

Annex SFB

Studienfachbeschreibung (subject description, SFB) for the subject FOKUS Physics as a Master's with 1 major with the degree "Master of Science" (120 ECTS credits)

Responsible: Faculty of Physics and Astronomy

Examination regulations version: 2006

Abbreviations used: Course types: **E** = field trip, **K** = colloquium, **O** = conversatorium, **P** = placement/lab course, **R** = project, **S** = seminar, **T** = tutorial, **Ü** = exercise, **V**

= lecture

Term: **SS** = summer semester, **WS** = winter semester

Methods of grading: NUM = numerical grade, B/NB = (not) successfully completed

Regulations: **(L)ASPO** = general academic and examination regulations (for teaching-degree programmes), **FSB** = subject-specific provisions, **SFB**

= list of modules

Other: **A** = thesis, **LV** = course(s), **PL** = assessment(s), **TN** = participants, **VL** = prerequisite(s)

Conventions for the modules in this SFB:

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Information on assessment procedures:

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should a module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with the general regulations governing the degree subject described in this module catalogue:

ASP02007

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

15-May-2008 (2008-15)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.

Every module will be described using the following form:

| Abbreviation | Module title | | | | | | | | | | |
|--------------|----------------------------|---------|------------------|---|-------------------|--|--------------|--|--|--|--|
| | ECTS | | Duration | (in semesters) | Method of grading | | Module level | | | | |
| | Courses | | To be sp | be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y | | | | | | | |
| | Method of as | sessm | ent | | | | | | | | |
| | Only after su completion o | | ıl if applic | f applicable | | | | | | | |
| | Other prereq | uisites | if applic | if applicable | | | | | | | |
| | Participants on of places | | ocati- if applic | if applicable | | | | | | | |
| | Additional information | | ion if applic | if applicable | | | | | | | |
| | Referred to in | า LPO I | if applic | if applicable (examination regulations for teaching-degree programmes) | | | | | | | |

| Compulsory Course | es (40 EC | TS cred | lits) | | | | | | | | | |
|-------------------|----------------------|----------------|-----------|---|---|---------------------|---------------------------------|-------------|----------|--|--|--|
| 11-FPP-072-m01 | FOKUS | Project | Practical | Cours | e Physics | | | | | | | |
| | ECTS | 10 | Duratio | n | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | P (no | (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method | d of asso | essment | cal co | placement report / fieldwork report / report on practical training / report on practical course / project report / report on technical course (approx. 20 pages) and talk (approx. 30 minutes) on respective topic researched Language of assessment: German or English | | | | | | | |
| 11-FS-PF-072-m01 | Profess | sional S | pecializa | tion FO | KUS Physics | | | | | | | |
| | ECTS | 15 | Duratio | n | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | S (no | information on SWS | (weekly contact hou | rs) and course language availal | ole) | | | | |
| | Method of assessment | | | | talk with discussion (approx. 30 to 45 minutes) Language of assessment: German or English | | | | | | | |
| 11-MP-PF-072-m01 | Scienti | fic Meth | nods and | Project | Management FOKU | S Physics | | | | | | |
| | ECTS 15 Duratio | | Duratio | n | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | R (no information on SWS (weekly contact hours) and course language available) | | | | | | | | |
| | Method of assessment | | | talk with discussion (approx. 30 to 45 minutes) Language of assessment: German or English | | | | | | | | |
| 11-OSP-072-m01 | Advanc | ed Sem | inar Expe | riment | mental/Theoretical Physics | | | | | | | |
| | ECTS | ECTS 4 Duratio | | n | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | S (no | S (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method of assessment | | | talk with discussion (approx. 30 to 45 minutes) | | | | | | | | |

| 11-PFM-072-m01 | Advanced Practical Cou | rse Master | | | | | | | |
|---------------------------|--------------------------------|---|--|--|--|--|--|--|--|
| | ECTS 6 Duration | n 1 semester Method of grading (not) successfully completed Modul level graduate | | | | | | | |
| | Courses | Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master) Part 1: P (3 weekly contact hours), German or English Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master) Part 2: P (3 weekly contact hours), German or English | | | | | | | |
| | Method of assessment | This module has the following assessment components Lab course in part 1 (Fortgeschrittenen-Praktikum Master/Advanced Practical Course Master Part 1): a) Preparing the experiment will be considered successfully completed if an oral test (approx. 30 minutes) is passed prior to the experiment. b) Performing and evaluating the experiment will be considered successfully completed if a test is passed. Students must prepare an experiment log (approx. 8 pages). Lab course in part 2 (Fortgeschrittenen-Praktikum Master/Advanced Practical Course Master Part 2): a) Preparing the experiment will be considered successfully completed if an oral test (approx. 30 minutes) is passed prior to the experiment. b) Performing and evaluating the experiment will be considered successfully completed if a test is passed. Students must prepare an experiment log (approx. 8 pages). | | | | | | | |
| | | Language of assessment: German or English Students must register for assessment components 1 and 2 online (details to be announced). Students will be offered one opportunity to retake element a) and/or element b) in the respective semester. To pass an assessment component, they must pass both elements (a and b) in the same semester. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | |
| | Modules successfully completed | 11-E1, 11-E2 | | | | | | | |
| | other prerequisites | 11-A3 | | | | | | | |
| Compulsory Electiv | res (40 ECTS credits) | | | | | | | | |
| Compulsory Electiv | es Specialisation Physic | s (24 ECTS credits) | | | | | | | |
| 11-SF-4A-072-m01 | Module Type 4A Specia | Training Astronomy | | | | | | | |
| | ECTS 4 Duration | n 1 semester Method of grading numerical grade Modul level graduate | | | | | | | |
| | Courses | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method of assessment | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 8 pages) | | | | | | | |
| 11-SF-4D-072-m01 | Module Type 4D Specia | Training Didactics | | | | | | | |
| | ECTS 4 Duration | | | | | | | | |
| | Courses | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method of assessment | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 8 pages) | | | | | | | |
| 11-SF-4E-072-m01 | Module Type 4E Special | Training Experimental Physics | | | | | | | |
| | ECTS 4 Duration | n 1 semester Method of grading numerical grade Modul level graduate | | | | | | | |
| | Courses | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method of assessment | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 8 pages) | | | | | | | |

| 11-SF-4l-072-m01 | Module T | Гуре 41 \$ | Special | Trainiı | Training Interdisciplinary Research Fields | | | | | | | |
|------------------|----------------------|----------------------|----------|---|---|-------------------------------------|--|-------------|---------------------------------|--|--|--|
| | ECTS 4 | 4 [| Duratior | ı | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | | <u>`</u> | ` , | hours) and course language | | | | | |
| | Method o | of asses | sment | | | | or b) talk (approx. 30 minutes) es) or d) project report (appro | | nation of one candidate each or | | | |
| 11-SF-4T-072-m01 | Module T | Гуре 4Т | Special | Traini | ng Theoretical Ph | ysics | | | | | | |
| | ECTS 4 | 4 [| Duratior | | 1 semester | Method of grading numerical grade | | Modul level | graduate | | | |
| | Courses | | | | + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method of assessment | | | |) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or ral examination in groups (approx. 30 minutes) or d) project report (approx. 8 pages) | | | | | | | |
| 11-SF-5A-072-m01 | Module T | Гуре 5А | Special | Traini | ng Astronomy | | | | | | | |
| | ECTS 5 Duratio | | | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | | <u>`</u> | | hours) and course language | | | | | |
| | Method o | of asses | sment | | written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or ral examination in groups (approx. 30 minutes) or d) project report (approx. 10 pages) | | | | | | | |
| 11-SF-5D-072-m01 | Module T | Гуре 5D | Special | Traini | ng Didactics | | | | | | | |
| | ECTS 5 | 5 [| Duratior | ı | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | V + R | (no information o | n SWS (weekly contact | hours) and course language | available) | | | | |
| | Method of assessment | | | | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 10 pages) | | | | | | | |
| 11-SF-5E-072-m01 | Module T | Гуре 5Е | Special | Traini | Training Experimental Physics | | | | | | | |
| | ECTS 5 | 5 [| Duratior | ı | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method o | of asses | sment | | | | or b) talk (approx. 30 minutes) es) or d) project report (appro | | nation of one candidate each or | | | |
| 11-SF-5l-072-m01 | Module T | Гуре 51 \$ | Special | Trainir | ng Interdisciplina | ry Research Fields | | | | | | |
| | ECTS 5 | 5 [| Duratior | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | V + R | (no information o | n SWS (weekly contact | hours) and course language | available) | | | | |
| | Method o | Method of assessment | | | | | or b) talk (approx. 30 minutes) es) or d) project report (appro | | nation of one candidate each or | | | |
| 11-SF-5T-072-m01 | Module T | Гуре 5Т | Special | Traini | ng Theoretical Ph | ysics | | | | | | |
| | ECTS 5 | 5 [| Duration | ı | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | V + R | (no information o | n SWS (weekly contact | hours) and course language | available) | | | | |
| | Method of assessment | | | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 10 pages) | | | | | | | | |

