

**Catalogue of Non-Physics Supplements in “Master of Physics”,
valid from Summer Term 2024 (updated: 18.04.2024)**

The following catalogue defines the options for the Non-Physics Supplements in the Master of Physics course (Module Phy-Ma-NpErg-xxxxxx „Nichtphysikalische Ergänzung" of the [study regulations Master of Physics](#)).

The web links and module descriptions of external courses are given for information. In some cases, only parts of the full external modules are part of the non-physics supplement of Master of Physics. The actual number of hours per week, the examinations and the way the final grade is calculated are defined by this catalogue. In general, the following rules apply:

- **The module examinations consists of 2 or 3 individual examinations, with the grade weighted by 1:1(:1).**
- Oral examinations can be taken in English or German, according to the choice of the student.
- Written examinations are performed in the teaching language of the external module.

Courses which are not listed in the catalogue may be recognized on request to the examination committee (Prüfungsausschuss) of the Faculty of Physics. The decision on the acceptance of the request is taken by the examination committee of the Faculty of Physics. The application shall be handed in at the examination office (Prüfungsamt).

Students who are enrolled before the winter term 2022/2023 and who have not declared the transition to the 2nd amendment of the study regulation (dated 27.04.2022) may choose between “Economics” and “Business Administration” for the non-physics supplement “Business and Economics”.

1. Non-physics Supplement: Mathematics (German and English) (Stand: 03.07.2023)

Contact Person: [Dean of Studies](#) Prof. Dr. Gunar Matthies

Course catalogue: [Teaching](#) → Lehrangebot → Lehrveranstaltungskatalog des Semesters
→ Studiengänge an anderen Fakultäten und Fachrichtungen

- Start: any term
- Scope: 6/2/0/0
- Prerequisite: are taken from the module descriptions, if applicable; in particular for the advanced study topics of the Mathematics Master studies (Math-Ma-*) competencies must match the prerequisites
- preliminary academic work: 0-2 (50% exercises)
- Exams: 2 examinations (written examination 90 min or oral examination)
- Grade: The grade of the module is the average of the grades of the 2 exams.
- Courses: Two modules (3/1/0/0) are to be chosen from the following list:
 - winter term: [Math-BA-GE10: Geometrie – Grundlegende Konzepte](#)
 - winter term: [Math-Ba-AL10: Algebra – Grundlegende Konzepte](#)
 - winter term: [Math-Ba-AN30: Analysis – Maß und Integral](#)
 - winter term: [Math-Ba-AN40: Analysis – Differentialgleichungen und Mannigfaltigkeiten](#)
 - winter term: [Math-Ba-NM10: Numerische Mathematik – Grundlegende Verfahren](#)
 - winter term: [Math-Ma-16: Partial differential equations](#)
 - winter term: [Math-Ma-26: Continuous optimization](#)
 - winter term: [Math-Ma-28: Numerical methods for partial differential equations – Basic concepts](#)
 - summer term: [Math-Ba-NM20: Numerische Mathematik – Iterationsverfahren](#)
 - summer term: [Math-Ba-GE20: Geometrie – Weiterführende Konzepte](#)
 - summer term: [Math-Ba-AN50: Analysis – Funktionentheorie](#)
 - summer term: [Math-Ma-06: Groups and geometry](#)
 - summer term: [Math-Ma-17: Methods for partial differential equations](#)
 - summer term: [Math-Ma-27: Discrete optimization](#)
 - summer term: [Math-Ma-29: Numerical methods for partial differential equations – Advanced concepts](#)
 - irregular: [Math-Ma-05: Group theory](#)
 - irregular: [Math-Ma-18: Dynamical systems – basic concepts](#)
 - irregular: [Math-Ma-19: Dynamical systems – modern concepts and applications](#)
 - irregular: [Math-Ma-30: Mathematical methods in continuum mechanics](#)

2. Non-physics Supplement: Biomathematics (English) (Stand: 02.05.2022)

Contact Person: Head of Dept. for Innovative Methods of Computing [Prof. Dr. Andreas Deutsch](#)

[General information](#), [History of lectures and seminars](#)

- Start: winter term
- Scope: 4/2/2/0
- Prerequisites: -
- Exams: 2 oral examinations (lecture), 1 talk (seminar)
- Grade: The grade of the module is the average of the grades of all 3 exams.
- Courses: The course consists of two lectures and one seminar. The lectures and the seminar can be taken in arbitrary sequence.

