPR has a major influence on third countries that have adopted similar regulations (e.g. Switzerland, Argentina, Brazil, South Africa, and many others). In this way, the EU Data Protection Regulation has established itself as the “gold standard” of data protection, providing guidance to address the challenges posed by new technologies and new ways of creating, using and sharing personal data. Understanding the structure of data protection in the EU is therefore essential to grasp its impact on individual rights, public administration, business models, and even technological development.

This lecture aims to provide a structured overview of the EU Data Protection Regulation, and to offer tools to understand the regulatory structure of the EU Data Regulation. The lecture will cover the following topics:

- Introduction to EU law
- Development of the EU data protection regulation
- Legal structure of data protection in the EU
- Role of national and sectoral laws
- Data protection as fundamental right
- Principles of data protection
- Lawfulness of personal data processing
- Anonymization and pseudonymization of personal data
- Special categories of personal data
- Rights of the data subject
- Transfer of personal data to third countries
- Responsibility of the controller and the processor
- Security of personal data and personal data breach
- Open Data Directive
- Data Governance Act
- Data Act

Workload

- Attendance time to the lectures = 15 x 90 min = 22 h 30 min
- Self-study during the semester = 47 h 30 min
- Preparation for the exam = 20 h
- Total = 90 h

Below you will find excerpts from courses related to this module component:

**EU Data Protection Law**

2424019, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

The General Data Protection Regulation (GDPR) of the European Union is a milestone in protecting individuals from the unlawful use of their data. In a data-driven society, economy, and government, this protection has become essential to guarantee fundamental rights. In addition to its direct impact on the legal systems of all Member States, the GDPR has a major influence on third countries that have adopted similar regulations (e.g. Switzerland, Argentina, Brazil, South Africa, and many others). In this way, the EU Data Protection Regulation has established itself as the “gold standard” of data protection, providing guidance to address the challenges posed by new technologies and new ways of creating, using and sharing personal data. Understanding the structure of data protection in the EU is therefore essential to grasp its impact on individual rights, public administration, business models, and even technological development.

This lecture aims to provide a structured overview of the EU Data Protection Regulation, and to offer tools to understand the regulatory structure of the EU Data Regulation. The lecture will cover the following topics:

- Introduction to EU law
- Development of the EU data protection regulation
- Legal structure of data protection in the EU
- Role of national and sectoral laws
- Data protection as fundamental right
- Principles of data protection
- Lawfulness of personal data processing
- Anonymization and pseudonymization of personal data
- Special categories of personal data
- Rights of the data subject
- Transfer of personal data to third countries
- Responsibility of the controller and the processor
- Security of personal data and personal data breach
- Open Data Directive
- Data Governance Act
- Data Act

Organizational issues

Winter term 2025/26:

*****IMPORTANT*****

The sessions on **29.10.**, **5.11.** and **12.11.** will take place online via Zoom. All other sessions will take place in person in Seminar Room Nr. 303 at Vincenz-Prießnitz-Straße 3, in Karlsruhe.

Zoom link: <https://kit-lecture.zoom-x.de/j/63132854819?pwd=6kyXgflG7H2SNwLX4qyerDasd56C5L.1>

Wintersemester 2025/26:

*****WICHTIG*****

Die Sitzungen am **29.10.**, **5.11.** und **12.11.** finden online über Zoom statt. Alle anderen Sitzungen finden persönlich im Seminarraum Nr. 303 in der Vincenz-Prießnitz-Straße 3 in Karlsruhe statt.

Zoomlink: <https://kit-lecture.zoom-x.de/j/63132854819?pwd=6kyXgflG7H2SNwLX4qyerDasd56C5L.1>

T

6.42 Module component: European and International Law [T-INFO-101312]

Coordinators: Ulf Brühann

Organisation: KIT Department of Informatics

Part of: [M-INFO-106754 - Public Economic and Technology Law](#)Type
Written examinationCredits
3 CPGrading
gradedTerm offered
Each summer termVersion
1

Courses					
ST 2026	24666	Europäisches und Internationales Recht	2 SWS	Lecture / 	Brühann
Exams					
WT 25/26	7500048	European and International Law			Zufall
ST 2026	7500084	European and International Law			Zufall

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Below you will find excerpts from courses related to this module component:

V

Europäisches und Internationales Recht24666, SS 2026, 2 SWS, Language: German, [Open in study portal](#)Lecture (V)
On-Site**Content**

The course will be held in German.

The total workload for this course unit is 90 hours for 3 credit points, of which 22.5 hours are spent in attendance.

Organizational issues

Die drei folgenden Blockveranstaltungen finden jeweils im Seminarraum Nr. 313 (Geb. 07.08) statt:

- Montag, den 27.04.2026, 09:30 - 17:00 (Mittagspause wird flexibel gehalten);
- Montag, den 01.06.2026, 09:30 - 17:00 (Mittagspause wird flexibel gehalten);
- Montag, den 29.06.2026, 09:30 - 17:00 Uhr (Mittagspause wird flexibel gehalten).

(Stand per 13.11.2025)

Literature

Literatur wird in der Vorlesung angegeben.

Weiterführende Literatur

Erweiterte Literaturangaben werden in der Vorlesung bekannt gegeben.

T

6.43 Module component: Experimental Economics (Bachelor) [T-WIWI-115079]**Coordinators:** Dr. Hannes Rau**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101499 - Applied Microeconomics](#)**Type**
Examination of another type**Credits**
4,5 CP**Grading**
graded**Term offered**
Once**Version**
3

Courses					
ST 2026	2500071	Experimental Economics (Bachelor)	2 SWS	Lecture /	Rau
ST 2026	2500072	Exercises Experimental Economics (Bachelor)	1 SWS	Practice /	Rau
Exams					
ST 2026	7900286	Exam Experimental Economis (Bachelor)			Rau
ST 2026	7900293	Exam NT Experimental Economis (Bachelor)			Rau

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The assessment takes the form of an examination of another type (Prüfungsleistung anderer Art). It consists of two components:

1. A **written exam** (60 min.), which is offered on two dates (expected at the end of July and mid-September 2026).
2. A **written assignment** involving the independent design of a study related to a selected published research paper.

The overall grade for the assessment is based on a point system, where the written exam accounts for **70%** and the written assignment for **30%** of the total attainable points. Details regarding the grading process will be announced at the beginning of the course.

Prerequisites

The module [M-WIWI-101398] Introduction to Economics should have been successfully completed.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module M-WIWI-101398 - Introduction to Economics must have been passed.

Recommendations

Basic knowledge of microeconomic theory, game theory, and statistics is helpful but not required.

Additional Information

The language of the course is German.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Exercises Experimental Economics (Bachelor)

2500072, SS 2026, 1 SWS, Language: German, [Open in study portal](#)

Practice (Ü)
On-Site

Content

The aim of this course is to provide an overview of the field of experimental economics and its various applications within economics and related disciplines.

The course begins with an introduction to the fundamental methodology of experimental economics. This includes discussing the possibilities and limitations of economic studies, the rules and principles guiding their implementation, the different types of experiments and their applications for different research purposes.

A central component of the course is the analysis of well-known and influential studies in experimental (and behavioral) economics. The respective study designs and main findings will be presented and subsequently critically discussed. In addition, research questions for potential follow-up projects will be developed.

Furthermore, the course introduces the basics of game-theoretic analysis and data analysis.

By the end of the course, participants should be able to develop their own research ideas and an appropriate experimental study to investigate them.

T

6.44 Module component: Facility Location and Strategic Supply Chain Management [T-WIWI-102704]

Coordinators: Prof. Dr. Stefan Nickel
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101413 - Applications of Operations Research](#)
[M-WIWI-101414 - Methodical Foundations of OR](#)
[M-WIWI-101421 - Supply Chain Management](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Graded	Each winter term	4

Exams			
WT 25/26	7900091	Facility Location and Strategic Supply Chain Management	Nickel

Assessment

The assessment consists of a written exam (60 min) according to Section 4 (2), 1 of the examination regulation.

The exam takes place in every semester.

Prerequisite for admission to examination is the successful completion of the online assessments.

Prerequisites

Prerequisite for admission to examination is the successful completion of the online assessments.

Recommendations

None

Additional Information

The lecture is held in every winter term. The planned lectures and courses for the next three years are announced online at <https://dol.iwr.kit.edu/Lehrveranstaltungen.php>.

Workload

135 hours

T

6.45 Module component: Finance and Information Systems [T-WIWI-112736]

Coordinators: Prof. Dr. Alexander Mädche
Prof. Dr. Martin Ruckes

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106279 - Finance and Information Systems](#)

Type
Written examination

Credits
5 CP

Grading
graded

Term offered
Each term

Version
1

Courses					
WT 25/26	2600004		2 SWS	Lecture	Mädche, Feick
ST 2026	2500025	Tutorial Introduction to Finance and Accounting	2 SWS	Tutorial	Wouters, Ruckes, Assistenten, Kohl
ST 2026	2610026	Introduction to Finance and Accounting	2 SWS	Lecture / 	Ruckes, Wouters, Thimme
Exams					
WT 25/26	7900073	Finance and Information Systems			Mädche, Ruckes, Wouters

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment of success takes the form of an overall examination of the two courses "Introduction to Finance and Accounting" (summer semester) and "Business Information Systems" (winter semester) lasting 150 minutes. The examination is offered every winter semester and can be repeated at any regular examination date.

Workload

150 hours

Below you will find excerpts from courses related to this module component:

V

2600004, WS 25/26, 2 SWS, [Open in study portal](#)

Lecture (V)

V

Introduction to Finance and Accounting

2610026, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture covers the following topics:

- Investment and Finance
 - Valuation of Bonds and Stocks
 - Capital Budgeting
 - Portfolio Theory
- Financial Accounting
- Management Accounting

Literature

Ausführliche Literaturhinweise werden in den Materialien zur Vorlesung gegeben.

T

6.46 Module component: Financial Accounting for Global Firms [T-WIWI-107505]**Coordinators:** Dr. Torsten Luedecke**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2530242	Financial Accounting for Global Firms	2 SWS	Lecture / 	Luedecke
WT 25/26	2530243	Übung zu Financial Accounting for Global Firms	1 SWS	Practice / 	Luedecke
Exams					
WT 25/26	7900142	Financial Accounting for Global Firms			Luedecke, Ruckes
ST 2026	7900195	Financial Accounting for Global Firms			Luedecke

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment consists of a written exam (60 min.) according to § 4 paragraph 2 Nr. 1 of the examination regulation.

Prerequisites

None

Recommendations

Basic knowledge in corporate finance and accounting.

Additional Information

New lecture in the winter term 2017/18.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Financial Accounting for Global Firms2530242, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
On-Site**Literature**

Alexander, D. and C. Nobes (2017): Financial Accounting – An International Introduction, 6th ed., Pearson.

Coenenberg, A.G., Haller, A. und W. Schultze (2016): Jahresabschluss und Jahresabschlussanalyse, 24. Auflage. Schäffer-Poeschel Verlag Stuttgart.

T

6.47 Module component: Financial Data Science [T-WIWI-111238]**Coordinators:** Prof. Dr. Maxim Ulrich**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105610 - Financial Data Science](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	9 CP	Graded	Each summer term	2

Courses					
ST 2026	2530371	Financial Data Science	4 SWS	Lecture / 	Ulrich

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The examination is structured as an alternative assessment.

Further details regarding submission deadlines, exam format, and retake opportunities will be announced in the first session.

Prerequisites

None.

Workload

270 hours

T

6.48 Module component: Financial Data Science in Practice [T-WIWI-114633]

Coordinators: Prof. Dr. Maxim Ulrich
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-107454 - Financial Data Science in Practice](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	9 CP	graded	Each term	1

Assessment

The examination is structured as an alternative exam assessment and consists of the following components:

- **Interim Presentations (Formative Milestones)**
- **Quality of Implementation** (Reproducibility, Code Documentation, Tests)
- **Final Written Paper** (15 – 20 pages, scientific standard)
- **Final Presentation** (approx. 30 minutes, public research talk)

The overall grade is determined by the weighted evaluation of the individual components of this assessment. The exact weighting of these components for grade calculation will be announced at the beginning of the course.

Prerequisites

The course T-WIWI-111238 "Financial Data Science" must be passed.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-111238 - Financial Data Science](#) must have been passed.

Workload

270 hours

T

6.49 Module component: Financial Econometrics [T-WIWI-103064]**Coordinators:** Prof. Dr. Melanie Schienle**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101608 - Statistics and Econometrics](#)
[M-WIWI-105414 - Statistics and Econometrics II](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
2

Courses					
WT 25/26	2520022	Financial Econometrics I	2 SWS	Lecture / 	Schienle
WT 25/26	2520023	Übungen zu Financial Econometrics I	2 SWS	Practice / 	Buse
Exams					
WT 25/26	7900126	Financial Econometrics			Schienle
ST 2026	7900223	Financial Econometrics			Schienle

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment consists of a written exam (90 minutes) (following §4(2), 1 of the examination regulation).

Prerequisites

None

Recommendations

It is recommended that students have substantive knowledge of the course "Economics III: Introduction to Econometrics".

Additional Information

The course will be held in English.

Below you will find excerpts from courses related to this module component:

V

Financial Econometrics I2520022, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
On-Site**Content****Learning objectives:**

The student

- shows a broad knowledge of financial econometric estimation and testing techniques
- is able to apply his/her technical knowledge using software in order to critically assess empirical problems

Content:

ARMA, ARIMA, ARFIMA, (non)stationarity, causality, cointegration, ARCH/GARCH, stochastic volatility models, computer based exercises

Requirements:It is recommended to attend the course *Economics III: Introduction to Econometrics* [2520016] prior to this course.**Workload:**

Total workload for 4.5 CP: approx. 135 hours

Attendance: 30 hours

Preparation and follow-up: 65 hours

Exam preparation: 40 hours

Literature

Taylor, S. J. (2005): "Asset Price Dynamics, Volatility, and Prediction", Princeton University Press.

Tsay, R. S. (2005): "Analysis of Financial Time Series: Financial Econometrics", Wiley, 2nd edition.

Cochrane, J. H. (2005): "Asset Pricing", revised edition, Princeton University Press.

Campbell, J. Y., A. W. Lo, and A. C. MacKinlay (1997): "The Econometrics of Financial Markets", Princeton University Press.

Hamilton, J. D. (1994): "Time Series Analysis", Princeton University Press.

Additional literature will be discussed in the lecture.

T

6.50 Module component: Financial Econometrics II [T-WIWI-110939]**Coordinators:** Prof. Dr. Melanie Schienle**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101608 - Statistics and Econometrics](#)
[M-WIWI-105414 - Statistics and Econometrics II](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
3

Courses					
ST 2026	2521302	Financial Econometrics II	2 SWS	Lecture / 	Schienle, Buse
ST 2026	2521303	Übung zu Financial Econometrics II	2 SWS	Practice / 	Buse, Schienle
Exams					
ST 2026	7900081	Financial Econometrics II			Schienle

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

Written examination (90 minutes). If the number of participants is low, an oral examination will be held instead.

Prerequisites

None

Recommendations

It is recommended that students have substantive knowledge of the course “Financial Econometrics.”

Additional Information

The course will be held in English.

Workload

135 hours

T

6.51 Module component: Financial Intermediation [T-WIWI-102623]**Coordinators:** Prof. Dr. Martin Ruckes**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2530232	Financial Intermediation	2 SWS	Lecture / 	Ruckes
WT 25/26	2530233	Übung zu Finanzintermediation	1 SWS	Practice	Ruckes, Benz
Exams					
WT 25/26	7900063	Financial Intermediation			Ruckes
ST 2026	7900078	Financial Intermediation			Ruckes

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment of this course is a written examination (following §4(2), 1 SPO) of 60 mins.

The exam is offered each semester.

Prerequisites

None

Recommendations

None

Below you will find excerpts from courses related to this module component:

V

Financial Intermediation2530232, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Lecture (V)**
On-Site**Organizational issues**

Terminankündigungen des Instituts beachten

Literature**Weiterführende Literatur:**

- Hartmann-Wendels/Pfingsten/Weber (2014): Bankbetriebslehre, 6. Auflage, Springer Verlag.
- Freixas/Rochet (2008): Microeconomics of Banking, 2. Auflage, MIT Press.

T

6.52 Module component: Financial Management [T-WIWI-102605]**Coordinators:** Prof. Dr. Martin Ruckes**Organisation:** KIT Department of Business and Economics

Part of: [M-WIWI-106273 - Digital Financial Economics](#)
[M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
1

Courses					
ST 2026	2530216	Financial Management	2 SWS	Lecture / 	Ruckes
ST 2026	2530217	Übung zu Financial Management	1 SWS	Practice / 	Ruckes
Exams					
WT 25/26	7900060	Financial Management			Ruckes
ST 2026	7900074	Financial Management			Ruckes

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 min.) according to Section 4 (2), 1 of the examination regulation. The exam takes place at every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Recommendations

Knowledge of the content of the course Business Administration: Finance and Accounting [25026/25027] is recommended.

Below you will find excerpts from courses related to this module component:

V

Financial Management

2530216, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Literature**Weiterführende Literatur:**

- Ross, Westerfield, Jaffe, Jordan (2009): Modern Financial Management, McGraw-Hill International Edition
- Berk, De Marzo (2016): Corporate Finance, 4. Edition, Pearson Addison Wesley

T

6.53 Module component: FinTech [T-WIWI-112694]

Coordinators: Prof. Dr. Julian Thimme
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101402 - eFinance](#)
[M-WIWI-106273 - Digital Financial Economics](#)
[M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	Each winter term	1

Courses					
WT 25/26	2500032	FinTech	2 SWS	Lecture / 	Thimme
WT 25/26	2500219	FinTech (Exercise)	1 SWS	Practice / 	Meng, Thimme
Exams					
WT 25/26	7900064	FinTech			Thimme
ST 2026	7900089	FinTech			Thimme

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Written examination (90 minutes) during the lecture-free period of the semester (according to §4(2), 1 SPO).

The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Recommendations

Knowledge of the course Business Administration: Finance and Accounting [25026/25027] is very helpful.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

FinTech

2500032, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

Banks and other financial institutions are central entities that are crucial to the way capital markets are organized today. They have a variety of tasks: They lend to business and retail customers, thereby creating money, accept deposits, transfer money, advise customers, help companies issue stock, and much more. While all of these services are important for the smooth allocation of capital in an economy, recent technological advances allow companies called FinTechs to challenge banks' traditional business models. While FinTechs are still centralized entities, decentralized innovations based on blockchain technologies have the potential to fundamentally upend the system.

We start with a discussion of the problems with capital allocation and what financial institutions are doing to address these problems. The key question we are interested in is how efficient alternative solutions offered by traditional banks, FinTechs and Decentralized Finance applications are compared to each other. What are the advantages and disadvantages of the new technologies and how likely are they to prevail? In the different parts of the course, we will explore specific examples, including the status quo and possible ways forward.

T

6.54 Module component: Foundations of Informatics I [T-WIWI-102749]**Coordinators:** Dr.-Ing. Tobias Käfer**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-106032 - Foundations of Informatics I](#)**Type**
Written examination**Credits**
5 CP**Grading**
graded**Term offered**
Each summer term**Version**
2

Courses					
ST 2026	2511010	Foundations of Informatics I	2 SWS	Lecture /	Käfer
ST 2026	2511011	Exercises to Foundations of Informatics I		Practice /	Käfer, Noullet, Kinder
Exams					
WT 25/26	79AIFB_Info1_A5	Foundations of Informatics I (Registration extended until Feb 16 – Late registration: Waitlist only, seat not guaranteed)			Käfer
ST 2026	791-AIFB-Info1-HK	Foundations of Informatics I (Registration until 20 July 2026)			Käfer

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The assessment consists of an 1h written exam according to Section 4 (2), 1 of the examination regulation.

The exam takes place every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Below you will find excerpts from courses related to this module component:

V

Foundations of Informatics I

2511010, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture provides an introduction to basic concepts of computer science and software engineering. Essential theoretical foundations and problem-solving approaches, which are relevant in all areas of computer science, are presented and explained, as well as shown in practical implementations.

The following topics are covered:

- Object Oriented Modeling
- Logic (Propositional Calculus, Predicate Logic, Boolean Algebra)
- Algorithms and Their Properties
- Sort-and Search-Algorithms
- Complexity Theory
- Problem Specification
- Dynamic Data Structures

Learning objectives:

The student

- is able to formalise tasks in the domain of informatics and is able to identify solution methods
- knows the basic terminology of computer science and is capable of applying these terms to different problems.
- knows basic programming structures and is able to apply them (particularly simple data structures, object interaction and implementation of basic algorithms).

Workload:

- The total workload for this course is approximately 150 hours
- Time of presentness: 45 hours
- Time of preparation and postprocessing: 67.5 hours
- Exam and exam preparation: 37.5 hours

Literature

- H. Balzert. Lehrbuch Grundlagen der Informatik. Spektrum Akademischer Verlag 2004.
- U. Schöning. Logik für Informatiker. Spektrum Akademischer Verlag 2000.
- T. H. Cormen, C. E. Leiserson. Introduction to Algorithms, MIT Press 2001.

**Exercises to Foundations of Informatics I**2511011, SS 2026, SWS, Language: German, [Open in study portal](#)**Practice (Ü)
On-Site****Content**

The exercises are related to the lecture Foundations of Informatics I.

Multiple exercises are held that capture the topics, held in the lecture Foundations of Informatics I, and discuss them in detail. Thereby, practical examples are given to the students in order to transfer theoretical aspects into practical implementation.

The following topics are covered:

- Object Oriented Modeling
- Logic (Propositional Calculus, Predicate Logic, Boolean Algebra)
- Algorithms and Their Properties
- Sort-and Search-Algorithms
- Complexity Theory
- Problem Specification
- Dynamic Data Structures

Learning objectives:

The student

- is able to formalise tasks in the domain of informatics and is able to identify solution methods
- knows the basic terminology of computer science and is capable of applying these terms to different problems.
- knows basic programming structures and is able to apply them (particularly simple data structures, object interaction and implementation of basic algorithms).

Literature

- H. Balzert. Lehrbuch Grundlagen der Informatik. Spektrum Akademischer Verlag 2004.
- U. Schöning. Logik für Informatiker. Spektrum Akademischer Verlag 2000.
- T. H. Cormen, C. E. Leiserson. Introduction to Algorithms, MIT Press 2001.

T

6.55 Module component: Foundations of Informatics II [T-WIWI-102707]**Coordinators:** Prof. Dr.-Ing. Sanja Lazarova-Molnar**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105879 - Applied Informatics and KI](#)**Type**
Written examination**Credits**
5 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2511012	Foundations of Informatics II	3 SWS	Lecture /	Lazarova-Molnar
WT 25/26	2511013	Tutorien zu Grundlagen der Informatik II	1 SWS	Tutorial /	Lazarova-Molnar, Jungmann, Deufel
Exams					
WT 25/26	79AIFB_Info2_Deutsch	Foundations of Informatics II (exam in German, Registration extended until Feb 16 – Late registration: Waitlist only, seat not guaranteed)			Lazarova-Molnar
WT 25/26	79AIFB_Info2_English	Grundlagen der Informatik II (englischsprachige Klausur, Anmeldefrist verlängert bis 16.02. – Nachmeldung nur auf Warteliste ohne Platzgarantie)			Lazarova-Molnar
ST 2026	791-AIFB-Info2-dt-NK	Foundations of Informatics II (written exam in German, registration until 20 July 2026)			Lazarova-Molnar
ST 2026	791-AIFB-Info2-en-NK	Grundlagen der Informatik II (englischsprachige Klausur, Anmeldung bis 20.07.2026)			Lazarova-Molnar

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The assessment takes the form of a written examination (in accordance with §4(2), 1 SPO), which can be completed in either German or English. The examination is offered every semester and can be retaken at any regular examination date.

The duration of the examination is 90 minutes.

Prerequisites

None

Recommendations

It is recommended to attend the course "Foundations of Informatics I" beforehand.

Active participation in the practical lessons is strongly recommended.

Below you will find excerpts from courses related to this module component:

V

Foundations of Informatics II

2511012, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

The course deals with formal models like finite automata, context-free grammars and push-down automata, offers formal descriptions of computational models of different complexity, and classifies language systems according to their expressive power; it investigates the limits of computability and theoretical complexity to distinguish efficiently solvable problems (P) from computationally intensive ones (NP-complete); at the same time it conveys the fundamentals of computer organization, including digital information formats (integer and floating-point), symbolic logic and the design of functional circuit components, followed by explanations of basic computer architectures, their instruction logic and the standardized fetch-decode-execute cycle, hierarchical storage concepts (cache levels, secondary memory), input-/output mechanisms, redundancy strategies, as well as methods for objective performance assessment and systematic optimization.

Learning objectives:

- Students acquire vast knowledge of methods and concepts in theoretical computer science and computer architectures.
- Based on the acquired knowledge and skills, students are capable of choosing and applying the appropriate methods and concepts for well-defined problem instances.
- Active participation in the tutorials enables students to acquire the necessary knowledge for developing appropriate solutions cooperatively.

Recommendations:

It is recommended to attend the course *Foundations of Informatics I* [2511010] beforehand.

Active participation in the practical lessons is strongly recommended.

Workload:

- Total workload for 5 credit points: approx. 150 hours
- Attendance time – Lecture: 30 h
- Attendance time – Tutorial: 15 h
- Preparation and follow-up: 67.5 hours
- Examination and exam preparation: 37.5 hours

Organizational issues

Die Vorlesung wird zu Beginn des Semesters 4-stündig und am Ende 2-stündig gelesen, um eine bessere Abdeckung des Inhalts in den Übungen zu gewährleisten.

Literature**Weiterführende Literatur:**

Literatur wird in der Vorlesung bekannt gegeben.

T

6.56 Module component: Foundations of Interactive Systems [T-WIWI-109816]**Coordinators:** Prof. Dr. Alexander Mädche**Organisation:** KIT Department of Business and Economics

Part of: [M-WIWI-101434 - eBusiness and Service Management](#)
[M-WIWI-102752 - Fundamentals of Digital Service Systems](#)
[M-WIWI-105928 - HR Management & Digital Workplace](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)
[M-WIWI-106281 - Digitalization and Society](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	Graded	Each summer term	3

Courses					
ST 2026	2540560	Foundations of Interactive Systems	3 SWS	Lecture / 	Mädche, Feick
Exams					
WT 25/26	7900326	Foundations of Interactive Systems			Mädche
ST 2026	7900247	Foundations of Interactive Systems			Mädche

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Alternative exam assessment. The assessment is carried out in the form of a one-hour written examination and by carrying out a Capstone project.

Details on the assessment will be announced during the lecture.

Prerequisites

None

Recommendations

None

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Foundations of Interactive Systems

2540560, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Lecture (V)
Blended (On-Site/Online)

Content**Lecture Description**

Computers have evolved from batch processors to highly interactive systems. This offers new possibilities besides challenges for designing a successful interaction between humans and computers. Interactive systems are socio-technical systems in which users perform tasks by interacting with technology in a specific context to achieve specified goals and outcomes.

This lecture introduces key concepts and principles of interactive systems from a human and computer perspective. From a human perspective, we discuss selected individual characteristics, cognitive processes, the interplay between cognition and activity, as well as mental models. From a computer perspective, we introduce established interaction technologies as well as contemporary multimodal technologies (e.g. augmented/mixed reality, eye-based interaction, etc.). We also introduce established principles and guidelines for designing user interfaces. Furthermore, we describe the human-centered design process for interactive systems and supporting techniques & tools (e.g. personas, prototyping, user testing).

With this lecture, students acquire foundational knowledge to successfully **design the interaction between humans and computers** in business and private life. The course is complemented with a **Design Capstone Project**, where students in a team apply design methods & techniques to create an interactive prototype.

Learning Objectives

The students

- have a basic understanding of key conceptual and theoretical foundations of interactive systems from a human and computer perspective
- are aware of important design principles for the design of important classes of interactive systems
- know design processes and techniques for developing interactive systems
- know how to apply the knowledge and skills gathered in the lecture for a real-world problem (as part of design capstone project)

Prerequisites: No specific prerequisites are required for the lecture

Language of instruction: English

Bibliography

Alan Dix, Janet E. Finlay, Gregory D. Abowd, and Russell Beale. 2003. Human-Computer Interaction (3rd Edition). Prentice-Hall, Inc., USA.

Further literature will be made available in the lecture. In case of questions feel free to approach Siu Liu (siu.liu@kit.edu).

Die Erfolgskontrolle erfolgt in Form einer Prüfungsleistung anderer Art (Form) nach § 4 Abs. 2 Nr. 3 SPO. Die Leistungskontrolle erfolgt in Form einer einstündigen Klausur und der Durchführung eines Capstone Projektes. Details zur Ausgestaltung der Erfolgskontrolle werden im Rahmen der Vorlesung bekannt gegeben.

T

6.57 Module component: Foundations of Mobile Business [T-WIWI-104679]

Coordinators: Prof. Dr. Andreas Oberweis
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	see Annotations	4

Assessment

The examination will be offered for the last time in the summer semester 2025 for first-time writers. The last examination opportunity (only for repeaters) is in the winter semester 2025/2026.

Success is assessed in the form of a written (60 min) or oral examination in accordance with §4(2) of the examination regulations.

Prerequisites

None

Additional Information

The lecture will no longer be offered from the summer semester 2025 and parts of the lecture will be integrated into the new course "Applied Computer Science - Mobile Computing".

Workload

135 hours

T

6.58 Module component: Fundamentals of Production Management [T-WIWI-102606]

Coordinators: Prof. Dr. Frank Schultmann
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101437 - Industrial Production I](#)

Type	Credits	Grading	Term offered	Version
Written examination	5,5 CP	Graded	Each summer term	1

Courses					
ST 2026	2581950	Fundamentals of Production Management	2 SWS	Lecture / 	Schultmann
ST 2026	2581951	Übungen Grundlagen der Produktionswirtschaft	2 SWS	Practice / 	Frank, Fuhg
Exams					
WT 25/26	7981950	Fundamentals of Production Management			Schultmann
ST 2026	7981950	Fundamentals of Production Management			Schultmann

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (90 minutes) (following §4(2) of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Below you will find excerpts from courses related to this module component:

V

Fundamentals of Production Management

2581950, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

This lecture focuses on strategic production management with respect to various economic aspects. Interdisciplinary approaches of systems theory will be used to describe the challenges of industrial production. This course will emphasize the importance of R&D as the central step in strategic corporate planning to ensure future long-term success. In the field of site selection and planning for firms and factories, attention will be drawn upon individual aspects of existing and greenfield sites as well as existing distribution and supply centres. Students will obtain knowledge in solving internal and external transport and storage problems.

Organizational issues

Blockveranstaltung, siehe Institutsaushang

Literature

Wird in der Veranstaltung bekannt gegeben.

T

6.59 Module component: Global Optimization I [T-WIWI-102726]**Coordinators:** Prof. Dr. Oliver Stein**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101413 - Applications of Operations Research](#)
[M-WIWI-101414 - Methodical Foundations of OR](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
1

Courses					
ST 2026	2550134	Global Optimization I	2 SWS	Lecture / 	Stein
Exams					
WT 25/26	7900004_WS2526_NK	Global Optimization I			Stein
ST 2026	7900205_SS2026_HK	Global Optimization I			Stein

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

Success is in the form of a written examination in English (60 min.) (according to § 4(2), 1 SPO). The successful completion of the exercises is required for admission to the written exam.

