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Excerpt from Module Descriptions

Master of Science Computational Science and Engineering

Examination Regulations in the Version of: 2019

Sub-Section: Seminar II from the fields
of Applied Mathematics, Engineering,
Natural Sciences and Computer Science

Index

Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Seminar II - Algebra and Number Theory - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875108
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Algebra and Number Theory.
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	- The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic. - In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge. - They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations. - The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from the field of Algebra and Number theory. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Algebra und Zahlentheorie - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the lecture and the written elaboration (64 h) Total: 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral presentation of the results and participation in the discussion.

Grading procedure	The grade of the module will be the grade of the exam.

Basis for	

Seminar II - Analysis - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875110
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Analysis
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	- The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic. - In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge. - They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations. - The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from the field of Analysis. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Analysis - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the lecture and the preparation (64 h) Total: 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure	The module grade is equal to the percentage weighted average of the examination grades with the following weights: Written presentation (50 %) and oral examination (presentation) (50 %). The calculated grade for the module grade will be entered and shown in the Transcript of Records as a single grade. The exact modalities will be announced at the beginning of the course.

Basis for	

Seminar II - Applied Graph Theory - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875112
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Graph Theory
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	- The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic. - In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge. - They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations. - The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from the field of Graph theory. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Graphentheorie - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the lecture and the written elaboration (64 h) Total: 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral presentation and an ungraded written presentation of the results and participation in the discussion.

Grading procedure	The module grade is equal to the examination grade.

Basis for	

Seminar II - Financial Mathematics - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875114
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Financial Mathematics
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	- The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic. - In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge. - They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations. - The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from Financial Mathematics. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Financial Mathematics - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the lecture and the written elaboration (64 h) Total: 120 h

Assessment	*not specified*

Grading procedure	*not specified*

Basis for	*not specified*

Seminar II - Numerics - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875116
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Prof. Dr. Karsten Urban
Instructor(s)	Prof. Dr. Karsten Urban, Prof. Dr. Stefan Funken, Prof. Dr. Dirk Lebiedz
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be announced with the seminar announcement. As a rule, the competences acquired in the basic modules and at least those of an advanced module in numerical mathematics are required.
Learning objectives	- The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic. - In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge. - They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations. - The students choose suitable forms of presentation and implementation for the lecture and the paper. - The students apply the knowledge they acquired in the elementary courses in numerical mathematics in practice and extend their knowledge with regard to selected problems in applications
Syllabus	Topics which are based on the elementary courses in numerical mathematics. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet. Usually the topics involve the numerical treatment of

partial differential equations by the finite difference method or by the finite element method.

Literature	Depending on the topic

Teaching and learning methods	Seminar Numerik - Master (Seminar) (2 SWS)

Workload	Classroom hours (30 h), preparation of the talk (80 h), creation of a written elaboration (10 h), total 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure	The module grade is equal to the percentage weighted average of the examination grades with the following weights: Written presentation (50 %) and oral examination (presentation) (50 %). The calculated grade for the module grade will be entered and shown in the Transcript of Records as a single grade. The exact modalities will be announced at the beginning of the course.

Basis for

Seminar II - Optimization - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875118
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Optimization
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	• The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic.
	• In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge.
	• They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations.
	• The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from the field of Optimization. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Optimierung - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the lecture and the written elaboration (64 h) Total: 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral presentation and an ungraded written presentation of the results and participation in the discussion.

Grading procedure	The module grade is equal to the examination grade.

Basis for	

Seminar II - Pure Graph Theory - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875120
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Graph Theory
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	- The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic. - In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge. - They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations. - The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from the field of Graph theory. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Graphentheorie - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the lecture and the written elaboration (64 h) Total: 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral presentation and an ungraded written presentation of the results and participation in the discussion.

Grading procedure	The module grade is equal to the examination grade.

Basis for	

Seminar II - Statistics - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875122
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Statistics
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	• The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic.
	• In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge.
	• They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations.
	• The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from the field of statistics. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Statistik - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the presentation and the written elaboration (64 h) Total: 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral presentation and an ungraded written presentation of the results and participation in the discussion.

Grading procedure	The module grade is equal to the examination grade.