The topics of the lecture "Introduction to Mathematical Biology" and the seminar vary from year to year with only one lecture per WiSe

- winter term: [Introduction to Mathematical Biology I: agent-based models](#) (2/1/0/0)

- winter term: [Introduction to Mathematical Biology II: continuum models](#) (2/1/0/0)

- summer term: [Seminar "Mathematical Biology"](#) (0/0/2/0)

3. Non-physics Supplement: Chemistry (mainly German) (update: 21.06.2022)

Contact Person: [Dean of Studies](#) Prof. Dr. Jan J. Weigand, [Faculty Administrator](#) Dr. Philipp Schlender

[Course catalogue and dates](#)

a. Topic: Inorganic, Physical und Organic Chemistry (german)

- Start: winter term
 - Scope: 4/2/0/2 oder 6/3/0/0
 - Prerequisites: -
 - Exams: 3 written examinations or 2 written examinations + 1 practical training) from 3 courses
 - Grade: The grade of the module is the average of the grades of all 3 examinations.
 - Courses: 3 from 4 courses are to be chosen from the following list.
 - Students who have chosen the minor subject Chemistry in the Bachelor's degree should not choose "Allgemeine und Anorganische Chemie".
 - The practical training "Physikalische Chemie" is only useful with the lecture "Physikalische Chemie".
- winter term: [Allgemeine und Anorganische Chemie für VNT und Physiker](#) (2/1/0/0)
- winter term: [Physikalische Chemie für Nebenfächer \(VNT, WW und Physiker\)](#) (below) (2/1/0/0)
- summer term: [Praktikum Physikalische Chemie für Nebenfächer](#) (0/0/0/2)
- summer term: [Organische Chemie für Nebenfächer](#) (2/1/0/0)

b. Topic: Special Inorganic Chemistry (german)

- Start: winter term
- Scope: 4/0/2/2
- Prerequisites: Participants require skills acquired in the minor subject Chemistry in the Bachelor's degree.
- Exams: 1 written examination, 90 min + 1 practical training
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- Courses: [Current course catalogue](#)
 - [Module description: BA-CH-ACII with](#) practical training only 2 SWS instead of 8 SWS
 - [Courses:](#)
 - winter term: AC II/1 Anorganische Festkörperchemie (2/0/0/0)
 - summer term: AC II/2 Anorganische Molekül- und Komplexchemie (2/0/0/0)
 - summer term: AC II Praktikum (0/0/0/2)
 - summer term: AC II Seminar (0/0/2/0)