The exam is offered in the lecture of semester and the following semester.

The success check can be done also with the success control for "Global optimization II". In this case, the duration of the written exam is 120 min.

Prerequisites

None

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-103638 - Global Optimization I and II](#) must not have been started.

Recommendations

None

Additional Information

Part I and II of the lecture are held consecutively in the **same** semester.

Below you will find excerpts from courses related to this module component:

V

Global Optimization I2550134, SS 2026, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
On-Site

Content

In many optimization problems from economics, engineering and natural sciences, solution algorithms are only able to efficiently identify *local* optimizers, while it is much harder to find *globally* optimal points. This corresponds to the fact that by local search it is easy to find the summit of the closest mountain, but that the search for the summit of Mount Everest is rather elaborate.

The lecture treats methods for global optimization of convex functions under convex constraints. It is structured as follows:

- Introduction, examples, and terminology
- Existence results for optimal points
- Optimality in convex optimization
- Duality, bounds, and constraint qualifications
- Algorithms (Kelley's cutting plane method, Frank-Wolfe method, primal-dual interior point methods)

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of *nonconvex* optimization problems forms the contents of the lecture "Global Optimization II". The lectures "Global Optimization I" and "Global Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands the fundamentals of deterministic global optimization in the convex case,
- is able to choose, design and apply modern techniques of deterministic global optimization in the convex case in practice.

Literature

O. Stein, Basic Concepts of Global Optimization, Springer, 2024

Weiterführende Literatur:

- W. Alt, Numerische Verfahren der konvexen, nichtglatten Optimierung, Teubner, 2004
- C.A. Floudas, Deterministic Global Optimization, Kluwer, 2000
- R. Horst, H. Tuy, Global Optimization, Springer, 1996
- A. Neumaier, Interval Methods for Systems of Equations, Cambridge University Press, 1990

T

6.60 Module component: Global Optimization I and II [T-WIWI-103638]

Coordinators: Prof. Dr. Oliver Stein

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101414 - Methodical Foundations of OR](#)

Type
Written examination

Credits
9 CP

Grading
graded

Term offered
Each summer term

Version
1

Courses					
ST 2026	2550134	Global Optimization I	2 SWS	Lecture / 	Stein
ST 2026	2550135	Exercise to Global Optimization I	1 SWS	Practice / 	Stein, Beck
ST 2026	2550136	Global Optimization II	2 SWS	Lecture / 	Stein
Exams					
WT 25/26	7900006_WS2526_NK	Global Optimization I and II			Stein
ST 2026	7900207_SS2026_HK	Global Optimization I and II			Stein

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment of the lecture is a written examination in English (120 minutes) according to §4(2), 1 of the examination regulation. The successful completion of the exercises is required for admission to the written exam.

The examination is held in the semester of the lecture and in the following semester.

Prerequisites

None

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-102726 - Global Optimization I](#) must not have been started.
2. The module component [T-WIWI-102727 - Global Optimization II](#) must not have been started.

Recommendations

None

Additional Information

Part I and II of the lecture are held consecutively in the **same** semester.

Below you will find excerpts from courses related to this module component:

V

Global Optimization I

2550134, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

In many optimization problems from economics, engineering and natural sciences, solution algorithms are only able to efficiently identify *local* optimizers, while it is much harder to find *globally* optimal points. This corresponds to the fact that by local search it is easy to find the summit of the closest mountain, but that the search for the summit of Mount Everest is rather elaborate.

The lecture treats methods for global optimization of convex functions under convex constraints. It is structured as follows:

- Introduction, examples, and terminology
- Existence results for optimal points
- Optimality in convex optimization
- Duality, bounds, and constraint qualifications
- Algorithms (Kelley's cutting plane method, Frank-Wolfe method, primal-dual interior point methods)

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of *nonconvex* optimization problems forms the contents of the lecture "Global Optimization II". The lectures "Global Optimization I" and "Global Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands the fundamentals of deterministic global optimization in the convex case,
- is able to choose, design and apply modern techniques of deterministic global optimization in the convex case in practice.

Literature

O. Stein, Basic Concepts of Global Optimization, Springer, 2024

Weiterführende Literatur:

- W. Alt, Numerische Verfahren der konvexen, nichtglatten Optimierung, Teubner, 2004
- C.A. Floudas, Deterministic Global Optimization, Kluwer, 2000
- R. Horst, H. Tuy, Global Optimization, Springer, 1996
- A. Neumaier, Interval Methods for Systems of Equations, Cambridge University Press, 1990

**Global Optimization II**

2550136, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

**Lecture (V)
On-Site**

Content

In many optimization problems from economics, engineering and natural sciences, solution algorithms are only able to efficiently identify *local* optimizers, while it is much harder to find *globally* optimal points. This corresponds to the fact that by local search it is easy to find the summit of the closest mountain, but that the search for the summit of Mount Everest is rather elaborate.

The lecture treats methods for global optimization of nonconvex functions under nonconvex constraints. It is structured as follows:

- Introduction and examples
- Convex relaxation
- Interval arithmetic
- Convex relaxation via alphaBB method
- Branch-and-bound methods
- Lipschitz optimization

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of *convex* optimization problems forms the contents of the lecture "Global Optimization I". The lectures "Global Optimization I" and "Global Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands the fundamentals of deterministic global optimization in the nonconvex case,
- is able to choose, design and apply modern techniques of deterministic global optimization in the nonconvex case in practice.

Literature

O. Stein, Basic Concepts of Global Optimization, Springer, 2024

Weiterführende Literatur:

- W. Alt, Numerische Verfahren der konvexen, nichtglatten Optimierung, Teubner, 2004
- C.A. Floudas, Deterministic Global Optimization, Kluwer, 2000
- R. Horst, H. Tuy, Global Optimization, Springer, 1996
- A. Neumaier, Interval Methods for Systems of Equations, Cambridge University Press, 1990

T

6.61 Module component: Global Optimization II [T-WIWI-102727]**Coordinators:** Prof. Dr. Oliver Stein**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101414 - Methodical Foundations of OR](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
2

Courses					
ST 2026	2550136	Global Optimization II	2 SWS	Lecture / 	Stein
ST 2026	2550137	Exercise to Global Optimization II	1 SWS	Practice / 	Stein, Beck
Exams					
WT 25/26	7900005_WS2526_NK	Global Optimization II			Stein
ST 2026	7900206_SS2026_HK	Global Optimization II			Stein

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment of the lecture is a written examination in English (60 minutes) according to §4(2), 1 of the examination regulation. The successful completion of the exercises is required for admission to the written exam.

The examination is held in the semester of the lecture and in the following semester.

The examination can also be combined with the examination of "Global optimization I". In this case, the duration of the written examination takes 120 minutes.

Prerequisites

None

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-103638 - Global Optimization I and II](#) must not have been started.

Additional Information

Part I and II of the lecture are held consecutively in the **same** semester.

Below you will find excerpts from courses related to this module component:

V

Global Optimization II2550136, SS 2026, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
On-Site

Content

In many optimization problems from economics, engineering and natural sciences, solution algorithms are only able to efficiently identify *local* optimizers, while it is much harder to find *globally* optimal points. This corresponds to the fact that by local search it is easy to find the summit of the closest mountain, but that the search for the summit of Mount Everest is rather elaborate.

The lecture treats methods for global optimization of nonconvex functions under nonconvex constraints. It is structured as follows:

- Introduction and examples
- Convex relaxation
- Interval arithmetic
- Convex relaxation via alphaBB method
- Branch-and-bound methods
- Lipschitz optimization

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of *convex* optimization problems forms the contents of the lecture "Global Optimization I". The lectures "Global Optimization I" and "Global Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands the fundamentals of deterministic global optimization in the nonconvex case,
- is able to choose, design and apply modern techniques of deterministic global optimization in the nonconvex case in practice.

Literature

O. Stein, Basic Concepts of Global Optimization, Springer, 2024

Weiterführende Literatur:

- W. Alt, Numerische Verfahren der konvexen, nichtglatten Optimierung, Teubner, 2004
- C.A. Floudas, Deterministic Global Optimization, Kluwer, 2000
- R. Horst, H. Tuy, Global Optimization, Springer, 1996
- A. Neumaier, Interval Methods for Systems of Equations, Cambridge University Press, 1990

T

6.62 Module component: HR-Management 1: HR Strategies in the Age of AI [T-WIWI-113745]**Coordinators:** Prof. Dr. Petra Nieken**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105928 - HR Management & Digital Workplace](#)
[M-WIWI-106860 - Leadership & Sustainable HR-Management](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2573005	HR-Management 1: HR strategies in the age of AI	2 SWS	Lecture / 	Nieken
WT 25/26	2573006	Übung zu HR-Management 1: HR Strategies in the age of AI	1 SWS	Practice / 	Nieken, Mitarbeiter
Exams					
WT 25/26	7900200	HR-Management 1: HR strategies in the age of AI (formerly Human Resource Management)	Nieken		
ST 2026	7900134	HR-Management 1: HR strategies in the age of AI (formerly Human Resource Management)	Nieken		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is conducted in the form of an oral (30 minutes) or written (60 minutes) examination (according to §4(2), 1 examination regulations). The exam is offered every semester and can be retaken at any regular examination date.

Prerequisites

None

Recommendations

Prior attendance of the Business Administration module is recommended.

Below you will find excerpts from courses related to this module component:

V

HR-Management 1: HR strategies in the age of AI2573005, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Lecture (V)**
On-Site

Content

In this course, students will acquire fundamental knowledge in the field of human resource management and delve deeply into the future of work. We explore not only classical topics but also the significance of artificial intelligence in the workplace, along with selected aspects related to sustainability and shaping the future of work. Drawing from microeconomic and behavioral economic approaches, we analyze various processes and tools in human resource management. We evaluate their alignment with corporate strategy. We investigate how we can design workplaces sustainably while considering the individual needs of employees. In addition, we look at how AI is transforming our work environment and the opportunities and challenges it presents. Going beyond theoretical concepts, we validate our insights using real-world data from research papers and current events. Discussions are strongly encouraged!

Learning Outcomes

The student

- understands the processes and instruments of human resource management.
- analyzes different methods and evaluates their usefulness with a special focus on AI.
- analyzes different processes and evaluates the strengths and weaknesses.
- understands the challenges of human resource management and its link to corporate strategy with a special focus on AI and sustainability aspects.
- possesses knowledge about the applicability and challenges of different scientific research methods and open science.

Workload

The total workload for this course is approximately 135 hours.

Lecture: 32 hours

Preparation of lecture: 52 hours

Exam preparation: 51 hours

Literature

- Personalmanagement, Stock-Homburg, 2019
- Personnel Economics, Kuhn, 2017
- Research papers and case studies (will be provided during the lecture)

T

6.63 Module component: HR-Management 2: Organization, Fairness & Leadership [T-WIWI-114178]**Coordinators:** Prof. Dr. Petra Nieken**Organisation:** KIT Department of Business and Economics

Part of: [M-WIWI-101668 - Economic Policy I](#)
[M-WIWI-106281 - Digitalization and Society](#)
[M-WIWI-106860 - Leadership & Sustainable HR-Management](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Grading graded	Each summer term	1

Courses					
ST 2026	2573001	HR-Management 2: Organization, Fairness & Leadership	2 SWS	Lecture / 	Nieken
ST 2026	2573002	Übung zu HR-Management 2: Organization, Fairness & Leadership	1 SWS	Practice / 	Nieken, Mitarbeiter, Gorny
Exams					
WT 25/26	7900202	HR-Management 2: Organisation, Fairness & Leadership (ehemals Personalpolitik und Arbeitsmarktinstitutionen)			Nieken
ST 2026	7900133	HR-Management 2: Organization, Fairness & Leadership (formerly Personnel Policies and Labor Market Institutions)			Nieken

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment of this course is a written examination of 1 hour. The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

In case of a small number of registrations, we might offer an oral exam instead of a written exam.

Prerequisites

None

Recommendations

Completion of module Business Administration is recommended.

Basic knowledge of microeconomics, game theory, and statistics is recommended.

Below you will find excerpts from courses related to this module component:

V

HR-Management 2: Organization, Fairness & Leadership

2573001, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

In the course, we explore central aspects of the working world. Students gain a deep understanding of the dynamics of wage and collective bargaining negotiations and critically engage with compensation structures within companies. A special focus lies in creating a sustainable workplace that meets both employees' needs and society's ecological and social demands. Additionally, we address topics related to diversity and inclusion. Students develop innovative approaches to leadership and new forms of work that are increasingly relevant in the modern work environment. Our analyses are based on microeconomic and behavioral economic approaches, evaluating their alignment with corporate strategy. We move beyond theoretical concepts, examining our insights using real-world data from research papers and current events. Discussions are explicitly encouraged!

Aim

The student

- understands the process and instruments of HR-Management with a focus on fair working conditions, sustainability, and leadership.
- analyzes various methods and evaluates their usefulness, particularly regarding fairness and leadership in organizations.
- analyzes various processes and assesses their strengths and weaknesses.
- evaluates the strengths and weaknesses of existing structures and regulations based on systematic criteria.
- possess knowledge about the applicability and challenges of different scientific research methods

Workload

The total workload for this course is approximately 135 hours.

Lecture 32 hours

Preparation of lecture 52 hours

Exam preparation 51 hours

Literature

- Arbeitsmarktökonomik, W. Franz, Springer, 2013
- The Nature of Leadership, Antonakis, J. Day, D. 2017

T

6.64 Module component: Industrial Organization [T-WIWI-102844]

Coordinators: Prof. Dr. Johannes Philipp Reiß
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101420 - Econometrics and Economics](#)
[M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-101501 - Economic Theory](#)
[M-WIWI-106272 - Topics in Digital Economics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	Irregular	1

Courses					
ST 2026	2560238	Industrial Organization	2 SWS	Lecture / 	Reiß
ST 2026	2560239	Übung zu Industrieökonomie	1 SWS	Practice / 	Reiß, Potarca
Exams					
WT 25/26	7910003	Industrial Organization			Reiß

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 minutes) (following §4(2), 1 of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Recommendations

Completion of the module Economics [WW1VWL] is assumed.

Additional Information

This course is not given in summer 2017.

Below you will find excerpts from courses related to this module component:

V

Industrial Organization

2560238, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Literature**Verpflichtende Literatur:**

H. Bester (2012): Theorie der Industrieökonomik, Springer-Verlag.

Ergänzende Literatur:

J. Tirole (1988): Theory of Industrial Organization, MIT Press.

D. Carlton / J. Perloff (2005): Modern Industrial Organization, Pearson.

P. Belleflamme / M. Peitz (2010): Industrial Organization

T

6.65 Module component: Information Systems [T-WIWI-114972]

Coordinators: Prof. Dr. Alexander Mädche
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106279 - Finance and Information Systems](#)

Type
Written examination

Credits
2 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2600004		2 SWS	Lecture	Mädche, Feick
Exams					
WT 25/26	7900292	Information Systems			Mädche
ST 2026	7900070	Information Systems			Mädche

Assessment

Written Exam. The examination is offered at the beginning of each lecture-free period. Repeat examinations are possible at any regular examination date.

Workload

60 hours

Below you will find excerpts from courses related to this module component:

V

2600004, WS 25/26, 2 SWS, [Open in study portal](#)

Lecture (V)

T

6.66 Module component: Intellectual Property and Data Protection [T-INFO-109840]**Coordinators:** N.N.**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-106424 - Legal Aspects of Digitalization](#)**Type**
Written examination**Credits**
6 CP**Grading**
graded**Term offered**
Each winter term**Version**
1**Courses**

WT 25/26	2424018	Datenschutzrecht	2 SWS	Lecture / 	Schneider, Werner
WT 25/26	2424070	Industrial Property and Copyright Law	2 SWS	Lecture / 	Hartmann

Exams

WT 25/26	7500236	Intellectual Property and Data Protection	Zufall, Matz		
ST 2026	7500299	Intellectual Property and Data Protection	Sattler, Zufall		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.67 Module component: International Finance [T-WIWI-102646]

Coordinators: Prof. Dr. Marliese Uhrig-Homburg
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101402 - eFinance](#)
[M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type
Written examination

Credits
3 CP

Grading
graded

Term offered
see Annotations

Version
1

Courses					
ST 2026	2530570	International Finance	2 SWS	Lecture / 	Walter, Uhrig-Homburg
Exams					
WT 25/26	7900052	International Finance			Uhrig-Homburg
ST 2026	7900097	International Finance			Uhrig-Homburg

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The success control takes place in form of a written examination (60 min). If the number of participants is low, an oral examination may also be offered. The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Recommendations

None

Additional Information

The course is offered as a 14-day or block course.

Below you will find excerpts from courses related to this module component:

V

International Finance

2530570, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Organizational issues

Kickoff am Mittwoch, 29.04.26, 16:00 - 19:15 Uhr im Raum 320 im Geb. 09.21 (Blücherstr. 17). Die Veranstaltung wird samstags als Blockveranstaltung angeboten (nach dem Kickoff nach Absprache).

Literature**Weiterführende Literatur:**

- Eiteman, D. et al., Multinational Business Finance, 13. Auflage, 2012.
- Solnik, B. und D. McLeavey, Global Investments, 6. Auflage, 2008.

T

6.68 Module component: Internet Law [T-INFO-101307]

Coordinators: N.N.

Organisation: KIT Department of Informatics

Part of: [M-INFO-101215 - Intellectual Property Law](#)
[M-INFO-106424 - Legal Aspects of Digitalization](#)

Type	Credits	Grading	Term offered	Version
Written examination	3 CP	Grading graded	Each winter term	2

Courses					
WT 25/26	2424354	Internet Law	2 SWS	Lecture / 	Idelberger
Exams					
WT 25/26	7500060	Internet Law			Matz
ST 2026	7500057	Internet Law			Sattler

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is carried out as a written examination (§ 4 Abs. 2 No. 1 SPO) lasting 120 minutes.

PrerequisitesThe course **Ausgewählte Rechtsfragen des Internetrechts T-INFO-108462** may not have started.**Modeled Prerequisites**

The following conditions have to be fulfilled:

1. The module component [T-INFO-108462 - Selected Legal Issues of Internet Law](#) must not have been started.

Recommendations

None.

Additional InformationLecture (with written exam) **Internet Law T-INFO-101307** is offered in the winter semester.Colloquium (other type of examination) **Selected Legal Issues in Internet Law T-INFO-108462** is offered in the summer semester.

T

6.69 Module component: Introduction to Digital Economics [T-WIWI-112722]

Coordinators: Prof. Dr. Johannes Brumm
Prof. Dr. Johannes Philipp Reiß

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106271 - Introduction to Digital Economics](#)

Type
Written examination

Credits
6 CP

Grading
graded

Term offered
Each term

Version
1

Courses					
WT 25/26	2610001	The Digital Economy: Cases and Models	2 SWS	Lecture	Reiß, Potarca, Peters
ST 2026	2500163	The Digital Economy: Micro and Macro Perspective	2 SWS	Lecture / 	Brumm, Reiß
Exams					
WT 25/26	7910010	Introduction to Digital Economics			Reiß, Brumm

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The module examination takes the form of an overall examination on the two courses "The Digital Economy: Cases and Models" and "The Digital Economy: Micro and Macro Perspective" lasting 120 minutes. The exam is offered every semester and can be repeated at any regular exam date. The module grade corresponds to the exam grade.

Prerequisites

None

Workload

180 hours

T

6.70 Module component: Introduction to Econometrics [T-WIWI-114622]

Coordinators: Prof. Dr. Melanie Schienle
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-101608 - Statistics and Econometrics](#)
[M-WIWI-105203 - Introduction in Econometrics](#)
[M-WIWI-105414 - Statistics and Econometrics II](#)

Type
Written examination

Credits
5 CP

Grading
graded

Term offered
Each summer term

Version
1

Courses					
ST 2026	2520016	Introduction to Econometrics	2 SWS	Lecture / 🗎	Schienle, Bracher
ST 2026	2520017	Übungen zu Einführung in die Ökonometrie	2 SWS	Practice	Schienle, Rüter, Bracher, Leimenstoll
Exams					
WT 25/26	7900002	Introduction in Econometrics			Schienle

Legend: 🗎 Online, 🔄 Blended (On-Site/Online), 🗎 On-Site, ✕ Cancelled

Assessment

Success is assessed in the form of a written examination lasting 1 hour.

Grade Bonus through Bonus Exercises: By achieving qualified participation in at least 80% of the bonus exercises accompanying the lectures, students can earn a grade bonus for the examinations directly following the semester. This bonus of three points (out of a maximum of 90 points for the exam) will only be credited if the examination is considered passed without the application of this bonus. The grade bonus can thus result in an improvement of up to one grade increment.

Prerequisites

None

Below you will find excerpts from courses related to this module component:

V

Introduction to Econometrics

2520016, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content**Learning objectives:**

- Familiarity with the basic concepts and methods of econometrics
- Preparation of simple econometric surveys

Content:

- Simple and multiple linear regression (estimating parameters, confidence interval, testing, prognosis, testing assumptions)
- Model assessment

Requirements:

Knowledge of the lectures Statistics I + II is required.

Workload:

Total workload for 5 CP: approx. 150 hours

Attendance: 30 hours

Preparation and follow-up: 120 hours

Literature

Von Auer: Ökonometrie ISBN 3-540-00593-5

Goldberger: A course in Econometrics ISBN 0-674-17544-1

Gujarati. Basic Econometrics ISBN 0-07-113964-8

Schneeweiß: Ökonometrie ISBN 3-7908-0008-2

T

6.71 Module component: Introduction to Energy Economics [T-WIWI-102746]

Coordinators: Prof. Dr. Wolf Fichtner
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101464 - Energy Economics](#)

Type
Written examination

Credits
5,5 CP

Grading
graded

Term offered
Each summer term

Version
7

Courses					
ST 2026	2581010	Introduction to Energy Economics	2 SWS	Lecture / 	Fichtner
ST 2026	2581011	Übungen zu Einführung in die Energiewirtschaft	2 SWS	Practice / 	Layer, Fichtner, Raab
Exams					
WT 25/26	7981010	Introduction to Energy Economics			Fichtner
ST 2026	7981010	Introduction to Energy Economics			Fichtner

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (90 minutes) (following §4(2) of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None.

Below you will find excerpts from courses related to this module component:

V

Introduction to Energy Economics

2581010, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

1. Introduction: terms, units, conversions
2. The energy carrier gas (reserves, resources, technologies)
3. The energy carrier oil (reserves, resources, technologies)
4. The energy carrier hard coal (reserves, resources, technologies)
5. The energy carrier lignite (reserves, resources, technologies)
6. The energy carrier uranium (reserves, resources, technologies)
7. The final carrier source electricity
8. The final carrier source heat
9. Other final energy carriers (cooling energy, hydrogen, compressed air)

The student is able to

- characterize and judge the different energy carriers and their peculiarities,
- understand contexts related to energy economics.

Literature**Weiterführende Literatur:**

Pfaffenberger, Wolfgang. Energiewirtschaft. ISBN 3-486-24315-2
 Feess, Eberhard. Umweltökonomie und Umweltpolitik. ISBN 3-8006-2187-8
 Müller, Leonhard. Handbuch der Elektrizitätswirtschaft. ISBN 3-540-67637-6
 Stoft, Steven. Power System Economics. ISBN 0-471-15040-1
 Erdmann, Georg. Energieökonomik. ISBN 3-7281-2135-5

T

6.72 Module component: Introduction to Finance and Accounting [T-WIWI-112821]

Coordinators: Dr. Torsten Luedecke
 Prof. Dr. Martin Ruckes
 Dr. Jan-Oliver Strych
 Prof. Dr. Marliese Uhrig-Homburg
 Prof. Dr. Marcus Wouters

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106279 - Finance and Information Systems](#)

Type	Credits	Grading	Term offered	Version
Written examination	3 CP	graded	Each summer term	2

Courses					
ST 2026	2500025	Tutorial Introduction to Finance and Accounting	2 SWS	Tutorial	Wouters, Ruckes, Assistenten, Kohl
ST 2026	2610026	Introduction to Finance and Accounting	2 SWS	Lecture / 	Ruckes, Wouters, Thimme
Exams					
WT 25/26	7900004	Business Administration: Finance and Accounting			Ruckes, Wouters
WT 25/26	7900293	Introduction to Finance and Accounting			Wouters, Ruckes
ST 2026	7900248	Business Administration: Finance and Accounting			Ruckes, Wouters

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Written Exam. The examination is offered at the beginning of each lecture-free period. Repeat examinations are possible at any regular examination date.

Workload

90 hours

Below you will find excerpts from courses related to this module component:

V

Introduction to Finance and Accounting

2610026, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture covers the following topics:

- Investment and Finance
 - Valuation of Bonds and Stocks
 - Capital Budgeting
 - Portfolio Theory
- Financial Accounting
- Management Accounting

Literature

Ausführliche Literaturhinweise werden in den Materialien zur Vorlesung gegeben.

T

6.73 Module component: Introduction to Game Theory [T-WIWI-102850]

Coordinators: Prof. Dr. Clemens Puppe
Prof. Dr. Johannes Philipp Reiß

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-101501 - Economic Theory](#)
[M-WIWI-106272 - Topics in Digital Economics](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
3

Courses					
ST 2026	2520525	Introduction to Game Theory	2 SWS	Lecture / 	Rosar, Puppe, Ammann
ST 2026	2520526	Übungen zu Einführung in die Spieltheorie	1 SWS	Practice / 	Puppe, Rosar, Ammann
Exams					
WT 25/26	7910001	Introduction to Game Theory			Reiß
ST 2026	7910001	Introduction to Game Theory			Puppe

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 minutes) according to Section 4(2),1 of the examination regulation.

The exam takes place in the recess period and can be repeated at every ordinary examination date.

Recommendations

Knowledge from the lecture "Economics I: Microeconomics" is recommended. Furthermore, basic knowledge of mathematics and statistics is assumed.

Below you will find excerpts from courses related to this module component:

V

Introduction to Game Theory

2520525, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The course focusses on non-cooperative game theory. It discusses models, solution concepts, and applications for simultaneous games as well as sequential games. Various solution concepts, e.g., Nash equilibrium and subgame-perfect equilibrium, are introduced along with more advanced concepts.

This course offers an introduction to the theoretical analysis of strategic interaction situations. At the end of the course, students shall be able to analyze situations of strategic interaction systematically and to use game theory to predict outcomes and give advice in applied economics settings.

Literature**Verpflichtende Literatur:**

Gibbons (1992): A Primer in Game Theory, Harvester-Wheatsheaf.

Ergänzende Literatur:

Berninghaus/Ehrhart/Güth (2010): Strategische Spiele, Springer Verlag.

Binmore (1991): Fun and Games, DC Heath.

Fudenberg/Tirole (1991): Game Theory, MIT Press.

Heifetz (2012): Game Theory, Cambridge Univ. Press.

T

6.74 Module component: Introduction to Machine Learning [T-WIWI-111028]

Coordinators: Prof. Dr. Andreas Geyer-Schulz
Dr. Abdolreza Nazemi

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-105482 - Machine Learning and Data Science](#)

Type	Credits	Grading	Term offered	Expansion	Version
Written examination	4,5 CP	graded	Each winter term	1 semesters	1

Courses					
WT 25/26	2540539	Introduction to Machine Learning	2 SWS	Lecture / 	Nazemi
WT 25/26	2540540	Übung zu Introduction to Machine Learning	1 SWS	Practice / 	Nazemi
Exams					
WT 25/26	7900349	Introduction to Machine Learning (WS 2025/2026)			Geyer-Schulz
ST 2026	7900076	Introduction to Machine Learning			Geyer-Schulz

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Written examination (60 minutes) according to §4(2), 1 SPO. The exam is considered passed if at least 50 out of a maximum of 100 possible points are achieved. The grades are graded in five-point-steps (best grade 1.0 from 95 points). Details of the grade formation and scale will be announced in the course.

A bonus can be acquired through successful participation in the practice. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by one grade level (0.3 or 0.4). The exact criteria for awarding a bonus will be announced at the beginning of the course.

Please note: this exam will no longer be offered after August 2026.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Introduction to Machine Learning

2540539, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

- Introduction
- Data Cleaning
- Data Visualization
- Linear Regression
- Logistic Regression
- Tree-based Algorithms
- Support Vector Machine
- Shrinkage Models
- Dimensionality Reduction
- Clustering

Literature

- Alpaydin, E. (2014). *Introduction to Machine Learning*. Third Edition, MIT Press.
- Hall, J. (2020). *Machine Learning in Business: An Introduction to the World of Data Science*. Independently published.
- James, G., Witten, D., Hastie, T., and R. Tibshirani (2013). *An Introduction to Statistical Learning: with Applications in R*. Springer.
- Tan, P. N., Steinbach, M., Karpatne, A., & Kumar, V. (2018). *Introduction to data mining*. Pearson

T

6.75 Module component: Introduction to Neural Networks and Genetic Algorithms [T-WIWI-111029]**Coordinators:** Prof. Dr. Andreas Geyer-Schulz**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105482 - Machine Learning and Data Science](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Expansion**
1 semesters**Version**
1

Courses					
ST 2026	2540541	Introduction to Neural Networks and Genetic Algorithms	2 SWS	Lecture	Geyer-Schulz
ST 2026	2540542	Übung Introduction to Neural Networks and Genetic Algorithms	1 SWS	Practice	Geyer-Schulz
Exams					
WT 25/26	7900295	Introduction to Neural Networks and Genetic Algorithms (Nachklausur SoSe 2025)			Geyer-Schulz
ST 2026	7900241	Introduction to Neural Networks and Genetic Algorithms (Nachklausur SoSe 2026)			Geyer-Schulz
ST 2026	7900303	Introduction to Neural Networks and Genetic Algorithms			Geyer-Schulz

Assessment

Written examination (60 minutes) according to §4(2), 1 SPO. The exam is considered passed if at least 50 out of a maximum of 100 possible points are achieved. The grades are graded in five-point-steps (best grade 1.0 from 95 points). Details of the grade formation and scale will be announced in the course.

A bonus can be acquired through successful participation in the practice. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by one grade level (0.3 or 0.4). The exact criteria for awarding a bonus will be announced at the beginning of the course.

Please note: this exam will no longer be offered after August 2026.

Additional Information

Please note: this course, exercises and exam will no longer be offered after August 2026.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Introduction to Neural Networks and Genetic Algorithms

2540541, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)**Content**

The course consists of a short introduction and two parts:

1. In the introduction, the biological mechanisms of neural and genetic methods are presented. Furthermore, a common framework for the learning performance evaluation of these methods in applications is introduced.
2. In the field of genetic methods, simple genetic algorithms and their variants are introduced, analyzed, and applied.
3. In the area of neural methods, the basic algorithms are presented (e.g., backpropagation) as well as their applications in data science.

Learning Objectives:

The student knows the essential algorithms, learning procedures, and methods for neural networks and genetic algorithms. They can apply these methods (e.g. in R) and evaluate their quality.

Literature

- Goldberg, David E. (2001)
Genetic Algorithms in Search, Optimization and Machine Learning.
Addison-Wesley, New York.
- Bishop, Christopher M. (2006)
Pattern Recognition and Machine Learning.
Springer, New York.
- Goodfellow, Ian; Bengio, Yoshua; Courville, Aaron (2016)
Deep Learning.
MIT Press. Cambridge.