| 11-SF-6A-072-m01 | Module | Type 6 | A Special | Train | ing Astronomy | | | | | | | |
|------------------|---|-----------|---|---|---|-----------------------|--|----------------|--------------------------------|--|--|--|
| | ECTS | 6 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | (no information o | n SWS (weekly contact | hours) and course langua | age available) | - | | | |
| | Method | d of asse | essment | | | | r b) talk (approx. 30 minues) or d) project report (ap | | ation of one candidate each or | | | |
| 11-SF-6D-072-m01 | Module | Type 6 | D Specia | Train | ing Didactics | | | ' | | | | |
| | ECTS | 6 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | | + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method of assessment | | | written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or ral examination in groups (approx. 30 minutes) or d) project report (approx. 12 pages) | | | | | | | | |
| 11-SF-6E-072-m01 | Module | Type 6 | E Special | Traini | ng Experimental I | Physics | | ' | | | | |
| | ECTS 6 Duratio | | | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | (no information o | n SWS (weekly contact | hours) and course langua | age available) | | | | |
| | Method of assessment | | | | written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or ral examination in groups (approx. 30 minutes) or d) project report (approx. 12 pages) | | | | | | | |
| 11-SF-6l-072-m01 | Module | Type 6 | I Special | Traini | ng Interdisciplina | ry Research Fields | | | | | | |
| | ECTS | 6 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | (no information o | n SWS (weekly contact | hours) and course langua | age available) | | | | |
| | Method of assessment | | | | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 12 pages) | | | | | | | |
| 11-SF-6T-072-m01 | Module Type 6T Special Training Theoretical Physics | | | | | | | | | | | |
| | ECTS | 6 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method | d of asse | essment | | | | r b) talk (approx. 30 minu es) or d) project report (ap | | ation of one candidate each or | | | |
| 11-SF-8A-072-m01 | Module | Type 8 | A Specia | Train | ing Astronomy | | | | | | | |
| | ECTS | 8 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | (no information o | n SWS (weekly contact | hours) and course langua | age available) | | | | |
| | Method | d of asse | essment | | | | r b) talk (approx. 30 minu es) or d) project report (ap | | ation of one candidate each or | | | |
| 11-SF-8D-072-m01 | Module | Type 8 | D Specia | Train | Training Didactics | | | | | | | |
| | ECTS | 8 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | (no information o | n SWS (weekly contact | hours) and course langua | age available) | | | | |
| | Method of assessment | | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 16 pages) | | | | | | | | | |

| 11-SF-8E-072-m01 | Module | Type 8 | E Special | Traini | ng Experimental Phy | ysics | | | | | |
|------------------|------------------------|---|-----------|--|--|--------------------|--|--|--------------------------------|--|--|
| | ECTS | 8 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | s | • | V + R | (no information on S | WS (weekly contact | hours) and course language av | ailable) | | | |
| | Methoc | of asse | essment | | | | r b) talk (approx. 30 minutes) o | | ation of one candidate each or | | |
| | | | , | | oral examination in groups (approx. 30 minutes) or d) project report (approx. 16 pages) | | | | | | |
| 11-SF-8I-072-m01 | | | I Special | Trainir | g Interdisciplinary | Research Fields | | | | | |
| | ECTS 8 Duratio | | | | 1 semester | Method of grading | | Modul level | graduate | | |
| | Courses | | | | | | hours) and course language ava | | | | |
| | Method | d of asse | essment | | a) written examination (approx. 90 minutes) or b) talk (approx. 30 minutes) or c) oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or d) project report (approx. 16 pages) | | | | | | |
| 11-SF-8T-072-m01 | · · · _ · · | | | Traini | ining Theoretical Physics | | | | | | |
| | ECTS | 8 | Duratio | า | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | <u> </u> | | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method | d of asse | essment | | | | r b) talk (approx. 30 minutes) or es) or d) project report (approx. | | ation of one candidate each or | | |
| 11-SUS-092-m01 | Supersymmetry I and II | | | | | | | | | | |
| | ECTS | 6 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | S | | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups prox. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be nounced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulation 2009. Language of assessment: German, English | | | | | | s) or c) project report (approx. 8 k. 30 minutes) d of assessment and will be anand examination regulations) | | | |
| | other p | rerequis | sites | tive do on to the le sessm | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | |

| 11-RMFT-102-m01 | Renorn | nalizati | on Group | Metho | ds in Field Theor | у | | | | | | |
|-----------------|----------------------|----------|-----------|--|--|------------------------|---------------------------|---------------|----------|--|--|--|
| | ECTS | 6 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | (no information c | n SWS (weekly contact | hours) and course languag | ge available) | | | | |
| | Method | d of ass | essment | prox. to 10 Asses nound 2009. | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | |
| | other prerequisites | | | tive do on to the le sessm | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | |
| 11-SPI-102-m01 | Spintro | onics | | | | | | | | | | |
| | ECTS | 6 | Duration | i i | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R | (no information c | n SWS (weekly contact | hours) and course languag | ge available) | | | | |
| | Method of assessment | | | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | |
| | other prerequisites | | | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |
| 11-AST-092-m01 | Theore | tical As | trophysic | S | | | | | | | | |
| | ECTS | 6 | Duratio | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | :S | | R + V | (no information c | on SWS (weekly contact | hours) and course languag | ge available) | | | | |
| | Method | d of ass | essment | writte | n examination (a | pprox. 120 minutes) | | | | | | |

| 11-WWB-102-m01 | Strong Interaction in Accelerator Experiments | | | | | | | | | | | | |
|----------------|---|-----------|-------------------|--|----------------------|---------------------|--------------------------------|-------------|----------|--|--|--|--|
| | ECTS | 3 | Duration | | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Courses | S | V | V + R (| (no information on : | SWS (weekly contact | hours) and course language av | ailable) | | | | | |
| | Method | of asse | t A r | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | | |
| | other p | rerequis | t t s | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | | |
| 11-MSS-102-m01 | Methods in Surface Spectroscopy | | | | | | | | | | | | |
| | ECTS 4 Duratio | | | | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Courses | S | \ | V (no i | information on SWS | (weekly contact hou | rs) and course language availa | ble) | | | | | |
| | Method | l of asse | r t /r r | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | | |
| | other p | rerequis | t t s | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | | |

| 11-APP-111-m01 | Practica | al Cours | se Astrophy | ysics | | 1 | | | | | | |
|----------------|------------------------------|-----------|------------------------------|--|----------------------|---------------------|-------------------------|-----------|-------------|--|--|--|
| | ECTS | 6 | Duration | | 1 semester | Method of grading | (not) successfully com | pleted | Modul level | graduate | | |
| | Courses | S | F | o (no i | information on SWS | (weekly contact hou | rs) and course language | e availal | ole) | | | |
| | Method | l of asse | s A r | a) Preparing, performing and evaluating the experiments will be considered successfully completed if a Testat (exam) is passed. Experiments that were not successfully completed can be repeated once. Or b) discussion to test the candidate's understanding of the physics-related contents and results of the experiment (approx. 20 minutes). Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. | | | | | | | | |
| | other p | rerequis | t t s | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |
| 11-DTS-111-m01 | Particle Radiation Detectors | | | | | | | | | | | |
| | ECTS 4 Duration | | | | 1 semester | Method of grading | numerical grade | | Modul level | graduate | | |
| | Courses | S | \ | √ + Ü | (no information on S | SWS (weekly contact | hours) and course lang | uage ava | ailable) | | | |
| | Method | l of asse | r <i>A</i> r 2 L | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in group prox. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (ap to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will nounced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations). Language of assessment: German, English | | | | | | s) or c) project report (approx. 8 k. 30 minutes) d of assessment and will be anand examination regulations) | | |
| | other p | rerequis | t t s | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |

| 11-MAS-111-mo1 | Modern | Astrop | hysics | | | | | | | | | |
|-----------------|--|-----------|-----------|--|--|---------------------|----------------------------|-------------|----------|--|--|--|
| | ECTS | 4 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | 5 | | V + R | (no information on | SWS (weekly contact | hours) and course language | available) | | | | |
| | Method | l of asse | | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | |
| | other p | rerequis | | tive do on to the le sessm | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | |
| 11-EXE5-111-m01 | Current Topics in Experimental Physics | | | | | | | | | | | |
| | ECTS 5 Duration | | | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | 5 | | V + R | (no information on | SWS (weekly contact | hours) and course language | available) | | | | |
| | Method | l of asse | | a) written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Language of assessment: German, English | | | | | | | | |
| | other p | | | Approval by examination committee required. | | | | | | | | |
| 11-EXE6-111-m01 | | | in Experi | mental Physics | | | | | | | | |
| | ECTS | 6 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | _ | | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | | |
| | Method | l of asse | | a) written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Language of assessment: German, English | | | | | | | | |
| | other prerequisites | | | Appro | val by examinatior | committee required. | | | | | | |

| 11-EXE7-111-m01 | Current | Topics | in Experi | menta | l Physics | | | | | | | |
|-----------------|-------------------------------|----------|-----------|--|---|---------------------|----------------------------|-------------|----------|--|--|--|
| | ECTS | 7 | Duration | า | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | S | | V + R | (no information on S | SWS (weekly contact | hours) and course language | available) | | | | |
| | Method | l of ass | essment | speci modu weeks | written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise pecified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for odules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 eeks) or d) presentation/seminar presentation (approx. 30 minutes) anguage of assessment: German, English | | | | | | | |
| | other p | rerequi | sites | Appro | oval by examination | committee required. | | | | | | |
| 11-EXE8-111-mo1 | Current | Topics | in Experi | menta | l Physics | | | | | | | |
| | ECTS | 8 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | S | | V + R | (no information on S | SWS (weekly contact | hours) and course language | available) | | | | |
| | Method | l of ass | essment | a) written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Language of assessment: German, English | | | | | | | | |
| | other p | rerequi | sites | Appro | oval by examination | committee required. | | | | | | |
| 11-EEW-102-m01 | Electron Electron Interaction | | | | | | | | | | | |
| | ECTS | 4 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | S | | V + R | (no information on S | SWS (weekly contact | hours) and course language | available) | | | | |
| | Method of assessment | | | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | |
| | other prerequisites | | | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |

| 11-TFK2-111-m01 | Theoretical Solid State Physics 2 | | | | | | | | | | | |
|-----------------|--|-----------|----------|--|--------------------|------------------------------|-----------------------|-------------|----------|--|--|--|
| | ECTS | 8 | Duration | | 1 semester | Method of grading numeric | al grade | Modul level | graduate | | | |
| | Courses | S | , | V + R (| (no information on | SWS (weekly contact hours) a | nd course language av | ailable) | | | | |
| | Method | l of asse | 1 | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | |
| | other p | rerequis | 1 | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |
| 11-ETT-111-m01 | Introduction to Elementary Particle Theory | | | | | | | | | | | |
| | ECTS | 4 | Duration | | 1 semester | Method of grading numeric | al grade | Modul level | graduate | | | |
| | Courses | s | , | V (no i | information on SW: | (weekly contact hours) and c | ourse language availa | ble) | | | | |
| | Method | l of asse | 1 | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (a prox. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be a nounced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | |
| | other p | rerequis | 1 | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |

| 11-QSG-102-m01 | Quantur | n Loop (| Gravity | | | | | 1 | | | | |
|-----------------|----------------------|---------------------------------------|----------|--|--|-------------------------|-----------------------------|-------------|----------|--|--|--|
| | ECTS | 4 | Duration |) | 1 semester | Method of grading nu | merical grade | Modul level | graduate | | | |
| | Courses | | | | V + S (no information on SWS (weekly contact hours) and course language available) | | | | | | | |
| | Method | of asse | | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | |
| | other pr | erequisi | | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |
| 11-EXT5-111-m01 | Current | Current Topics in Theoretical Physics | | | | | | | | | | |
| | ECTS | 5 | Duration | 1 | 1 semester | Method of grading nu | merical grade | Modul level | graduate | | | |
| | Courses | | | V + R | (no information on | SWS (weekly contact hou | ırs) and course language av | ailable) | | | | |
| | Method of assessment | | | a) written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless other specified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Language of assessment: German, English | | | | | | | | |
| | other pr | erequisi | ites | Appro | val by examinatio | n committee required. | | | | | | |
| 11-EXT6-111-m01 | Current | Topics i | n Theore | tical P | hysics | | | | | | | |
| | ECTS | 6 | Duration |) | 1 semester | Method of grading nu | merical grade | Modul level | graduate | | | |
| | Courses | | | V + R | (no information on | SWS (weekly contact hou | ırs) and course language av | ailable) | | | | |
| | Method of assessment | | | a) written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Language of assessment: German, English | | | | | | | | |
| | other pr | erequisi | ites | Appro | val by examinatio | n committee required. | | | | | | |

| 11-EXT7-111-m01 | Current | t Topics | s in Theor | etical I | Physics | | | | | | |
|-----------------|---------------------|----------------------|------------|--|---|--|---|---|--|--|--|
| | ECTS | 7 | Duratio | 1 | 1 semester | Method of grading numerical grade | Modul level | graduate | | | |
| | Course | :S | | V + R | (no information o | n SWS (weekly contact hours) and course lang | guage available) | | | | |
| | Method | d of ass | sessment | a) written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Language of assessment: German, English | | | | | | | |
| | other p | | _ | | | on committee required. | | | | | |
| 11-EXT8-111-mo1 | | <u> </u> | s in Theor | etical I | Physics | | | _ | | | |
| | ECTS 8 Duration | | | , | 1 semester | Method of grading numerical grade | Modul level | graduate | | | |
| | Course | :S | | V + R | (no information o | n SWS (weekly contact hours) and course lang | guage available) | | | | |
| | | Method of assessment | | | a) written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Language of assessment: German, English | | | | | | |
| | | other prerequisites | | | · · · · · · · · · · · · · · · · · · · | on committee required. | 1 | | | | |
| 11-ZDR-111-m01 | | | wo- and tl | threedimensional Röntgen imaging | | | | | | | |
| | ECTS | 6 | Duratio | | 1 semester | Method of grading numerical grade | Modul level | graduate | | | |
| | Course | :S | | V + R | (no information o | n SWS (weekly contact hours) and course lang | guage available) | | | | |
| | Method | d of ass | sessment | prox. to 10 Asses noun 2009 | 30 minutes per capages, time to consistency of the | (approx. 90 minutes) or b) oral examination or andidate, for modules with less than 4 ECTS cr mplete: 1 to 4 weeks) or d) presentation/semin then and how often assessment will be offered ander observance of Section 32 Subsection 3 A | redits approx. 20 minute nar presentation (approx d depends on the metho SPO (general academic | es) or c) project report (approx. 8 x. 30 minutes) d of assessment and will be anand examination regulations) | | | |
| | other prerequisites | | | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | |

| 11-IEM-111-mo1 | Introdu | ction to | Electron | Micros | эсору | | | | | | | |
|-----------------|-------------------------------------|-----------|----------|--|--|---|--|---|---------------------------------|--|--|--|
| | ECTS | 4 | Duration |) | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | <u> </u> | | V + R | (no information on s | SWS (weekly contact | hours) and course language ava | ailable) | | | | |
| | Method | l of asso | | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. Language of assessment: German, English | | | | | | | | |
| | other p | rerequis | | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | |
| 11-FTFK-112-m01 | Field Theory in Solid State Physics | | | | | | | | | | | |
| | ECTS | 8 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | V + R (no information on SWS (weekly contact hours) and course language available) | | | | | | | | |
| | Method | l of asso | | prox. to 10 Asses | 30 minutes per can pages, time to comp sment offered: Whe ced in due form und | didate, for modules v plete: 1 to 4 weeks) o en and how often ass | vith less than 4 ECTS credits app r d) presentation/seminar prese | prox. 20 minute entation (approx s on the metho | d of assessment and will be an- | | | |
| | other prerequisites | | | on to the le | etails at the beginn assessment. If stud cturer will put their | ing of the course. Reg ents have obtained t registration for asses or in the subsequents | gistration for the course will be on the qualification for admission to sement into effect. Students who | considered a de o assessment o o meet all prere | | | | |

| 11-ATT-111-m01 | Concepts of Theoretical Astroparticle physics | | | | | | | | | | | | |
|----------------|---|---------------------------|--|---------------------|-------------------------------|-------------|----------|--|--|--|--|--|--|
| | ECTS 4 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | | | |
| | Courses | V + | R (no information on | SWS (weekly contact | hours) and course language av | ailable) | | | | | | | |
| | Method of ass | pro to 1 Ass nou | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. | | | | | | | | | | |
| | other prerequi | tive on the ses | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | | | |
| 11-ART-112-mo1 | General Theory of Relativity | | | | | | | | | | | | |
| | ECTS 4 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | | | |
| | Courses | V + | R (no information on | SWS (weekly contact | hours) and course language av | ailable) | | | | | | | |
| | Method of ass | pro to 1 Ass not | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (prox. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be nounced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations 2009. | | | | | | | | | | |
| | other prerequi | tive on the ses | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | | | | |

| 11-SRT-112-m01 | Specia | l Theor | y of Relati | vity | | | | | | | | |
|-------------------|---|----------|-------------|---|--|---|-------------------------------|------------------|--------------------------------|--|--|--|
| | ECTS | 4 | Duratio | n | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | 25 | | V + R | (no information o | n SWS (weekly contact | hours) and course language av | ailable) | - | | | |
| | Metho | d of ass | sessment | prox. to 10 Asses | a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate, for modules with less than 4 ECTS credits approx. 20 minutes) or c) project report (approx. 8 to 10 pages, time to complete: 1 to 4 weeks) or d) presentation/seminar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009. | | | | | | | |
| | other | orerequi | isites | tive d on to the le sessr | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew. | | | | | | | |
| Compulsory Electi | ves Rese | arch M | odules Ph | ysics (| (16 ECTS credits) | | | | | | | |
| 11-FM-VK8A-072- | FOKUS Research Module Type VK8A Astronomy | | | | | | | | | | | |
| mo1 | ECTS | 8 | Duratio | n | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Courses | | | conta FOKU | act hour), details c IS Kompaktsemina | on availability to be ann ar Astronomie (FOKUS E | | ny): S (2 weekly | contact hours), German or Eng- | | | |
| | Method of assessment | | | 1. Top | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |

| 11-FM-VK8D-072- | FOKUS | FOKUS Research Module Type VK8D Didactics | | | | | | | | | | | |
|-----------------|--|---|----------|---|--|---|----------------------------|--|--|--|--|--|--|
| mo1 | ECTS | 8 | Duration | 1 semeste | r Method of grading | numerical grade | Modul level | graduate | | | | | |
| | Course | !S | | FOKUS Einführungsmodul Didaktik (FOKUS Introductory Module Didactics): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Didaktik (FOKUS Block Taught Seminar Didactics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | | |
| 11-FM-VK8E-072- | FOKUS Research Module Type VK8E Experimental Physics | | | | | | | | | | | | |
| mo1 | ECTS | 8 | Duration | 1 semeste | r Method of grading | numerical grade | Modul level | graduate | | | | | |
| | Course | 25 | | hours) + Ü/P (1 w FOKUS Kompakt | veekly contact hour), details seminar Experimentelle Phys | on availability to be annound ik (FOKUS Block Taught Sem | ced inar Experimental I | Physics): V (2 weekly contact Physics): S (2 weekly contact days), usually held during seme- | | | | | |
| | Method of assessment | | | 1. Topics covered amination of c | | vritten examination (approx. | | ((approx. 30 minutes) or oral exoject report (approx. 8 pages) | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | | |

| 11-FM-VK8I-072- | FOKUS | Resear | ch Modul | e Type VK8I Inter | disciplin | ary Research Fields | | | , | | | |
|-----------------|---|--------|----------|---|------------------------|---|--|-----------------|-----------------|--|--|--|
| mo1 | ECTS | 8 | Duration | 1 semeste | er | Method of grading | numerical grade | | Modul level | graduate | | |
| | Course | :S | | FOKUS Einführungsmodul Interdisziplinäre Fachgebiete (FOKUS Introductory Module Interdisciplinary Research Fields): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Interdisziplinäre Fachgebiete (FOKUS Block Taught Seminar Interdisciplinary Research Fields): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | |
| | Method of assessment | | | Topics covere amination of o | d in lectu one cand | res and exercises: v | ritten examination (a | | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |
| 11-FM-VK8T-072- | FOKUS Research Module Type VK8T Theoretical Physics | | | | | | | | | | | |
| mo1 | ECTS | 8 | Duration | 1 semeste | er | Method of grading | numerical grade | | Modul level | graduate | | |
| | Course | :S | | Ü/P (1 weekly co FOKUS Kompakt | ntact hou seminar | ur), details on availa Theoretische Physik | bility to be announced (FOKUS Block Taught | d Seminar Th | heoretical Phys | ics): V (2 weekly contact hours) + ics): S (2 weekly contact hours), sually held during semester | | |
| | Method of assessment | | | Topics covere amination of o | d in lectu one cand | res and exercises: v | ritten examination (a | | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |

| 11-FM-VK9A-072- | FOKUS Research Module Type VK9A Astronomy | | | | | | | | | | | | |
|-----------------|---|---|----------|---|---|--|-----------------|-------------------|---|--|--|--|--|
| mo1 | ECTS | 9 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Course | S | | FOKUS Einführungsmodul Astronomie (FOKUS Introductory Module Astronomy): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Astronomie (FOKUS Block Taught Seminar Astronomy): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | | |
| | | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | | |
| 11-FM-VK9D-072- | FOKUS Research Module Type VK9D Didactics | | | | | | | | | | | | |
| mo1 | ECTS | 9 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Courses | | | hour), FOKUS | details on availa Kompaktsemina | bility to be announced r Didaktik (FOKUS Bloc | | 6 (2 weekly conta | act hours) + Ü/P (1 weekly contact act hours), German or English, delester break) | | | | |
| | Method of assessment | | | 1. Top ami | ics covered in lec nation of one can | tures and exercises: wr | | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | | |

| 11-FM-VK9E-072- | FOKUS Research Module Type VK9E Experimental Physics | | | | | | | | | | | |
|-----------------|---|----------|----------|---|---|---|-------------------------|----------------------------------|--|--|--|--|
| mo1 | ECTS | 9 | Duration | 1 semester | Method of grading numerical grade | Mod | lul level | graduate | | | | |
| | Course | S | | FOKUS Einführungsmodul Experimentelle Physik (FOKUS Introductory Module Experimental Physics): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Experimentelle Physik (FOKUS Block Taught Seminar Experimental Physics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |
| 11-FM-VK9I-072- | FOKUS Research Module Type VK9I Interdisciplinary Research Fields | | | | | | | | | | | |
| mo1 | ECTS | 9 | Duration | 1 semester | Method of grading numerical grade | Mod | lul level | graduate | | | | |
| | Courses | | | weekly contact hours FOKUS Kompaktsem | nodul Interdisziplinäre Fachgebiete (FOKUS Intis) + Ü/P (1 weekly contact hour), details on avainar Interdisziplinäre Fachgebiete (FOKUS Blocs), German or English, details on availability toak) | ailability to be an ck Taught Semina | nnounced ar Interdis | ciplinary Research Fields): S (2 | | | | |
| | Method | d of ass | essment | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |

| 11-FM-VK9T-072- | FOKUS | Resear | ch Module | Type VK9T Theoretical | Physics | | - | | | | | |
|------------------|--|----------|------------------|--|--|-----------------|---------------------------------------|---|--|--|--|--|
| mo1 | ECTS | 9 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Course | S | i F | FOKUS Einführungsmodul Theoretische Physik (FOKUS Introductory Module Theoretical Physics): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Theoretische Physik (FOKUS Block Taught Seminar Theoretical Physics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | |
| | Method | d of ass | 1 2 4 9 | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. | | | | | | | | |
| | | | | To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |
| 11-FM-VK10A-072- | FOKUS Research Module Type VK10A Astronomy | | | | | | | | | | | |
| mo1 | ECTS | 10 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Course | S | C F | FOKUS Einführungsmodul Astronomie (FOKUS Introductory Module Astronomy): V (3 weekly contact hours) + Ü/P (2 weekly contact hours), German or English, details on availability to be announced FOKUS Kompaktseminar Astronomie (FOKUS Block Taught Seminar Astronomy): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | |
| | Method of assessment | | | 1. Topics covered in lect | tures and exercises: wr didate each or oral exa | | minutes) or talk o minutes) or pro | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | | | |
| | | | [| Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |

| 11-FM-VK10D-072- | FOKUS | Resear | ch Module | Type VI | K10D Didactics | | | | | | | |
|------------------|---|----------|-----------|--|--|---|-------------------------|---------------------|-------------------------------|--|--|--|
| mo1 | ECTS | 10 | Duration | 1 | semester | Method of grading numerical grade | | Modul level | graduate | | | |
| | Course | S | | FOKUS Einführungsmodul Didaktik (FOKUS Introductory Module Didactics): V (3 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Didaktik (FOKUS Block Taught Seminar Didactics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |
| 11-FM-VK10E-072- | FOKUS Research Module Type VK10E Experimental Physics | | | | | | | | | | | |
| mo1 | ECTS | 10 | Duration | 1 | semester | Method of grading numerical grade | | Modul level | graduate | | | |
| | Course | S | | hours) + FOKUS k | - Ü/P (2 weekly co Kompaktseminar German or Englis | l Experimentelle Physik (FOKUS Introducto ontact hours), details on availability to be a Experimentelle Physik (FOKUS Block Taugl n, details on availability to be announced | announced ht Seminar | l Experimental F | Physics): S (2 weekly contact | | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |

| 11-FM-VK10I-072- | FOKUS Research Module Type VK10I Interdisciplinary Research Fields | | | | | | | | | | | | |
|------------------|--|----|----------|--|---|--|--------------------------------|------------------|--|--|--|--|--|
| mo1 | ECTS | 10 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Course | 2S | | FOKUS Einführungsmodul Interdisziplinäre Fachgebiete (FOKUS Introductory Module Interdisciplinary Research Fields): V (3 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Interdisziplinäre Fachgebiete (FOKUS Block Taught Seminar Interdisciplinary Research Fields): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | | |
| | Method of assessment | | | 1. Top ami | ics covered in lec ination of one car | tures and exercises: w | ritten examination (approx. 90 | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | | |
| 11-FM-VK10T-072- | FOKUS Research Module Type VK1oT Theoretical Physics | | | | | | | | | | | | |
| mo1 | ECTS | 10 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | | |
| | Courses | | | Ü/P (2 FOKUS | weekly contact h Kompaktsemina an or English, det | nours), details on avail ar Theoretische Physik | ability to be announced | Theoretical Phys | ics): V (3 weekly contact hours) + ics): S (2 weekly contact hours), sually held during semester | | | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | | |

| 11-FM-VK12A-072- | FOKUS | Resear | ch Module | е Туре | VK12A Astronomy | , | | | | | |
|------------------|--------|----------|-----------|---|--|--|---|-------------------|---|--|--|
| mo1 | ECTS | 12 | Duration | ı | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | S | | contac FOKUS | ct hours), details c S Kompaktsemina | on availability to be and r Astronomie (FOKUS B | | y): S (2 weekly (| contact hours), German or Eng- | | |
| | Method | d of ass | essment | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | |
| 11-FM-VK12D-072- | FOKUS | Resear | ch Module | le Type VK12D Didactics | | | | | | | |
| mo1 | ECTS | 12 | Duration | ı | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | S | | hours) FOKUS |), details on availa S Kompaktsemina | bility to be announced r Didaktik (FOKUS Bloc | İ | (2 weekly conta | act hours) + Ü/P (2 weekly contact act hours), German or English, delester break) | | |
| | Method | d of ass | | 1. Top ami | ics covered in lect nation of one can | | | | (approx. 30 minutes) or oral ex- oject report (approx. 8 pages) | | |
| | | | | Stude Detail | nts must register f s on when assess | or assessment compo ment components 1 an | ed in German or English. nents 1 and 2 online (details to d 2 will be offered to be annou assessment component 1 and | nced. | | | |