4. Non-physics Supplement: Biology (mainly German) (update: 30.05.2022)

Contact Person: Dean of Studies Prof. Dr. Christian Dahmann

Course catalogue and dates

- Start: any term
- Scope: 8 SWS are to be chosen from the following list
- Prerequisites: -
- Exams: 2 or 3 examinations
- Grade: The grade of the module is the average of the grades of all examinations.
- Courses:
 - winter term: [BIO-MBBT-31P01: Einführung in die angewandte molekulare Biologie und Biotechnologie](#) (2/0/1/0) (without tutorial)
 - winter term: [BIO-MBBT-31P02: Grundlagen der Zellbiologie und Molekulargenetik](#) (3/0/0/0)
 - winter term: [BIO-MBBT-31P12: Grundlagen der Tier-und Pflanzenphysiologie](#) (4/0/0/0) (without practical training) (It is possible to complete only one lecture of 2 SWS)
 - winter term: [BIO-MBBT-31P13: Grundlagen der Mikrobiologie](#) (4/0/0/0) (without practical training)
 - winter term: [BIO-MBBT-31P14: Grundlagen der Gentechnologie](#) (2/0/0/0) (without exercise and practical training)
 - winter term: [BIO-MBBT-31W08: Angewandte Zellbiologie](#) (2/0/2/0) (without practical training)
 - summer term: [BIO-MBBT-32P10: Grundlagen von Bau und Funktion der Pflanzen](#) (2/0/0/0) (without practical training)
 - summer term: [BIO-MBBT-32P08: Grundlagen der molekularen Bioanalytik](#) (2/1/0/0)
- a written examination of 90 minutes is required for each module, except for the module Angewandte Zellbiologie (BIO-MBBT-31W08), which includes an oral examination (group examination) of 45 minutes

5. Non-physics Supplement: Molecular Bioengineering (English) (Stand: 27.06.2022)

Contact Persons: Dean of Study Affairs [Prof. Konstantinos Anastassiadis](#), Coordinator of the Masters Courses: [Anne Chesneau](#) (BIOTEC), Prof. Alberti
[General information](#)
[Catalogue of Lecture Times](#)

Student can chose between the two modules:

- **[BT-MB 2.4 From Cellular Function to Technological Applications \(English\)](#)**
 - Start: summer term
 - Scope: 4/0/4/0
 - Prerequisites: -
 - Exams: 1 oral examination (20 min) + 1 seminar talk in English language
 - Grade: The grade of the module is the average of the grades of the 2 examinations.
 - Lectures: (without practical training)
 - summer term: From Cellular Function to Technological Applications (2/0/2/0)
 - winter term: Applied Cellular Machines (2/0/2/0)

 - **CMCB-Ma-PoL4 Molecular Biology and Biochemistry of Cells and Tissues (English)**
 - Start: winter term
 - Scope: 6/4/0/2
 - Prerequisites: -
 - Exams: 2 written examinations (90 min) + 1 complex tasks examination (Cell- & Mechanobiology, Tissue Dynamics)
 - Grade: The grade of the module is the average of the grades of all examinations.
 - Lectures:
 - winter term: Molecular Biology and Biochemistry (2/0/0/2)
 - summer term: Cell- & Mechanobiology (2/2/0/0) (first 7 weeks of the summer term)
 - summer term: Tissue Dynamics (2/2/0/0) (second 7 weeks of the summer term)
- the practical training in summer and winter term will take place during the lecture-free time

6. Non-physics Supplement: Computer Engineering (mainly German) (Stand: 03.07.2023)

Contact Person: [Dean of Studies](#) Prof. Dr. Akash Kumar

[Course catalogue and dates](#)

a. Topic: From algorithms to software technology (german)

- Start: any term
- Scope: 4/4/0/0
- Prerequisites: -
- Exams: 2 written examinations (90 or 120 min)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- Courses: 2 from 3 courses are to be chosen from the following list.
- Students who have chosen the minor subject Computer science in the Bachelor's degree should not choose "Algorithmen und Datenstrukturen".
- [Softwaretechnologie](#) requires knowledge of basic programming "on a small scale", i.e. within classes and procedures, e.g. from INF-B-210
 - winter term: [INF-B-210 Algorithmen und Datenstrukturen](#) (2/2/0/0)
 - summer term: [INF-B-240 Programmierung](#) (2/2/0/0)
 - summer term: [INF-B-310 Softwaretechnologie](#) (2/2/0/0)

b. Topic: Databases and computer networks (german)