T

6.76 Module component: Introduction to Operations Research for Digital Economics [T-WIWI-112737]

Coordinators: Prof. Dr. Stefan Nickel
Prof. Dr. Steffen Rebennack
Prof. Dr. Oliver Stein

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106280 - Introduction to Operations Research for Digital Economics](#)

Type
Written examination

Credits
5 CP

Grading
graded

Term offered
Each term

Version
1

Courses					
WT 25/26	2500030	Computer Exercises on Introduction to Operations Research II	1 SWS	Tutorial / 	Dunke
WT 25/26	2530043	Introduction to Operations Research II	2 SWS	Lecture / 	Stein
WT 25/26	2530044		2 SWS	Tutorial / 	Dunke
ST 2026	2500008	Computer Exercises on Introduction to Operations Research I	1 SWS	Tutorial / 	Dunke
ST 2026	2550040	Introduction to Operations Research I	2 SWS	Lecture / 	Rebennack
ST 2026	2550043	Tutorials on Introduction to Operations Research I	2 SWS	Tutorial / 	Dunke
Exams					
WT 25/26	00062	Introduction to Operations Research for Digital Economics			Stein

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The examination takes the form of a written comprehensive exam (60 min.). The written exam is offered every semester (usually in March and August) and can be repeated at any regular exam date.

Prerequisites

None

Workload

150 hours

Below you will find excerpts from courses related to this module component:

V

Introduction to Operations Research II

2530043, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

Integer and combinatorial optimization: basic concepts, cutting plane methods, branch-and-bound methods, branch-and-cut methods, heuristic methods.

Nonlinear optimization: basic concepts, optimality conditions, solution methods for convex and nonconvex optimization problems.

Dynamic and stochastic models and methods: Dynamic optimization, Bellman methods, lot-sizing models and dynamic and stochastic models of inventory, queues.

Learning Objectives:

The student

- knows and describes the basic concepts of integer and combinatorial optimization, nonlinear optimization and dynamic optimization,
- knows the methods and models indispensable for a quantitative analysis,
- models and classifies optimization problems and selects appropriate solution procedures to solve simple optimization problems independently,
- validates, illustrates and interprets obtained solutions.

Literature

- Nickel, Rebennack, Stein, Waldmann: Operations Research, 3. Auflage, Springer, 2022
- Hillier, Lieberman: Introduction to Operations Research, 8th edition. McGraw-Hill, 2005
- Murty: Operations Research. Prentice-Hall, 1995
- Neumann, Morlock: Operations Research, 2. Auflage. Hanser, 2006
- Winston: Operations Research - Applications and Algorithms, 4th edition. PWS-Kent, 2004

**Introduction to Operations Research I**

2550040, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

**Lecture (V)
On-Site**

Content

Examples for typical OR problems.

Linear Programming: Basic notions, simplex method, duality, special versions of the simplex method (dual simplex method, three phase method), sensitivity analysis, parametric optimization, game theory.

Graphs and Networks: Basic notions of graph theory, shortest paths in networks, project scheduling, maximal and minimal cost flows in networks.

Learning objectives:

The student

- names and describes basic notions of linear programming as well as graphs and networks,
- knows the indispensable methods and models for quantitative analysis,
- models and classifies optimization problems and chooses the appropriate solution methods to solve optimization problems independently,
- validates, illustrates and interprets the obtained solutions.

Literature

- Nickel, Rebennack, Stein, Waldmann: Operations Research, 3. Auflage, Springer, 2022
- Hillier, Lieberman: Introduction to Operations Research, 8th edition. McGraw-Hill, 2005
- Murty: Operations Research. Prentice-Hall, 1995
- Neumann, Morlock: Operations Research, 2. Auflage. Hanser, 2006
- Winston: Operations Research - Applications and Algorithms, 4th edition. PWS-Kent, 2004

T

6.77 Module component: Introduction to Programming with Java [T-WIWI-102735]

Coordinators: Prof. Dr.-Ing. Johann Marius Zöllner
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101581 - Introduction to Programming](#)

Type
Written examination

Credits
5 CP

Grading
graded

Term offered
Each winter term

Version
2

Courses					
WT 25/26	2511000	Introduction to Programming with Java	3 SWS	Lecture / 	Zöllner
WT 25/26	2511002	Tutorien zu Programmieren I: Java	1 SWS	Tutorial	Zöllner, Stegmaier, Boualili
WT 25/26	2511003	Computer lab Introduction to Programming with Java	2 SWS		Zöllner, Stegmaier, Boualili
Exams					
WT 25/26	79AIFB_Prog1	Introduction to Programming with Java			Zöllner
ST 2026	7900042	Introduction to Programming with Java			Zöllner

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written resp. computer-based exam (60 min) according to Section 4 (2),1 of the examination regulation.

The successful completion of the compulsory tests in the computer lab is prerequisite for admission to the written resp. computer-based exam.

The examination takes place every semester. Re-examinations are offered at every ordinary examination date.

Additional Information

see german version

Below you will find excerpts from courses related to this module component:

V

Introduction to Programming with Java

2511000, WS 25/26, 3 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture "Introduction to Programming with Java " introduces systematic programming and provides essential practical basics for all advanced computer science lectures.

Based on considerations of the structured and systematic design of algorithms, the most important constructs of modern higher programming languages as well as programming methods are explained and illustrated with examples. One focus of the lecture is on teaching the concepts of object-oriented Programming. Java is used as the programming language. Knowledge of this language is required in advanced computer science lectures.

At the end of the lecture period, a written examination will be held for which admission must be granted during the semester after successful participation in the practices. The exact details will be announced in the lecture.

Learning objectives:

- Knowledge of the fundamentals, methods and systems of computer science.
- The students acquire the ability to independently solve algorithmic problems in the programming language Java, which dominates in business applications.
- In doing so, they will be able to find strategic and creative answers in finding solutions to well-defined, concrete and abstract problems.

Workload:

The total workload for this course is approximately 150 hours. For further information see German version.

Literature

Ratz, D. Schulmeister-Zimolong, D. Seese, J. Wiesenberger. Grundkurs Programmieren in Java. 8. Aktualisierte und erweiterte Auflage, Hanser 2018

T

6.78 Module component: Introduction to Public Finance [T-WIWI-102877]

Coordinators: Prof. Dr. Berthold Wigger
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101403 - Public Finance](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	Grading graded	Each winter term	1

Courses					
WT 25/26	2560131	Introduction to Public Finance	3 SWS	Lecture / 	Wigger
Exams					
WT 25/26	790fiwi	Introduction to Public Finance			Wigger
ST 2026	790fiwi	Introduction to Public Finance			Wigger

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of a written examination (60 minutes). The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Below you will find excerpts from courses related to this module component:

V

Introduction to Public Finance

2560131, WS 25/26, 3 SWS, Language: German, [Open in study portal](#)

Lecture (V)
Blended (On-Site/Online)

Content

The course *Introduction to Public Finance* provides an overview of the fundamental issues in public economics. The first part of the course deals with normative theories about the economic role of the state in a market economy. Welfare economics theory is offered as a base model, with which alternative normative theories are compared and contrasted. Within this theoretical framework, arguments concerning efficiency and equity are developed as justification for varying degrees of economic intervention by the state. The second part of the course deals with the positivist theory of public economics. Processes of public decision making are examined and the conditions that lead to market failures resulting from collective action problems are discussed. The third part of the course examines a variety of public spending programs, including social security systems, the public education system, and programs aimed at reducing poverty. The fifth part of the course addresses the key theoretical and political issues associated with fiscal federalism.

Learning goals:

Students are able to:

- critically assess the economic role of the state in a market economy
- explain and discuss key concepts in public finance, including: public goods; economic externalities; and market failure
- explain and critically discuss competing theoretical approaches to public finance, including welfare economics and public choice theory
- explain the theory of bureaucracy according to Weber and critically assess its strengths and weaknesses
- evaluate the incentives inherent in the bureaucratic model, as well as the more recent introduction of market-oriented incentives associated with public-sector reform

Workload:

The total workload for this course is approximately 135.0 hours. For further information see German version.

Literature

Literatur:

Wigger, B. U. 2006. *Grundzüge der Finanzwissenschaft*. Springer: Berlin.

T

6.79 Module component: Introduction to Sociology [T-GEISTSOZ-101131]**Coordinators:** Prof. Dr. Michael Mäs**Organisation:** KIT Department of Humanities and Social Sciences**Part of:** [M-WIWI-106281 - Digitalization and Society](#)**Type**
Written examination**Credits**
6 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Exams			
WT 25/26	7400352	Introduction to Sociology	Mäs
WT 25/26	7400498	Introduction to Sociology	Mäs

Prerequisites

Students need to complete three exercises successfully to subscribe for the final exam.

T

6.80 Module component: Introduction to Stochastic Optimization [T-WIWI-106546]**Coordinators:** Prof. Dr. Steffen Rebennack**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101414 - Methodical Foundations of OR](#)
[M-WIWI-103278 - Optimization under Uncertainty](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
3

Courses					
ST 2026	2550470	Introduction to Stochastic Optimization	2 SWS	Lecture / 	Rebennack
ST 2026	2550471	Übung zur Einführung in die Stochastische Optimierung	1 SWS	Practice / 	Rebennack, Kandora
ST 2026	2550474	Rechnerübung zur Einführung in die Stochastische Optimierung	2 SWS	Others	Rebennack, Kandora
Exams					
WT 25/26	7900242	Introduction to Stochastic Optimization			Rebennack
ST 2026	7900311	Introduction to Stochastic Optimization			Rebennack

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment consists of a written exam (60 minutes). The exam takes place in every semester.

Prerequisites

None.

Workload

135 hours

T

6.81 Module component: Investments [T-WIWI-102604]

Coordinators: Prof. Dr. Marliese Uhrig-Homburg
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106273 - Digital Financial Economics](#)
[M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
1

Courses					
ST 2026	2530575	Investments	2 SWS	Lecture / 	Uhrig-Homburg, Müller
ST 2026	2530576	Übung zu Investments	1 SWS	Practice / 	Uhrig-Homburg, Kargus, Müller
Exams					
WT 25/26	7900054	Investments			Uhrig-Homburg
ST 2026	7900109	Investments			Uhrig-Homburg

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of a written examination (60 minutes). The examination is offered every semester and can be repeated at any regular examination date.

A bonus can be earned for successful participation in the exercises by submitting correct solutions to at least 50% of the bonus exercises set. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by up to one grade level (0.3 or 0.4). Details will be announced in the lecture.

Prerequisites

None

Recommendations

Knowledge of Business Administration: Finance and Accounting [2610026] is recommended.

Below you will find excerpts from courses related to this module component:

V

Investments

2530575, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Literature**Weiterführende Literatur:**

Bodie/Kane/Marcus (2010): Essentials of Investments, 8. Aufl., McGraw-Hill Irwin, Boston

T

6.82 Module component: Lecture Introduction to Sociology [T-GEISTSOZ-104601]

Coordinators: Prof. Dr. Michael Mäs
Organisation: KIT Department of Humanities and Social Sciences
Part of: [M-WIWI-106281 - Digitalization and Society](#)

Type	Credits	Grading	Term offered	Version
Coursework	0 CP	pass/fail	Each winter term	2

Courses					
WT 25/26	5011001	Introduction to Sociology	2 SWS	Lecture / 	Mäs
Exams					
WT 25/26	7400350	Lecture Introduction to Sociology			Mäs

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.83 Module component: Logistics and Supply Chain Management [T-WIWI-102870]

Coordinators: Prof. Dr. Frank Schultmann
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101437 - Industrial Production I](#)

Type	Credits	Grading	Term offered	Version
Written examination	3,5 CP	graded	Each summer term	2

Courses					
ST 2026	2581996	Logistics and Supply Chain Management	2 SWS	Lecture / 	Schultmann, Rudi
Exams					
WT 25/26	7981996	Logistics and Supply Chain Management			Schultmann
ST 2026	7981996	Logistics and Supply Chain Management			Schultmann

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of an oral (30 minutes) or written exam (60 minutes) (following §4(2) of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Below you will find excerpts from courses related to this module component:

V

Logistics and Supply Chain Management

2581996, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

Students are introduced to the methods and tools of logistics and supply chain management. They students learn the key terms and components of supply chains together with key economic trade-offs. In detail, students gain knowledge of decisions in supply chain management, such as facility location, supply chain planning, inventory management, pricing and supply chain cooperation. In this manner, students will gain knowledge in analyzing, designing and steering of decisions in the domain of logistics and supply chain management.

- Introduction: Basic terms and concepts
- Facility location and network optimization
- Supply chain planning I: flexibility
- Supply chain planning II: forecasting
- Inventory management & pricing
- Supply chain coordination I: the Bullwhip-effect
- Supply chain coordination II: double marginalization
- Supply chain risk management

Literature

Wird in der Veranstaltung bekannt gegeben.

T

6.84 Module component: Macroeconomic Theory [T-WIWI-109121]**Coordinators:** Prof. Dr. Johannes Brumm**Organisation:** KIT Department of Business and Economics

Part of: [M-WIWI-101501 - Economic Theory](#)
[M-WIWI-101668 - Economic Policy I](#)
[M-WIWI-106274 - Macroeconomics: Theory and Computation](#)
[M-WIWI-106472 - Advanced Macroeconomics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	Each winter term	3

Courses					
WT 25/26	2560404	Macroeconomic Theory	2 SWS	Lecture / 	Brumm, Pegorari
WT 25/26	2560405	Übung zu Macroeconomic Theory	1 SWS	Practice / 	Pegorari
Exams					
WT 25/26	7900264	Macroeconomic Theory	Brumm		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 min.) according to § 4 paragraph 2 Nr. 1 of the examination regulation.

Prerequisites

None.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Macroeconomic Theory

2560404, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

This course introduces a modern approach to macroeconomics by building on microeconomic principles. To be able to rigorously address key macroeconomic questions a general framework based on intertemporal decision making is introduced. Starting by the principles of consumer and firm behavior, this framework is successively expanded by introducing market imperfections, monetary factors as well as international trade. With this framework at hand students are able to analyze labor market policies, government deficits, monetary policy, trade policy, and other important macroeconomic problems. Throughout the course, we not only point out the power of theory but also its limitations.

Literature

Literatur und Skripte werden in der Veranstaltung angegeben.

T**6.85 Module component: Macroeconomics: Theory and Computation [T-WIWI-112735]****Coordinators:** Prof. Dr. Johannes Brumm**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-106274 - Macroeconomics: Theory and Computation](#)
[M-WIWI-106472 - Advanced Macroeconomics](#)

Type	Credits	Grading	Term offered	Version
Written examination	9 CP	graded	Each term	1

Assessment

The assessment of success takes place in the form of an overall examination of 9 LP on the course Macroeconomic Theory and the course Computational Macroeconomics. The duration of the overall examination is 120 minutes. The examination is offered every semester and can be repeated at any regular examination date.

Additional Information

Teaching and learning format: Lecture and exercise

Workload

270 hours

T

6.86 Module component: Management Accounting 1 [T-WIWI-102800]**Coordinators:** Prof. Dr. Marcus Wouters**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101498 - Management Accounting](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
see Annotations**Version**
2

Courses					
ST 2026	2579900	Management Accounting 1	2 SWS	Lecture / 	Wouters
ST 2026	2579901	Tutorial Management Accounting 1 (Bachelor)	2 SWS	Practice / 	Dickemann
ST 2026	2579902	Tutorial Management Accounting 1 (Master)	2 SWS	Practice / 	Dickemann
Exams					
WT 25/26	79-2579900-B	Management Accounting 1 (Bachelor)	Wouters		
WT 25/26	79-2579900-M	Management Accounting 1 (Mastervorzug und Master)	Wouters		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment consists of a written exam (120 min.) according to § 4 paragraph 2 Nr. 1 of the examination regulation.

Recommendations

We recommend that you take part in our exercise for the lecture.

Additional Information

The course "Management Accounting 1" and the corresponding assessment for first-time examinees will be offered for the last time in the **summer semester 2026**.

The exercise is offered separately for Bachelor's students as well as for students in the Master's transfer and Master's program.

Note for exam registration:

- Bachelor students: 79-2579900-B Management Accounting 1 (Bachelor)
- Students in the Master's transfer and Master's program: 79-2579900-M Management Accounting 1 (Master's transfer and Master)

Below you will find excerpts from courses related to this module component:

V

Management Accounting 12579900, SS 2026, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
Online

Content

The course covers topics in management accounting in a decision-making framework. Some of these topics in the course MA1 are: short-term planning, investment decisions, budgeting and activity-based costing.

We will use international material written in English.

We will approach these topics primarily from the perspective of the users of financial information (not so much from the controller who prepares the information).

The course builds on an introductory level of understanding of accounting concepts from Business Administration courses in the core program. The course is intended for students in Industrial Engineering.

Learning objectives:

- Students have an understanding of theory and applications of management accounting topics.
- They can use financial information for various purposes in organizations.

Examination:

- The assessment consists of a written exam (120 minutes) at the end of each semester (following § 4 (2) No. 1 of the examination regulation).

Workload:

- The total workload for this course is approximately 135.0 hours. For further information see German version.

Organizational issues**Bitte beachten Sie:**

- die Vorlesung Management Accounting 1 wird letztmalig im SoS 2026 und
- die Vorlesung Management Accounting 2 wird letztmalig im WS 2026/27 angeboten.

Literature

- Marc Wouters, Frank H. Selto, Ronald W. Hilton, Michael W. Maher: Cost Management – Strategies for Business Decisions, 2012, Publisher: McGraw-Hill Higher Education (ISBN-13 9780077132392 / ISBN-10 0077132394)
- In addition, several papers that will be available on ILIAS.

**Tutorial Management Accounting 1 (Bachelor)**

2579901, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

**Practice (Ü)
On-Site**

Content

see Module Handbook

Organizational issues**Bitte beachten Sie:**

- die Übung Management Accounting 1 wird letztmalig im SoS 2026 und
- die Übung Management Accounting 2 wird letztmalig im WS 2026/27 angeboten.

**Tutorial Management Accounting 1 (Master)**

2579902, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

**Practice (Ü)
On-Site**

Content

see Module Handbook

Organizational issues**Bitte beachten Sie:**

- die Übung Management Accounting 1 wird letztmalig im SoS 2026 und
- die Übung Management Accounting 2 wird letztmalig im WS 2026/27 angeboten.

T

6.87 Module component: Management Accounting 2 [T-WIWI-102801]**Coordinators:** Prof. Dr. Marcus Wouters**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101498 - Management Accounting](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
see Annotations**Version**
2

Courses					
WT 25/26	2579903	Management Accounting 2	2 SWS	Lecture / 📺	Wouters
WT 25/26	2579904	Tutorial Management Accounting 2 (Bachelor)	2 SWS	Practice / 🎧	Letmathe
WT 25/26	2579905	Tutorial Management Accounting 2 (Master)	2 SWS	Practice / 🎧	Letmathe
Exams					
WT 25/26	79-2579903-B	Management Accounting 2 (Bachelor)	Wouters		
WT 25/26	79-2579903-M	Management Accounting 2 (Mastervorzug und Master)	Wouters		

Legend: 📺 Online, 🎧 Blended (On-Site/Online), 🎧 On-Site, ✕ Cancelled

Assessment

The assessment consists of a written exam (120 min.) according to § 4 paragraph 2 Nr. 1 of the examination regulation.

Prerequisites

None

Recommendations

It is recommended:

- to take part in the course "Management Accounting 1" before this course
- participation in the exercise for the lecture "Management Accounting 2"

Additional InformationThe course "Management Accounting 2" and the corresponding assessment for first-time examinees will be offered for the last time in the **winter semester 2026/2027**.

The exercise for the lecture is offered separately for Bachelor's students as well as for students in the Master's transfer and Master's program.

Note for exam registration: Bachelor students:

- 79-2579903-B Management Accounting 2 (Bachelor)
- Students in the Master's transfer and Master's program: 79-2579903-M Management Accounting 2 (Master's transfer and Master)

Below you will find excerpts from courses related to this module component:

V

Management Accounting 22579903, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
Online

Content

The course covers topics in management accounting in a decision-making framework. Some of these topics in the course MA2 are: cost estimation, product costing and cost allocation, financial performance measures, transfer pricing, strategic performance measurement systems.

We will use international material written in English.

We will approach these topics primarily from the perspective of the users of financial information (not so much from the controller who prepares the information).

The course builds on an introductory level of understanding of accounting concepts from Business Administration courses in the core program. The course is intended for students in Industrial Engineering.

Learning objectives:

- Students have an understanding of theory and applications of management accounting topics. They can use financial information for various purposes in organizations.

Recommendations:

- It is recommended to take part in the course "Management Accounting 1" before this course.

Examination:

- The assessment consists of a written exam (120 min) at the end of each semester (following § 4 (2) No. 1 of the examination regulation).

Workload:

- The total workload for this course is approximately 135.0 hours. For further information see German version.

Literature

- Marc Wouters, Frank H. Selto, Ronald W. Hilton, Michael W. Maher: Cost Management – Strategies for Business Decisions, 2012, Verlag: McGraw-Hill Higher Education (ISBN-13 9780077132392 / ISBN-10 0077132394)
- Zusätzlich werden Artikel auf ILIAS zur Vergütung gestellt.

**Tutorial Management Accounting 2 (Bachelor)**

2579904, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

**Practice (Ü)
On-Site**

Content

see ILIAS

**Tutorial Management Accounting 2 (Master)**

2579905, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

**Practice (Ü)
On-Site**

Content

see ILIAS

T

6.88 Module component: Management and Marketing [T-WIWI-111594]

Coordinators: Prof. Dr. Martin Klarmann
 Prof. Dr. Hagen Lindstädt
 Prof. Dr. Petra Nieken
 Prof. Dr. Orestis Terzidis

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-105768 - Management and Marketing](#)

Type	Credits	Grading	Term offered	Version
Written examination	5 CP	graded	Each winter term	2

Courses					
WT 25/26	2600023	Management	2 SWS	Lecture / 	Nieken, Lindstädt, Terzidis
WT 25/26	2610026	Marketing	2 SWS	Lecture / 	Klarmann
Exams					
WT 25/26	7900012	Management and Marketing			Nieken, Terzidis, Klarmann, Lindstädt
ST 2026	7900184	Management and Marketing			Nieken, Terzidis, Klarmann

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Written exam (90 min) on the two courses "Management" and "Marketing". The examination is offered at the beginning of each lecture-free period. Repeat examinations are possible at any regular examination date.

Prerequisites

None

Workload

150 hours

Below you will find excerpts from courses related to this module component:

V

Marketing

2610026, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Literature

Ausführliche Literaturhinweise werden in den Materialien zur Vorlesung gegeben.

T

6.89 Module component: Managing Organizations [T-WIWI-102630]**Coordinators:** Prof. Dr. Hagen Lindstädt**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101425 - Strategy and Organization](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
5

Courses					
WT 25/26	2577902	Managing Organizations	2 SWS	Lecture / 	Lindstädt
Exams					
WT 25/26	7900049	Managing Organizations			Lindstädt
ST 2026	7900066	Managing Organizations			Lindstädt

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment will consist of a written exam (60 min) taking place at the beginning of the recess period (according to Section 4 (2), 2 of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Managing Organizations2577902, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Lecture (V)**
On-Site

Content

This course enables participants to make a sound assessment of existing organizational structures and regulations. Students learn concepts and models for designing organizational structures, regulating organizational processes, and managing organizational change.

Through intensive exposure to real-world case studies, students are encouraged to learn and apply strategic actions in real-world business settings. The course features an action-oriented approach and provides students with a realistic understanding of the possibilities and limitations of rational design approaches.

Content in Keywords:

- Fundamentals of organizational management: fundamental concepts and theoretical background knowledge
- Management of organizational structures and processes: Corporate headquarters, departmental organization, instruction structure and incentive systems
- Ideal organizational structures: organic vs. mechanistic, Mintzberg's types, relationship to strategy and 7S model
- Management of organizational change (change management): Change processes within an organization, management of revolutionary change

Structure:

Lectures in the course are available to students online as recordings, while class dates are reserved for active discussion of real-world case studies.

Learning Objectives:

Upon completion of the course, students will be able to,

- critically evaluate existing organizational structures and regulations
- compare alternative structural options in a practical setting and evaluate and interpret their effectiveness and efficiency
- analyze and evaluate change processes in organizational management
- apply theoretical knowledge in practical situations

Recommendations:

None.

Workload:

- Total workload for 3.5 credit points: approx. 105 hours
- Attendance time: 30 hours
- Self-study: 75 hours

Competence Certificate:

The assessment of success takes place in the form of a written examination (60min.) (according to §4(2), 1 SPO) at the beginning of the lecture-free period of the semester. The examination is offered every semester and can be repeated at any regular examination date.

A bonus can be earned through successful participation in the exercise. If the grade on the written exam is between 4.0 and 1.3, the bonus improves the grade by one grade level (0.3 or 0.4). The exact criteria for awarding a bonus will be announced at the beginning of the lecture.

Literature

- Laux, H.; Liermann, F.: *Grundlagen der Organisation*, Springer. 6. Aufl. Berlin 2005.
- Lindstädt, H.: *Organisation*, in Scholz, C. (Hrsg.): *Vahlens Großes Personallexikon*, Verlag Franz Vahlen. 1. Aufl. München, 2009.
- Schreyögg, G.: *Organisation. Grundlagen moderner Organisationsgestaltung*, Gabler. 4. Aufl. Wiesbaden 2003.

Die relevanten Auszüge und zusätzlichen Quellen werden in der Veranstaltung bekannt gegeben.

T

6.90 Module component: Managing the Marketing Mix [T-WIWI-102805]**Coordinators:** Prof. Dr. Martin Klarmann**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101424 - Foundations of Marketing](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	Grading graded	Each summer term	2

Courses					
ST 2026	2571152	Managing the Marketing Mix	2 SWS	Lecture /	Klarmann
ST 2026	2571153	Übung zu Marketing Mix (Bachelor)	1 SWS	Practice /	Daumann, Weber
Exams					
WT 25/26	7900061	Managing the Marketing Mix			Klarmann
ST 2026	7900023	Managing the Marketing Mix			Klarmann

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The assessment of success takes place through the preparation and presentation of a case study (max. 30 points) as well as a written exam with additional aids in the sense of an open book exam (max. 60 points). In total, a maximum of 90 points can be achieved in the course. Further details will be announced during the lecture.

Prerequisites

None

Additional Information

The course is compulsory in the module "Foundations of Marketing".

For further information please contact Marketing & Sales Research Group (marketing.iism.kit.edu).

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Managing the Marketing Mix2571152, SS 2026, 2 SWS, Language: German, [Open in study portal](#)**Lecture (V)**
On-Site

Content

The content of this course concentrates on the elements of the marketing mix. Therefore the main chapters are brand management, pricing, promotion and sales management.

For further information please contact Marketing & Sales Research Group (marketing.iism.kit.edu).

This course is compulsory within or the module "Foundations of Marketing" and must be examined.

Learning objectives:

student

- know the meaning of the branding, the brand positioning and the possibilities of the brand value calculation
- understand the price behavior of customers and can apply this knowledge to the practice
know different methods for price determination (conjoint analysis, cost-plus determination, target costing, customer surveys, bidding procedures) and price differentiation
- are able to name and explain the relevant communication theories
- can identify crisis situations and formulate appropriate response strategies
- can name and judge different possibilities of the Intermediaplanung
- know various design elements of advertising communication
- understand the measurement of advertising impact and can apply it
- know the basics of sales organization
- are able to evaluate basic sales channel decisions

Workload:

The total workload for this course is approximately 135.0 hours.

Literature

Homburg, Christian (2016), Marketingmanagement, 6. Aufl., Wiesbaden.

T**6.91 Module component: Mathematics I for Digital Economics - Exam [T-MATH-112738]**

Coordinators: Prof. Dr. Andreas Rieder
 Dr. Daniel Weiß
 Prof. Dr. Christian Wieners

Organisation: KIT Department of Mathematics

Part of: [M-MATH-106282 - Mathematics I](#)

Type	Credits	Grading	Term offered	Expansion	Version
Written examination	7 CP	Graded	Each term	1 semesters	1

Courses					
WT 25/26	0136000	Mathematik I für die Fachrichtungen Wirtschaftsinformatik und Digital Economics	4 SWS	Lecture / 	Weiß
Exams					
WT 25/26	7700106	Mathematics I for Digital Economics - Exam			Weiß
ST 2026	7700138	Mathematics I for Digital Economics - Exam			Weiß

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T**6.92 Module component: Mathematics I for Digital Economics - Exercise [T-MATH-112744]**

Coordinators: Prof. Dr. Andreas Rieder
 Dr. Daniel Weiß
 Prof. Dr. Christian Wieners

Organisation: KIT Department of Mathematics

Part of: [M-MATH-106282 - Mathematics I](#)

Type
Coursework

Credits
1 CP

Grading
pass/fail

Term offered
Each winter term

Expansion
1 semesters

Version
1

Courses					
WT 25/26	0136000	Mathematik I für die Fachrichtungen Wirtschaftsinformatik und Digital Economics	4 SWS	Lecture / 	Weiß
Exams					
WT 25/26	7700107	Mathematics I for Digital Economics - Exercise			Weiß

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T**6.93 Module component: Mathematics II for Digital Economics - Exam [T-MATH-112745]**

Coordinators: Prof. Dr. Andreas Rieder
 Dr. Daniel Weiß
 Prof. Dr. Christian Wieners

Organisation: KIT Department of Mathematics

Part of: [M-MATH-106285 - Mathematics II](#)

Type	Credits	Grading	Term offered	Version
Written examination	7 CP	graded	Each term	1

Exams			
WT 25/26	00075	Mathematics II for Digital Economics - Exam	Weiß
ST 2026	7700139	Mathematics II for Digital Economics - Exam	Weiß

T**6.94 Module component: Mathematics II for Digital Economics - Exercise [T-MATH-112746]**

Coordinators: Prof. Dr. Andreas Rieder
 Dr. Daniel Weiß
 Prof. Dr. Christian Wieners

Organisation: KIT Department of Mathematics

Part of: [M-MATH-106285 - Mathematics II](#)

Type
Coursework

Credits
1 CP

Grading
pass/fail

Term offered
Each summer term

Version
1

Exams			
ST 2026	7700140	Mathematics II for Digital Economics - Exercise	Weiß

T

6.95 Module component: Microeconometrics [T-WIWI-112153]

Coordinators: Prof. Dr. Fabian Krüger
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-105414 - Statistics and Econometrics II](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Irregular

Version
1

Courses					
ST 2026	2500019	Tutorial in Microeconometrics	2 SWS	Practice / 🗣️	Krüger
ST 2026	2500032	Microeconometrics	2 SWS	Lecture / 🗣️	Krüger

Legend: 🗣️ Online, 🗣️🗣️ Blended (On-Site/Online), 🗣️ On-Site, ✕ Cancelled

Assessment

The assessment consists of a written examination (90 minutes) according to § 4(2), 1 of the examination regulation.

A bonus can be acquired by successful completion of an assignment (written report + short in-class presentation) during the semester. If the grade of the written examination is between 4.0 and 1.3, the bonus improves the grade by one grade level (0.3 or 0.4).

Prerequisites

None

Recommendations

Students are expected to have a good working knowledge of the linear regression model (e.g. by having attended the course 'Volkswirtschaftslehre III: Einführung in die Ökonometrie', or attending it in the same semester as 'Microeconometrics').