| 11-FM-VK12E-072- | FOKUS | Resear | ch Module | Type VK1 | 12E Experiment | al Physics | | | | |
|------------------|--|----------|-----------|--|------------------------------------|--|--|---------------------------------------|--|--|
| mo1 | ECTS | 12 | Duration | 1 5 | emester | Method of grading numer | cal grade | Modul level | graduate | |
| | Course | S | | FOKUS Einführungsmodul Experimentelle Physik (FOKUS Introductory Module Experimental Physics): V (4 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Experimentelle Physik (FOKUS Block Taught Seminar Experimental Physics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | |
| | Method | d of ass | | 1. Topics aminat | covered in lectuion of one cand | owing assessment componer ares and exercises: written ex idate each or oral examination 30 to 45 minutes) | amination (approx. 90 | minutes) or talk o minutes) or pro | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components 1 and 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | |
| 11-FM-VK12I-072- | FOKUS Research Module Type VK12I Interdisciplinary Research Fields | | | | | | | | | |
| mo1 | ECTS | 12 | Duration | 1 5 | emester | Method of grading numer | cal grade | Modul level | graduate | |
| | Course | S | | weekly co FOKUS Ko weekly co | ontact hours) + l ompaktseminar | Ü/P (2 weekly contact hours) Interdisziplinäre Fachgebiete | details on availability (FOKUS Block Taught S | to be announce Seminar Interdis | ciplinary Research Fields): V (4 d sciplinary Research Fields): S (2 ght seminar (3 days), usually held | |
| | Method | d of ass | | 1. Topics aminat | covered in lectuion of one cand | | amination (approx. 90 | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | |
| | | | | Students Details or | must register fo n when assessn | s 1 and 2 will be offered in Ge or assessment components 1 nent components 1 and 2 will dents must pass both assess | and 2 online (details to be offered to be annou | ınced. | | |

| 11-FM-VK12T-072- | FOKUS | Resear | ch Module | - Туре | VK12T Theoretical | Physics | | | | |
|------------------|----------------------|-----------|-----------|--|---|---|--|----------------------|--------------------------------|--|
| mo1 | ECTS | 12 | Duration |) | 1 semester | Method of grading | numerical grade | Modul level | graduate | |
| | Course | S | | FOKUS Einführungsmodul Theoretische Physik (FOKUS Introductory Module Theoretical Physics): V (4 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Theoretische Physik (FOKUS Block Taught Seminar Theoretical Physics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | |
| | | | | Stude Detail | ents must register f Is on when assessr | or assessment compo ment components 1 an | ed in German or English. nents 1 and 2 online (details to nd 2 will be offered to be annou n assessment component 1 and | nced. | | |
| 11-FM-VM- | FOKUS | Resear | ch Module | e Type | VKM12A Astronon | ny | | | | |
| K12A-072-m01 | ECTS | 12 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | |
| | Course | Courses | | | ct hour), details or S Kompaktseminai details on availabil S Miniforschungsp | n availability to be ann r Astronomie (FOKUS B ity to be announced (b projekt Astronomie (FO | Block Taught Seminar Astronom Block taught seminar (3 days), u | ry): S (2 weekly ous | contact hours), German or Eng- | |
| | Method | l of asse | | Top am Ser | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or or amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages). Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | |
| | | | | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |

| 11-FM-VM- | FOKU | S Resear | ch Module Type | e VMK12D Didactics | , | | | | | | |
|---------------------------|-------|-----------|---|--|--|--|---|--|--|--|--|
| K12D-072-m01 | ECTS | 12 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Cours | es | hour FOKU tails FOKU | FOKUS Einführungsmodul Didaktik (FOKUS Introductory Module Didactics): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Didaktik (FOKUS Block Taught Seminar Didactics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Didaktik (FOKUS Mini Research Project Didactics): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | | |
| | Metho | od of ass | 1. To an 2. Se 3. Re Asse Stud | This module has the following assessment components Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) Seminar: talk (approx. 30 to 45 minutes) Research project: project report (approx. 8 pages) Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. | | | | | | | |
| | | | То ра | To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | | |
| 11-FM-VM- K12E-072-m01 | | | | e VMK12E Experimen | | | [A | | | | |
| RIZE 0/2 moi | ECTS | 12 | Duration | 1 semester | Method of grading | | Modul level | graduate | | | |
| | Cours | es | hour FOKU hour ster FOKU | s) + Ü/P (1 weekly co JS Kompaktseminar E s), German or English break) JS Miniforschungspro | ntact hour), details o Experimentelle Physi n, details on availabi ojekt Experimentelle | n availability to be annou k (FOKUS Block Taught Se lity to be announced (bloc | inced eminar Experimental I ck taught seminar (3 d arch Project Experime | Physics): V (2 weekly contact Physics): S (2 weekly contact days), usually held during seme- ental Physics): P (2 weekly contact ne) | | | |
| | Metho | od of ass | 1. To an 2. Se | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | | |
| | | | Stud Deta | ents must register fo ils on when assessm | r assessment compo ent components 1 th | ffered in German or Englis nents 1 through 3 online (rough 3 will be offered to n of the assessment comp | (details to be announ be announced. | iced). | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module | Type VMK12I Interdis | ciplinary Research Field | ls | | | | |
|--------------|--------|----------|-----------|--|--------------------------|---|---|---|--|--|
| K12l-072-m01 | ECTS | 12 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | 25 | | FOKUS Einführungsmodul Interdisziplinäre Fachgebiete (FOKUS Introductory Module Interdisciplinary Research Fields): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Interdisziplinäre Fachgebiete (FOKUS Block Taught Seminar Interdisciplinary Research Fields): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Interdisziplinäre Fachgebiete (FOKUS Mini Research Project Interdisciplinary Research Fields): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | |
| | | | | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| 11-FM-VM- | | Resear | ch Module | Type VKM12T Theore | tical Physics | | | | | |
| K12T-072-m01 | ECTS | 12 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | 25 | | FOKUS Einführungsmodul Theoretische Physik (FOKUS Introductory Module Theoretical Physics): V (2 weekly contact hour Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Theoretische Physik (FOKUS Block Taught Seminar Theoretical Physics): S (2 weekly contact hour German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Theoretische Physik (FOKUS Mini Research Project Theoretical Physics): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method | d of ass | | Topics covered in le amination of one ca Seminar: talk (appragament) Research project: p Assessment compone Students must registe | ndidate each or oral exa | ritten examination (app amination in groups (ap pages) ffered in German or Eng nents 1 through 3 online | prox. 30 minutes) or pr dish. e (details to be announ | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | |

| 11-FM-VM- | FOKUS | Resear | ch Module | e Type VKM13A Astronom | <u>у</u> | | | | | |
|--------------|--------|----------|-----------|---|---|--|-------------------------------------|--|--|--|
| K13A-072-m01 | ECTS | 13 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | S | | FOKUS Einführungsmodul Astronomie (FOKUS Introductory Module Astronomy): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Astronomie (FOKUS Block Taught Seminar Astronomy): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Astronomie (FOKUS Mini Research Project Astronomy): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method | d of ass | | Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) Seminar: talk (approx. 30 to 45 minutes) Research project: project report (approx. 8 pages) Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. | | | | | | |
| | | , | | To pass this module, stu | dents must pass each | of the assessment componer | nts 1 through 3. | | | |
| 11-FM-VM- | | | | e Type VMK13D Didactics | | | | | | |
| K13D-072-m01 | ECTS | 13 | Duration | | Method of grading | | Modul level | graduate | | |
| | Course | es | | hour), details on availab FOKUS Kompaktseminar tails on availability to be FOKUS Miniforschungspi | ility to be announced Didaktik (FOKUS Bloc announced (block ta ojekt Didaktik (FOKUS | k Taught Seminar Didactics): ught seminar (3 days), usually | S (2 weekly cont held during sen | act hours) + Ü/P (1 weekly contact act hours), German or English, denester break) v contact hours), German or Eng- | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | |
| | | | | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module | Type VMK13E Experi | imental Physics | ı | | | | | | |
|--------------|--------|----------|-------------|---|--|--|---|--|--|--|--|--|
| K13E-072-m01 | ECTS | 13 | Duration | 1 semester | Method of grading numerical grade | Modul level | graduate | | | | | |
| | Course | S | | hours) + Ü/P (1 weekl FOKUS Kompaktsemii hours), German or En ster break) FOKUS Miniforschung | nodul Experimentelle Physik (FOKUS Introduc ly contact hour), details on availability to be inar Experimentelle Physik (FOKUS Block Tau nglish, details on availability to be announce gsprojekt Experimentelle Physik (FOKUS Min nglish, details on availability to be announce | announced Ight Seminar Experimental d (block taught seminar (3) i Research Project Experime | Physics): S (2 weekly contact days), usually held during semeental Physics): P (2 weekly contact | | | | | |
| | Method | d of ass | ; ; ; | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | | | |
| 11-FM-VM- | FOKUS | Resear | ch Module | e Type VMK13I Interdisciplinary Research Fields | | | | | | | | |
| K13I-072-m01 | ECTS | 13 | Duration | 1 semester | Method of grading numerical grade | Modul level | graduate | | | | | |
| | Course | | \ | weekly contact hours) FOKUS Kompaktsemii weekly contact hours) during semester brea FOKUS Miniforschung (2 weekly contact hou | gsprojekt Interdisziplinäre Fachgebiete (FOK urs), German or English, details on availabili | vailability to be announced ock Taught Seminar Interdi to be announced (block tau US Mini Research Project Ir | sciplinary Research Fields): S (2 aght seminar (3 days), usually held atterdisciplinary Research Fields): P | | | | | |
| | Method | d of ass | ; ; , | Topics covered in leamination of one caracter Seminar: talk (approperties) Research project: physical properties Assessment components Students must registed Details on when asse | following assessment components lectures and exercises: written examination (andidate each or oral examination in groups rox. 30 to 45 minutes) project report (approx. 8 pages) ents 1 through 3 will be offered in German or er for assessment components 1 through 3 components 1 through 3 will be offered students must pass each of the assessment | English. In the control of the contr | roject report (approx. 8 pages) | | | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module | Type VKM13T Theoretica | l Physics | | | | | |
|--------------|--|----------|-------------------------------|--|--|--|---|---|--|--|
| K13T-072-m01 | ECTS | 13 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Courses | S | Ü F G b F | FOKUS Einführungsmodul Theoretische Physik (FOKUS Introductory Module Theoretical Physics): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), details on availability to be announced FOKUS Kompaktseminar Theoretische Physik (FOKUS Block Taught Seminar Theoretical Physics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Theoretische Physik (FOKUS Mini Research Project Theoretical Physics): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method | d of ass | 1 2 3 A S C | This module has the following assessment components Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) Seminar: talk (approx. 30 to 45 minutes) Research project: project report (approx. 8 pages) Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. | | | | | | |
| 11-FM-VM- | FOKUS | Pocoar | | <u> </u> | <u> </u> | of the assessment compone | nts 1 through 3. | | | |
| K14A-072-m01 | FOKUS Research Module ECTS 14 Duration | | | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Courses | S | c F li F | contact hours), details on FOKUS Kompaktseminar A ish, details on availability FOKUS Miniforschungspro | availability to be and Astronomie (FOKUS B y to be announced (b Djekt Astronomie (FOI | nounced Block Taught Seminar Astronoi Block taught seminar (3 days), | my): S (2 weekly (usually held dur tronomy): P (2 we | contact hours) + Ü/P (2 weekly contact hours), German or Eng- ring semester break) eekly contact hours), German or | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | |
| | | | S | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module Type | VMK14D Didactics | - | | | | | | |
|--------------|--------|----------|--|--|---|---|---|--|--|--|--|
| K14D-072-m01 | ECTS | 14 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | hour FOKU tails FOKU | FOKUS Einführungsmodul Didaktik (FOKUS Introductory Module Didactics): V (3 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Didaktik (FOKUS Block Taught Seminar Didactics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Didaktik (FOKUS Mini Research Project Didactics): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | | |
| | Method | d of ass | 1. To am 2. Se | pics covered in lectu nination of one candi minar: talk (approx. | idate each or oral exa | ritten examination (approx. 90 in itten examination (approx. 30 in groups) | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | | |
| | | | Stud Deta | ents must register fo ils on when assessm | r assessment compo ent components 1 th | ffered in German or English. nents 1 through 3 online (detai rough 3 will be offered to be an n of the assessment componen | nounced. | aced). | | | |
| 11-FM-VM- | FOKUS | Resear | ch Module Type | e VMK14E Experimen | | | | | | | |
| K14E-072-m01 | ECTS | 14 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | es. | hour FOKU hour ster I FOKU | s) + Ü/P (2 weekly co JS Kompaktseminar l s), German or Englisl oreak) JS Miniforschungspro | ontact hours), details Experimentelle Physi n, details on availabil ojekt Experimentelle | , | d r Experimental ght seminar (3 Project Experime | Physics): S (2 weekly contact days), usually held during semeental Physics): P (2 weekly contact | | | |
| | Method | d of ass | 1. To am 2. Se | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | | |
| | | | Stud Deta | ents must register fo ils on when assessm | r assessment compo ent components 1 th | ffered in German or English. nents 1 through 3 online (detai rough 3 will be offered to be an n of the assessment componen | nounced. | iced). | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module | Type VMK14l Interdis | ciplinary Research Field | ls | | | | |
|--------------|--------|----------|-----------|---|--------------------------|-----------------|-------------|----------|--|--|
| K14l-072-m01 | ECTS | 14 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | SS | | FOKUS Einführungsmodul Interdisziplinäre Fachgebiete (FOKUS Introductory Module Interdisciplinary Research Fields): V (3 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Interdisziplinäre Fachgebiete (FOKUS Block Taught Seminar Interdisciplinary Research Fields): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Interdisziplinäre Fachgebiete (FOKUS Mini Research Project Interdisciplinary Research Fields): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) Assessment components 1 through 3 will be offered in German or English. | | | | | | |
| | | , | | Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| 11-FM-VM- | | Resear | | Type VKM14T Theore | | | | | | |
| K14T-072-m01 | ECTS | 14 | Duration | | Method of grading | | Modul level | graduate | | |
| | Course | S | | FOKUS Einführungsmodul Theoretische Physik (FOKUS Introductory Module Theoretical Physics): V (3 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Theoretische Physik (FOKUS Block Taught Seminar Theoretical Physics): S (2 weekly contact hours), details on availability to be announced (block taught seminar (3 days), usually held during semeste break) FOKUS Miniforschungsprojekt Theoretische Physik (FOKUS Mini Research Project Theoretical Physics): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module | e Type VKM16A Astrono | omy | , | | | | |
|--------------|----------------------|----------|-----------|--|--|--|---------|--|--|--|
| K16A-072-m01 | ECTS | 16 | Duration | 1 semester | Method of grading numerical grade | Modul | level | graduate | | |
| | Course | S | | FOKUS Einführungsmodul Astronomie (FOKUS Introductory Module Astronomy): V (4 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Astronomie (FOKUS Block Taught Seminar Astronomy): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Astronomie (FOKUS Mini Research Project Astronomy): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | |
| | | _ | | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| 11-FM-VM- | | | | e Type VMK16D Didaction | | | | | | |
| K16D-072-m01 | ECTS | 16 | Duration | | Method of grading numerical grade | Modul | | graduate | | |
| | Course | es. | | hours), details on avail FOKUS Kompaktsemina tails on availability to b FOKUS Miniforschungs | dul Didaktik (FOKUS Introductory Module Didalability to be announced ar Didaktik (FOKUS Block Taught Seminar Did be announced (block taught seminar (3 days), sprojekt Didaktik (FOKUS Mini Research Projectility to be announced (approx. 3 weeks, part t | actics): S (2 week , usually held duri ct Didactics): P (2 | ly coni | tact hours), German or English, de- mester break) | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | |
| | | | | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module 1 | Type VMK16E Experir | mental Physics | 1 | | | | |
|--------------|---|----------|----------------------------|--|--|--|--|--|--|--|
| K16E-072-m01 | ECTS | 16 | Duration | 1 semester | Method of grading numerical grade | Modul level | graduate | | | |
| | Course | S S | h F h S | FOKUS Einführungsmodul Experimentelle Physik (FOKUS Introductory Module Experimental Physics): V (4 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Experimentelle Physik (FOKUS Block Taught Seminar Experimental Physics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Experimentelle Physik (FOKUS Mini Research Project Experimental Physics): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | Method | d of ass | 1 2 3 A S D | This module has the following assessment components Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) Seminar: talk (approx. 30 to 45 minutes) Research project: project report (approx. 8 pages) Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| 11-FM-VM- | FOKUS Research Module Type VMK16I Interdisciplinary Research Fields | | | | | | | | | |
| K16I-072-m01 | ECTS | 16 | Duration | 1 semester | Method of grading numerical grade | Modul level | graduate | | | |
| | Courses | | | veekly contact hours) OKUS Kompaktsemir veekly contact hours) luring semester breal OKUS Miniforschung veekly contact hou | sprojekt Interdisziplinäre Fachgebiete (FOk ırs), German or English, details on availabil | availability to be announc lock Taught Seminar Interd to be announced (block ta KUS Mini Research Project I | ed isciplinary Research Fields): S (2 ught seminar (3 days), usually held nterdisciplinary Research Fields): P | | | |
| | | | | . Topics covered in le amination of one ca . Seminar: talk (appro . Research project: p assessment compone tudents must registe etails on when asses | following assessment components ectures and exercises: written examination andidate each or oral examination in group fox. 30 to 45 minutes) eroject report (approx. 8 pages) ents 1 through 3 will be offered in German or for assessment components 1 through 3 essment components 1 through 3 will be offered in German or for assessment components 1 through 3 will be offered in German or for assessment components 1 through 3 will be offered in German or for assessment components 1 through 3 will be offered in German or for assessment components 1 through 3 will be offered in German or for assessment components 2 through 3 will be offered in German or for assessment components 2 through 3 will be offered in German or for assessment components 2 through 3 will be offered in German or for assessment components 2 through 3 will be offered in German or for assessment components 3 through 3 will be offered in German or for assessment components 2 through 3 will be offered in German or for assessment components 2 through 3 will be offered in German or for assessment components 3 through 3 will be offered in German or for assessment components 3 will be offered in German or for assessment components 3 through 3 will be offered in German or for assessment components 3 through 3 will be offered in German or for assessment components 3 through 3 will be offered in German or for assessment components 3 through 3 will be offered in German or for assessment components 3 through 3 will be offered in German or for assessment components 4 through 3 will be offered in German or for assessment components 4 through 3 will be offered in German or for a second 2 through 3 will be offered in German or for a second 2 through 3 will be offered in German or for a second 2 through 3 will be offered in German or for a second 2 through 3 will be offered in German or for a second 2 through 3 will be offered in German or for a second 2 through 3 will be offered 3 t | or English. online (details to be annouered to be annouered to be announced. | roject report (approx. 8 pages) | | | |