- Start: summer term
- Scope: 4/4/0/0
- Prerequisites: Knowledge of basic terms, basic algorithms and architectural concepts for example the skills that acquired in the minor subject Computer science in the Bachelor's degree.
- Exams: 2 written examinations (each 90 min)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- Courses:
 - summer term: [INF-LE-PHY Datenbank-Engineering](#) (2/2/0/0)
 - summer term: [INF-B-370 Rechnernetze](#) (2/2/0/0)
 - The tutorials are offered during the winter term, too, for students who plan to take a repeat exam in the winter term.

c. Topic: Media Informatics and Computer Graphics (german)

- Start: winter term
- Scope: 4/3/0/1
- Prerequisites: -
- preliminary academic work: 1 exercise Computer graphics
- Exams: 2 written examinations (each 90 min)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- Courses:
 - winter term: [INF-B-410 Einführung in die Medieninformatik](#) (2/2/0/0)
 - summer term: [INF-B-420 Einführung in die Computergraphik](#) (2/1/0/1)

7. Non-physics Supplement: Philosophy (mainly German, optional English) (update: 21.06.2022)

Student Advisory Service for physicists and degree programme development: [Norbert Engemaier M.A.](#)
Director of the Institute of Philosophy: [Prof. Dr. Moritz Schulz](#)

Course catalogue: <https://vvz.phil.tu-dresden.de/>

Course catalogue for the Master of Physics: <https://vvz.phil.tu-dresden.de/index.php?studiengang=9&institut=1>

1 from 2 opportunities is to be chosen from the following list:

a. Advanced Basic Module Philosophy (german)

- Start: any term, depending on the chosen basic lecture
- Scope: 2/2/4/0 or 4/2/2/0
- Prerequisites: -
- Exams: 1 written examinations (90 min) about the basic lecture +1 other examination (presentation or seminar paper)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- Courses:
basic lecture (none of the lecture, which was taken in the minor subject Philosophy in the Bachelor's degree)
 - winter term: Grundzüge der Logik (with exercise) (2/2/0/0) **or**
 - summer term: Einführung in die Theoretische Philosophie (2/0/2/0)in total other 4 SWS courses are to be chosen (lecture, text proseminar, proseminar or seminar) from the course catalogue for the Master of Physics. At least 2 SWS have to be from seminar.

b. Advanced Module Philosophy (german, optional partly english)

- Start: any term
- Scope: 8 SWS (student's choice)
Prerequisites: Participants require skills acquired in the minor subject Philosophy in the Bachelor's degree
- Exams: 1 oral examination + 1 other examination (presentation or seminar paper)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- Courses:
in total 8 SWS (lecture, proseminar, seminar, main seminar or advanced seminar) are to be chosen from the course catalogue for the Master of Physics. At least 4 SWS and 1 examination have to be from seminar, main seminar or advanced seminar.

8. Non-physics Supplement: Electronics Engineering (German, English) (Stand: 02.05.2022)

Contact Persons: [Deans of Studies](#) Prof. Dirk Plettemeier (Electrical engineering), Prof. Thomas Mikolajick (Nanoelectric Systems)

- a. Electronics: [Dr. Jörg Herricht](#)
- b. Microsystems: [Prof. Wolf-Joachim Fischer](#)
- c. Biomedical Technology: [Dipl.-Ing. Thurid Jochim](#)
- d. Microelectronics: [Prof. Andreas Richter](#)
- e. Measurement: [Prof. Jürgen Czarske](#)

a. Topic: Electrical engineering (deutsch)

General information

- Students who have chosen the minor subject Electronics in the Bachelor's degree should not choose this Minor Topic (it is 75% identical).
- Start: winter term
- Scope: 6/2/0/1
- Prerequisites: Prerequisite for participation to the practical training is a written examination in electronics graded "sufficient" (4.0) or better.
- Exams: 2 written examinations + 1 lab report
- Grade: The grade of the module is the average of the grades of the 3 examinations.
- Courses:
 - winter term: [Elektronik für Physiker](#) (4/2/0/0)
 - summer term: [Praktikum Schaltungstechnik](#) (0/0/0/1)
 - summer term: Modellierung für den Schaltungsentwurf ([Physik ausgewählte Bauelemente](#)) (2/0/0/0) or [Schaltungssimulation und Modellierung](#) (2/0/0/0)

b. Topic: Microsystems and Integrated analog circuitry (german)