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Microeconometrics

2500032, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

Microeconometrics is concerned with modeling data from an individual ('micro') unit like a person, household or firm. The response variables of interest are often discrete. For example, a person's type of employment may be coded as a binary variable (e.g. working in IT sector versus not working in IT sector), and a person's choice of transportation mode can be cast as a multinomial variable (e.g. bike, train, car, or other). These dependent variables often require nonlinear regression modeling.

The course first introduces maximum likelihood estimation which is particularly useful in microeconometrics. We then discuss econometric models for various types of response variables, as well as methods for estimation and model evaluation. Throughout the course, implementation via R software plays an important role.

Prerequisites: Course participants are expected to have a good working knowledge of the linear regression model (e.g. by having attended the course 'Einführung in die Ökonometrie', or attending it in the same semester as 'Microeconometrics').

Literature

Winkelmann, R., Boes, S. (2006): Analysis of Microdata. Springer.

T

6.96 Module component: Modeling and OR-Software: Introduction [T-WIWI-106199]**Coordinators:** Prof. Dr. Stefan Nickel**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101413 - Applications of Operations Research](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
4

Courses					
ST 2026	2550490	Modellieren und OR-Software: Einführung	3 SWS	Practical course / 	Nickel, Linner, Pomes
Exams					
WT 25/26	7900081	Modeling and OR-Software: Introduction			Nickel
ST 2026	7900153	Modeling and OR-Software: Introduction			Nickel

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is a written examination (60 min.). The successful completion of the exercises is required for admission to the written exam.

The examination is held in every semester

Recommendations

Firm knowledge of the contents from the lecture *Introduction to Operations Research I* [2550040] of the module *Operations Research*.

Additional Information

Due to capacity restrictions, registration before course start is required. For further information, see the webpage of the course. Registration is possible in the Wiwi portal. The lecture is offered in every term. The planned lectures and courses for the next three years are announced online at <https://dol.ior.kit.edu/Lehrveranstaltungen.php>.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Modellieren und OR-Software: Einführung

2550490, SS 2026, 3 SWS, Language: German, [Open in study portal](#)

Practical course (P)
Blended (On-Site/Online)

Content

After an introduction to general concepts of modelling tools (implementation, data handling, result interpretation, ...) CPLEX in combination with Python will be discussed which can be used to solve OR problems on a computer-aided basis. Subsequently, a broad range of exercises will be discussed. The main goals of the exercises from literature and practical applications are to learn the process of modeling optimization problems as linear or mixed-integer programs, to efficiently utilize the presented tools for solving these optimization problems and to implement heuristic solution procedures for mixed-integer programs.

Organizational issues

Die Teilnehmerzahl für diese Veranstaltung ist begrenzt.

Die Bewerbung erfolgt über das Wiwi-Portal.

Die Nachklausur zu dieser Veranstaltung wird nur für Nachschreibende angeboten.

T

6.97 Module component: Nonlinear Optimization I [T-WIWI-102724]**Coordinators:** Prof. Dr. Oliver Stein**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101414 - Methodical Foundations of OR](#)
[M-WIWI-103278 - Optimization under Uncertainty](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
4

Courses					
WT 25/26	2550111	Nonlinear Optimization I	2 SWS	Lecture /	Stein
WT 25/26	2550112	Exercises Nonlinear Optimization I	1 SWS	Practice /	Stein, Schwarze, Neussel
Exams					
WT 25/26	7900001_WS2526_HK	Nonlinear Optimization I			Stein
ST 2026	7900202_SS2026_NK	Nonlinear Optimization I			Stein

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The assessment consists of a written exam (60 minutes) according to Section 4(2), 1 of the examination regulation. The successful completion of the exercises is required for admission to the written exam. The exam takes place in the semester of the lecture and in the following semester.

The examination can also be combined with the examination of Nonlinear Optimization II [2550113]. In this case, the duration of the written examination takes 120 minutes.

Prerequisites

The module component exam T-WIWI-103637 "Nonlinear Optimization I and II" may not be selected.

Additional Information

Part I and II of the lecture are held consecutively in the *same* semester.

Below you will find excerpts from courses related to this module component:

V

Nonlinear Optimization I2550111, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
On-Site**Content**

The lecture treats the minimization of smooth nonlinear functions without constraints. For such problems, which occur very often in economics, engineering, and natural sciences, optimality conditions are derived and, based on them, solution algorithms are developed. The lecture is structured as follows:

- Introduction, examples, and terminology
- Existence results for optimal points
- First and second order optimality conditions
- Algorithms (line search, steepest descent method, variable metric methods, Newton method, Quasi Newton methods, CG method, trust region method)

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of optimization problems *with* constraints forms the contents of the lecture "Nonlinear Optimization II". The lectures "Nonlinear Optimization I" and "Nonlinear Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands fundamentals of unconstrained nonlinear optimization,
- is able to choose, design and apply modern techniques of unconstrained nonlinear optimization in practice.

Literature

O. Stein, Basic Concepts of Nonlinear Optimization, Springer, Berlin, 2024

Additional Literature:

- W. Alt, Nichtlineare Optimierung, Vieweg, 2002
- M.S. Bazaraa, H.D. Sherali, C.M. Shetty, Nonlinear Programming, Wiley, 1993
- O. Güler, Foundations of Optimization, Springer, 2010
- H.Th. Jongen, K. Meer, E. Triesch, Optimization Theory, Kluwer, 2004
- J. Nocedal, S. Wright, Numerical Optimization, Springer, 2000

T

6.98 Module component: Nonlinear Optimization I and II [T-WIWI-103637]**Coordinators:** Prof. Dr. Oliver Stein**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101414 - Methodical Foundations of OR](#)**Type**
Written examination**Credits**
9 CP**Grading**
graded**Term offered**
Each winter term**Version**
6

Courses					
WT 25/26	2550111	Nonlinear Optimization I	2 SWS	Lecture / 	Stein
WT 25/26	2550112	Exercises Nonlinear Optimization I	1 SWS	Practice / 	Stein, Schwarze, Neussel
WT 25/26	2550113	Nonlinear Optimization II	2 SWS	Lecture / 	Stein
Exams					
WT 25/26	7900003_WS2526_HK	Nonlinear Optimization I and II			Stein
ST 2026	7900204_SS2026_NK	Nonlinear Optimization I and II			Stein

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment consists of a written exam in English (120 minutes) according to Section 4(2), 1 of the examination regulation. The successful completion of the exercises is required for admission to the written exam.

The exam takes place in the semester of the lecture and in the following semester.

Prerequisites

None.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-102724 - Nonlinear Optimization I](#) must not have been started.
2. The module component [T-WIWI-102725 - Nonlinear Optimization II](#) must not have been started.

Additional Information

Part I and II of the lecture are held consecutively in the **same** semester.

Below you will find excerpts from courses related to this module component:

V

Nonlinear Optimization I

2550111, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture treats the minimization of smooth nonlinear functions without constraints. For such problems, which occur very often in economics, engineering, and natural sciences, optimality conditions are derived and, based on them, solution algorithms are developed. The lecture is structured as follows:

- Introduction, examples, and terminology
- Existence results for optimal points
- First and second order optimality conditions
- Algorithms (line search, steepest descent method, variable metric methods, Newton method, Quasi Newton methods, CG method, trust region method)

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of optimization problems *with* constraints forms the contents of the lecture "Nonlinear Optimization II". The lectures "Nonlinear Optimization I" and "Nonlinear Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands fundamentals of unconstrained nonlinear optimization,
- is able to choose, design and apply modern techniques of unconstrained nonlinear optimization in practice.

Literature

O. Stein, Basic Concepts of Nonlinear Optimization, Springer, Berlin, 2024

Additional Literature:

- W. Alt, Nichtlineare Optimierung, Vieweg, 2002
- M.S. Bazaraa, H.D. Sherali, C.M. Shetty, Nonlinear Programming, Wiley, 1993
- O. Güler, Foundations of Optimization, Springer, 2010
- H.Th. Jongen, K. Meer, E. Triesch, Optimization Theory, Kluwer, 2004
- J. Nocedal, S. Wright, Numerical Optimization, Springer, 2000

**Nonlinear Optimization II**

2550113, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

**Lecture (V)
On-Site**

Content

The lecture treats the minimization of smooth nonlinear functions under nonlinear constraints. For such problems, which occur very often in economics, engineering, and natural sciences, optimality conditions are derived and, based on them, solution algorithms are developed. The lecture is structured as follows:

- Topology and first order approximations of the feasible set
- Theorems of the alternative, first and second order optimality conditions
- Algorithms (penalty method, multiplier method, barrier method, interior point method, SQP method, quadratic optimization)

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of optimization problems *without* constraints forms the contents of the lecture "Nonlinear Optimization I". The lectures "Nonlinear Optimization I" and "Nonlinear Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands fundamentals of constrained nonlinear optimization,
- is able to choose, design and apply modern techniques of constrained nonlinear optimization in practice.

Literature

O. Stein, Basic Concepts of Nonlinear Optimization, Springer, Berlin, 2024

Additional Literature:

- W. Alt, Nichtlineare Optimierung, Vieweg, 2002
- M.S. Bazaraa, H.D. Sherali, C.M. Shetty, Nonlinear Programming, Wiley, 1993
- O. Güler, Foundations of Optimization, Springer, 2010
- H.Th. Jongen, K. Meer, E. Triesch, Optimization Theory, Kluwer, 2004
- J. Nocedal, S. Wright, Numerical Optimization, Springer, 2000

T

6.99 Module component: Nonlinear Optimization II [T-WIWI-102725]**Coordinators:** Prof. Dr. Oliver Stein**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101414 - Methodical Foundations of OR](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
3

Courses					
WT 25/26	2550112	Exercises Nonlinear Optimization I	1 SWS	Practice /	Stein, Schwarze, Neussel
WT 25/26	2550113	Nonlinear Optimization II	2 SWS	Lecture /	Stein
WT 25/26	2550114	Exercise to Nonlinear Optimization II	1 SWS	Practice /	Stein, Schwarze, Neussel
Exams					
WT 25/26	7900002_WS2526_HK	Nonlinear Optimization II			Stein
ST 2026	7900203_SS2026_NK	Nonlinear Optimization II			Stein

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

The assessment consists of a written exam (60 minutes) in English according to Section 4(2), 1 of the examination regulation. The successful completion of the exercises is required for admission to the written exam.

The exam takes place in the semester of the lecture and in the following semester.

The exam can also be combined with the examination of *Nonlinear Optimization I* [2550111]. In this case, the duration of the written exam takes 120 minutes.

Prerequisites

None.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-103637 - Nonlinear Optimization I and II](#) must not have been started.

Additional Information

Part I and II of the lecture are held consecutively in the same semester.

Below you will find excerpts from courses related to this module component:

V

Nonlinear Optimization II

2550113, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture treats the minimization of smooth nonlinear functions under nonlinear constraints. For such problems, which occur very often in economics, engineering, and natural sciences, optimality conditions are derived and, based on them, solution algorithms are developed. The lecture is structured as follows:

- Topology and first order approximations of the feasible set
- Theorems of the alternative, first and second order optimality conditions
- Algorithms (penalty method, multiplier method, barrier method, interior point method, SQP method, quadratic optimization)

The lecture is accompanied by exercises which, amongst others, offers the opportunity to implement and to test some of the methods on practically relevant examples.

Remark:

The treatment of optimization problems *without* constraints forms the contents of the lecture "Nonlinear Optimization I". The lectures "Nonlinear Optimization I" and "Nonlinear Optimization II" are held consecutively *in the same semester*.

Learning objectives:

The student

- knows and understands fundamentals of constrained nonlinear optimization,
- is able to choose, design and apply modern techniques of constrained nonlinear optimization in practice.

Literature

O. Stein, Basic Concepts of Nonlinear Optimization, Springer, Berlin, 2024

Additional Literature:

- W. Alt, Nichtlineare Optimierung, Vieweg, 2002
- M.S. Bazaraa, H.D. Sherali, C.M. Shetty, Nonlinear Programming, Wiley, 1993
- O. Güler, Foundations of Optimization, Springer, 2010
- H.Th. Jongen, K. Meer, E. Triesch, Optimization Theory, Kluwer, 2004
- J. Nocedal, S. Wright, Numerical Optimization, Springer, 2000

T

6.100 Module component: Optimization under Uncertainty [T-WIWI-106545]**Coordinators:** Prof. Dr. Steffen Rebennack**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101413 - Applications of Operations Research](#)
[M-WIWI-103278 - Optimization under Uncertainty](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each winter term**Version**
3

Courses					
WT 25/26	2550464	Optimization Under Uncertainty	2 SWS	Lecture / 	Rebennack, Kandora
WT 25/26	2550465	Übungen zu Optimierungsansätze unter Unsicherheit	1 SWS	Practice / 	Rebennack
WT 25/26	2550466		2 SWS	Others	Rebennack
Exams					
WT 25/26	7900240	Optimization under Uncertainty			Rebennack
ST 2026	7900309	Optimization under Uncertainty			Rebennack

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment consists of a written exam (60 minutes) according to Section 4(2), 1 of the examination regulation. The exam takes place in every the semester.

Prerequisites

None.

Workload

135 hours

T

6.101 Module component: Patent Law [T-INFO-101310]

Coordinators: Patric Straßburger

Organisation: KIT Department of Informatics

Part of: [M-INFO-101215 - Intellectual Property Law](#)

Type
Written examination

Credits
3 CP

Grading
graded

Term offered
Each summer term

Version
3

Courses					
ST 2026	24656	Patent Law	2 SWS	Lecture / 	Straßburger
Exams					
WT 25/26	7500006	Patent Law			Matz
ST 2026	7500109	Patent Law			Sattler

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment is carried out as a written examination (§ 4 Abs. 2 No. 1 SPO) lasting 60 minutes.

Prerequisites

None.

Recommendations

None.

T

6.102 Module component: Platform Economy [T-WIWI-109936]

Coordinators: Prof. Dr. Christof Weinhardt
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106272 - Topics in Digital Economics](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
4

Courses					
WT 25/26	2540468	Platform Economy	2 SWS	Lecture / 	Weinhardt, Fegert
WT 25/26	2540469	Übung zu Platform Economy	1 SWS	Practice / 	Stano
Exams					
WT 25/26	7900213	Platform Economy	Weinhardt		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 min.) according to § 4 paragraph 2 Nr. 1 of the examination regulation. Details of the grades will be announced at the beginning of the course.

Prerequisites

see below

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-107506 - Platform Economy](#) must not have been started.

Recommendations

None

Below you will find excerpts from courses related to this module component:

V

Platform Economy

2540468, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The date for the lecture kick-off this Semester will be published soon.

Lecture and Exercise

The "Platform Economy" lecture provides a broad range of knowledge related to online platforms and their business models, examining their significance for users, operators, and society as a whole. The course is structured into 8 topical blocks, each exploring a different aspect of the platform economy in depth. Each block is led by a different lecturer who is an expert in the respective topic. The key topics covered in the lecture include:

Network Effects and Two-Sided Markets

- Business Models and Auctions
- Energy Market Engineering
- Digital Involvement: Crowd X & Citizen Science
- Digital Democracy and Social Media
- Analyzing User Behavior
- Trust and Reputation in Digital Platforms
- Ethical Considerations in the Platform Economy

To reinforce the lecture material, each block is accompanied by interactive exercises that encourage a deeper understanding of the topics. In these exercises, students will engage in discussions and explore practical examples that illustrate the theoretical concepts introduced during the lectures. The lecture and exercise also offer a chance to get an idea of the lectures offered during the master's program at our chair.

Case Study

In addition to the lectures, you will work on a case study in small groups. Your task will be to develop a business model for an innovative and novel online platform, which will be presented to you by one of our experts, either from the academic team or the industry. This case study offers a chance to gain deeper insights into current trends in the platform economy and to apply the knowledge acquired throughout the course in a practical, hands-on way.

Literature

- Bundesministerium für Wirtschaft und Energie (2017). „Kompetenzen für eine digitale Souveränität“ (abrufbar unter <https://www.bmwi.de/Redaktion/DE/Publikationen/Studien/kompetenzen-fuer-eine-digitale-souveraenitaet.html>)
- Bundesministerium für Wirtschaft und Energie (2017). „Weißbuch Digitale Plattformen.“ (abrufbar unter https://www.bmwi.de/Redaktion/DE/Publikationen/Digitale-Welt/weissbuch-digitale-plattformen.pdf?__blob=publicationFile&v=8)
- Easley, D., and Kleinberg, J. 2010. "Network Effects," in Networks, Crowds, and Markets: Reasoning about a Highly Connected World, Cambridge University Press, pp. 509–542.
- Eisenmann, T., Parker, G., and Van Alstyne, M. W. 2006. "Strategies for two-sided markets," Harvard Business Review 84(10), pp. 1–11.
- Gassmann, O., Frankenberger, K., and Csik, M. 2013. Geschäftsmodelle entwickeln: 55 innovative Konzepte mit dem St. Galler Business Model Navigator, Hanser.
- Wattenhofer, R. 2016. "The science of the blockchain." CreateSpace Independent Publishing Platform.
- Roth, A. 2002. "The Economist as Engineer: Game Theory, Experimental Economics and Computation as Tools for Design Economics," Econometrica 70(4): 1341-1378, 2002.
- Weinhardt, C., Holtmann, C., Neumann, D., Market Engineering. Wirtschaftsinformatik, 2003.
- Wolfstetter, E., 1999. "Topics in Microeconomics - Industrial Organization, Auctions, and Incentives," Cambridge, Cambridge University Press.
- Teubner, T., and Hawlitschek, F. (in press). "The economics of P2P online sharing," in The Sharing Economy: Possibilities, Challenges, and the way forward, Praeger Publishing.

T

6.103 Module component: Platform Economy [T-WIWI-107506]

Coordinators: Prof. Dr. Christof Weinhardt

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101421 - Supply Chain Management](#)
[M-WIWI-101434 - eBusiness and Service Management](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)

Type
Examination of another type

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
4

Courses					
WT 25/26	2540468	Platform Economy	2 SWS	Lecture / 	Weinhardt, Fegert
WT 25/26	2540469	Übung zu Platform Economy	1 SWS	Practice / 	Stano
Exams					
WT 25/26	7900213	Platform Economy	Weinhardt		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Alternative exam assessment. The assessment is carried out in the form of a one-hour written examination and by carrying out a case study. Details on the assessment will be announced during the lecture.

Prerequisites

see below

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-109936 - Platform Economy](#) must not have been started.

Recommendations

None

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Platform Economy

2540468, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The date for the lecture kick-off this Semester will be published soon.

Lecture and Exercise

The "Platform Economy" lecture provides a broad range of knowledge related to online platforms and their business models, examining their significance for users, operators, and society as a whole. The course is structured into 8 topical blocks, each exploring a different aspect of the platform economy in depth. Each block is led by a different lecturer who is an expert in the respective topic. The key topics covered in the lecture include:

Network Effects and Two-Sided Markets

- Business Models and Auctions
- Energy Market Engineering
- Digital Involvement: Crowd X & Citizen Science
- Digital Democracy and Social Media
- Analyzing User Behavior
- Trust and Reputation in Digital Platforms
- Ethical Considerations in the Platform Economy

To reinforce the lecture material, each block is accompanied by interactive exercises that encourage a deeper understanding of the topics. In these exercises, students will engage in discussions and explore practical examples that illustrate the theoretical concepts introduced during the lectures. The lecture and exercise also offer a chance to get an idea of the lectures offered during the master's program at our chair.

Case Study

In addition to the lectures, you will work on a case study in small groups. Your task will be to develop a business model for an innovative and novel online platform, which will be presented to you by one of our experts, either from the academic team or the industry. This case study offers a chance to gain deeper insights into current trends in the platform economy and to apply the knowledge acquired throughout the course in a practical, hands-on way.

Literature

- Bundesministerium für Wirtschaft und Energie (2017). „Kompetenzen für eine digitale Souveränität“ (abrufbar unter <https://www.bmwi.de/Redaktion/DE/Publikationen/Studien/kompetenzen-fuer-eine-digitale-souveraenitaet.html>)
- Bundesministerium für Wirtschaft und Energie (2017). „Weißbuch Digitale Plattformen.“ (abrufbar unter https://www.bmwi.de/Redaktion/DE/Publikationen/Digitale-Welt/weissbuch-digitale-plattformen.pdf?__blob=publicationFile&v=8)
- Easley, D., and Kleinberg, J. 2010. "Network Effects," in Networks, Crowds, and Markets: Reasoning about a Highly Connected World, Cambridge University Press, pp. 509–542.
- Eisenmann, T., Parker, G., and Van Alstyne, M. W. 2006. "Strategies for two-sided markets," Harvard Business Review 84(10), pp. 1–11.
- Gassmann, O., Frankenberger, K., and Csik, M. 2013. Geschäftsmodelle entwickeln: 55 innovative Konzepte mit dem St. Galler Business Model Navigator, Hanser.
- Wattenhofer, R. 2016. "The science of the blockchain." CreateSpace Independent Publishing Platform.
- Roth, A. 2002. "The Economist as Engineer: Game Theory, Experimental Economics and Computation as Tools for Design Economics," Econometrica 70(4): 1341-1378, 2002.
- Weinhardt, C., Holtmann, C., Neumann, D., Market Engineering. Wirtschaftsinformatik, 2003.
- Wolfstetter, E., 1999. "Topics in Microeconomics - Industrial Organization, Auctions, and Incentives," Cambridge, Cambridge University Press.
- Teubner, T., and Hawlitschek, F. (in press). "The economics of P2P online sharing," in The Sharing Economy: Possibilities, Challenges, and the way forward, Praeger Publishing.

T

6.104 Module component: Practical Seminar: Digital Services [T-WIWI-110888]**Coordinators:** Prof. Dr. Gerhard Satzger**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-102752 - Fundamentals of Digital Service Systems](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	graded	Each summer term	1

Assessment

The assessment consists of a seminar paper, a presentation of the results and the contribution to the discussion. In the seminar, a maximum score of 60 points can be achieved, consisting of

- maximum 25 points for the documentation (written examination)
- maximum 25 points for the practical assessment
- maximum 10 points for the participation during the discussion sessions

The practical seminar is passed when at least a score of 30 points is achieved.

Prerequisites

None

Recommendations

None

Additional Information

The current range of seminar topics is announced on the following Website:

www.dsi.iism.kit.edu.

T

6.105 Module component: Practical Seminar: Interactive Systems [T-WIWI-111914]**Coordinators:** Prof. Dr. Alexander Mädche**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105928 - HR Management & Digital Workplace](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)**Type**
Examination of another type**Credits**
4,5 CP**Grading**
graded**Term offered**
Each term**Version**
2

Courses					
WT 25/26	2540555	Practical Seminar: Interactive Systems	3 SWS	Lecture / 	Mädche
ST 2026	2500073	Practical Seminar: AI-based Mental Healthcare	3 SWS	Lecture / 	Kuhlmeier, Mädche
ST 2026	2540555	Practical Seminar: Interactive Systems	3 SWS	Lecture / 	Mädche
Exams					
WT 25/26	7900367	Practical Seminar: Interactive Systems	Mädche		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

Alternative exam assessment.

The assessment of this course consists of the implementation of a practical component, the preparation of a written documentation, and active participation in the discussions.

A total of 60 points can be achieved, of which:

- maximum 25 points for the written documentation
- maximum 25 points for the practical component
- maximum 10 points for active participation in the discussions

A minimum of 30 points must be achieved to pass this course.

Please note that a practical component, such as conducting a survey or implementing an application, is also part of the course. Please refer to the institute website issd.iism.kit.edu for the current offer of practical seminar theses.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Practical Seminar: AI-based Mental Healthcare2500073, SS 2026, 3 SWS, Language: English, [Open in study portal](#)**Lecture (V)**
Blended (On-Site/Online)

Content

Mental health disorders affect a significant share of the global population. Meeting the resulting demand for care is a challenge on two fronts: patients face long waiting times and limited access to support, while mental health practitioners work under significant time pressure with processes that are often still manual and fragmented. Two developments in AI offer complementary responses: AI-based process digitalization can make clinical and therapeutic workflows more efficient for practitioners, while conversational AI agents can extend therapeutic support directly to those who need it. This seminar engages students with both developments: working on real, ongoing projects at the h-lab and its clinical partners, students design, build, and evaluate prototypes of AI-based applications for mental health and acquire the domain knowledge needed to do so responsibly.

Three project briefs are available, each rooted in an active h-lab research project. Students may also propose their own project in the mental health and AI space.

1. **AI-assisted ADHD assessment system** in collaboration with [LWL-Klinikum Marsberg](#), centered on the analysis of primary school reports as a source of retrospective diagnostic evidence. Example tasks include building an OCR and LLM pipeline for extracting and analyzing free-text reports, or evaluating the diagnostic utility of LLM-generated assessments against clinician judgments.
2. **AI-enhanced CBT group therapy platform** in collaboration with [Rethink Wellbeing](#). Example tasks include building a facilitator feedback system that monitors group dynamics and recommends facilitator actions, automating participant or facilitator selection workflows, or evaluating the accuracy and clinical acceptability of AI-generated recommendations.
3. **AI-based Conversational Mental Health Agents**, in collaboration with the [Chair of Clinical Psychology and Psychotherapy at the University of Greifswald](#). The h-lab and its partners developed an LLM-based chatbot that delivers a single-session behavioral activation session for young people with depressive symptoms. Example tasks include improving the behavioral activation module, implementing additional therapeutic modules (cognitive restructuring, sleep hygiene, emotion regulation, social skills) as LLM-based multi-agent systems, or evaluating agent outputs for therapeutic fidelity and safety.

The seminar is structured around **three phases**:

1. **Introductory session:** Introduction to designing and evaluating AI-based mental health and the project briefs.
2. **Working phase:** Students design, develop, and evaluate their prototypes (individually or in groups), with ad hoc support from h-lab assistants.
3. **Final presentation:** Groups present their projects, including a demonstration of their working prototype and a discussion of their evaluation approach and preliminary findings. Participants provide feedback to each other's projects. Technical documentation and a brief evaluation report are due at the end of the semester.

Learning Objectives: Upon completion, students will be able to:

- Understand the mental health domain sufficiently to make informed design decisions
- Build functional AI-based application prototypes addressing a concrete need in an active mental health research or practice context
- Design and apply appropriate evaluation strategies for AI-based mental health applications, assessing feasibility, effectiveness, and safety of their prototypes



Practical Seminar: Interactive Systems

2540555, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Lecture (V)
Blended (On-Site/Online)

Content

In this practical seminar, students get an individual assignment and develop a running software prototype. Beside the software prototype, the students also deliver a written documentation.

Please find the current open offerings on our website: <https://h-lab.iism.kit.edu/thesis.php>

T

6.106 Module component: Practical Seminar: Platform Economy [T-WIWI-112154]

Coordinators: Prof. Dr. Christof Weinhardt
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-105981 - Information Systems & Digital Business](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	graded	Each term	2

Assessment

The assessment of this course is in form of a written documentation, a presentation of the outcome of the conducted practical components and an active participation in class. Please take into account that, beside the written documentation, also a practical component (e.g. implementation of a prototype) is part of the course. Please examine the course description for the particular tasks. The final mark is based on the graded and weighted attainments (such as the written documentation, presentation, practical work and an active participation in class).

Prerequisites

None.

Additional Information

Teaching and learning format: Seminar

Workload

135 hours

T

6.107 Module component: Production Economics and Sustainability [T-WIWI-102820]

Coordinators: Prof. Dr. Frank Schultmann
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101437 - Industrial Production I](#)

Type
Written examination

Credits
3,5 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2581960	Production Economics and Sustainability	2 SWS	Lecture / 	Schultmann, Steins
Exams					
WT 25/26	7981960	Production Economics and Sustainability			Schultmann
ST 2026	7981960	Production Economics and Sustainability			Schultmann

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of an oral (30 minutes) or written exam (60 minutes) (following §4(2) of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Workload

105 hours

Below you will find excerpts from courses related to this module component:

V

Production Economics and Sustainability

2581960, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The focus of the lecture is on the development of production systems towards more sustainable production. The lecture concentrates on the assessment of economically and ecologically reasonable measures and their potential implementation in companies. Relevant methods (including material flow analysis, life cycle assessment, eco-chart of accounts, investment planning) are also presented in the lecture.

Topics:

- Resources
- Material flow analysis
- Life cycle assessment
- Carbon footprint and water footprint
- Environmental management and environmental controlling
- Investment planning
- Circular planning
- Circular economy

Organizational issues

Seminarraum Uni-West, Geb. 06.33

Literature

wird in der Veranstaltung bekannt gegeben

T

6.108 Module component: Public International Law [T-INFO-113381]**Coordinators:** TT-Prof. Dr. Frederike Zufall**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-106754 - Public Economic and Technology Law](#)**Type**
Written examination**Credits**
3 CP**Grading**
graded**Term offered**
Each summer term**Version**
2

Courses					
ST 2026	2400172	Public International Law with an Economic Law Focus	2 SWS	Lecture / 	Kasper-Schöniger
Exams					
WT 25/26	7500066	Public International Law			Zufall
ST 2026	7500182	Public International Law with an Economic Law Focus			Zufall

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is carried out as a written examination (§ 4 Abs. 2 No. 1 SPO) lasting 60 minutes.

Depending on the number of participants, it will be announced six weeks before the examination (§ 6 (3) SPO) whether the performance assessment is carried out

- as an oral examination (duration approx. 20 mins.) (§ 4 Abs. 2 Nr. 2 SPO) or
- as a written examination (lasting 60 mins.) (§ 4 Abs. 2 No. 1 SPO).

Prerequisites

None.

Recommendations

- General knowledge of (public) law (eg, through participating in public law or EU law modules) is helpful but not necessary.
- Interest in international affairs and politics is welcomed.

Additional Information

Competency Goals:

- Participating students will be able to navigate the plethora of multilateral treaties to detect relevant international law for specific cases.
- They can develop solutions for legal problems based on case law of international courts and tribunals.
- Students will be able to read and comprehend international treaties and case law.
- They will have a fundamental understand of the interplay between various subfields of public international law.
- Students can identify and explain current issues in public international law.

Content:

The lecture is designed to provide participating students with a general understanding of the foundations, subjects, and sources of public international law, its interplay with national legal regimes, and more detailed knowledge of particular subfields of public international law.

Since the lecture targets students of information systems, particular focus will be given to economic topics in international law, such as investment and trade law aspects. Due to the general importance of climate change for today's (economic) law, international climate change law and environmental law will form further focus areas.

In addition, a concise overview on human rights law, the law on State responsibility, and the peaceful settlement of disputes will be provided.

Throughout the lecture, important case law will be referenced and students are expected to read relevant cases in part to facilitate a discussion of such cases and their relevance for a subject field. Although the United Nations, including its principal judicial organ, the International Court of Justice, is one of the, if not the, key international organization in public international law, further international organizations (eg, Council of Europe, World Trade Organization) and their respective law(s) will also be touched.

Students are advised to have a statute book at hand that includes the most important international treaties and conventions (eg, Evans, Blackstone's International Law Documents, currently 15th ed 2021).

Conducting the lecture in English intends to facilitate students to link their ideas and arguments to current debates in international law.

Below you will find excerpts from courses related to this module component:



Public International Law with an Economic Law Focus

2400172, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

The lecture is designed to provide participating students with a general understanding of the foundations, subjects, and sources of public international law with an economic law focus, its interplay with national legal regimes, and more detailed knowledge of particular subfields of public international law.