Basis for	

Seminar II - Stochastic Geometry and its Applications - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875124
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1
Cycle	each Winter Semester
Coordinator	Dean of Studies of Mathematics
Instructor(s)	Lecturers of Stochastics
Allocation of study programmes	Computational Science and Engineering, M.Sc., FSPO 2019, Seminar
Recommended prerequisites	The requirements depend on the topic of the seminar and will be published with the seminar announcement.
Learning objectives	- The students work out a scientific topic largely independently on the basis of literature references, research further sources and information on it and classify these in the context of the topic. In doing so, they delimit and narrow down the subject area and design a presentation on the topic. - In a presentation and a written paper, the students present their topic using the prerequisite and acquired knowledge. - They discuss questions about their own presentation with the participating students and the seminar leader and critically participate in discussions about the other presentations. - The students choose suitable forms of presentation and implementation for the lecture and the paper.
Syllabus	Topics that build on at least one advanced module from the field of stochastics. The exact choice of material is determined by the lecturer and announced on a notice board or on the Internet.
Literature	Depending on the topic

Teaching and learning methods	Seminar Stochastik - Master (Seminar) (2 SWS)

Workload	Classroom hours: 28 h Individual study time: preparation and postprocessing (28 h), Preparation of the presentation and the written elaboration (64 h) Total: 120 h

Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure	The module grade is equal to the percentage weighted average of the examination grades with the following weights: Written presentation (50 %) and oral examination (presentation) (50 %). The calculated grade for the module grade will be entered and shown in the Transcript of Records as a single grade. The exact modalities will be announced at the beginning of the course.

Basis for	

Seminar Algorithmics - Master

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811874552
ECTS credits	4
Attendance time	2
Language of instruction	No English version available yet.
Duration	1
Cycle	irregular
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	No English version available yet.
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure   The module grade is equal to the percentage-weighted average of the individual grades with the following weights: written elaboration (40%), colloquium (40%), working method (20%).

Basis for   No English version available yet.

Seminar Big (Social) Data Analytics A

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811874149
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1 Semester
Cycle	each Semester
Coordinator	Mr. Prof. Dr. Mathias Klier; Institute of Business Analytics
Instructor(s)	Mr. Prof. Dr. Mathias Klier; Institute of Business Analytics
Allocation of study programmes	M.Sc. Wirtschaftswissenschaften, M.Sc. Wirtschaftschemie, M.Sc. Wirtschaftsphysik und Studiengänge mit Nebenfach Wirtschaftswissenschaften Mathematics and Management, M. Sc., FSPO 2024, compulsory elective modules in Seminar Mathematics and Management
Recommended prerequisites	none
Learning objectives	In this module students acquire the ability to work independently and in accordance with scientific principles on a topic in the context of Big (Social) Data Analytics. Working on the seminar thesis and presenting and discussing the results foster the participants' rhetorical skills and social competences.
Syllabus	The topics provided are of particular economical and practical interest and correlate with the institute's current research projects.
Literature	Depending on the topic, students are provided with literature recommendations.
Teaching and learning methods	Seminar (written seminar thesis, presentation material, presentation in the context of the seminar course), 2 SWS, 4 credits.
Workload	In-class: 20 h

Self-study: 100 h

In sum: 120 h

Assessment   The award of the credit points for this module is based on completion of an assignment (presentation and paper) and active participation in discussions. No prerequisites are necessary for exam registration.

Grading procedure   The grade of the module will be the grade of the exam. The module grade is based on the grades of the paper and the presentation. The Transcript of Records only shows the calculated overall grade as an exam achievement.

Basis for   Elective module seminar

The seminar is particularly recommended for students who want to write their master thesis at the Institute of Business Analytics.

Seminar Business Analytics A - Master

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811874281
ECTS credits	4
Attendance time	2
Language of instruction	German
Duration	1 Semester
Cycle	each Semester
Coordinator	Prof. Dr. Mischa Seiter
Instructor(s)	Prof. Dr. Mischa Seiter
Allocation of study programmes	- M.Sc. Management and Economics, - M.Sc. Chemistry and Management, - M.Sc. Physics and Management - Mathematics and Management, M. Sc., FSPO 2024, compulsory elective modules in Seminar Mathematics and Management
Recommended prerequisites	none
Learning objectives	Students passing this module, - are able to work on a topic from the field of business analytics in accordance with scientific criteria. - can apply suitable quantitative methods to evaluate an analytics question. - are able to select and present suitable visualization methods of complex relationships. - can briefly and concisely present and explain their findings in a presentation.
Syllabus	The topics offered are of particular interest to the business administration or are part of the institute's current research projects and are related to practical and are related to practical issues.
Literature	Individual literature is recommended depending on the subject area.

Teaching and learning methods	Seminar (written paper, presentation documents, presentation in the context of a seminar lecture), 2 SWS, 4 LP.

Workload	Attendance study: 20 h Self-study: 100 h Total: 120 h

Assessment	The award of the credit points for this ungraded module is based on completion of an assignment (presentation and paper) and active participation in discussions. No prerequisites are necessary for exam registration.