General information

- Start: winter term
- Scope: 4/2/0/2
- Prerequisites: Participants require skills acquired in the minor subject Electronics in the Bachelor's degree
- Exams: 1 written examination about Anlogschaltungen + 1 oral examination (20 min) about Mikrosysteme + 1 lab report about the both practical trainings
- Grade: The grade of the module is the average of the grades of the 3 examinations.
- Courses:
 - winter term: [Integrierte Anlogschaltungen](#) (2/2/0/0)
 - winter term: [Mikrosysteme](#) (2/0/0/0)
 - summer term: Praktika Mikrosysteme und Werkstoffe der Mikrosystemtechnik (0/0/0/1+1)

c. Topic: Applications of biomedical instrumentation technology (german) (update 02.05.2022)

General information

- Start: winter term
- Scope: 6/3/0/0
- Prerequisites: -
- Exams: 2 written examinations (one in the compulsory field and one in the elective compulsory field)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- in the compulsory field: 5 SWS and in the elective compulsory field: 4 SWS
- **Courses:**
 - **compulsory – winter term: Biomedizinische Technik (BMT I) (2/1/0/0)**
 - elective compulsory – winter term: spezielle Biosignalverarbeitung (1/1/0/0)
 - elective compulsory – winter term: Kardiale Assistenzsysteme (1/1/0/0)
 - elective compulsory – winter term: Biomechanische Systeme in der Rehabilitation (1/1/0/0)
 - **compulsory – summer term: Strahlenanwendung in der Medizin (BMT II) (1/1/0/0)**
 - elective compulsory – summer term: Biosignale und Monitoring (2/0/0/0)
 - elective compulsory – summer term: Grundlagen der Physiologie und Medizin (2/0/0/0)

d. Topic: Nanoelectronic Systems (English)

General information

- Start: winter term
- Scope: 8/1/0/0
- Prerequisites: -
- Exams: 2 written examinations of 120 min (with up to 20 participants written examinations will be replaced by an individual oral exam of 30 min)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- **Courses:**
 - winter term: [NES-12 12 01 Materials for Nanotechnology](#) (2/1/0/0)
 - winter term: [NES-12 12 02 Semiconductor technology I](#) (4/0/0/0) ([module description](#))
 - summer term: [NES-12 12 02 Semiconductor technology II](#) (2/0/0/0) without practical training

e. Topic: Computational Laser Metrology (german or english) (update 02.05.2022)

General information

- Start: winter term or summer term
- Scope: 7/2/0/0
- Prerequisites: -
- Exams: 2 oral examinations (25 min) about the courses
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- **Courses:**
 - summer term: [Lasermesstechnik](#) (2/1/0/0)
 - summer term: [Mechatronische Lasersensoren](#) (2/0/0/0)
 - winter term: [Digitale Holographie und Bildverarbeitung](#) (1/1/0/0)
 - winter term: [Biomedical Laser Systems and Optogenetics](#) (2/0/0/0)

f. Thema: Applied Lasermetrology (deutsch oder englisch) (Stand 07.02.2024)

Generelle Information

- Start: winter term or summer term
- Scope: 3/3/2/0
- Prerequisites: -
- Exams: 2 exams (two oral exams of 25 min on lectures in winter and summer term)
- Grade: The grade of the module is the average of the grades of the 2 examinations.
- Courses:
 - summer term: [Messsystemtechnik](#) (1/1/0/0)
 - summer term: [Oberseminar Messsystemtechnik](#) (0/2/0/0)
 - summer term: [Praktikum Lasersensorik](#) (0/0/1/0)
 - winter term: [Neuronale Netze in der Bildverarbeitung](#) (0/0/1/0)
 - winter term: [Lasermethoden für biomedizinische Mikrofluidik](#) (2/0/0/0)