Since the lecture targets students of information systems, particular focus will be given to economic topics in international law, such as investment and trade law aspects. Due to the general importance of climate change for today's (economic) law, international climate change law and environmental law will form further focus areas.

In addition, a concise overview on human rights law, the law on State responsibility, and the peaceful settlement of disputes will be provided.

Throughout the lecture, important case law will be referenced and students are expected to read relevant cases in part to facilitate a discussion of such cases and their relevance for a subject field. Although the United Nations, including its principal judicial organ, the International Court of Justice, is one of the, if not the, key international organization in public international law, further international organizations (eg, Council of Europe, World Trade Organization) and their respective law(s) will also be touched.

Students are advised to have a statute book at hand that includes the most important international treaties and conventions (eg, Evans, Blackstone's International Law Documents, currently 15th ed 2021).

Conducting the lecture in English intends to facilitate students to link their ideas and arguments to current debates in international law.

Organizational issues

Lecture Dates:

- Friday, 26th June 2026, 9 - 17 h
- Saturday, 27th June 2026, 9-17 h
- Saturday, 25th July 2026, 9-17 h

The room will be announced in good time in the Campus System (as per 5th January 2026).

Lageplan:

<https://www.kit.edu/campusplan/>

T

6.109 Module component: Public Revenues [T-WIWI-102739]

Coordinators: Prof. Dr. Berthold Wigger
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101403 - Public Finance](#)
[M-WIWI-101499 - Applied Microeconomics](#)
[M-WIWI-101668 - Economic Policy I](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
1

Courses					
ST 2026	2560120	Public Revenues	2 SWS	Lecture /	Wigger
ST 2026	2560121	Übung zu Öffentliche Einnahmen	1 SWS	Practice /	Wigger, Schmelzer
Exams					
WT 25/26	790oeff	Public Revenues			Wigger
ST 2026	790oeff	Public Revenues			Wigger

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

Success is assessed in the form of a written examination (60 minutes). The examination is offered every semester and can be repeated at any regular examination date.

Prerequisites

None

Recommendations

Basic knowledge of Public Finance is required.

Below you will find excerpts from courses related to this module component:

V

Public Revenues

2560120, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The *Public Revenues* lecture is concerned with the theory and policy of taxation and public dept. In the first chapter, fundamental concepts of taxation theory are introduced, whereas the second chapter deals with key elements of the German taxation system. The allocative and distributive effects of different taxation types are examined in chapter three and four. Chapter five integrates both allocative and distributive components in order to derive a theory of optimal taxation. The core of the sixth chapter is represented by international aspects of taxation. The debt part begins with a description of the extent and structure of public dept in chapter seven. In the following chapter, macroeconomic theories of national dept are evolved, while chapter nine is concerned with its long term consequences when employed as a regular instrument of budgeting. Finally, the tenth chapter deals with constitutional limits to public debt-incurring.

Learning goals:

See German version.

Workload:

The total workload for this course is approximately 135.0 hours. For further information see German version.

Literature**Literatur:**

- Homburg, S.(2000): *Allgemeine Steuerlehre*, Vahlen
- Rosen, H.S.(1995): *Public Finance*; 4. Aufl., Irwin
- Wellisch, D.(2000): *Finanzwissenschaft I und Finanzwissenschaft III*, Vahlen
- Wigger, B. U.(2006): *Grundzüge der Finanzwissenschaft*; 2. Aufl., Springer

T

6.110 Module component: Quantitative Finance [T-WIWI-114340]

Coordinators: Prof. Dr. Julian Thimme
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-107213 - Topics in Finance I](#)
[M-WIWI-107214 - Topics in Finance II](#)

Type
Examination of another type

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2500065	Quantitative Finance	2 SWS	Lecture / 	Thimme, Meng
Exams					
WT 25/26	7900114	Quantitative Finance			Thimme

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment of success in this course is carried out as a non exam assessment. The grade is made up as follows:

1. Written elaboration (weighting: 33 %).
2. Working on and presenting data analysis problems in small groups (weighting: 67 %).

Prerequisites

None

Recommendations

Knowledge from the course Business Administration: Finance and Accounting [2610026] is very helpful.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Quantitative Finance

2500065, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

In Quantitative Finance, participants gain in-depth knowledge of analyzing corporate and financial market data to methodically explore key questions in finance. The course begins with a brief introduction to the Python programming language and the development environment used throughout the course. Following this, seven thematically structured modules cover both fundamental issues in finance and the associated empirical analytical methods. In three hackathons, participants work in small teams with real datasets to apply the theoretical concepts to concrete problems and subsequently present their findings.

Organizational issues

findet in der ersten Semesterhälfte statt

T**6.111 Module component: Renewable Energy-Resources, Technologies and Economics [T-WIWI-100806]**

Coordinators: Prof. Dr. Patrick Jochem
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101464 - Energy Economics](#)

Type	Credits	Grading	Term offered	Version
Written examination	3,5 CP	Graded	Each winter term	8

Courses					
WT 25/26	2581012	Renewable Energy – Resources, Technologies and Economics	2 SWS	Lecture / 	Jochem
Exams					
WT 25/26	7981012	Renewable Energy-Resources, Technologies and Economics			Fichtner
ST 2026	7981012	Renewable Energy-Resources, Technologies and Economics			Fichtner

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 minutes, in English, answers are possible in German or English) (following §4(2) of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None.

Below you will find excerpts from courses related to this module component:

V**Renewable Energy – Resources, Technologies and Economics**

2581012, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Lecture (V)
On-Site

Content

1. General introduction: Motivation, Global situation
2. Basics of renewable energies: Energy balance of the earth, potential definition
3. Hydro
4. Wind
5. Solar
6. Biomass
7. Geothermal
8. Other renewable energies
9. Promotion of renewable energies
10. Interactions in systemic context
11. Excursion to the "Energieberg" in Mühlburg

Learning Goals:

The student

- understands the motivation and the global context of renewable energy resources.
- gains detailed knowledge about the different renewable resources and technologies as well as their potentials.
- understands the systemic context and interactions resulting from the increased share of renewable power generation.
- understands the important economic aspects of renewable energies, including electricity generation costs, political promotion and marketing of renewable electricity.
- is able to characterize and where required calculate these technologies.

Literature

Weiterführende Literatur:

- Quaschnig, V. (2019), Regenerative Energiesysteme, Technologie - Berechnung – Klimaschutz, Carl Hanser Verlag München
- Quaschnig, V. (2016), Understanding Renewable Energy Systems, Earthscan/Routledge London.
- Infield, D. & Freris, L. (2020), Renewable Energy in Power Systems
- Jenkins, N. & Ekanayake, J. (2024), Renewable Energy Engineering
- Stutzmann, M. & Csoklich, C. (2024), The Physics of Renewable Energy
- Löschel et al. (2020), Energiewirtschaft – Einführung in Theorie und Politik
- Batic, M., Stanojevic, M. & Vranes, S. (2025), Renewable Energy Technologies
- Victoria, M. (2025), *Fundamentals of Solar Cells and Photovoltaic Systems Engineering*. Academic Press

T

6.112 Module component: Selected Legal Issues of Internet Law [T-INFO-108462]**Coordinators:** N.N.**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-101215 - Intellectual Property Law](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each summer term**Version**
1

Courses					
ST 2026	24821	Selected legal issues of Internet law	2 SWS	Colloquium / 	Sattler
Exams					
ST 2026	7500099	Selected Legal Issues of Internet Law	Sattler		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is carried out as an examination of another type (§ 4 Abs. 2 No. 3 SPO).

The overall impression is evaluated. The following partial aspects are included in the grading: oral presentation and discussion.

PrerequisitesThe course **Internet Law T-INFO-101307** must not have started.**Modeled Prerequisites**

The following conditions have to be fulfilled:

1. The module component [T-INFO-101307 - Internet Law](#) must not have been started.

Recommendations

Keine.

Additional InformationLecture (with written exam) **Internet Law T-INFO-101307** is offered in the winter semester.Colloquium (other type of examination) **Selected Legal Issues of Internet Law T-INFO-108462** offered in the summer semester

T

6.113 Module component: Seminar in Business Administration (Bachelor) [T-WIWI-103486]**Coordinators:** Professorenschaft des Fachbereichs Betriebswirtschaftslehre**Organisation:** KIT Department of Business and Economics**Part of:** M-WIWI-106283 - Seminars

Type	Credits	Grading	Term offered	Version
Examination of another type	3 CP	graded	Each term	1

Courses					
WT 25/26	2500045	Digital Democracy - Challenges and Opportunities of the Digital Society	2 SWS	Seminar / 🌀	Fegert, Stein, Bezzaoui
WT 25/26	2500061	Special Topics in Transportation Strategy	2 SWS	Seminar / 🌀	Müller
WT 25/26	2500067	Seminar in Electrogastrogram and Economic Decision Making	2 SWS	Seminar / 🌀	Dharmapalan, Scheibehenne
WT 25/26	2500125	Human-Centered Systems Seminar: Engineering	2 SWS	Seminar / 🌀	Mädche
WT 25/26	2530580	Seminar in Finance (Bachelor)	2 SWS	Seminar / 🌀	Uhrig-Homburg, Thimme
WT 25/26	2530586		2 SWS	Seminar / 🌀	Uhrig-Homburg, Molnar
WT 25/26	2530610	Seminar in Financial Economics (Bachelor)	2 SWS	Seminar / 🌀	Thimme
WT 25/26	2540471	Bachelor Seminar (Information Systems III) – Sustainable Economies / More Human-like Conversational Agents	2 SWS	Seminar / 🌀	Bennardo, Gutschow, Heßler
WT 25/26	2540473	Business Data Analytics	2 SWS	Seminar / 🌀	Hariharan, Grote, Schulz, Motz
WT 25/26	2540475	Positive Information Systems	2 SWS	Seminar / 🌀	Knierim, del Puppo
WT 25/26	2540478	Smart Grids and Energy Markets	2 SWS	Seminar / 🌀	Weinhardt, Semmelmann, Miskiw, Speck
WT 25/26	2540524	Bachelor Seminar in Data Science and Machine Learning	2 SWS	Seminar	Geyer-Schulz, Nazemi
WT 25/26	2540557	Human-Centered Systems Seminar: Research	2 SWS	Seminar / 🌀	Mädche
WT 25/26	2571180	Seminar in Marketing and Sales (Bachelor)	2 SWS	Seminar / 🌀	Klarmann
WT 25/26	2573010	Seminar: Human Resources and Organizations (Bachelor)	2 SWS	Seminar / 🌀	Nieken, Mitarbeiter
WT 25/26	2573011	Seminar: Human Resource Management (Bachelor)	2 SWS	Seminar / 🌀	Nieken, Mitarbeiter
WT 25/26	2579919	Seminar Management Accounting - Sustainability Topics	2 SWS	Seminar / 🌀	Wouters, Dickemann
WT 25/26	2581030	Seminar in Energy Economics	2 SWS	Seminar / 🌀	Fichtner, Sloot
WT 25/26	2581032	Seminar Energy Economics VI	2 SWS	Seminar / 🌀	Fichtner, Slednev
WT 25/26	2581976	Seminar in Production and Operations Management I	2 SWS	Seminar / 🌀	Schultmann, Rudi
WT 25/26	2581977	Seminar in Production and Operations Management II	2 SWS	Seminar / 🌀	Schultmann, Steins
WT 25/26	2581978	Seminar in Production and Operations Management	2 SWS	Seminar / 🌀	Schultmann, Rosenberg
WT 25/26	2581979	Seminar in Energy Economics	2 SWS	Seminar / 🌀	Fichtner, Kleinebrahm

WT 25/26	2581980	Seminar in Energy Economics	2 SWS	Seminar / 	Fichtner, Sandmeier
WT 25/26	2581981	Seminar in Energy Economics	2 SWS	Seminar / 	Ardone, Fichtner
ST 2026	2500020	Digital Democracy - Challenges and opportunities of the digital society	2 SWS	Seminar / 	Fegert
ST 2026	2500061	Special Topics in Transportation Strategy	2 SWS	Seminar / 	Müller
ST 2026	2500125	Human-Centered Systems Seminar: Engineering	3 SWS	Seminar / 	Mädche
ST 2026	2530293	Seminar in Finance (Bachelor, Prof. Ruckes)	2 SWS	Seminar / 	Ruckes, Luedecke, Benz, Kohl, Sarac, Fkyerat
ST 2026	2530610	Seminar Financial Economics	2 SWS	Seminar / 	Thimme
ST 2026	2540468	Bachelor Seminar: Intelligent & Responsible Information Systems	2 SWS	Seminar / 	Pfeiffer, Schlaich
ST 2026	2540473	Applied Responsible AI	2 SWS	Seminar	Schulz, Weinhardt
ST 2026	2540475	Positive Information Systems	2 SWS	Seminar	Knierim
ST 2026	2540478	Smart Grid Economics & Energy Markets	2 SWS	Seminar	Weinhardt
ST 2026	2540524	Bachelor Seminar in Data Science and Machine Learning	2 SWS	Seminar	Geyer-Schulz
ST 2026	2540553	Biosignal-Adaptive Systems Seminar	2 SWS	Seminar / 	Mädche, Beigl
ST 2026	2540557	Human-Centered Systems Seminar: Research	3 SWS	Seminar / 	Mädche
ST 2026	2571187	Seminar Digital Marketing (Bachelor)	2 SWS	Seminar / 	Kupfer
ST 2026	2573010	Seminar Human Resources and Organizations (Bachelor)	2 SWS	Seminar / 	Nieken, Mitarbeiter
ST 2026	2573011	Seminar Human Resource Management (Bachelor)	2 SWS	Seminar / 	Nieken, Mitarbeiter, Gorny
ST 2026	2581030	Seminar Energiewirtschaft IV	2 SWS	Seminar / 	Fichtner, Sloot
ST 2026	2581031	Seminar Energiewirtschaft V	2 SWS	Seminar / 	Plötz
ST 2026	2581032	Seminar Energiewirtschaft VI	2 SWS	Seminar / 	Slednev, Fichtner
ST 2026	2581978	Seminar Produktionswirtschaft und Logistik III	2 SWS	Seminar / 	Schultmann, Rosenberg
ST 2026	2581979	Seminar Energiewirtschaft I	2 SWS	Seminar / 	Fichtner, Kleinebrahm
ST 2026	2581980	Seminar Energiewirtschaft II	2 SWS	Seminar / 	Fichtner, Sandmeier
ST 2026	2581981	Seminar Energiewirtschaft III	2 SWS	Seminar / 	Ardone, Fichtner
Exams					
WT 25/26	00072	Seminar Positive Information Systems			Weinhardt
WT 25/26	00074	Seminar Business Data Analytics			Weinhardt
WT 25/26	7900017	Seminar Smart Grid and Energy Markets			Weinhardt
WT 25/26	7900069	Human-Centered Systems Seminar: Engineering			Mädche
WT 25/26	7900129	Special Topics in Transportation Strategy			Lindstädt
WT 25/26	7900138	Seminar in Marketing and Sales (Bachelor)			Klarmann
WT 25/26	7900157	Seminar Human Resources and Organizations (Bachelor)			Nieken
WT 25/26	7900161	Seminar Human Resource Management (Bachelor)			Nieken
WT 25/26	7900168	Bachelor Seminar in Data Science and Machine Learning			Geyer-Schulz
WT 25/26	7900175	Seminar in Finance: The Influence of Retail Traders on Options Markets			Uhrig-Homburg
WT 25/26	7900203	Seminar "Finance in a nutshell"			Uhrig-Homburg
WT 25/26	7900233	Human-Centered Systems Seminar: Research			Mädche
WT 25/26	7900315	Seminar Financial Economics: Podcast Seminar			Thimme
WT 25/26	7900328	Seminar in Energy Economics VI			Fichtner

WT 25/26	7900335	Seminar Energy Economics IV	Fichtner
WT 25/26	7900338	Seminar in Electrogastrogram and Economic Decision Making	Scheibehenne
WT 25/26	79-2579919-B	Seminar Management Accounting - Sustainability Topics (Bachelor)	Wouters
WT 25/26	7940468	Bachelor Seminar: Information Systems III	Pfeiffer
WT 25/26	7981976	Seminar in Production and Operations Management I	Schultmann
WT 25/26	7981977	Seminar in Production and Operations Management II	Schultmann
WT 25/26	7981978	Seminar in Production and Operations Management III	Schultmann
WT 25/26	7981979	Seminar Energy Economics I	Fichtner
WT 25/26	7981980	Seminar Energy Economics II	Fichtner
WT 25/26	7981981	Seminar Energy Economics III	Fichtner
ST 2026	7900003	Seminar in Finance (Bachelor, Prof. Ruckes)	Ruckes
ST 2026	7900100	Seminar Human Resource Management (Bachelor)	Nieken
ST 2026	7900190	Human-Centered Systems Seminar: Engineering	Mädche
ST 2026	7900230	Seminar Human Resources and Organizations (Bachelor)	Nieken
ST 2026	7900243	Seminar Digital Marketing (Bachelor)	Kupfer
ST 2026	7900261	Human-Centered Systems Seminar: Research	Mädche
ST 2026	7900265	Biosignal-Adaptive Systems Seminar	Mädche
ST 2026	7900326	Seminar Energy Economics VI	Fichtner
ST 2026	792581030	Seminar Energy Economics IV	Fichtner
ST 2026	792581031	Seminar Energy Economics V	Plötz
ST 2026	7940468	Bachelor Seminar: Intelligent & Responsible Information Systems	Pfeiffer
ST 2026	7981978	Seminar in Production and Operations Management III	Schultmann
ST 2026	7981979	Seminar Energy Economics I: A Real-Time Day-Ahead Energy Time Series Forecasting Challenge	Fichtner
ST 2026	7981980	Seminar Energy Economics II: Sustainable Transformation of Energy Infrastructures	Fichtner
ST 2026	7981981	Seminar Energy Economics III	Fichtner

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Alternative exam assessment (§ 4(2), 3 SPO 2015). The following aspects are included:

- Regular participation in the seminar dates
- Preparation of a seminar paper on a partial aspect of the seminar topic according to scientific methods
- Lecture on the topic of the seminar paper.

The point scheme for the assessment is determined by the lecturer of the respective course. It will be announced at the beginning of the course.

Prerequisites

None.

Recommendations

See seminar description in the course catalogue of the KIT (<https://campus.kit.edu/>)

Additional Information

The listed seminar titles are placeholders. Currently offered seminars of each semester will be published on the websites of the institutes and in the course catalogue of the KIT. In general, the current seminar topics of each semester are already announced at the end of the previous semester. Furthermore for some seminars there is an application required.

The available places are listed on the internet: <https://portal.wiwi.kit.edu>.

Workload

90 hours

Below you will find excerpts from courses related to this module component:

**Seminar in Electrogastrogram and Economic Decision Making**2500067, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Seminar (S)
On-Site**

Content

The gut is often referred to as the "second brain" due to its substantial influence on cognition, emotion regulation, and mental health. This concept is grounded in the gut-brain axis (GBA), the bidirectional communication network between the central nervous system (CNS) and the enteric nervous system (ENS). These systems interact through the autonomic nervous system (ANS), and the hypothalamic-pituitary-adrenal (HPA) axis, along with a complex network of neuroimmune and neuroendocrine mediators (The Gut-Brain Axis: Influence of Microbiota on Mood and Mental Health, 2018).

While much of the existing literature emphasizes the role of gut microbiota, which provides retrospective insight into gut function and mental health, real-time physiological measures of gut activity remain relatively underexplored. In this context, electrogastrography (EGG) – a non-invasive method for recording gastric myoelectric activity – offers a novel tool to investigate the dynamic interplay between gut physiology and mental states, including economic decision-making.

The use of EGG in cognitive neuroscience and behavioral science is still emerging, providing space for critical inquiry and methodological development. This seminar is designed to explore the landscape of EGG research from technical, theoretical, and applied perspectives.

Seminar Structure

The seminar is organized around five core thematic areas. Each student will choose one topic and develop a focused literature review that generates both technical knowledge and real-world application.

Topics**1. Gut-Brain Axis and the Basics of EGG**

Goal: Introduce the physiological, theoretical, and conceptual background for why we want to measure gut signals.

This topic offers a deep dive into the anatomy and physiology of the gut-brain axis – including the enteric and autonomic nervous systems, interoceptive processing, and affective-body theories such as the somatic marker hypothesis, embodied emotion, and homeostasis. Students will also learn the basics of gastric myoelectric activity (slow waves, frequency bands) and what exactly EGG measures, in contrast to pressure sensors, motility tracking, or microbiota analysis.

Key Readings:

Mayer et al. (2015) – Gut-brain axis

Herbert & Pollatos (2012) – Interoception

Damasio (1996) – Somatic marker hypothesis

Koch & Stern (2004) – Basics of EGG

2. EGG Sensors, Signal Acquisition, and Processing

Goal: Understand the technical underpinnings of how EGG data is captured and analyzed.

This topic covers the sensor and hardware ecosystem for EGG, including types of electrodes, placements, and configurations. It explores wearable vs. lab-based systems, amplifier design, signal acquisition standards, and detailed signal processing techniques (e.g., filtering, artifact rejection, power analysis, and normogastria). The emphasis is on methodological rigor and the challenges of working with noisy physiological data.

Key Readings:

Gopu et al. (2010) – Signal processing in EGG

Stern et al. (2007)

3. EGG in Behavioral, Affective, and Clinical Research

Goal: Explore how EGG is used in real-world studies across behavioral and medical domains.

This topic focuses on empirical applications of EGG in behavioral science, affective research, and clinical diagnostics. Topics include EGG studies on emotion regulation, interoception, and cognitive tasks, as well as clinical research in IBS, gastroparesis (Hasler et al., 2004), nausea, and psychiatry. Students will critically assess limitations in sample sizes, interpretability, and translational potential.

Key Readings:

Vianna & Tranel (2006)

Wolpert et al. (2020)

4. EGG in Multimodal Biosignal Contexts and Future Directions

Goal: Position EGG among other biosignals and critically reflect on the field's limitations and future.

This module explores how EGG signal acquisition and processing compares to other biosignals such as ECG (heart rate variability), EDA (skin conductance), EEG (brain activity), and respiration in behavioural studies. Students will examine challenges of multimodal integration, signal synchrony, and interpretation. The topics include the use of wearables, AI-based classification, biofeedback, and the potential of open physiological datasets.

Key Readings:

Critchley et al. (2004)

Kim et al. (2021)

Wearable gut sensor papers - Vujic et al. (2020)

5. Multimodal Biosignals, Decision-Making, and Future Directions

Goal: Understand how EGG could capture aspects of decision-making in various contexts.

This topic explores the behavioral and cognitive implications of gut signals in decision-making tasks. Students will investigate studies linking gastric activity to risk-taking, delay discounting, and intuition, and how EGG data may reflect the visceral foundations of judgment. It also touches on EGG's potential in affective computing, real-time monitoring, and neuroeconomic models.

Key Readings:

Dunn et al. (2010)

Learning Outcomes

Throughout the course, students will sharpen key academic skills, including literature review and synthesis, critical analysis of research methods and findings, scientific writing, and clear communication of complex concepts. These skills will be developed through an in-depth exploration of electrogastrography (EGG), with a focus on its physiological and technological foundations, its relationship to gut-brain interactions, and its role in research on emotion, cognition, and decision-making. The course encourages students to engage critically with how EGG has been used so far, how it compares to other biosignals like ECG, EDA, and EEG, and how it might be applied in behavioural science and affective research. By the end of the seminar, students will contribute to a shared understanding of the field's current state, and reflect on future directions, challenges, and possibilities for applying EGG in both basic and applied research contexts.

Organizational issues

Application for this Seminar takes place exclusively via the WiWi portal during the specified timeframe. Please refrain from requests until the end of the application phase.

There will be a kick-off and a final presentation.

Central criteria for evaluating your performance are the identification of relevant scientific sources, a systematization of literature, the highlighting of central findings, a clear, concise and intelligible presentation of results, and the identification of interesting research gaps.

- Di 4.11.2025, 15:45-17:15 -- Kick-off
- Di 10.02.2026, 9:00-12:15 – Abschlusspräsentationen
Seminarraum Geb. 01.87 5B 25-26



2530586, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Seminar (S)
On-Site

Content

Within this seminar eLearning videos are produced to different topics out of the contents of our lectures. The student gets in touch with scientific work. Through profound working on a specific scientific topic the student is meant to learn the foundations of scientific research and reasoning in particular in finance. Through conduction of the video the student becomes familiar with the fundamental techniques for presentations and foundations of scientific reasoning. In addition, the student earns rhetorical skills.

The success is monitored by the development of an eLearning video and by the writing of a project report (according to §4(2), 3 SPO).

The overall grade is made up of these partial performances.

Recommendations:

Knowledge of the content of the modules *Essentials of Finance* [WW3BWLFVB1] (for bachelor students) and *F1 (Finance)* [WW4BWLFVB1] (for master students) is assumed.

The total workload for this course is approximately 90 hours. For further information see German version.

Organizational issues

Kickoff am 27.10.25 um 16 Uhr, Zwischenpräsentation am 09.12.25, 16 Uhr und Abschlusspräsentation am 27.01.26, 17:30 Uhr am Campus B (Geb. 09.21), Raum 209



Bachelor Seminar (Information Systems III) – Sustainable Economies / More Human-like Conversational Agents

2540471, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

This seminar is offered by the Information Systems III research group, which has been based at the Institute for Information Systems (WIN) since January 2025 and is led by [Prof. Dr. Jella Pfeiffer](#). Further information about us can be found on our website ([WIN - Information Systems III](#)).

**Business Data Analytics**2540473, WS 25/26, 2 SWS, Language: German/English, [Open in study portal](#)**Seminar (S)**
On-Site**Content**

wird auf deutsch und englisch gehalten

Organizational issues

Blockveranstaltung, siehe WWW

**Bachelor Seminar in Data Science and Machine Learning**2540524, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Seminar (S)****Literature****Weiterführende Literatur:**

- W. Thomson. A Guide for the Young Economist. The MIT Press, 2001
- D.J. Brauner, H.-U. Vollmer. Erfolgreiches wissenschaftliches Arbeiten. Verlag Wissenschaft & Praxis, 2004
- University of Chicago Press. The Chicago Manual of Style. University of Chicago Press, 13th ed., 1982
- American Psychological Association. Concise of Rules of APA Style. American Psychological Association, 2005
- American Psychological Association. Publication Manual of the American Psychological Association. American Psychological Association, 2001

**Seminar: Human Resources and Organizations (Bachelor)**2573010, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Seminar (S)**
On-Site**Content**

The topics are redefined each semester on basis of current research topics. The topics will be announced on the website of the Wiwi-Portal.

Aim

The student

- looks critically into current research topics in the fields of human resources and organizations.
- trains his / her presentation skills.
- learns to get his / her ideas and insights across in a focused and concise way, both in oral and written form, and to sum up the crucial facts.
- cultivates the discussion of research approaches.

Workload

The total workload for this course is: approximately 90 hours.

Lecture: 30h

Preparation of lecture: 45h

Exam preparation: 15h

Literature

Selected journal articles and books.

Organizational issues

Blockveranstaltung siehe Homepage

**Seminar: Human Resource Management (Bachelor)**2573011, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Seminar (S)**
On-Site

Content

The topics are redefined each semester on basis of current research topics. The topics will be announced on the website of the Wiwi-Portal.

Aim

The student

- looks critically into current research topics in the fields of Human Resource Management and Personnel Economics.
- trains his / her presentation skills.
- learns to get his / her ideas and insights across in a focused and concise way, both in oral and written form, and to sum up the crucial facts.
- cultivates the discussion of research approaches.

Workload

The total workload for this course is: approximately 90 hours.

Lecture: 30h

Preparation of lecture: 45h

Exam preparation: 15h

Literature

Selected journal articles and books.

Organizational issues

Blockveranstaltung siehe Homepage

**Seminar Management Accounting - Sustainability Topics**

2579919, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

The course will be a mix of lectures, discussions, and student presentations. Students will write a paper in small groups, and present this in the final week. Topics are selectively prediscibed. The seminar course is concentrated in several meetings that are spread throughout the semester.

Learning objectives:

- Students are largely independently able to identify a distinct topic in Management Accounting,
- Students are capable to research the topic, analyze the information, to conceptualize and deduct fundamental principles and relationships from relatively unstructured information,
- Students can afterwards logically and systematically present the results in writing and as an oral presentation, following a scientific approach (structuring, terminology, sources).

Examination:

- The performance review is carried out in the form of a "Prüfungsleistung anderer Art" (following § 4 (2) No. 3 of the examination regulation), which in this case is an essay the seminar participants prepare in group work.
- The final grade is made up of the grade of the seminar paper, the presentation and the contributions in the seminar sessions.

Required prior Courses:

- The course requires a basic knowledge of finance and accounting.

Workload:

- The total workload for this course is approximately 90 hours. For further information see German version.

Note:

- Maximum of 8 students.

Organizational issues

Ort und Zeit werden noch bekannt gegeben bzw. über ILIAS

Literature

Will be announced in the course.



Special Topics in Transportation Strategy

2500061, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

Course Content:

This course covers a range of important strategic questions across different transportation industries. Using suitable models from the areas of strategy and management, the participants will learn to evaluate structures, market forces and dynamics across different transportation industries and their impact on corporate strategy. On the basis of this, they will derive precise and well-founded recommendations for action.

This course offers students the opportunity to engage with current strategic issues and sharpen their skills in strategic analysis and evaluation. Through intensive collaboration and the practical application of the knowledge they have learned, students are optimally preparing for the requirements and challenges of modern corporate management.

The seminar is offered by the Chair of Management (Prof. Dr. Hagen Lindstädt) and will be held by Dr. Jürgen Müller. Dr. Müller worked at McKinsey & Company for 20 years, where he worked in different transportation and infrastructure industries (rail, road, sea, air) on an international level. Since 2015, he is Executive Vice President for Strategy and Rolling stock at the Danish State Railways.

Topics:

1. **Deregulation:** Deregulation in the European passenger air and rail markets has resulted in very different market outcomes. Describe, compare and evaluate the underlying structures, the process of deregulation and its outcomes in the two industries and develop recommendations for the future.
2. **Concentration:** Why is the combined global market share of the top 5 players in container shipping vs. logistics so different? Describe and evaluate the causes and most important implications from the past. How will the topic develop in the future?
3. **Modal share:** Why is there such a big difference in modal share between rail freight in the US vs. rail freight in Europe? Describe and evaluate the causes and most important implications from the past. What development do you foresee for the European market?
4. **Cyclicity:** Why is there such a high cyclicity in the global container shipping market? Describe and evaluate the causes and most important implications from the past. How will the topic develop in the future?
5. **Vertical integration:** Large logistics companies have chosen different strategies with regards to vertical integration between container shipping and land-based logistics (e.g. Maersk / K&N vs. DB Schenker / DSV). Describe and evaluate the respective rationales and most important implications so far. How will the topic develop in the future?
6. **Profitability (I):** Why is average industry profitability of freight carriers so different across transport modes (road, rail, air and sea)? Assess the differences. Describe and evaluate the causes and most important implications from the past. How will the topic develop in the future?
7. **Profitability (II):** "The quickest way to become a millionaire in the airline business is to start out as a billionaire" (Richard Branson). Analyze and discuss the truth of this statement and identify the underlying reasons. On this basis, derive recommendations for new entrants into the airline business.

Structure:

The course begins with an overarching introduction. Topics can be evaluated after the kickoff-meeting until 26.04.2026. Based on this, topics are assigned to groups of two. The main part of the course consists of writing and presenting a seminar paper - including a discussion of the results.