| 11-FM-VM- | FOKUS | Resear | ch Module | Type VKM16T Theoretica | l Physics | | | | | |
|----------------|---|---------|-----------|---|---|--|-----------------|---|--|--|
| K16T-072-m01 | ECTS | 16 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | 5 | | FOKUS Einführungsmodul Theoretische Physik (FOKUS Introductory Module Theoretical Physics): V (4 weekly contact hours) + Ü/P (2 weekly contact hours), details on availability to be announced FOKUS Kompaktseminar Theoretische Physik (FOKUS Block Taught Seminar Theoretical Physics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) FOKUS Miniforschungsprojekt Theoretische Physik (FOKUS Mini Research Project Theoretical Physics): P (2 weekly contact hours), German or English, details on availability to be announced (approx. 3 weeks, part time) | | | | | | |
| | 2. S 3. F Ass Stu Det | | | 1. Topics covered in lectur | res and exercises: wr date each or oral exa 30 to 45 minutes) | ritten examination (approx. 90 amination in groups (approx. 30 | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | |
| | | | | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment components 1 through 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| 11-FM-SPD-102- | FOKUS Research Module Applied Semiconductor Physics and Devices | | | | | | | | | |
| mo1 | ECTS 10 Duration | | | | Method of grading | | Modul level | graduate | | |
| | CC Kc (2 | | | contact hour), German or Kompaktseminar Halbleit | English, once a year erphysik und Bauele German or English, c | (winter semester) mente (Block Taught Seminar) | Applied Semicor | ly contact hours) + Ü/P (1 weekly nductor Physics and Devices): S aught seminar (3 days), usually | | |
| | Method of assessment 1. To a a 2. S Ass Stur Ass offer | | | 1. Topics covered in lectur | res and exercises: wr date each or oral exa | mponents ritten examination (approx. 90 ımination in groups (approx. 3 | | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | |
| | | | | Assessment component 1 offered to be announced. | r assessment compo will be offered once | nents 1 and 2 online (details to | details on when | assessment component 2 will be | | |
| | other p | rerequi | sites | 11-KM-2 | | | | | | |

| 11-FM-QTH-102- | FOKUS | Resear | ch Module | Module Quantum Transport in Semiconductor Nanostructures | | | | | | | | |
|----------------|---|--------|-----------------|---|-------------------------------|---|---|------------------|--|--|--|--|
| mo1 | ECTS | 10 | Duration | 1 semester | | Method of grading r | umerical grade | Modul level | graduate | | | |
| | Course | S | t k N | Quantentransport in Halbleiter-Nanostrukturen (Quantum Transport in Semiconductor Nanostructures): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, once a year (summer semester) Kompaktseminar Quantentransport in Halbleiternanostrukturen (Block Taught Seminar Quantum Transport in Semiconductor Nanostructures): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | | | |
| | Method of assessment | | | . Topics covered amination of or 2. Seminar: talk (| in lectu e candi pprox. | res and exercises: writidate each or oral exam 30 to 45 minutes) | ten examination (approx. 90 r iination in groups (approx. 30 | | (approx. 30 minutes) or oral ex- oject report (approx. 8 pages) | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Assessment component 1 will be offered once a year in the summer semester; details on when assessment component 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |
| 11-FM-MSS-102- | FOKUS Research Module Methods in Surface Spectroscopy | | | | | | | | | | | |
| mo1 | ECTS | 8 | Duration | 1 semester | | Method of grading r | | Modul level | graduate | | | |
| | Course | S | k | Kompaktseminar | Block T | Taught Seminar) Applic | ontact hours), usually English ations of Surface Spectroscop ock taught seminar (3 days), u | y: S (2 weekly o | contact hours), German or Eng- | | | |
| | Method of assessment other prerequisites | | | Topics covered amination of o | in lectu e candi | res and exercises: writ | ten examination (approx. 90 r | | (approx. 30 minutes) or oral ex- oject report (approx. 8 pages) | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Assessment component 1 will be offered once a year in the winter semester; details on when assessment component 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |
| | | | | 1-TQM, 11-KM2 , | .1-FK2 (0 | or 11-T3, 11-E5, 11-E7) | | | | | | |

| 11-FM-MSS- | FOKUS | Resear | ch Module | e Methods in Surface S | Spectroscopy with Min | i Research Project | | | | |
|----------------|----------------------|---------|-----------|---|---|--|--------------------------------------|---|--|--|
| MF-102-m01 | ECTS | 12 | Duration | 1 semester | Method of grading | g numerical grade | Modul level | graduate | | |
| | Course | S | | Methods in Surface Spectroscopy: V (3 weekly contact hours), usually English, once a year (winter semester) Kosmologie (Cosmology): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English Kompaktseminar (Block Taught Seminar) Applications of Surface Spectroscopy: S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) Miniforschungsprojekt zu Surface Spectroscopy (Mini Research Project Surface Spectroscopy): P (2 weekly contact hours) | | | | | | |
| | Method of assessment | | | Topics covered in le amination of one ca Seminar: talk (appr | ectures and exercises: vandidate each or oral e | written examination (approx. 90 xamination in groups (approx. 30 | minutes) or talk o minutes) or pr | (approx. 30 minutes) or oral exoject report (approx. 8 pages) | | |
| | | | | Assessment components 1 through 3 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Assessment component 1 will be offered once a year in the winter semester; details on when assessment components 2 and 3 will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| | other p | rerequi | sites | 11-TQM, 11-KM2 , 11-FI | (2 (or 11-T3, 11-E5, 11-E | 7) | | - | | |
| 11-FM-HAS-111- | FOKUS | Resear | ch Module | e High Energy Astroph | ysics | | | | | |
| mo1 | ECTS | 10 | Duration | 1 semester | Method of gradin | g numerical grade | Modul level | graduate | | |
| | Courses | | | Plasma-Astrophysik (Plasma-Astrophysics): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, once a year (summer semester) Kosmologie (Cosmology): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English Kompaktseminar Hochenergie-Astrophysik (Block Taught Seminar High Energy Astrophysics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment component 2 will be offered to be announced. Lectures and exercises will cover either plasma-astrophysics or cosmology (as announced by or agreed upon with the lecturer). To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | |
| | other p | rerequi | sites | 11-A4, 11-KET | | | | | | |

| 11-FM-HAS-MF-111- | FOKUS | Resear | ch Module | High Energy Astrophys | sics with Mini Research | Project | | | | |
|-------------------|---------|----------|-----------|---|--|---|---|--|--|--|
| mo1 | ECTS | 16 | Duration | | Method of grading | | Modul level | graduate | | |
| | Course | S | | a year (summer semest Kosmologie (Cosmolog Kompaktseminar Hoch man or English, details | er) y): V (3 weekly contact h energie-Astrophysik (Blo on availability to be an | nours) + Ü/P (1 weekly contact ock Taught Seminar High Energ | hour), German (gy Astrophysics) r (3 days), usua | oct hour), German or English, once or English o: S (2 weekly contact hours), Ger- lly held during semester break) | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Lab course (research project): a) Preparing, performing and evaluating the experiments will be considered successfully completed if a Testat (exam) is passed. Students will be given one opportunity to repeat experiments they did not pass. Or b) discussion to test the students' understanding of the physics-related contents and results of the experiment (approx. 20 minutes). | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 through 3 online (details to be announced). Details on when assessment component 2 will be offered to be announced. Lectures and exercises will cover either plasma-astrophysics or cosmology (as announced by or agreed upon with the lecturer). To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | |
| | other p | | | 11-A4, 11-KET | | | | | | |
| 11-FM-NOS-F-111- | FOKUS | Resear | ch Module | le Spectroscopy and Nano-Optics | | | | | | |
| mo1 | ECTS | 10 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | | | Festkörper-Spektroskopie (Solid State Spectroscopy): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), Germa English, once a year (summer semester) Kompaktseminar Nano-Optik und Spektroskopie (Block Taught Seminar Nano-Optics and Spectroscopy): S (2 weekly chours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during ster break) | | | | | | |
| | Method | d of ass | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Assessment component 1 will be offered once a year in the summer semester; details on when assessment component 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | |
| | other p | rerequi | sites | 11-KM, 11-TQM | | | | | | |

| 11-FM-NOS-N-111- | FOKUS | Resear | ch Modul | e Nano-Optics and Spect | roscopy | , | | | | |
|------------------|----------------------|--------|----------|---|---|--------------------------------------|----------|--|--|--|
| mo1 | ECTS | 8 | Duration | 1 semester | Method of grading numerical grade | Modul level | graduate | | | |
| | Course | S | | Nano-Optik (Nano-Optics): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, once a year (summer semester) Kompaktseminar Nano-Optik (Block Taught Seminar Nano-Optics): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break) | | | | | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Students must meet certain prerequisites to qualify for admission to assessment component 1. The lecturer will inform them about the respective details at the beginning of the course. Assessment component 1 will be offered once a year in the summer semester; details on when assessment component 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | |
| | | | | | | | | | | |
| 11-FM4-112-m01 | FOKUS | Resear | ch Modul | e | · · · · · · · · · · · · · · · · · · · | , | | | | |
| | ECTS | 8 | Duration | 1 semester | Method of grading numerical grade | Modul level | graduate | | | |
| | Course | S | | Ü/P (1 weekly contact ho | uellen Forschungsthemen (FOKUS Lecture o our), German or English, details on availabili r (FOKUS Block Taught Seminar): S (2 weekly | ity to be announced | | | | |
| | Method of assessmen | | essment | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pt. 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | |
| | | | | Students must register for Details on when assessr | s 1 and 2 will be offered in German or Englis or assessment components 1 and 2 online (ment components will be offered to be anno udents must pass both assessment compon | (details to be announced) ounced. | | | | |