9. Non-physics Supplement: Mechanical Engineering (mainly German)

Contact Persons:

Power Engineering: [Prof. Clemens Felsmann](#)

Aerospace Engineering: [Herr Prof. Dr. Johannes Markmiller](#)

Hydrogen and Nuclear Energy: [Prof. Antonio Hurtado](#)

[Director for Study Profil](#)

[Course catalogue and dates](#)

a. Topic: Power Engineering (german) (update: 02.05.2022)

General information

- Start: winter term (2 semester) or summer term (1-2 semester)
- Scope: 6/4/0/0
- Prerequisites: -
- Exams: 3 written examinations (in the case of a small number of participants, oral examinations may be possible)
- Grade: The grade of the module is the average of the grades of the 3 examinations.
- Courses (a total of 3 courses must be selected: 2 obligatory, 1 selectable):

- summer term: [Einführung in die Systemtheorie](#) from the module [RES-G12](#) (2/1/0/0)

- summer term: Regenerative Energiequellen from the module [RES-G12](#) (2/1/0/0)

- summer term: Energiewirtschaftliche Bewertung (module [MW-MB-ET-12](#))

or

- summer term: Grundlagen der Gebäudeenergie-technik (from the module [MW-MB-ET-10](#)) (2/2/0/0)

b. Topic: Aerospace Engineering (german) (update: 02.05.2022)

General information

- Start: winter term
- Scope: 4/4/0/0 or 4/3/0/0
- Prerequisites: -
- Exams: 1 written examination
- Grade: The module grade corresponds to the grade of the examination.
- Courses – 1 from 3 opportunities is to be chosen from the following list:
 - i. [MB-LRT-01 Grundlagen der Aerodynamik und Flugmechanik](#)
 - winter term: [Flugmechanik](#) (2/2/0/0),
 - winter term: [Aerodynamik I](#) (2/2/0/0),
 - Exam: written examination (210 min.)
 - ii. [MB-LRT-04 Grundlagen der Flugantriebe](#)
 - summer term: [Gasdynamik](#) (2/2/0/0)
 - summer term: [Luftfahrtantriebe I](#) (2/1/0/0)
 - Exam: written examination (210 min.)
 - iii. [MB-LRT-03 Grundlagen der Luft- und Raumfahrttechnik](#)
 - winter term: [Raumfahrtsysteme I](#) (2/1/0/0)
 - winter term: [Luftfahrzeugauslegung](#) (2/2/0/0)
 - Exam: written examination (240 min.)

c. Topic: Hydrogen and Nuclear Energy (german) (update: 09.05.2022)

General information

- Start: any term
- Scope: 8 SWS in lectures, exercises, seminars or practical trainings (on the student's choice)
- Prerequisites: -
- Exams: 2 written examinations + 2 collections of lab reports
- Grade: The grade of the module is the average of the grades of all examinations.
- Courses – 2 from 4 courses are to be chosen from the following list (in arbitrary sequence)

Dates for the practical trainings are to be coordinated at the beginning of the semester.

winter term:

- [MW-MB-ET-32](#): Thermohydraulik und Sicherheit von Nuklearanlagen (3/1/1/0)
Exams: written examination (180 min) + collection of lab reports
- [MW-MB-ET-33](#): Wasserstoff-Energietechnik (3/1/1/0)
Exams: written examination (180 min) + collection of lab reports

summer term:

- [MW-MB-ET-21](#): Kernreakorteknik (3/1/1/0)
Exams: written examination (210 min) + collection of lab reports
- [MW-MB-ET-22](#): Reaktorphysikalische Aspekte (3/1/1/0)
Exams: written examination (180 min) + collection of lab reports

10. Non-physics Supplement: Materials Science (English) (update: 21.06.2022)

Contact Persons:

[Course Program Coordinator Materials Science: Prof. Gianaurelio Cuniberti](#)

Teaching Coordinator: Sylvi Katzarow, <mailto:office.nano@tu-dresden.de>

[Catalogue of Lecture Times](#)

a. Topic: Computational Materials Science (German/English)

- Start: any term
- Scope: 4/2/0/2
- Prerequisites: -
- Exams: 2 written examinations + 1 project work
- Grade: The grade of the module is the average of the grades of the 3 examinations.
- Lectures:
 - The following two courses have to be taken, in arbitrary sequence:
 - summer term: Comp. Materials Science: Kontinuumsmethoden (2/1/0/1) (german, 1 written examination)
 - winter term: Comp. Materials Science: Molecular Dynamics (2/1/0/1) (english, 2 examinations – project work and written examination)

b. Topic: Nanoscience and Nanotechnology (English)

- Start: any term
- Scope: 4/3/0/1
- Prerequisites: -
- Exams: 2 written examinations + 1 project work
- Grade: The grade of the module is the average of the grades of the 3 examinations.
- Lectures:
 - The following two courses have to be taken, in arbitrary sequence:
 - winter term: [Molecular Electronics](#) (2/2/0/0) (english, 1 written examination)
 - summer term: [Nanostructured Materials](#) (2/1/0/1) (english, 2 examinations: project work and written examination)

11. Non-physics Supplement: Economics (mainly German) (update: 20.05.2022)

[Dean of Studies](#): Prof. Dr. Alexander Kemnitz

[General information Business and Economics](#)

[Course catalogue and dates](#)

[Courses in Englisch](#)

[Information Bachelor](#), [Information Master](#)

- Start: winter term recommended; summer term possible, e.g. Einführung in die Mikroökonomie
- Scope: 9 SWS
- Prerequisites: -
- Exams: 3 written examinations (each 90 min)
- Grade: The grade of the module is the average of the grades of the 3 examinations.
- Courses: 3 from 5 modules are to be chosen from the following list
 - winter term: BA-WW-EVWL, [Einführung in die Volkswirtschaftslehre](#) (2/1/0/0)
 - winter term: BA-WW-MAK, [Einführung in die Makroökonomie](#) (1,5/1,5/0/0)
 - winter term: BA-WW-ERG-1906a, [Ökonometrie - Grundlagen](#) (2/1/0/0)
 - summer term: BA-WW-MIK, [Einführung in die Mikroökonomie](#) (2/1/0/0)
 - summer term: BA-WW-SW, [Strategie und Wettbewerb](#) (2/1/0/0)

12. Non-physics Supplement: Business Administration (mainly German) (Stand: 20.05.2022)

[Dean of Studies](#): Prof. Dr. Alexander Kemnitz

[General information Business and Economics](#)

[Course catalogue and dates](#)

[Courses in Englisch](#)

[Information Bachelor](#), [Information Master](#)

- Start: winter term
- Scope: 9 SWS
- Prerequisites: -
- Exams: at least 3 examinations
- Grade: The grade of the module is the average of the grades of all examinations.
- Courses: 3 from 5 modules are to be chosen from the following list
 - winter term: BA-WW-EBWL, [Einführung in die Betriebswirtschaftslehre und Organisation](#) (3/0/0/1), written examination (120 min)
 - winter term: BA-WW-GRW, [Grundlagen Rechnungswesen](#) (3/3/0/0), written examination (120 min)
 - winter term: BA-WW-PL, [Produktion und Logistik](#) (2/2/0/0), written examination (120 min)
 - summer term: BA-WW-MNU, [Marketing und Nachhaltige Unternehmensführung](#) (3/0/0/0) written examination (90 min) + project work
 - summer term: BA-WW-JIF, [Jahresabschluss, Investition und Finanzierung](#) (3/1/0/0), 2 written examinations (each 60 min)