Target group: Bachelor students

Dates:

1. Kickoff: 24.04.2026, 13:00 - 16:00 (remote via MS Teams)
2. Presentation Day 1: 22.06.2026, 14:00 - 18:00 (in person at IBU, building 05.20, room 2A-12.1)
3. Presentation Day 2: 23.06.2026, 09:00 - 12:00 (in person at IBU, building 05.20, room 2A-12.1)

Attendance is mandatory on all dates.

After completion of the course, the students are able to

- ... analyze complex industry structures and company situations, think strategically and derive well-founded recommendations.
- ... produce well-structured and convincing written papers that present the analysis and recommendations.
- ... present and discuss the results in an engaging and convincing manner and actively participate in discussions.



Human-Centered Systems Seminar: Engineering

2500125, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Seminar (S)
Blended (On-Site/Online)

Content

Formerly known as "Current Topics in Digital Transformation"

With this seminar, we aim to provide students with the possibility to independently work on state-of-the-art research topics in addition to the knowledge gained in the lectures of the human-centered systems lab (Prof. Mädche). Students will work on a dedicated topic in the context of human-centered systems and apply a pre-defined research method. A broad spectrum of topics is offered every semester, topics may range from creating an experimental design, analyzing collected data, or systematically comparing existing software prototypes in a specific field of interest.

**Biosignal-Adaptive Systems Seminar**

2540553, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
Blended (On-Site/Online)

Content

Biosignal-adaptive systems collect and analyze biosignals from users to recognize user states as a basis for adaptation. Thermic, mechanical, electric, acoustic, and optical signals are collected using sensors which are integrated in wearables, e.g. glasses, earphones, belts, or bracelets. The collected data is processed with analytics and machine learning techniques in order to determine short-term, evolving over time, and long-term user states in the form of user characteristics, affective-cognitive states, or behavior. Finally, the recognized user states are leveraged for realizing user-centric adaptations.

In this seminar, interdisciplinary teams of students design, develop, and evaluate a biosignal-adaptive system prototype leveraging state-of-the-art hard- and software. This seminar follows an interdisciplinary approach. Students from the fields of computer science, information systems and industrial engineering & management collaborate in the prototype design, development, and evaluation.

The seminar is carried out in cooperation between Teco/Chair of Pervasive Computing Systems (Prof. Beigl) and the Institute of Information Systems and Marketing (h-lab, Prof. Mädche). It is offered as part of the DFG-funded graduate school "KD2School: Designing Adaptive Systems for Economic Decisions" (<https://kd2school.info/>)

Learning objectives of the seminar

- Explain what a biosignal-adaptive system is and how it can be conceptualized
- Suggest and evaluate different design solutions for addressing the identified problem
- Build a biosignal-adaptive system prototype using state-of-the-art hard- and software
- Perform a user-centric evaluation of the biosignal-adaptive system prototype

Prerequisites

Strong analytical abilities and profound software development skills are required.

Organizational issues

Termine werden bekannt gegeben

Literature

Required literature will be made available in the seminar.

**Human-Centered Systems Seminar: Research**

2540557, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Seminar (S)
Blended (On-Site/Online)

Content

Formerly known as "Information Systems and Service Design Seminar"

With this seminar, we aim to provide students with the possibility to independently work on state-of-the-art research topics in addition to the knowledge gained in the lectures of the research group IS I (Prof. Mädche). The research group "Information Systems I" (IS I) headed by Prof. Mädche focuses in research, education, and innovation on designing interactive intelligent systems. It is positioned at the intersection of Information Systems and Human-Computer Interaction (HCI).

In the seminar, participants will get deeper insights in a contemporary research topic in the field of information systems, specifically interactive intelligent systems.

The actual seminar topics will be derived from current research activities of the research group. Our research assistants offer a rich set of topics from our research clusters (digital experience and participation, intelligent enterprise systems, or digital services design & innovation). Students can select among these topics individually depending on their personal interests. The seminar is carried out in the form of a literature-based thesis project. In the seminar, students will acquire the important methodological skills of running a systematic literature review.

Learning Objectives

- focus on a contemporary topic at the intersection of Information Systems and Human-Computer Interaction (HCI), specifically interactive intelligent systems
- carry out a structured literature search for a given topic
- aggregate the collected information in a suitable way to present and extract knowledge
- write a seminar thesis following academic writing standards
- deliver a presentation in a scientific context in front of an auditorium

Prerequisites

No specific prerequisites are required for the seminar.

Literature

Further literature will be made available in the seminar.

Organizational issues

Termine werden bekannt gegeben

**Seminar Human Resources and Organizations (Bachelor)**

2573010, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

**Seminar (S)
On-Site**

Content

The topics are redefined each semester on basis of current research topics. The topics will be announced on the website of the Wiwi-Portal.

Aim

The student

- looks critically into current research topics in the fields of human resources and organizations.
- trains his / her presentation skills.
- learns to get his / her ideas and insights across in a focused and concise way, both in oral and written form, and to sum up the crucial facts.
- cultivates the discussion of research approaches.

Workload

The total workload for this course is: approximately 90 hours.

Lecture: 30h

Preparation of lecture: 45h

Exam preparation: 15h

Literature

Selected journal articles and books.

Organizational issues

Geb. 05.20, Raum 2A-12.1, Termine werden bekannt gegeben

**Seminar Human Resource Management (Bachelor)**2573011, SS 2026, 2 SWS, Language: German, [Open in study portal](#)**Seminar (S)
On-Site****Content**

The topics are redefined each semester on basis of current research topics. The topics will be announced on the website of the Wiwi-Portal.

Aim

The student

- looks critically into current research topics in the fields of Human Resource Management and Personnel Economics.
- trains his / her presentation skills.
- learns to get his / her ideas and insights across in a focused and concise way, both in oral and written form, and to sum up the crucial facts.
- cultivates the discussion of research approaches.

Workload

The total workload for this course is: approximately 90 hours.

Lecture: 30h

Preparation of lecture: 45h

Exam preparation: 15h

Literature

Selected journal articles and books.

Organizational issues

Geb. 05.20, Raum 2A-12.1, Termine werden bekannt gegeben

T

6.114 Module component: Seminar in Digital Economics Bachelor [T-WIWI-112726]**Coordinators:** Dr. Frank Rosar**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-106272 - Topics in Digital Economics](#)**Type**
Examination of another type**Credits**
4,5 CP**Grading**
graded**Term offered**
see Annotations**Version**
1

Courses					
WT 25/26	2560140	Seminar in Digital Economics (Bachelor)	2 SWS	Seminar / 🗎	Rosar
Exams					
WT 25/26	7900124	Seminar in Digital Economics (Bachelor)			Puppe
WT 25/26	7900278	Seminararbeit Game Theory and Behavioral Economics y (Bachelor)			Mill
WT 25/26	7900298	Seminar Economics of Crime (Bachelor)			Mill

Legend: 🗎 Online, 🗎 Blended (On-Site/Online), 🗎 On-Site, ✕ Cancelled

Assessment

Alternative exam assessment. The following aspects are included:

- Regular participation in the seminar dates
- Preparation of a seminar paper on a partial aspect of the seminar topic according to scientific methods
- Lecture on the topic of the seminar paper.

The point scheme for the assessment is determined by the lecturer of the respective course. It will be announced at the beginning of the course.

Prerequisites

None

Additional Information

The course takes place every winter semester and every second summer semester. The next round in the summer semester is planned for 2027.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Seminar in Digital Economics (Bachelor)2560140, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Seminar (S)**
On-Site**Content**

The seminar addresses issues in the digital economy from a game-theoretic perspective. All information about the seminar will be published on the Wiwi-Portal.

T

6.115 Module component: Seminar in Economics (Bachelor) [T-WIWI-103487]**Coordinators:** Professorenschaft des Fachbereichs Volkswirtschaftslehre**Organisation:** KIT Department of Business and Economics**Part of:** M-WIWI-106283 - Seminars**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each term**Version**
1

Courses					
WT 25/26	2500052	Seminar on Topics in Digital Economics	2 SWS	Seminar / 🎤	Reiß, Hillenbrand, Potarca
WT 25/26	2500063	Economics of Crime	2 SWS	Seminar / 🎤	Mill
WT 25/26	2520561	Wirtschaftstheoretisches Seminar I (Bachelor)	2 SWS	Seminar / 🎤	Puppe, Ammann, Kretz, Okulicz
WT 25/26	2520562	Wirtschaftstheoretisches Seminar II (Bachelor)	2 SWS	Seminar / 🎤	Puppe, Ammann, Kretz
WT 25/26	2521310	Topics in Econometrics	2 SWS	Seminar	Schienze, Krüger, Bracher, Buse, Koster, Rüter, Leimenstoll, Renner, Pohle
WT 25/26	2560130	Seminar Public Finance	2 SWS	Seminar / 🎤	Wigger, Setio, Schmelzer
WT 25/26	2560140	Seminar in Digital Economics (Bachelor)	2 SWS	Seminar / 🎤	Rosar
WT 25/26	2560141	Seminar Game Theory and Behavioral Economics (Bachelor)	2 SWS	Seminar / 🎤	Rau
WT 25/26	2560400	Seminar in Macroeconomics I	2 SWS	Seminar / 🎤	Brumm, Pegorari, Kissling, Schang
WT 25/26	2561208	Selected aspects of European transport planning and -modelling	2 SWS	Seminar	Szimba, Sand
ST 2026	2500009	Seminar in Economic Theory IV	2 SWS	Seminar / 🎤	Ammann, Kretz, Okulicz
ST 2026	2500012	Making and Evaluating Predictions	2 SWS	Seminar	Schienze, Allen, Zhang
ST 2026	2500035	Efficiency analyses in network sectors	2 SWS	Seminar / 🎤	Mitusch, Latsch
ST 2026	2520535	Seminar in Economic Theory I	2 SWS	Seminar / 🎤	Ammann, Kretz, Okulicz
ST 2026	2560130	Seminar Public Finance	2 SWS	Block / 🎤	Wigger, Schmelzer
ST 2026	2560259	Organisation and Management of Development Projects	2 SWS	Seminar / 🎤	Sieber
ST 2026	2560400	Seminar in Macroeconomics I	2 SWS	Seminar / 🎤	Brumm, Frank
ST 2026	2560555	Seminar Lying and Cheating in Economic Decision Situations (Bachelor)	2 SWS	Seminar / 🎤	Rau
Exams					
WT 25/26	7900124	Seminar in Digital Economics (Bachelor)			Puppe
WT 25/26	7900139	Selected Aspects of European Transport Planning and Modelling			Mitusch
WT 25/26	7900141	Seminar in Economics (Bachelor)			Brumm
WT 25/26	7900155	Seminar: How to Make Democracy Work? Voting Methods in Theory and Practice (Bachelor)			Puppe
WT 25/26	7900212	Seminar in Economic Policy			Ott
WT 25/26	7900254	Topics in Econometrics			Schienze, Bracher
WT 25/26	7900278	Seminararbeit Game Theory and Behavioral Economics y (Bachelor)			Mill

WT 25/26	7900298	Seminar Economics of Crime (Bachelor)	Mill
WT 25/26	7900361	Seminar on Topics in Digital Economics	Reiß, Hillenbrand
WT 25/26	79sefi1	Seminar Public Finance (Bachelor)	Wigger
ST 2026	7900051	Seminar in Economic Policy	Ott
ST 2026	7900130	Lying and Cheating in Economic Decision Situations (Bachelor)	Rau
ST 2026	7900164	Seminar in Economics (Bachelor)	Mitusch

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

Alternative exam assessment (§ 4(2), 3 SPO 2015). The following aspects are included:

- Regular participation in the seminar dates
- Preparation of a seminar paper on a partial aspect of the seminar topic according to scientific methods
- Lecture on the topic of the seminar paper.

The point scheme for the assessment is determined by the lecturer of the respective course. It will be announced at the beginning of the course.

Prerequisites

None.

Recommendations

See seminar description in the course catalogue of the KIT (<https://campus.kit.edu/>)

Additional Information

The listed seminar titles are placeholders. Currently offered seminars of each semester will be published on the websites of the institutes and in the course catalogue of the KIT. In general, the current seminar topics of each semester are already announced at the end of the previous semester. Furthermore for some seminars there is an application required.

The available places are listed on the internet: <https://portal.wiwi.kit.edu>.

Workload

90 hours

Below you will find excerpts from courses related to this module component:

Economics of Crime
2500063, WS 25/26, 2 SWS, [Open in study portal](#)

Seminar (S)
On-Site

Content

For Bachelor students of the fields Industrial Engineering and Management, Information Engineering and Management, Economics Engineering or Economathematics.

Organizational issues

Application is possible via <https://portal.wiwi.kit.edu/Seminare>

Kick-off: 29.10.2025, 11.00 - 12.30 h (Raum KD2Lab tbc)

Presentations: 16.01.2026 09.00 - 18.00 h, 01.85, KD2 Lab (1. floor über Außentreppe), Team Room

Topics in Econometrics
2521310, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Seminar (S)

Organizational issues

Wöchentliche Veranstaltung, Donnerstags 13:00-14:30 Uhr in B17 - R320

Seminar in Digital Economics (Bachelor)
2560140, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

The seminar addresses issues in the digital economy from a game-theoretic perspective. All information about the seminar will be published on the Wiwi-Portal.



Seminar Game Theory and Behavioral Economics (Bachelor)

2560141, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

For Bachelor students of the fields Industrial Engineering and Management, Information Engineering and Management, Economics Engineering or Economathematics.

The student develops an own idea for an economic experiment in this research direction. Students work in groups. Changing topics each semester. For current topics, see <https://polit.econ.kit.edu> or <https://portal.wiwi.kit.edu/Seminare>

Seminar Papers of 8–10 pages are to be handed in.

Recommendation: Knowledge in the field of experimental economic research or behavioral economics as well as in the field of microeconomics and game theory may be helpful.

Organizational issues

Application is possible via <https://portal.wiwi.kit.edu/Seminare>

Kick-off: 29.10.2025, 14.00 - 15.30 h, Geb. 01.85, KD2Lab Team room (über Außentreppe)

Presentations: 19.01.2026, 08.00 - 13.00 h, Geb. 01.85, KD2Lab Team room (über Außentreppe)



Making and Evaluating Predictions

2500012, SS 2026, 2 SWS, Language: German/English, [Open in study portal](#)

Seminar (S)

Content

A key goal of statistics and data science is to make predictions. Good predictions are important for decision-making, allowing us to balance risks and mitigate the impacts of potentially damaging events. In this seminar, we will study theoretical questions regarding the evaluation of predictions, such as “What does it mean for a prediction to be good?”, before introducing statistical and machine learning methods to generate both point-valued and probabilistic predictions. We will discuss applications to economics, meteorology, and energy forecasting.

Format: The course will start with a short block course at the beginning of the lecture period. Evaluation will be based on a seminar thesis, which students are required to hand in at the end of the lecture period, and a short presentation. The presentations will also take place towards the end of the lecture period.

Organizational issues

Blockveranstaltung, Termine werden bekannt gegeben



Seminar Public Finance

2560130, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Block (B)
Blended (On-Site/Online)

Content

See German version.

Organizational issues

Termine werden bekannt gegeben.

Literature

Literatur wird zu Beginn des jeweiligen Seminars vorgestellt.



Seminar Lying and Cheating in Economic Decision Situations (Bachelor)

2560555, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

Objective of the Seminar: The student develops an own idea for an economic experiment in this research direction. Students work in groups. Changing topics each semester. For current topics, see <http://polit.econ.kit.edu> or <https://portal.wiwi.kit.edu/Seminare>

The acceptance of students for the seminar is based on preferences and suitability for the topics. This includes theoretical and practical experience with Behavioral Economics as well as English skills.

Seminar Papers of 12–15 pages are to be handed in.

Students' grades will be based on the quality of presentations in the seminar (40%) and the seminar paper (60%). There may be a bonus on the grade for actively participating in the discussions of the presentations.

Recommendation: Knowledge in the field of experimental economic research or behavioral economics as well as in the field of microeconomics and game theory may be helpful.

Organizational issues

Obligatory: Application via WiWi-Portal during the seminar registration period

Seminar Kick-off: 28.04.2026, 14.00 - 14.45 h

Seminar Presentations: 30.06.2026 9.30 - 18.00 h

Hand-in Seminar Papers: 02.08.2026

T

6.116 Module component: Seminar in Economics (Bachelor) [T-WIWI-112739]**Coordinators:** Professorenschaft des Fachbereichs Volkswirtschaftslehre**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-106283 - Seminars](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each term**Version**
1

Courses					
WT 25/26	2500052	Seminar on Topics in Digital Economics	2 SWS	Seminar /	Reiß, Hillenbrand, Potarca
WT 25/26	2500063	Economics of Crime	2 SWS	Seminar /	Mill
WT 25/26	2520561	Wirtschaftstheoretisches Seminar I (Bachelor)	2 SWS	Seminar /	Puppe, Ammann, Kretz, Okulicz
WT 25/26	2520562	Wirtschaftstheoretisches Seminar II (Bachelor)	2 SWS	Seminar /	Puppe, Ammann, Kretz
WT 25/26	2560130	Seminar Public Finance	2 SWS	Seminar /	Wigger, Setio, Schmelzer
WT 25/26	2560140	Seminar in Digital Economics (Bachelor)	2 SWS	Seminar /	Rosar
WT 25/26	2560141	Seminar Game Theory and Behavioral Economics (Bachelor)	2 SWS	Seminar /	Rau
WT 25/26	2560400	Seminar in Macroeconomics I	2 SWS	Seminar /	Brumm, Pegorari, Kissling, Schang
WT 25/26	2561208	Selected aspects of European transport planning and -modelling	2 SWS	Seminar	Szimba, Sand
ST 2026	2500009	Seminar in Economic Theory IV	2 SWS	Seminar /	Ammann, Kretz, Okulicz
ST 2026	2500035	Efficiency analyses in network sectors	2 SWS	Seminar /	Mitusch, Latsch
ST 2026	2520535	Seminar in Economic Theory I	2 SWS	Seminar /	Ammann, Kretz, Okulicz
Exams					
WT 25/26	7900124	Seminar in Digital Economics (Bachelor)			Puppe
WT 25/26	7900155	Seminar: How to Make Democracy Work? Voting Methods in Theory and Practice (Bachelor)			Puppe
WT 25/26	7900193	Seminar in Economics (Bachelor)			Brumm
WT 25/26	7900361	Seminar on Topics in Digital Economics			Reiß, Hillenbrand
ST 2026	7900164	Seminar in Economics (Bachelor)			Mitusch

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

Alternative exam assessment (§ 4(2), 3 SPO 2015). The following aspects are included:

- Regular participation in the seminar dates
- Preparation of a seminar paper on a partial aspect of the seminar topic according to scientific methods
- Lecture on the topic of the seminar paper.

The point scheme for the assessment is determined by the lecturer of the respective course. It will be announced at the beginning of the course.

Prerequisites

None.

RecommendationsSee seminar description in the course catalogue of the KIT (<https://campus.kit.edu/>)

Additional Information

The listed seminar titles are placeholders. Currently offered seminars of each semester will be published on the websites of the institutes and in the course catalogue of the KIT. In general, the current seminar topics of each semester are already announced at the end of the previous semester. Furthermore for some seminars there is an application required.

The available places are listed on the internet: <https://portal.wiwi.kit.edu>.

Workload

90 hours

Below you will find excerpts from courses related to this module component:

**Economics of Crime**

2500063, WS 25/26, 2 SWS, [Open in study portal](#)

Seminar (S)
On-Site

Content

For Bachelor students of the fields Industrial Engineering and Management, Information Engineering and Management, Economics Engineering or Economathematics.

Organizational issues

Application is possible via <https://portal.wiwi.kit.edu/Seminare>

Kick-off: 29.10.2025, 11.00 - 12.30 h (Raum KD2Lab tbc)

Presentations: 16.01.2026 09.00 - 18.00 h, 01.85, KD2 Lab (1. floor über Außentreppe), Team Room

**Seminar in Digital Economics (Bachelor)**

2560140, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

The seminar addresses issues in the digital economy from a game-theoretic perspective. All information about the seminar will be published on the Wiwi-Portal.

**Seminar Game Theory and Behavioral Economics (Bachelor)**

2560141, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

For Bachelor students of the fields Industrial Engineering and Management, Information Engineering and Management, Economics Engineering or Economathematics.

The student develops an own idea for an economic experiment in this research direction. Students work in groups. Changing topics each semester. For current topics, see <https://polit.econ.kit.edu> or <https://portal.wiwi.kit.edu/Seminare>

Seminar Papers of 8–10 pages are to be handed in.

Recommendation: Knowledge in the field of experimental economic research or behavioral economics as well as in the field of microeconomics and game theory may be helpful.

Organizational issues

Application is possible via <https://portal.wiwi.kit.edu/Seminare>

Kick-off: 29.10.2025, 14.00 - 15.30 h, Geb. 01.85, KD2Lab Team room (über Außentreppe)

Presentations: 19.01.2026, 08.00 - 13.00 h, Geb. 01.85, KD2Lab Team room (über Außentreppe)

T

6.117 Module component: Seminar in Informatics (Bachelor) [T-WIWI-103485]

Coordinators: Professorenschaft des Instituts AIFB
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106283 - Seminars](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	3 CP	graded	Each term	1

Courses					
WT 25/26	2513214	Seminar Information security and Data protection (Bachelor)	2 SWS	Seminar / ●	Volkamer, Raabe, Schiefer, Werner
WT 25/26	2513312	Seminar Linked Data and the Semantic Web (Bachelor)	3 SWS	Seminar / ●	Käfer, Braun, Li, Kubelka
WT 25/26	2513314	Seminar Real-World Challenges in Data Science and Analytics (Bachelor)	3 SWS	/ ●	Hoellig, Käfer, Thoma
WT 25/26	2513315	Seminar Real-World Challenges in Data Science and Analytics (Master)	3 SWS	/ ●	Hoellig, Käfer, Thoma
ST 2026	2513220	Seminar Intelligente Fahrzeugsysteme der nächsten Generation: Kognition, Personalisierung und adaptive Mobilität (Bachelor)	2 SWS	Seminar	Ullrich, Schreiber
ST 2026	2513308	Seminar Knowledge Discovery and Data Mining (Bachelor)	2 SWS	Seminar / ●	Käfer, Noullet, Kinder, Li
ST 2026	2513310	Seminar Data Science & Real-time Big Data Analytics (Bachelor)	2 SWS	Seminar / ●	Käfer, Thoma, Slobodyanik
Exams					
WT 25/26	7900038	Seminar Linked Data and the Semantic Web (Bachelor)			Färber
WT 25/26	7900187	Seminar Real-World Challenges in Data Science and Analytics (Bachelor)			Färber
WT 25/26	7900284	Seminar Information Security and Data Protection (Bachelor)			Oberweis
ST 2026	7900090	Seminar Data Science & Real-time Big Data Analytics (Bachelor)			Käfer
ST 2026	7900094	Seminar Knowledge Discovery and Data Mining (Bachelor)			Käfer
ST 2026	7900265	Biosignal-Adaptive Systems Seminar			Mädche

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Assessment

Alternative exam assessment (§ 4(2), 3 SPO 2015). The following aspects are included:

- Regular participation in the seminar dates
- Preparation of a seminar paper on a partial aspect of the seminar topic according to scientific methods
- Lecture on the topic of the seminar paper.

The point scheme for the assessment is determined by the lecturer of the respective course. It will be announced at the beginning of the course.

Prerequisites

None.

Recommendations

See seminar description in the course catalogue of the KIT (<https://campus.kit.edu/>)

Additional Information

Placeholder for seminars offered by the Institute AIFB. Currently offered seminars of each semester will be published on the websites of the institutes and in the course catalogue of the KIT. In general, the current seminar topics of each semester are already announced at the end of the previous semester. Furthermore for some seminars there is an application required.

The available places are listed on the internet: <https://portal.wiwi.kit.edu>.

Workload

90 hours

Below you will find excerpts from courses related to this module component:

	Seminar Linked Data and the Semantic Web (Bachelor) 2513312, WS 25/26, 3 SWS, Language: German/English, Open in study portal	Seminar (S) On-Site
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Content

Linked Data is a way of publishing data on the web in a machine-understandable fashion. The aim of this practical seminar is to build applications and devise algorithms that consume, provide, or analyse Linked Data.

The Linked Data principles are a set of practices for data publishing on the web. Linked Data builds on the web architecture and uses HTTP for data access, and RDF for describing data, thus aiming towards web-scale data integration. There is a vast amount of data available published according to those principles: recently, 4.5 billion facts have been counted with information about various domains, including music, movies, geography, natural sciences. Linked Data is also used to make web-pages machine-understandable, corresponding annotations are considered by the big search engine providers. On a smaller scale, devices on the Internet of Things can also be accessed using Linked Data which makes the unified processing of device data and data from the web easy.

In this practical seminar, students will build prototypical applications and devise algorithms that consume, provide, or analyse Linked Data. Those applications and algorithms can also extend existing applications ranging from databases to mobile apps.

For the seminar, programming skills or knowledge about web development tools/technologies are highly recommended. Basic knowledge of RDF and SPARQL are also recommended, but may be acquired during the seminar. Students will work in groups. Seminar meetings will take place as 'Block-Seminar'.

Topics of interest include, but are not limited to:

- Travel Security
- Geo data
- Linked News
- Social Media

The exact dates and information for registration will be announced at the event page.

	Seminar Real-World Challenges in Data Science and Analytics (Bachelor) 2513314, WS 25/26, 3 SWS, Language: German/English, Open in study portal	On-Site
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Content

In the seminar, various Real-World Challenges in Data Science and Analytics will be worked on.

During this seminar, groups of students work on a case challenge with data provided. Here, the typical process of a data science project is depicted: integration of data, analysis of these, modeling of the decisions and visualization of the results.

During the seminar, solution concepts are worked out, implemented as a software solution and presented in an intermediate and final presentation. The seminar "Real-World Challenges in Data Science and Analytics" is aimed at students in master's programs.

The exact dates and information for registration will be announced at the course page.

	Seminar Real-World Challenges in Data Science and Analytics (Master) 2513315, WS 25/26, 3 SWS, Language: German/English, Open in study portal	On-Site
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Content

In the seminar, various Real-World Challenges in Data Science and Analytics will be worked on.

During this seminar, groups of students work on a case challenge with data provided. Here, the typical process of a data science project is depicted: integration of data, analysis of these, modeling of the decisions and visualization of the results.

During the seminar, solution concepts are worked out, implemented as a software solution and presented in an intermediate and final presentation. The seminar "Real-World Challenges in Data Science and Analytics" is aimed at students in master's programs.

The exact dates and information for registration will be announced at the course page.



Seminar Knowledge Discovery and Data Mining (Bachelor)

2513308, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

In this seminar different machine learning and data mining methods are implemented.

The seminar includes different methods of machine learning and data mining. Participants of the seminar should have basic knowledge of machine learning and programming skills.

Domains of interest include, but are not limited to:

- Medicine
- Social Media
- Finance Market
- Scientific Publications

Further Information: https://aifb.kit.edu/web/Lehre/Praktikum_Knowledge_Discovery_and_Data_Science

The exact dates and information for registration will be announced at the event page.

Organizational issues

Die Anmeldung erfolgt über das WiWi-Portal <https://portal.wiwi.kit.edu/>.

Literature

Detaillierte Referenzen werden zusammen mit den jeweiligen Themen angegeben. Allgemeine Hintergrundinformationen ergeben sich z.B. aus den folgenden Lehrbüchern:

- Mitchell, T.; Machine Learning
- McGraw Hill, Cook, D.J. and Holder, L.B. (Editors) Mining Graph Data, ISBN:0-471-73190-0
- Wiley, Manning, C. and Schütze, H.; Foundations of Statistical NLP, MIT Press, 1999.



Seminar Data Science & Real-time Big Data Analytics (Bachelor)

2513310, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

In this seminar, students will design applications in teams that use meaningful and creative Event Processing methods. Thereby, students have access to an existing record.

Event processing and real-time data are everywhere: financial market data, sensors, business intelligence, social media analytics, logistics. Many applications collect large volumes of data in real time and are increasingly faced with the challenge of being able to process them quickly and react promptly. The challenges of this real-time processing are currently also receiving a great deal of attention under the term "Big Data". The complex processing of real-time data requires both knowledge of methods for data analysis (data science) and their processing (real-time analytics). Seminar papers are offered on both of these areas as well as on interface topics, the input of own ideas is explicitly desired.

Further information to the seminar is given under the following Link:

<http://seminar-cep.fzi.de>

Questions are answered via the e-mail address sem-ep@fzi.de.

Organizational issues

Die Anmeldung erfolgt über das WiWi-Portal <https://portal.wiwi.kit.edu/>.

T

6.118 Module component: Seminar in Operations Research (Bachelor) [T-WIWI-103488]

Coordinators: Prof. Dr. Stefan Nickel
 Prof. Dr. Steffen Rebennack
 Prof. Dr. Oliver Stein

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106283 - Seminars](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	3 CP	graded	Each term	1

Courses					
WT 25/26	2500056	Seminar: Modern OR and Innovative Logistics	2 SWS	Seminar / 	Nickel, Mitarbeiter, Pomes, Hoffmann
WT 25/26	2550131	Seminar on Methodical Foundations of Operations Research (B)	2 SWS	Seminar / 	Stein, Beck, Schwarze, Neussel
WT 25/26	2550461	Seminar on Trending Topics in Optimization and Machine Learning (Bachelor)	2 SWS	Seminar / 	Rebennack, Kandora
WT 25/26	2550472	Seminar on Energy and Power Systems Optimization (Bachelor)	2 SWS	Seminar / 	Rebennack, Kandora
ST 2026	2550131	Seminar on Methodical Foundations of Operations Research (BA)	2 SWS	Seminar / 	Stein, Beck, Schwarze, Neussel
ST 2026	2550132	Seminar on Mathematical Optimization (MA)	2 SWS	Seminar / 	Stein, Beck, Schwarze, Neussel
Exams					
WT 25/26	7900011_WS2425	Seminar in Operations Research B (Bachelor)	Stein		
WT 25/26	7900012_WS2425	Seminar in Operations Research A (Master)	Stein		
WT 25/26	7900040	Seminar: Modern OR and Innovative Logistics	Nickel		
WT 25/26	7900113	Seminar Trending Topics in Optimization and Machine Learning (Bachelor)	Rebennack		
WT 25/26	7900194	Digitalization in the Steel Industry	Nickel		
WT 25/26	7900313	Seminar on Power Systems Optimization (Bachelor)	Rebennack		
ST 2026	7900200_SS2025	Seminar in Operations Research A (Master)	Stein		
ST 2026	7900201_SS2025	Seminar in Operations Research (Bachelor)	Stein		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Alternative exam assessment (§ 4(2), 3 SPO 2015). The following aspects are included:

- Regular participation in the seminar dates
- Preparation of a seminar paper on a partial aspect of the seminar topic according to scientific methods
- Lecture on the topic of the seminar paper.

The point scheme for the assessment is determined by the lecturer of the respective course. It will be announced at the beginning of the course.

Prerequisites

None.

Recommendations

See seminar description in the course catalogue of the KIT (<https://campus.kit.edu/>)

Additional Information

The listed seminar titles are placeholders. Currently offered seminars of each semester will be published on the websites of the institutes and in the course catalogue of the KIT. In general, the current seminar topics of each semester are already announced at the end of the previous semester. Furthermore for some seminars there is an application required.