Grading procedure	The grade of the module will be the grade of the exam. The module grade is based on the grades of the paper and the participation on the discussion. The Transcript of Records shows only the overall module grade as an exam achievement.

Basis for	Elective module seminar The seminar is suitable for students who want to write their thesis at the Institute of Business Analytics.

Seminar Research Trends Information Systems

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811874563
ECTS credits	4
Attendance time	2
Language of instruction	No English version available yet.
Duration	1
Cycle	each Semester
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	Mathematics and Management, M. Sc., FSPO 2024, compulsory elective modules in Seminar Mathematics and Management
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure The module grade is equal to the percentage-weighted average of the individual grades with the following weights: written elaboration (40%), colloquium (40%), working method (20%).

Basis for No English version available yet.

Seminar Research Trends in Software Engineering - Master

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811874560
ECTS credits	4
Attendance time	2
Language of instruction	No English version available yet.
Duration	1
Cycle	irregular
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	No English version available yet.
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure   The module grade is equal to the percentage-weighted average of the individual grades with the following weights: written elaboration (40%), colloquium (40%), working method (20%).

Basis for   No English version available yet.

Seminar Pattern Recognition - Master

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811874570
ECTS credits	4
Attendance time	2
Language of instruction	No English version available yet.
Duration	1
Cycle	each Summer Semester
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	No English version available yet.
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure   The module grade is equal to the percentage-weighted average of the individual grades with the following weights: written elaboration (40%), colloquium (40%), working method (20%).

Basis for   No English version available yet.

Seminar Neural Information Processing - Master

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811874572
ECTS credits	4
Attendance time	2
Language of instruction	No English version available yet.
Duration	1
Cycle	each Winter Semester
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	No English version available yet.
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	The module examination consists of completing an assignement on a given topic and a graded oral and written presentation of the results and participation in the discussion.

Grading procedure   The module grade is equal to the percentage-weighted average of the individual grades with the following weights: written elaboration (40%), colloquium (40%), working method (20%).

Basis for   No English version available yet.

Seminar II Biomechanics - Master graded

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875129
ECTS credits	4
Attendance time	2
Language of instruction	No English version available yet.
Duration	1
Cycle	each Winter Semester
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	No English version available yet.
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	The award of the credit points for this module is based on completion of an assignment (presentation and paper) and active participation in discussions. No prerequisites are necessary for exam registration.

Grading procedure   The grade of the module will be the grade of the exam.

Basis for   No English version available yet.

Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science at Ulm University of Applied Sciences

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875126
ECTS credits	4
Attendance time	3
Language of instruction	No English version available yet.
Duration	1
Cycle	each Semester
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	No English version available yet.
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	No English version available yet.

Grading procedure   No English version available yet.

Basis for   No English version available yet.

Seminar II - Chemie - Master

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875370
ECTS credits	4
Attendance time	3
Language of instruction	No English version available yet.
Duration	1
Cycle	each Semester
Coordinator	No English version available yet.
Instructor(s)	No English version available yet.
Allocation of study programmes	No English version available yet.
Recommended prerequisites	No English version available yet.
Learning objectives	No English version available yet.
Syllabus	No English version available yet.
Literature	No English version available yet.
Teaching and learning methods	No English version available yet.
Workload	No English version available yet.
Assessment	The module examination consists of a graded completion of an assignment (presentation and paper).
Grading procedure	The module grade is equal to the examination grade.

Basis for No English version available yet.

Seminar Selected Topics in Machine Learning for Biomedical Signal Processing

Modules referring to Seminar II from the fields of Applied Mathematics, Engineering, Natural Sciences and Computer Science

Code	8811875475
ECTS credits	4
Attendance time	2
Language of instruction	English
Duration	1
Cycle	each Summer Semester
Coordinator	Prof. Walter Karlen
Instructor(s)	Prof. Walter Karlen Tugce Canbaz
Allocation of study programmes	Inf. CSE Math

Recommended prerequisites

[14673 Introduction to Artificial Intelligence](#)

Or	[Introduction to Deep Learning](#)
ENGD 75027	

Learning objectives

Based on selected current topics in biomedical signal and data processing the student learns to

- analyze literature on a specific research topic
- stay up-to-date with a research topic
- critically assess quality
- elaborate research manuscripts

practices presentation skills

Syllabus	Up to date topics in biomedical engineering
Literature	A list of relevant literature to study will be provided during the seminar.
Teaching and learning methods	Seminar: 1
Workload	Attendance: 15
	Research and Writing: 85
	Presentation:20
	Sum 120
Assessment	The module examination consists of completing an assignment on a given topic and a graded oral and written presentation of the results and participation in the discussion.
Grading procedure	The module grade is equal to the examination grade.
Basis for	No English version available yet.