The available places are listed on the internet: <https://portal.wiwi.kit.edu>.

Workload

90 hours

Below you will find excerpts from courses related to this module component:

**Seminar: Modern OR and Innovative Logistics**

2500056, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Seminar (S)
Blended (On-Site/Online)

Content

This seminar presents current issues in the field of Operations Research and Logistics, critically evaluates them, and discusses them using examples. The focus of the seminar lies on optimization models and algorithms, with particular attention to their practical applicability (especially in supply chain and health care management). All participants are required to write a seminar paper and give a presentation. Depending on the topic, an implementation of the models or heuristics using standard software (e.g., IBM CPLEX or Java) is expected. Further details can be found in the information sheet on Prof. Nickel's website. All topics have the potential to be developed into a thesis.

The seminar topics will be assigned during a preliminary meeting at the beginning of the semester. Attendance is mandatory for the preliminary meeting as well as for all seminar presentations.

In addition, students will receive an introduction to academic writing, literature research, and scientific presenting in three sessions.

Organizational issues

Die Anmeldung erfolgt über das Wiwi-Portal. Nähere Informationen erhalten Sie auf der Homepage dol.ior.kit.edu bzw. im WiWi-Portal sowie bei der Vorbesprechung.

Literature

Die Literatur und die relevanten Quellen werden zu Beginn des Seminars bekannt gegeben.

**Seminar on Methodical Foundations of Operations Research (B)**

2550131, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Seminar (S)
On-Site

Content

The seminar aims at describing, evaluating, and discussing recent as well as classical topics in continuous optimization. The focus is on the treatment of optimization models and algorithms, also with respect to their practical application.

Bachelor student are introduced to the style of scientific work. By focussed treatment of a scientific topic they deal with the basics of scientific investigation and reasoning.

For further development of a scientific work style, master students are particularly expected to critically question the seminar topics.

With regard to the oral presentations the students become acquainted with presentation techniques and basics of scientific reasoning. Also rethoric abilities may be improved.

Remarks:

Attendance at all oral presentations is compulsory.

Preferably at least one module offered by the Institute of Operations Research should have been chosen before attending this seminar.

Assessment:

The assessment is composed of a 15-20 page paper as well as a 40-60 minute oral presentation according to §4(2), 3 of the examination regulation. The grade is composed of the equally weighted assessments of the paper and the oral presentation.

The seminar is appropriate for bachelor as well as for master students. Their differentiation results from different assessment criteria for the seminar paper and the oral presentation.

Workload:

The total workload for this course is approximately 90 hours. For further information see German version.

Literature

Die Literatur und die relevanten Quellen werden gegen Ende des vorausgehenden Semesters im Wiwi-Portal und in einer Seminarvorbesprechung bekannt gegeben.

References and relevant sources are announced at the end of the preceding semester in the Wiwi-Portal and in a preparatory meeting.

**Seminar on Methodical Foundations of Operations Research (BA)**

2550131, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Seminar (S)
On-Site

Content

The seminar aims at describing, evaluating, and discussing recent as well as classical topics in continuous optimization. The focus is on the treatment of optimization models and algorithms, also with respect to their practical application.

Bachelor student are introduced to the style of scientific work. By focussed treatment of a scientific topic they deal with the basics of scientific investigation and reasoning.

For further development of a scientific work style, master students are particularly expected to critically question the seminar topics.

With regard to the oral presentations the students become acquainted with presentation techniques and basics of scientific reasoning. Also rethoric abilities may be improved.

Remarks:

Attendance at all oral presentations is compulsory.

Preferably at least one module offered by the Institute of Operations Research should have been chosen before attending this seminar.

Assessment:

The assessment is composed of a 15-20 page paper as well as a 40-60 minute oral presentation according to §4(2), 3 of the examination regulation. The grade is composed of the equally weighted assessments of the paper and the oral presentation.

The seminar is appropriate for bachelor as well as for master students. Their differentiation results from different assessment criteria for the seminar paper and the oral presentation.

Workload:

The total workload for this course is approximately 90 hours. For further information see German version.

Literature

Die Literatur und die relevanten Quellen werden gegen Ende des vorausgehenden Semesters im Wiwi-Portal und in einer Seminarvorbesprechung bekannt gegeben.

References and relevant sources are announced at the end of the preceding semester in the Wiwi-Portal and in a preparatory meeting.

T

6.119 Module component: Seminar in Statistics (Bachelor) [T-WIWI-103489]

Coordinators: Prof. Dr. Oliver Grothe
Prof. Dr. Melanie Schienle

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-106283 - Seminars](#)

Type
Examination of another type

Credits
3 CP

Grading
graded

Term offered
Each term

Version
1

Courses					
WT 25/26	25000111	Statistics and Epidemics	2 SWS	Seminar / 	Bracher, Nemcova
WT 25/26	2500018		2 SWS	Seminar / 	Grothe, Liu
WT 25/26	2521310	Topics in Econometrics	2 SWS	Seminar	Schienle, Krüger, Bracher, Buse, Koster, Rüter, Leimenstoll, Renner, Pohle
ST 2026	2500012	Making and Evaluating Predictions	2 SWS	Seminar	Schienle, Allen, Zhang
ST 2026	2521310	Advanced Topics in Econometrics	2 SWS	Seminar	Schienle, Krüger, Bracher, Buse, Koster, Rüter, Leimenstoll, Renner
ST 2026	2550560	Spezielle Themen zu Statistik, Datenanalyse und maschinellem Lernen	2 SWS	Seminar / 	Grothe, Liu
Exams					
WT 25/26	7900254	Topics in Econometrics			Schienle, Bracher
WT 25/26	7900299	Seminar in Statistics (Bachelor)			Grothe

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Alternative exam assessment (§ 4(2), 3 SPO 2015). The following aspects are included:

- Regular participation in the seminar dates
- Preparation of a seminar paper on a partial aspect of the seminar topic according to scientific methods
- Lecture on the topic of the seminar paper.

The point scheme for the assessment is determined by the lecturer of the respective course. It will be announced at the beginning of the course.

Prerequisites

None.

Recommendations

See seminar description in the course catalogue of the KIT (<https://campus.kit.edu/>)

Additional Information

The listed seminar titles are placeholders. Currently offered seminars of each semester will be published on the websites of the institutes and in the course catalogue of the KIT. In general, the current seminar topics of each semester are already announced at the end of the previous semester. Furthermore for some seminars there is an application required.

The available places are listed on the internet: <https://portal.wiwi.kit.edu>.

Workload

90 hours

Below you will find excerpts from courses related to this module component:



Statistics and Epidemics

25000111, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

Motivation

Infectious disease epidemiology gives rise to a large variety of real-time data streams. During the COVID-19 pandemic, the interpretation and statistical analysis of these data has proven crucial, but also highly challenging. In this seminar, students will get to know central concepts of infectious disease surveillance and modelling from a statistical perspective. Following an overview of various aspects in the form of blocked lectures, students will choose a more specific topic for their seminar thesis.

Learning Goals

Students develop an understanding of central modeling tasks and methods, including

- estimation of reproductive numbers
- compartment models of disease spread
- nowcasting and short-term forecasting of disease spread
- detection of outbreaks
- diagnostic testing

Moreover, they get to know various data types commonly used in the analysis of disease spread.

Logistics

The project seminar is worth 4.5 credit points (Leistungspunkte). There will be three blocked lectures (approx. 135 minutes each) in the beginning of the lecture period. For the various topics covered, subjects for seminar theses will be proposed (and students are allowed to propose their own topics). Towards the end of the semester, students present their progress on the chosen topics to the group. Grades will be based on this presentation (25%) and the final report (75%).

Organizational issues

Prerequisites

Students should have a very good working knowledge of statistics, including proficiency in a programming language for applied data analysis. The lecture VWL3 Introduction to Econometrics is a prerequisite for the project seminar. Most available software in the field is in R, but in principle Python can be used as well. Advanced knowledge of biology, medicine or epidemiology is not required.

Application Procedure

Please submit a transcript of records as well as a short letter of motivation (roughly 200 words) via WIWI-Portal: <https://portal.wiwi.kit.edu/ys/8902>

Application time frame: September 5th, 2025 to October, 31th, 2025.



Topics in Econometrics

2521310, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)

Seminar (S)

Organizational issues

Wöchentliche Veranstaltung, Donnerstags 13:00-14:30 Uhr in B17 - R320



Making and Evaluating Predictions

2500012, SS 2026, 2 SWS, Language: German/English, [Open in study portal](#)

Seminar (S)

Content

A key goal of statistics and data science is to make predictions. Good predictions are important for decision-making, allowing us to balance risks and mitigate the impacts of potentially damaging events. In this seminar, we will study theoretical questions regarding the evaluation of predictions, such as "What does it mean for a prediction to be good?", before introducing statistical and machine learning methods to generate both point-valued and probabilistic predictions. We will discuss applications to economics, meteorology, and energy forecasting.

Format: The course will start with a short block course at the beginning of the lecture period. Evaluation will be based on a seminar thesis, which students are required to hand in at the end of the lecture period, and a short presentation. The presentations will also take place towards the end of the lecture period.

Organizational issues

Blockveranstaltung, Termine werden bekannt gegeben

**Advanced Topics in Econometrics**2521310, SS 2026, 2 SWS, Language: German/English, [Open in study portal](#)**Seminar (S)****Organizational issues**

wöchentlich, Donnerstags 11:00-12:30, B17, R320

T

6.120 Module component: Seminar Mathematics Bachelor (subject to approval) [T-WIWI-114958]

Coordinators: Studiendekan des KIT-Studienganges
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106283 - Seminars](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	3 CP	Graded	Each term	1

Assessment

Success is usually assessed by writing a seminar paper of 15-20 pages, a presentation of the results of the paper in a seminar session and active participation in the discussions of the seminar session.

The overall grade is usually made up of the graded and weighted performance assessments.

Prerequisites

The seminar must meet the performance standards of the Department of Economics and Management (seminar course spanning two hours per week (2 SWS), regular and active participation, a seminar paper on a sub-aspect of the seminar topic, an accompanying presentation, and a total workload of approx. 90 hours).

Mathematics seminars intended for the seminar module must generally be approved by the Dean of Studies for the degree program. The application is submitted via the online form "Antrag auf Genehmigung eines Mathematik-Seminars im Seminar modul Digital Economics Bachelor" available on the WIWI-Portal at <https://portal.wiwi.kit.edu/forms>.

Recommendations

None

T

6.121 Module component: Seminar: Commercial and Corporate Law in the IT Industry [T-INFO-111405]**Coordinators:** Dr. Georg Nolte**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-101216 - Private Business Law](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2400165	Seminar Commercial and Corporate Law in Information Technology	2 SWS	Seminar / 	Nolte
Exams					
WT 25/26	7500182	Seminar: Legal Studies II			Boehm, Raabe, Melullis
WT 25/26	7500310	Seminar: Commercial and Corporate Law in the IT Industry			Matz

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.122 Module component: Seminar: IT- Security Law [T-INFO-111404]**Coordinators:** Martin Schallbruch**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-106754 - Public Economic and Technology Law](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	2424389	Seminar "IT security law"	2 SWS	Seminar / 	Schallbruch
Exams					
WT 25/26	7500249	Seminar: IT- Security Law			Zufall

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.123 Module component: Seminar: Legal Studies Bachelor [T-INFO-115024]**Coordinators:** Professorenschaft des Fachbereichs Recht**Organisation:** KIT Department of Informatics**Part of:** [M-WIWI-106283 - Seminars](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each term**Version**
1

Courses					
WT 25/26	2400014	Current Issues in Patent Law	2 SWS	Seminar /	Melullis
WT 25/26	2400165	Seminar Commercial and Corporate Law in Information Technology	2 SWS	Seminar /	Nolte
WT 25/26	2400177	Human vs. Machine: (Un-)Biased Legal Decision-Making?	2 SWS	Seminar /	Holzhausen
WT 25/26	2400184	EU Digital Regulatory Framework	2 SWS	Seminar /	Zufall
WT 25/26	2400203	EU Fundamental Rights and EU Economic Law in Smart Cities	2 SWS	Seminar /	Kasper-Schöniger
WT 25/26	2424186	Seminar Patent Law	2 SWS	Seminar /	Dammler
WT 25/26	2424389	Seminar "IT security law"	2 SWS	Seminar /	Schallbruch
WT 25/26	2513214	Seminar Information security and Data protection (Bachelor)	2 SWS	Seminar /	Volkamer, Raabe, Schiefer, Werner
ST 2026	2400005	Governance, Risk & Compliance	2 SWS	Seminar /	Herzig, Siddiq
ST 2026	2400078	Intelligente Chatbots und Recht	2 SWS	Seminar /	Raabe
ST 2026	2400171	Regulating AI: from ethics to law	2 SWS	Seminar /	Gil Gasiola
ST 2026	2400177	Designing Data Governance of Digital Systems	2 SWS	Seminar /	Pathak
ST 2026	2400225	Rechtlicher Rahmen für Künstliche Intelligenz	2 SWS	Seminar /	Sattler
ST 2026	24820	Current Issues in Patent Law	2 SWS	Seminar /	Melullis
Exams					
WT 25/26	7500249	Seminar: IT- Security Law			Zufall
WT 25/26	7500298	Seminar: Law and Legal Studies			Zufall
WT 25/26	7500310	Seminar: Commercial and Corporate Law in the IT Industry			Matz
ST 2026	7500268	Seminar aus Rechtswissenschaften Bachelor und Master I (LS Zivilrecht u. LS Prof. F. Boehm)			Boehm, Melullis, Raabe, Sattler
ST 2026	7500341	Seminar: Legal Studies Bachelor and Master I (LS Öffentliches Recht und Informatik)			Zufall

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Below you will find excerpts from courses related to this module component:

V

Human vs. Machine: (Un-)Biased Legal Decision-Making?2400177, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Seminar (S)**
On-Site

Content

This seminar provides an overview of the foundational principles of behavioral economics and their relevance to public law. Special attention is given to (biased) decision-making, both from a substantive and procedural perspective. Students will explore how regulation should be designed to account for cognitive biases and achieve intended policy outcomes. In addition, the seminar will address the role of automated decision-making systems - examining how such systems are influenced by, and may also reinforce or mitigate, behavioral biases.

The seminar will cover the following topics:

- Introduction to (behavioral) economic theory and its application to law
- Cognitive biases and their impact on (public) decision-making
- Different types of regulation in light of behavioral insights
- Implications for automated decision-making systems
- The role of human biases in the AI Act

Algorithmic decision-making is often treated as a black box—something that should not be permitted to make decisions in legal contexts. In response, Article 14 of the EU AI Act requires high-risk AI systems to be designed in such a way that they can be effectively overseen by natural persons. This human-in-the-loop requirement stems, among other things, from the perception that AI systems operate ambiguously and produce decisions that are not fully comprehensible.

However, treating humans in comparison as fundamentally transparent or fully rational decision-makers is equally naïve. Understanding how people actually behave—not just how they should behave—is essential for designing effective, fair, and legitimate legal systems. Traditional legal research often assumes rational actors, yet behavioral research shows that cognitive biases, heuristics, and emotional influences shape the decisions of both citizens and public officials.

This seminar addresses that gap by equipping students with behavioral insights to critically assess and improve legal and administrative. A particular focus is placed on how human biases are already embedded in the data underlying automated decision-making systems, potentially reproducing or amplifying unfairness. At the same time, students will explore how such systems can be intentionally designed to mitigate behavioral distortions and support better decision-making.

Organizational issues

1. Termin: 13.11.2025 9:00-15:00 Uhr (Seminarraum Nr. 313, bei uns am Institut)

2. Termin: 05.02.2025 9:00- 16:00 Uhr (Seminarraum Nr. 313, bei uns am Institut).



EU Digital Regulatory Framework

2400184, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

This class aims to provide an overview on the legal instruments forming the EU digital regulatory framework. Following its Digital Single Market Strategy, the EU has set up a new strategic programme for a "Digital Decade". Existing regulations like the General Data Protection Regulation (GDPR), or the E-Commerce Directive, are being complemented by a variety of new instruments that aim to set binding rules on online markets, to regulate data flows in various ways, but also to pioneer a legal framework on AI. Prominent instruments include the new AI Act, the Digital Services Act (DSA) and Digital Markets Act (DMA), the Data Act, Data Governance Act, or Open Data Directive.

The class will provide an overview on the existing framework: Which regulations and directives are relevant? How do they apply and interact with each other in a broader context?

Another objective is to provide students with the ability to read these legal instruments: How to access regulatory instruments that often have more than 100 pages (without having to read every single sentence)? How to gain a comprehensive, high-level understanding of the instrument? How to identify parts relevant to a particular legal problem?

The class will start with an introduction into EU law and regulatory instruments in general. Concrete guidance on reading, analysing and working with legal instruments in English will be given. Based on these instructions, students will be assigned legal instruments to present in the final unit along with a two-pages report.

Grades will be assigned based on the quality of these presentations and the report, as well as participation in the discussion (presentation: 40 %, two-pages report: 40 %, discussion: 20 %).

Organizational issues

WS 2024/25

Hierbei handelt es sich NICHT um eine Pro-Seminar, sondern um ein Seminar (aus Rechtswissenschaften).

Anmeldungen für das Seminar bitte NUR! über das WiWi-Portal!

*Für die Prüfung bitte NUR über CAS (Campus-Portal) anmelden!

*Erläuterung: nach der für die Teilnahme am Seminar verbindlichen Teilnahme an der Einführungsveranstaltung bitte Anmeldung über das Campus-System (notwendig für die Erfassung der Note der Seminararbeit).



EU Fundamental Rights and EU Economic Law in Smart Cities

2400203, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

This seminar is designed to instruct students in recognising legal questions as they relate to an interdisciplinary topic, classifying such questions along the hierarchy of norms, and solving them in a convincing argumentative manner. By focusing on „EU Fundamental Rights and EU Economic Law in Smart Cities“, we will discuss the influence of large cities and metropolises on their more rural periphery. Possible aspects of discussion are, inter alia,

- democratic legitimacy questions in such cases,
- elements of structural support/aid
- approaches to implement technical innovations in smart cities,
- questions relating to the development of (large) infrastructures,
- aspects of the efficient use of infrastructure, and
- environmental aspects.

Particularly in times of increasingly comprehensive European regulation, European standards and regulatory approaches will be at the heart of the discussion while not neglecting their interplay with national regulation. Learning in more depth about the interplay of European and national regulation will further accustom participating students to discuss relevant legal questions across (legal) sectors and with a broader view on regulations' effects.

Conducting the seminar in English intends to facilitate students to link their ideas and arguments to current European and international debates.

Organizational issues

This is a seminar (not a pro-seminar).

Registrations only via Wiwi-Portal.

Kick-off-meeting WS 2025/26:

Friday, 7th November 2025, 14:00 - 18:00 h (online)

(Mr. Kasper-Schöniger will send you the according link via ILIAS a few days before the kick-off date.)

Presentations:

- Friday, 6th February 2026, 09:00 - 18:00 h

and

- Saturday, 7th February 2026, 10:00 - 16:00

Place: see section "TERMINE" (below).



Regulating AI: from ethics to law

2400171, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

**Seminar (S)
On-Site**

Content

This seminar will provide an overview of technology regulation, with a particular focus on the regulation of AI systems. Following an introduction to the different forms of regulation, students will explore the various regulatory instruments in light of the key principles of AI, such as

- fairness / non-discrimination,
- transparency / explainability,
- non-maleficence,
- privacy / data protection,
- sustainability
- security / safety, and
- accountability.

This will enable them to discuss how these principles and rules can be applied in real-world scenarios.

Organizational issues

Please register for the seminar ONLY via the WiWi-Portal!

Please register for the exam ONLY via CAS (Campus-Portal)!*

*Explanation After attending the introductory event, which is mandatory for participation in the seminar, please register via the campus system (necessary for recording the grade of the seminar paper).

Block Seminar in Summer term 2026:

- **Wednesday, 22th April 2026, 09:00 - 13:00 h;**
- **Wednesday, 22th July 2026, 09:00 - 13:00 h.**

Room: each seminar takes place in room no. 313 (building 07.08) .

**Designing Data Governance of Digital Systems**2400177, SS 2026, 2 SWS, Language: English, [Open in study portal](#)**Seminar (S)**
On-Site**Content**

The latest regulations in the digital sector at EU level represent a highly topical and important regulatory instrument with enormous practical relevance for students of computer science and business informatics. The seminar not only enables students to acquire important knowledge in this area, but also to apply it specifically to the governance of digital systems and to learn the practical design of digital systems against the background of legal framework conditions.

Organizational issues

***Please register for the exam ONLY via CAS (Campus-Portal)!**

***Explanation:** after attending the introductory event, which is mandatory for participation in the seminar, **please register via the campus system** (necessary for recording the grade of the seminar paper).

Due to the minimum number of text characters that can be used, please check ILIAS and the WiWi portal for details such as dates and location. Thank you.

T

6.124 Module component: Seminar: Legal Studies I [T-INFO-101997]**Coordinators:** N.N.**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-106424 - Legal Aspects of Digitalization](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each term**Version**
1

Courses					
WT 25/26	2400014	Current Issues in Patent Law	2 SWS	Seminar / 	Melullis
WT 25/26	2400060	Data in Software-Intensive Technical Systems – Modeling – Analysis – Protection	2 SWS	Seminar / 	Reussner, Raabe, Werner, Müller-Quade
WT 25/26	2400177	Human vs. Machine: (Un-)Biased Legal Decision-Making?	2 SWS	Seminar / 	Holzhausen
WT 25/26	2400184	EU Digital Regulatory Framework	2 SWS	Seminar / 	Zufall
WT 25/26	2400203	EU Fundamental Rights and EU Economic Law in Smart Cities	2 SWS	Seminar / 	Kasper-Schöniger
WT 25/26	2513214	Seminar Information security and Data protection (Bachelor)	2 SWS	Seminar / 	Volkamer, Raabe, Schiefer, Werner
ST 2026	2400078	Intelligente Chatbots und Recht	2 SWS	Seminar / 	Raabe
ST 2026	2400177	Designing Data Governance of Digital Systems	2 SWS	Seminar / 	Pathak
Exams					
WT 25/26	7500035	Seminar: Legal Studies II			Zufall
WT 25/26	7500182	Seminar: Legal Studies II			Boehm, Raabe, Melullis
WT 25/26	7500232	Seminar Data in Software-Intensive Technical Systems – Modeling – Analysis – Protection			Reussner
WT 25/26	7500249	Seminar: IT- Security Law			Zufall
WT 25/26	7500298	Seminar: Law and Legal Studies			Zufall
WT 25/26	7500311	Seminar: Legal Studies I			Zufall

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Below you will find excerpts from courses related to this module component:

V

Human vs. Machine: (Un-)Biased Legal Decision-Making?2400177, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)**Seminar (S)**
On-Site

Content

This seminar provides an overview of the foundational principles of behavioral economics and their relevance to public law. Special attention is given to (biased) decision-making, both from a substantive and procedural perspective. Students will explore how regulation should be designed to account for cognitive biases and achieve intended policy outcomes. In addition, the seminar will address the role of automated decision-making systems - examining how such systems are influenced by, and may also reinforce or mitigate, behavioral biases.

The seminar will cover the following topics:

- Introduction to (behavioral) economic theory and its application to law
- Cognitive biases and their impact on (public) decision-making
- Different types of regulation in light of behavioral insights
- Implications for automated decision-making systems
- The role of human biases in the AI Act

Algorithmic decision-making is often treated as a black box—something that should not be permitted to make decisions in legal contexts. In response, Article 14 of the EU AI Act requires high-risk AI systems to be designed in such a way that they can be effectively overseen by natural persons. This human-in-the-loop requirement stems, among other things, from the perception that AI systems operate ambiguously and produce decisions that are not fully comprehensible.

However, treating humans in comparison as fundamentally transparent or fully rational decision-makers is equally naïve. Understanding how people actually behave—not just how they should behave—is essential for designing effective, fair, and legitimate legal systems. Traditional legal research often assumes rational actors, yet behavioral research shows that cognitive biases, heuristics, and emotional influences shape the decisions of both citizens and public officials.

This seminar addresses that gap by equipping students with behavioral insights to critically assess and improve legal and administrative. A particular focus is placed on how human biases are already embedded in the data underlying automated decision-making systems, potentially reproducing or amplifying unfairness. At the same time, students will explore how such systems can be intentionally designed to mitigate behavioral distortions and support better decision-making.

Organizational issues

1. Termin: 13.11.2025 9:00-15:00 Uhr (Seminarraum Nr. 313, bei uns am Institut)

2. Termin: 05.02.2025 9:00- 16:00 Uhr (Seminarraum Nr. 313, bei uns am Institut).



EU Digital Regulatory Framework

2400184, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

This class aims to provide an overview on the legal instruments forming the EU digital regulatory framework. Following its Digital Single Market Strategy, the EU has set up a new strategic programme for a "Digital Decade". Existing regulations like the General Data Protection Regulation (GDPR), or the E-Commerce Directive, are being complemented by a variety of new instruments that aim to set binding rules on online markets, to regulate data flows in various ways, but also to pioneer a legal framework on AI. Prominent instruments include the new AI Act, the Digital Services Act (DSA) and Digital Markets Act (DMA), the Data Act, Data Governance Act, or Open Data Directive.

The class will provide an overview on the existing framework: Which regulations and directives are relevant? How do they apply and interact with each other in a broader context?

Another objective is to provide students with the ability to read these legal instruments: How to access regulatory instruments that often have more than 100 pages (without having to read every single sentence)? How to gain a comprehensive, high-level understanding of the instrument? How to identify parts relevant to a particular legal problem?

The class will start with an introduction into EU law and regulatory instruments in general. Concrete guidance on reading, analysing and working with legal instruments in English will be given. Based on these instructions, students will be assigned legal instruments to present in the final unit along with a two-pages report.

Grades will be assigned based on the quality of these presentations and the report, as well as participation in the discussion (presentation: 40 %, two-pages report: 40 %, discussion: 20 %).

Organizational issues

WS 2024/25

Hierbei handelt es sich NICHT um eine Pro-Seminar, sondern um ein Seminar (aus Rechtswissenschaften).

Anmeldungen für das Seminar bitte NUR! über das WiWi-Portal!

*Für die Prüfung bitte NUR über CAS (Campus-Portal) anmelden!

*Erläuterung: nach der für die Teilnahme am Seminar verbindlichen Teilnahme an der Einführungsveranstaltung bitte Anmeldung über das Campus-System (notwendig für die Erfassung der Note der Seminararbeit).



EU Fundamental Rights and EU Economic Law in Smart Cities

2400203, WS 25/26, 2 SWS, Language: English, [Open in study portal](#)

Seminar (S)
On-Site

Content

This seminar is designed to instruct students in recognising legal questions as they relate to an interdisciplinary topic, classifying such questions along the hierarchy of norms, and solving them in a convincing argumentative manner. By focusing on „EU Fundamental Rights and EU Economic Law in Smart Cities“, we will discuss the influence of large cities and metropolises on their more rural periphery. Possible aspects of discussion are, inter alia,

- democratic legitimacy questions in such cases,
- elements of structural support/aid
- approaches to implement technical innovations in smart cities,
- questions relating to the development of (large) infrastructures,
- aspects of the efficient use of infrastructure, and
- environmental aspects.

Particularly in times of increasingly comprehensive European regulation, European standards and regulatory approaches will be at the heart of the discussion while not neglecting their interplay with national regulation. Learning in more depth about the interplay of European and national regulation will further accustom participating students to discuss relevant legal questions across (legal) sectors and with a broader view on regulations' effects.

Conducting the seminar in English intends to facilitate students to link their ideas and arguments to current European and international debates.

Organizational issues

This is a seminar (not a pro-seminar).

Registrations only via Wiwi-Portal.

Kick-off-meeting WS 2025/26:

Friday, 7th November 2025, 14:00 - 18:00 h (online)

(Mr. Kasper-Schöniger will send you the according link via ILIAS a few days before the kick-off date.)

Presentations:

- Friday, 6th February 2026, 09:00 - 18:00 h

and

- Saturday, 7th February 2026, 10:00 - 16:00

Place: see section "TERMINE" (below).



Designing Data Governance of Digital Systems

2400177, SS 2026, 2 SWS, Language: English, [Open in study portal](#)

**Seminar (S)
On-Site**

Content

The latest regulations in the digital sector at EU level represent a highly topical and important regulatory instrument with enormous practical relevance for students of computer science and business informatics. The seminar not only enables students to acquire important knowledge in this area, but also to apply it specifically to the governance of digital systems and to learn the practical design of digital systems against the background of legal framework conditions.

Organizational issues

***Please register for the exam ONLY via CAS (Campus-Portal)!**

***Explanation:** after attending the introductory event, which is mandatory for participation in the seminar, please register via the campus system (necessary for recording the grade of the seminar paper).

Due to the minimum number of text characters that can be used, please check ILIAS and the WiWi portal for details such as dates and location. Thank you.

T

6.125 Module component: SIL-LaunchLab [T-WIWI-114635]

Coordinators: Prof. Dr. Orestis Terzidis

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-107451 - Entrepreneurial Thinking and Action: Fundamentals of Entrepreneurship](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	9 CP	Graded	Each summer term	1

Courses					
ST 2026	2545022	SIL - LaunchLab	6 SWS	Seminar / 	Böhrer, Terzidis
Exams					
ST 2026	7900331	SIL-LaunchLab	Terzidis		

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment is conducted as an alternative exam assessment. The specific form of assessment depends on the course and may include, for example, the following components:

- Project Report or Reflection Paper
- Mid-term and Final Presentation
- Group Work with Individual Contribution
- Active Participation and Mandatory Attendance

The overall grade is determined by the weighted evaluation of these individual assessment components. The detailed weighting of these components for grade calculation will be communicated to students at the beginning of the course.

Prerequisites

None

Recommendations

An interest in entrepreneurial thinking and action, teamwork, and interdisciplinary project work is recommended. Basic knowledge in business administration and/or innovation methods is helpful but not required.

Workload

270 hours

Below you will find excerpts from courses related to this module component:

V

SIL - LaunchLab

2545022, SS 2026, 6 SWS, [Open in study portal](#)

Seminar (S)
On-Site

Content**Course content:**

In the SIL LaunchLab, you will work in interdisciplinary teams on real innovation projects from the Student Innovation Lab (SIL) at KIT. As part of the seminar, you will take on the role of a project mentor and support an existing SIL team in further developing its start-up idea. This can include tasks such as market analysis, business model development, or pitch preparation, and will be defined individually at the start of the seminar. Through this, you gain direct insights into technology-based start-up projects at KIT and apply entrepreneurial methods to real start-up cases.

Learning Objectives:

After completing the course, participants will be able to:

- Analyze and support real start-up projects in a structured way
- Conduct market and user analyses
- Evaluate and further develop a business model using the Business Model Canvas tool
- Assist teams in preparing for investor and customer pitches
- Develop a basic understanding of technology-driven spin-offs

Seminar Information:

Participation is only possible during the summer semester. The seminar is aimed at bachelor students from the 4th semester onwards from all disciplines. Places are limited. Registration takes place via the WiWi portal and, after admission, via CAS for the corresponding examination.

T

6.126 Module component: Social Science A (WiWi) [T-GEISTSOZ-109048]**Coordinators:** Prof. Dr. Gerd Nollmann**Organisation:** KIT Department of Humanities and Social Sciences**Part of:** [M-GEISTSOZ-101167 - Sociology/Empirical Social Research](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	5011011	Artificial intelligence in the research process	2 SWS	Seminar /	Banisch
WT 25/26	5011014	Advanced module: Technology and Future: Theories of prospective knowledge	2 SWS	Seminar /	Lösch
ST 2026	5000048	Socio-scientific Theories of Technology Assessment	2 SWS	Proseminar /	Lösch
ST 2026	5011013	Digital democracy: worries, opportunities, and challenges	2 SWS	Seminar /	Mäs
ST 2026	5011019	How to control algorithms?	2 SWS	Seminar /	Mäs
Exams					
WT 25/26	7400041	Social Science A (WiWi)			Nollmann, Lösch

Legend: Online, Blended (On-Site/Online), On-Site, Cancelled

Below you will find excerpts from courses related to this module component:

V

Artificial intelligence in the research process5011011, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Seminar (S)**
Blended (On-Site/Online)**Content**

ChatGPT und andere Large Language Models (LLMs) transformieren unsere Gesellschaft auf vielen Ebenen. Auch Studium und Wissenschaft stehen vor tiefgreifenden Veränderungen. Im Seminar „Künstliche Intelligenz im Forschungsprozess“ nähern wir uns diesen neuen Technologien und erproben, wie sie sinnvoll eingesetzt werden können, um aktuelle Forschungsfragen zu adressieren. Wir orientieren uns dabei an den Methoden und Fragestellungen der Computer-gestützten Sozialwissenschaft (Computational Social Science) mit besonderem Fokus auf die Extraktion komplexer Bedeutungsmuster (z.B. Meinungen, Argumente, Narrative, etc.). Das Seminar ist als Blockseminar mit zwei Blöcken konzipiert (voraussichtlich Januar and März). Gemeinsam erarbeiten wir Themen für Miniprojekte, die zwischen den beiden Blöcken von den Studierenden bearbeitet werden. Im Vorfeld wird es eine online-Sitzung geben.

Organizational issues

Diese Veranstaltung wird als Blockseminar angeboten.

NEUE TERMINE:

Di: 03.03.2026 09.00 - 17.00

Mi: 18.03.2026 09.00 - 17.00

DO: 19.03.2026 09.00 - 17.00

T**6.127 Module component: Social Science B (WiWi) [T-GEISTSOZ-109049]****Coordinators:** Prof. Dr. Gerd Nollmann**Organisation:** KIT Department of Humanities and Social Sciences**Part of:** [M-GEISTSOZ-101167 - Sociology/Empirical Social Research](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each winter term**Version**
1

Courses					
WT 25/26	5011011	Artificial intelligence in the research process	2 SWS	Seminar / 	Banisch
WT 25/26	5011014	Advanced module: Technology and Future: Theories of prospective knowledge	2 SWS	Seminar / 	Lösch
ST 2026	5000048	Socio-scientific Theories of Technology Assessment	2 SWS	Proseminar / 	Lösch
Exams					
WT 25/26	7400046	Social Science B (WiWi)			Nollmann, Lösch

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Below you will find excerpts from courses related to this module component:

V**Artificial intelligence in the research process**5011011, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Seminar (S)**
Blended (On-Site/Online)**Content**

ChatGPT und andere Large Language Models (LLMs) transformieren unsere Gesellschaft auf vielen Ebenen. Auch Studium und Wissenschaft stehen vor tiefgreifenden Veränderungen. Im Seminar „Künstliche Intelligenz im Forschungsprozess“ nähern wir uns diesen neuen Technologien und erproben, wie sie sinnvoll eingesetzt werden können, um aktuelle Forschungsfragen zu adressieren. Wir orientieren uns dabei an den Methoden und Fragestellungen der Computer-gestützten Sozialwissenschaft (Computational Social Science) mit besonderem Fokus auf die Extraktion komplexer Bedeutungsmuster (z.B. Meinungen, Argumente, Narrative, etc.). Das Seminar ist als Blockseminar mit zwei Blöcken konzipiert (voraussichtlich Januar and März). Gemeinsam erarbeiten wir Themen für Miniprojekte, die zwischen den beiden Blöcken von den Studierenden bearbeitet werden. Im Vorfeld wird es eine online-Sitzung geben.

Organizational issues

Diese Veranstaltung wird als Blockseminar angeboten.

NEUE TERMINE:

Di: 03.03.2026 09.00 - 17.00

Mi: 18.03.2026 09.00 - 17.00

DO: 19.03.2026 09.00 - 17.00

T

6.128 Module component: Special Topics in Information Systems [T-WIWI-109940]

Coordinators: Prof. Dr. Christof Weinhardt
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101434 - eBusiness and Service Management](#)

Type	Credits	Grading	Term offered	Version
Examination of another type	4,5 CP	graded	Each term	2

Assessment

The assessment of this course is in form of a written documentation, a presentation of the outcome of the conducted practical components and an active participation in class.

Please take into account that, beside the written documentation, also a practical component (such as a survey or an implementation of an application) is part of the course. Please examine the course description for the particular tasks.

The overall grade is composed as follows:

A total of 60 points can be achieved, of which

- A maximum of 30 points for the written documentation
- A maximum of 30 points for the practical component

In order to pass the success control, at least 15 points (written documentation / practical component) must be achieved.

Prerequisites

see below

Recommendations

None

Additional Information

All the practical seminars offered at the chair of Prof. Dr. Weinhardt can be chosen in the Special Topics in Information Systems course. The current topics of the practical seminars are available at the following homepage: www.iism.kit.edu/im/lehre.

The Special Topics Information Systems is equivalent to the practical seminar, as it was only offered for the major in "Information Systems" so far. With this course students majoring in "Industrial Engineering and Management" and "Economics Engineering" also have the chance of getting practical experience and enhance their scientific capabilities.

The Special Topics Information Systems can be chosen instead of a regular lecture (see module description). Please take into account, that this course can only be accounted once per module.

T

6.129 Module component: Statistical Modeling of Generalized Regression Models [T-WIWI-103065]

Coordinators: apl. Prof. Dr. Wolf-Dieter Heller
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101420 - Econometrics and Economics](#)
[M-WIWI-101608 - Statistics and Econometrics](#)
[M-WIWI-105414 - Statistics and Econometrics II](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2521350	Statistical Modeling of Generalized Regression Models	2 SWS	Lecture	Heller
Exams					
WT 25/26	7900011	Statistical Modeling of Generalized Regression Models			Heller
WT 25/26	7900146 (WS23/24)	Statistical Modeling of generalized regression models			Heller

Assessment

The assessment of this course is a written examination (60 min) according to §4(2), 1 of the examination regulation.

Prerequisites

None

Recommendations

Knowledge of the contents covered by the course "Economics III: Introduction in Econometrics" [2520016]

Below you will find excerpts from courses related to this module component:

V

Statistical Modeling of Generalized Regression Models

2521350, WS 25/26, 2 SWS, [Open in study portal](#)

Lecture (V)

Content**Learning objectives:**

The student has profound knowledge of generalized regression models.

Requirements:

Knowledge of the contents covered by the course *Economics III: Introduction in Econometrics* [2520016].

Workload:

Total workload for 4.5 CP: approx. 135 hours

Attendance: 30 hours

Preparation and follow-up: 65 hours

T

6.130 Module component: Statistics I [T-WIWI-102737]

Coordinators: Prof. Dr. Oliver Grothe
Prof. Dr. Melanie Schienle

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101432 - Introduction to Statistics](#)
[M-WIWI-106421 - Preliminary Exam](#)

Type	Credits	Grading	Term offered	Version
Written examination	5 CP	graded	Each summer term	1

Courses					
ST 2026	2600008	Statistics I	4 SWS	Lecture / 	Grothe
Exams					
WT 25/26	7900022	Statistics I			Krüger
ST 2026	7900104	Statistics I			Grothe

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of a written examination (120 minutes). The examination is offered towards the end of the lecture period or at the beginning of the lecture-free period. The repeat examination is offered in the following semester.

Bonus: It is planned that, from the summer semester 2025, a grade bonus for the Statistics I exam can be earned through successful participation in the tutorials. If the grade of the written exam is between 4.0 and 1.3, the bonus will generally improve the grade by one grade level (0.3 or 0.4). The exact criteria for awarding a bonus will be announced at the beginning of the lecture.

Prerequisites

None

Below you will find excerpts from courses related to this module component:

V

Statistics I

2600008, SS 2026, 4 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content**Learning objectives:**

Students understand and apply

- basic concepts of statistical data exploration as well as
- basic definitions and theorems of probability theory.

Content:

A. Descriptive Statistics: univariate und bivariate analysis

B. Probability Theory: probability space, conditional and product probabilities

C. Random variables: location and shape parameters, dependency measures, concrete distribution models

Workload:

Total workload for 5 CP: approx. 150 hours

Attendance: 60 hours

Preparation and follow-up: 90 hours

Literature

Skript: Kurzfassung Statistik I. Dieses enthält ausführliche Angaben zu weiterführender Literatur.

T

6.131 Module component: Statistics II [T-WIWI-102738]

Coordinators: Prof. Dr. Oliver Grothe
Prof. Dr. Melanie Schienle

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101432 - Introduction to Statistics](#)

Type
Written examination

Credits
5 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2610020	Statistics II	4 SWS	Lecture / 	Krüger
WT 25/26	2610021		2 SWS	Tutorial	Krüger, Becker, Koster
WT 25/26	2610022	PC-Praktikum zu Statistik II	2 SWS		Krüger, Koster
Exams					
WT 25/26	7900001	Statistics II			Krüger
ST 2026	7900082	Statistics II			Krüger

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Success is assessed in the form of a written examination (120 minutes). The examination is offered towards the end of the lecture period or at the beginning of the lecture-free period. The repeat examination is offered in the following semester.

Bonus: It is planned that from the winter semester 2025/2026, a grade bonus for the Statistics II exam can be earned through successful participation in the tutorials. If the grade of the written examination is between 4.0 and 1.3, the bonus will generally improve the grade by one grade level (0.3 or 0.4). The exact criteria for awarding a bonus will be announced at the beginning of the lecture.

Prerequisites

None

Recommendations

It is recommended to attend the course *Statistics I* [2600008] before the course *Statistics II* [2610020].

Below you will find excerpts from courses related to this module component:

V

Statistics II

2610020, WS 25/26, 4 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content**Learning objectives:**

The student

- understands and applies the basic definitions and theorems of probability theory,
- transfers these theoretical foundations to problems in parametric mathematical statistics.

Content:

D. Sampling and estimation theory: Sampling distributions, estimators, point and interval estimation

E. Test theory: General principles of hypothesis testing, specific 1- and 2-sample tests

F. Regression analysis: Simple and multiple linear regression, statistical inference

Requirements:

It is recommended to attend the course *Statistics I* [2600008] before the course *Statistics II* [2600020].

Workload:

Total workload: 150 hours (5.0 Credits).

Attendance: 60 hours

Preparation and follow-up: 90 hours

Literature

Skript: Kurzfassung Statistik II. Dieses enthält ausführliche Angaben zu weiterführender Literatur.

T

6.132 Module component: Strategic Management [T-WIWI-113090]**Coordinators:** Prof. Dr. Hagen Lindstädt**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-101425 - Strategy and Organization](#)**Type**
Written examination**Credits**
4,5 CP**Grading**
graded**Term offered**
Each summer term**Version**
2

Exams			
WT 25/26	7900199	Strategic Management	Lindstädt
ST 2026	7900067	Strategic Management	Lindstädt

Assessment

The assessment consists of a written exam (60 min) taking place at the beginn of the recess period (according to §4 (2), 1 of the examination regulation). The exam takes place in every semester. Re-examinations are offered at every ordinary examination date.

Prerequisites

None

Workload

135 hours

T

6.133 Module component: Student2Startup [T-WIWI-114636]

Coordinators: Prof. Dr. Orestis Terzidis

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-107451 - Entrepreneurial Thinking and Action: Fundamentals of Entrepreneurship](#)

Type
Examination of another type

Credits
4,5 CP

Grading
graded

Term offered
Each winter term

Version
1

Courses					
WT 25/26	2500165	Student2Startup	3 SWS	Seminar / 	Böhrer, Terzidis
ST 2026	2500165	Student2Startup (Edition HAFIS)	3 SWS	Seminar / 	Terzidis, Böhrer
Exams					
WT 25/26	7900309	Student2Startup			Terzidis
ST 2026	7900058	Student2Startup			Terzidis

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment is conducted as an alternative exam assessment. The specific form of assessment depends on the course and may include, for example, the following components:

- Project Report or Reflection Paper
- Mid-term and Final Presentation
- Group Work with Individual Contribution
- Active Participation and Mandatory Attendance

The overall grade is determined by the weighted evaluation of these individual assessment components. The detailed weighting of these components for grade calculation will be communicated to students at the beginning of the course.

Prerequisites

None

Recommendations

An interest in entrepreneurial thinking and action, teamwork, and interdisciplinary project work is recommended. Basic knowledge in business administration and/or innovation methods is helpful but not required.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Student2Startup

2500165, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Seminar (S)
Blended (On-Site/Online)

Content**Content:**

This seminar offers a unique opportunity to engage in entrepreneurial tasks within real pre-seed start-up projects at KIT. The start-ups define specific challenges, and student teams will develop solutions and recommendations in response.

At the kick-off event, students will select a team challenge to work on. We will introduce a toolbox of methods and resources, after which you will work independently in teams, collaborating directly with the start-up. But you won't be on your own: each team will be supported by a mentor, and we will hold regular seminar sessions for feedback and guidance. At the end of the seminar, each team will present their results in a final pitch.

Learning Objectives:

After completing this course, the course participants will be able to

- Understand and apply fundamental concepts of entrepreneurship, such as business modelling, lean start-up methodologies, and market analysis.
- Work effectively in a team, organize the division of labor into distinct tasks, and coordinate efforts to achieve a common goal—gaining practical experience in project management.
- Recognize the specific challenges faced by start-up projects and acquire hands-on start-up experience.
- Collaborate with real start-up teams, industry experts, and potential users to develop solutions to a defined challenge.
- Present their solutions and results to start-ups and industry experts.

Exam:

Team presentation at the final event, detailed presentation appendix with background information, and active participation in all sessions

Target group:

Bachelor students

Organizational issues

Registration is via the Wiwi-Portal.

In the seminar, you will work on a project in teams of max five people. The groups are formed in the seminar.

**Student2Startup (Edition HAFIS)**

2500165, SS 2026, 3 SWS, Language: English, [Open in study portal](#)

Seminar (S)
Blended (On-Site/Online)

Content**Content:**

This seminar is a perfect complement to the *Entrepreneurship Basics* seminar. While you develop your own ideas in *Entrepreneurship Basics* within a protected environment, you will work on real entrepreneurial projects in this seminar. HAFIS teams at KIT consist of researchers who aim to maximize the impact of their research on society and the economy. This seminar offers a unique opportunity to engage with them by solving entrepreneurial and economic challenges within real KIT projects and by recommending suitable entrepreneurial activities:

The HAFIS teams define specific challenges, and student teams will develop solutions and recommendations in response. At the kick-off event, students will select a team challenge to work on. We will discuss and refine the necessary methods and activities (some of which are already covered in *Entrepreneurship Basics*), after which you will work independently in teams, collaborating directly with the HAFIS contact. However, you will not be on your own: each team will be supported by the lecturer through regular seminar sessions that provide feedback and guidance. At the end of the seminar, each team will present its results in a final pitch. To prepare for this, you will train your presentation skills through pitch training, a midterm pitch, and a dry run.

Learning Objectives:

After completing this course, the course participants will be able to

- Apply fundamental concepts of entrepreneurship, such as business modelling, lean start-up methodologies, and market analysis.
- Work effectively in a team, organize the division of labor into distinct tasks, and coordinate efforts to achieve a common goal, gaining practical experience in project management.
- Recognize the specific challenges faced by start-up projects and acquire hands-on start-up experience.
- Collaborate with real KIT projects and potential users to develop solutions to a defined challenge.
- Present solutions and recommendations.

Target group:

Bachelor students

In the seminar, you will work individually on your challenge in teams of up to five people. The groups will be formed at the seminar kick-off.

Teaching language: expected to be English.

Exam:

The team Pitch & Q&A session will be your main examination performance. Additionally, in written, you will document your Pitch and make a short team and personal reflection (till 25.07.2026).

Attendance at Kick-off and at the pitches is mandatory; one other seminar session may be missed for important reasons.

Dates and Topics:

Wednesday, 29.04.2026, 10:00 – 13:00 (K26) - Kick-off: Team Forming, All participants

Tuesday, 05.05.2026, 09:00 – 13:00: PM+Knowledge, All

Tuesday, 12.05.2026, 09:00 – 13:00: Feedback Session, 90 min, individual

Tuesday, 19.05.2026, 09:00 – 13:00: Pitch Training, All

Wednesday, 10.06.2026, 10:00 – 13:00 (K26): Midterm Pitch, All

Tuesday, 16.06.2026, 09:00 – 13:00: Feedback Session, 90 min, individual

Tuesday, 23.06.2026, 09:00 – 13:00: Feedback Session, 90 min, individual

Tuesday, 30.06.2026, 09:00 – 13:00: Feedback Session, 90 min, individual

Tuesday, 07.07.2026, 09:00 – 13:00: Dry Run, 90 min, individual

Wednesday, 15.07.2026, 9:00 – 13:00 (K26): Pitch & Q&A, All

Location (unless otherwise specified):

Bld. 06.35 Westhochschule - Bau 35 R 219, Hertzstraße 16

Module:

For wiwi students, the course is credited within the module '*Entrepreneurial Thinking and Action: Fundamentals of Entrepreneurship*' (M-WIWI-107451) with 4,5 ECTS.

You can complete the module by participating in our seminar Entrepreneurship Basics (4,5 ECTS, LV 2545010).

Organizational issues

Registration is via the Wiwi-Portal.

In the seminar, you will work on a project in teams of max five people. The groups are formed in the seminar.

Attention:

The dates are the following:

- Wed, 29.04.26 Kick-Off (10:00-13:00, K26) Team Forming (all)
- Tue, 05.05.26 Session 1 (09:30-13:00) PM+Knowledge (all)
- Tue, 12.05.26 Session 2 (09:30-13:00) Feedback Session (90 minutes, individual)
- Tue, 19.05.26 Session 3 (09:30-13:00) Pitch Training (all)
- Wed, 10.06.26 Session 4 (10:00-13:00, K26) Midterm Pitch (all)
- Tue, 16.06.26 Session 5 (09:30-13:00) Feedback Session (90 minutes, individual)
- Tue, 23.06.26 Session 6 (09:30-13:00) Feedback Session (90 minutes, individual)
- Tue, 30.06.26 Session 7 (09:30-13:00) Feedback Session (90 minutes, individual)
- Tue, 07.07.26 Session 8 (09:30-13:00) Dry Run (90 minutes, individual)
- Wed, 15.07.26 Final Pitch (09:00-13:00) Pitch & Q&A (all)

T**6.134 Module component: Supplement Applied Informatics [T-WIWI-110711]**

Coordinators: Professorenschaft des Instituts AIFB
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-106906 - Electives in Informatics](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	Each term	1

Assessment

The assessment of this course is a written or (if necessary) oral examination.

Depending on the particular course associated with this placeholder a bonus on the examination grade is possible.

Prerequisites

None

Additional Information

This course can be used in particular for the acceptance of external courses whose content is in the broader area of applied informatics, but is not equivalent to another course of this topic.

Workload

135 hours

T

6.135 Module component: Sustainability in E-Business [T-WIWI-114596]

Coordinators: Pascal Heßler
Prof. Dr. Jella Pfeiffer

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-101434 - eBusiness and Service Management](#)
[M-WIWI-105981 - Information Systems & Digital Business](#)

Type	Credits	Grading	Term offered	Version
Written examination	4,5 CP	graded	Each winter term	2

Courses					
WT 25/26	2540470	Sustainability in E-Business	3 SWS	Lecture / Practice / 	Pfeiffer, Heßler, Schlaich
Exams					
WT 25/26	7900062	Sustainability in E-Business			Pfeiffer
ST 2026	7900024	Sustainability in E-Business (Nachklausur)			Pfeiffer

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

The assessment consists of a written exam (60 min.) according to § 4 paragraph 2 Nr. 1 of the examination regulation.

Prerequisites

None.

Additional Information

This lecture is in English.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Sustainability in E-Business

2540470, WS 25/26, 3 SWS, Language: English, [Open in study portal](#)

Lecture / Practice (VÜ)
On-Site

Content

This module explores the intersection of e-business and sustainability, emphasizing sustainable practices, circular economy, revenue models, marketing strategies, and emerging trends. The modul also includes the Value-Based Engineering (VBE), a well-being-driven approach to IT. VBE integrates ethical considerations into system design from the earliest stages of business mission definition. Students will gain a comprehensive understanding of how e-business adapts to and influences the drive for sustainable development.

The lecture is accompanied by a bi-weekly tutorial.

T

6.136 Module component: Tactical and Operational Supply Chain Management [T-WIWI-102714]

Coordinators: Prof. Dr. Stefan Nickel
Organisation: KIT Department of Business and Economics
Part of: M-WIWI-101413 - Applications of Operations Research
M-WIWI-101421 - Supply Chain Management
M-WIWI-103278 - Optimization under Uncertainty

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
Each summer term

Version
3

Courses					
ST 2026	2550486	Tactical and operational SCM	3 SWS	Lecture / 🗎	Nickel
ST 2026	2550487	Übungen zu Taktisches und operatives SCM	1.5 SWS	Practice / 🗎	Pomes, Hoffmann
Exams					
WT 25/26	7900094	Tactical and Operational Supply Chain Management			Nickel
ST 2026	7900239	Tactical and Operational Supply Chain Management			Nickel

Legend: 🗎 Online, 🗎 Blended (On-Site/Online), 🗎 On-Site, ✕ Cancelled

Assessment

Success is assessed in the form of a written examination (60 minutes). The examination is offered every semester and can be repeated at any regular examination date.

Successful participation in the online exercises is a prerequisite for admission to the written exam.

Prerequisites

Prerequisite for admission to examination is the successful completion of the online assessments.

Recommendations

None

Additional Information

The lecture is held in every summer term. The planned lectures and courses for the next three years are announced online at <https://dol.ior.kit.edu/Lehrveranstaltungen.php>.

Workload

135 hours

Below you will find excerpts from courses related to this module component:

V

Tactical and operational SCM

2550486, SS 2026, 3 SWS, Language: German, [Open in study portal](#)

Lecture (V)
On-Site

Content

The planning of material transport is an essential element of Supply Chain Management. By linking transport connections across different facilities, the material source (production plant) is connected with the material sink (customer). The general supply task can be formulated as follows (cf. Gudehus): For given material flows or shipments, choose the optimal (in terms of minimal costs) distribution and transportation chain from the set of possible logistics chains, which asserts the compliance of delivery times and further constraints. The main goal of the inventory management is the optimal determination of order quantities in terms of minimization of fixed and variable costs subject to resource constraints, supply availability and service level requirements. Similarly, the problem of lot sizing in production considers the determination of the optimal amount of products to be produced in a time slot. The course includes an introduction to basic terms and definitions of Supply Chain Management and a presentation of fundamental quantitative planning models for distribution, vehicle routing, inventory management and lot sizing. Furthermore, case studies from practice will be discussed in detail.

Passing the online exercise is a prerequisite for admission to the exam.

Literature**Weiterführende Literatur**

- Domschke: Logistik: Transporte, 5. Auflage, Oldenbourg, 2005
- Domschke: Logistik: Rundreisen und Touren, 4. Auflage, Oldenbourg, 1997
- Ghiani, Laporte, Musmanno: Introduction to Logistics Systems Planning and Control, Wiley, 2004
- Gudehus: Logistik, 3. Auflage, Springer, 2005
- Simchi-Levi, Kaminsky, Simchi-Levi: Designing and Managing the Supply Chain, 3rd edition, McGraw-Hill, 2008
- Silver, Pyke, Peterson: Inventory management and production planning and scheduling, 3rd edition, Wiley, 1998

T**6.137 Module component: Tax Law [T-INFO-111437]**

Coordinators: Detlef Dietrich
Organisation: KIT Department of Informatics
Part of: [M-INFO-101216 - Private Business Law](#)

Type
Written examination

Credits
3 CP

Grading
graded

Term offered
Each summer term

Version
1

Courses					
ST 2026	24646	Tax Law	2 SWS	Lecture / 	Dietrich
Exams					
WT 25/26	7500062	Tax Law			Matz
ST 2026	7500120	Tax Law			Sattler

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.138 Module component: Team Project Management and Technology [T-WIWI-110968]

Coordinators: Prof. Dr. Martin Klarmann
Prof. Dr. Alexander Mädche

Organisation: KIT Department of Business and Economics

Part of: [M-WIWI-105440 - Team Project Management and Technology](#)

Type	Credits	Grading	Term offered	Expansion	Version
Examination of another type	9 CP	Grading graded	Each term	1 semesters	1

Courses					
WT 25/26	2571176	Team Project Management and Technology	6 SWS	Project / 	Klarmann, Mädche
ST 2026	2571176	Teamprojekt Wirtschaft und Technologie		Project / 	Klarmann, Mädche
Exams					
WT 25/26	7900207	Team Project Management and Technology			Mädche, Klarmann
ST 2026	7900048	Team Project Management and Technology			Klarmann, Mädche

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

Assessment

Alternative exam assessment. The basis for grading is the documents produced, the presentations during the course of the project, the artifact to be produced (e.g. algorithm, method, model, software, component) and the final presentation.

Workload

270 hours

T**6.139 Module component: Telecommunications Law [T-INFO-101309]****Organisation:** KIT Department of Informatics**Part of:** [M-INFO-106754 - Public Economic and Technology Law](#)**Type**
Written examination**Credits**
3 CP**Grading**
graded**Term offered**
Each summer term**Version**
1

Courses					
ST 2026	2424632	Telekommunikationsrecht	2 SWS	Lecture / 	Döveling
Exams					
WT 25/26	7500049	Telecommunications Law			Zufall
ST 2026	7500085	Telecommunications Law			Zufall

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled

T

6.140 Module component: Topics in Human Resource Management [T-WIWI-111858]**Coordinators:** Prof. Dr. Petra Nieken**Organisation:** KIT Department of Business and Economics**Part of:** [M-WIWI-105928 - HR Management & Digital Workplace](#)
[M-WIWI-106860 - Leadership & Sustainable HR-Management](#)**Type**
Examination of another type**Credits**
3 CP**Grading**
graded**Term offered**
Each term**Version**
1

Courses					
WT 25/26	2573015	Topics in Human Resource Management	2 SWS	Colloquium / 	Nieken
ST 2026	2573015	Topics in Human Resource Management	2 SWS	Colloquium / 	Nieken, Mitarbeiter

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

Alternative exam assessment.

The grade is made up of the presentation of a given research topic and active participation in the discussions in the course. The weighting depends on the course and will be announced at the beginning of the course.

Prerequisites

This course cannot be combined with T-WIWI-102871 "Problem Solving, Communication and Leadership".

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-102871 - Problem Solving, Communication and Leadership](#) must not have been started.

Recommendations

We recommend visiting the course "Human Resource Management" before taking this course.

The course is strongly recommended for students interested in empirical research in the areas HRM, personnel economics, and leadership.

Workload

90 hours

Below you will find excerpts from courses related to this module component:

V

Topics in Human Resource Management2573015, WS 25/26, 2 SWS, Language: German, [Open in study portal](#)**Colloquium (KOL)**
On-Site

Content

The students will discuss and analyze selected research papers in the areas HRM, personnel economics, and leadership. The students will present research papers and discuss research methods and designs as well as content.

Aim

The student

- Looks into current research topics in the areas HRM, personnel economics, and leadership.
- Analyzes research papers in detail and evaluates the research outcomes.
- Trains their presentation skills.
- Learns to critically evaluate research methods and trains the scientific discussion culture.
- Gains deeper knowledge in the area of HRM.
- Learns to evaluate research designs and takes into account the ethical dimension of research.

Notes

Due to the interactive nature of the course, the number of participants is limited. If you are interested, please contact Prof. Nieken by email.

Workload

The total workload for this course is approximately 90 hours.

Lecture: 30 hours

Preparation: 45 hours

Exam preparation: 15 hours

Literature

Selected research papers

Organizational issues

Die Veranstaltung findet als Blockveranstaltung statt. Termine werden noch bekannt gegeben.

**Topics in Human Resource Management**

2573015, SS 2026, 2 SWS, Language: German, [Open in study portal](#)

Colloquium (KOL)
On-Site

Content

The students will discuss and analyze selected research papers in the areas HRM, personnel economics, and leadership. The students will present research papers and discuss research methods and designs as well as content.

Aim

The student

- Looks into current research topics in the areas HRM, personnel economics, and leadership.
- Analyzes research papers in detail and evaluates the research outcomes.
- Trains their presentation skills.
- Learns to critically evaluate research methods and trains the scientific discussion culture.
- Gains deeper knowledge in the area of HRM.
- Learns to evaluate research designs and takes into account the ethical dimension of research.

Notes

Due to the interactive nature of the course, the number of participants is limited. If you are interested, please contact Prof. Nieken by email.

Workload

The total workload for this course is approximately 90 hours.

Lecture: 30 hours

Preparation: 45 hours

Exam preparation: 15 hours

Literature

Selected research papers

Organizational issues

Geb. 05.20, Raum 2A-25, Termine werden bekannt gegeben

T

6.141 Module component: Trademark and Unfair Competition Law [T-INFO-101313]**Coordinators:** Dr. Yvonne Matz**Organisation:** KIT Department of Informatics**Part of:** [M-INFO-101215 - Intellectual Property Law](#)**Type**
Written examination**Credits**
3 CP**Grading**
graded**Term offered**
Each term**Version**
1

Courses					
WT 25/26	2424136	Trademark and Unfair Competition Law	2 SWS	Lecture / 	Matz
ST 2026	24609	Trademark and Unfair Competition Law	2 SWS	Lecture / 	Matz
Exams					
WT 25/26	7500061	Trademark and Unfair Competition Law			Matz
ST 2026	7500051	Trademark and Unfair Competition Law			Matz

Legend:  Online,  Blended (On-Site/Online),  On-Site,  Cancelled**Assessment**

The assessment is carried out as a written examination (§ 4 Abs. 2 No. 1 SPO) lasting 60 minutes.

Prerequisites

None.

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6.142 Module component: Welfare Economics [T-WIWI-102610]

Coordinators: Prof. Dr. Clemens Puppe
Organisation: KIT Department of Business and Economics
Part of: [M-WIWI-101501 - Economic Theory](#)

Type
Written examination

Credits
4,5 CP

Grading
graded

Term offered
see Annotations

Version
3

Exams			
WT 25/26	7900086	Welfare Economics	Puppe

Assessment

The assessment consists of a written exam (60 min.).

Prerequisites

The course *Economics I: Microeconomics* [2610012] has to be completed beforehand.

Modeled Prerequisites

The following conditions have to be fulfilled:

1. The module component [T-WIWI-102708 - Economics I: Microeconomics](#) must have been passed.

Recommendations

None

Additional Information

The course only takes place every second summer semester, the next course is planned for summer semester 2027. The last iteration of this course is expected to take place in the summer semester of 2029. The last exam will therefore be offered in the summer semester of 2030.