| 11-FM6-112-m01 | FOKUS | Resea | ch Modul | <u>——</u> | | | | | | | | |
|------------------|--------|------------------|---|---|---|---|---|-------------------------------|-------------------------------------|--|--|--|
| | ECTS | 10 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | !S | | Ü/P (1 FOKU: | FOKUS Vorlesung zu aktuellen Forschungsthemen (FOKUS Lecture on Topics in Current Research): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, details on availability to be announced FOKUS Kompaktseminar (FOKUS Block Taught Seminar): S (2 weekly contact hours), German or English, details on availability to be announced | | | | | | | |
| | Metho | d of ass | essment | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |
| 11-FM8-112-m01 | EOVIIS | Pocosi | ch Modul | | ss tills illoudle, st | udents must pass both | assessment component 1 and | assessment co | imponent 2. | | | |
| 11-FM6-112-11101 | | | | | | | | | | | | |
| | | ECTS 12 Duration | | | S Vorlesung zu ak weekly contact h | tuellen Forschungsther lours), German or Engli | nen (FOKUS Lecture on Topics i sh, details on availability to be | in Current Resea announced | or English, details on availability | | | |
| | Metho | d of ass | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minute amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 2. Seminar: talk (approx. 30 to 45 minutes) | | | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | | |

| 11-FM4-MF-112- | FOKUS | Resear | ch Module wi | th Mini Research Proje | ect | | | | | |
|----------------|----------------------|---|---|---|--|------------------------------------|----------------------------|-------------------------------------|--|--|
| mo1 | ECTS | 12 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | S | Ü/F FOI to I FOI | FOKUS Vorlesung zu aktuellen Forschungsthemen (FOKUS Lecture on Topics in Current Research): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, details on availability to be announced FOKUS Kompaktseminar (FOKUS Block Taught Seminar): S (2 weekly contact hours), German or English, details on availability to be announced FOKUS Miniforschungsprojekt (FOKUS Mini Research Project): P (2 weekly contact hours), German or English, details on availability to be announced | | | | | | |
| | Method | d of ass | 1. T 2. S 3. F Ass Stu Det | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) Assessment components 1 and 3 will be offered in German or English. Students must register for assessment components 1 and 3 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| 11-FM6-MF-112- | FOKUS | OKUS Research Module with Mini Research Project | | | | | | | | |
| mo1 | ECTS | 14 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Courses | | Ü/F FOI to I FOI | P (1 weekly contact hou KUS Kompaktseminar (be announced | ır), German or Englisl FOKUS Block Taught Djekt (FOKUS Mini Re | n, details on availability to be a | nnounced nours), German | or English, details on availability | | |
| | Method of assessment | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | |
| | | | | Assessment components 1 and 3 will be offered in German or English. Students must register for assessment components 1 and 3 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |

| 11-FM8-MF-112- | FOKUS | Resear | ch Modul | e with | Mini Research Proje | ect | | | | | |
|------------------|----------------------|----------|----------|---|--|-------------------------------------|-----------------|-------------|----------|--|--|
| mo1 | ECTS | 16 | Duration | ı | 1 semester | Method of grading numerical grade | | Modul level | graduate | | |
| | Course | S | | FOKUS Vorlesung zu aktuellen Forschungsthemen (FOKUS Lecture on Topics in Current Research): V (4 weekly contact hours) + Ü/P (2 weekly contact hours), German or English, details on availability to be announced FOKUS Kompaktseminar (FOKUS Block Taught Seminar): S (2 weekly contact hours), German or English, details on availability to be announced FOKUS Miniforschungsprojekt (FOKUS Mini Research Project): P (2 weekly contact hours), German or English, details on availability to be announced | | | | | | | |
| | Method | d of ass | essment | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) Assessment components 1 and 3 will be offered in German or English. Students must register for assessment components 1 and 3 online (details to be announced). Details on when assessment components will be offered to be announced. | | | | | | | |
| 11-FM4A-112-m01 | FOKUS | Resear | ch Modul | To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | | |
| 11 1 M4A 112 MO1 | | 8 | Duration | | 1 semester | Method of grading numerical grade | <u> </u> | Modul level | graduate | | |
| | Course | S | | Ü/P (1 FOKUS | ı weekly contact hou | or English, details on availability | | | | | |
| | Method of assessment | | | 1. Top ami 2. Sen | oics covered in lecturination of one candi minar: talk (approx. g | | ıps (approx. 30 | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | |

| 11-FM6A-112-m01 | FOKUS | Resear | ch Modul | е | | | | | | | |
|-------------------|-----------------------|----------|----------|---|------------------|---|---|------------------------------|-------------------------------------|--|--|
| | ECTS | 10 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | S | | FOKUS Vorlesung zu aktuellen Forschungsthemen (FOKUS Lecture on Topics in Current Research): V (3 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, details on availability to be announced FOKUS Kompaktseminar (FOKUS Block Taught Seminar): S (2 weekly contact hours), German or English, details on availability to be announced | | | | | | | |
| | Method | d of ass | essment | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | |
| 11-FM8A-112-m01 | FOKUS Research Module | | | | | | | | | | |
| 11111107(11211101 | ECTS | 12 | Duration | | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Courses | | | FOKUS Ü/P (2 FOKUS | weekly contact h | uellen Forschungsther ours), German or Engli | nen (FOKUS Lecture on Topics i sh, details on availability to be | n Current Resea announced | or English, details on availability | | |
| | Method | d of ass | essment | This module has the following assessment components Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 m amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 30 minutes) Seminar: talk (approx. 30 to 45 minutes) | | | | | | | |
| | | | | Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2. | | | | | | | |

| 11-FM4A-MF-112- | FOKUS | Mini Re | search Project | İ | | | | | | |
|-----------------|--------------------|-----------|---|---|---|------------------------------------|----------------------------|-------------------------------------|--|--|
| mo1 | ECTS | 12 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Course | S | Ü/P FOKI to be FOKI | FOKUS Vorlesung zu aktuellen Forschungsthemen (FOKUS Lecture on Topics in Current Research): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, details on availability to be announced FOKUS Kompaktseminar (FOKUS Block Taught Seminar): S (2 weekly contact hours), German or English, details on availability to be announced FOKUS Miniforschungsprojekt (FOKUS Mini Research Project): P (2 weekly contact hours), German or English, details on availability to be announced | | | | | | |
| | Method | d of asso | 1. To ar 2. Se 3. Re Asse Stud Deta | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) Assessment components 1 and 3 will be offered in German or English. Students must register for assessment components 1 and 3 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |
| 11-FM6A-MF-112- | FOKUS | Resear | ch Module with | n Mini Research Proje | ect | | | | | |
| mo1 | ECTS | 14 | Duration | 1 semester | Method of grading | numerical grade | Modul level | graduate | | |
| | Courses | | Ü/P FOKI to be FOKI | (1 weekly contact hou JS Kompaktseminar (e announced | ur), German or Ēnglisl (FOKUS Block Taught ojekt (FOKUS Mini Re | n, details on availability to be a | nnounced hours), German | or English, details on availability | | |
| | Method of assessme | | | This module has the following assessment components 1. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) amination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 32. Seminar: talk (approx. 30 to 45 minutes) 3. Research project: project report (approx. 8 pages) | | | | | | |
| | | | Stud Deta | Assessment components 1 and 3 will be offered in German or English. Students must register for assessment components 1 and 3 online (details to be announced). Details on when assessment components will be offered to be announced. To pass this module, students must pass each of the assessment components 1 through 3. | | | | | | |

| 11-FM8A-MF-112- | FOKUS | Resear | ch Modul | e with | Mini Research Pro | ject | | | | | | |
|---------------------|----------------------|----------|--|--|--|---|---|---|---|--|--|--|
| mo1 | ECTS | 16 | Duration | | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | S | | Ü/P (2 FOKU: to be FOKU: | FOKUS Vorlesung zu aktuellen Forschungsthemen (FOKUS Lecture on Topics in Current Research): V (4 weekly contact hours) + Ü/P (2 weekly contact hours), German or English, details on availability to be announced FOKUS Kompaktseminar (FOKUS Block Taught Seminar): S (2 weekly contact hours), German or English, details on availability to be announced FOKUS Miniforschungsprojekt (FOKUS Mini Research Project): P (2 weekly contact hours), German or English, details on availability to be announced | | | | | | | |
| | Method | d of ass | essment | 1. Top am 2. Ser 3. Res Asses Stude Detail | vics covered in lect ination of one cand minar: talk (approx search project: proj ssment component ents must register f ls on when assessi | didate each or oral exa . 30 to 45 minutes) ject report (approx. 8 p cs 1 and 3 will be offere for assessment compo ment components will | ritten examination (ap mination in groups (a pages) ed in German or Englis nents 1 and 3 online (a be offered to be anno | pprox. 30 minutes) or pro h. details to be announced) | (approx. 30 minutes) or oral expiect report (approx. 8 pages) | | | |
| Thesis (30 ECTS cre | edits) | | | | | | | | | | | |
| 11-MA-PF-072-m01 | Maste | Thesis | FOKUS P | hysics | | | | | | | | |
| | ECTS | 30 | Duration | 1 | 1 semester | Method of grading | numerical grade | Modul level | graduate | | | |
| | Course | :S | | no courses assigned | | | | | | | | |
| | Method of assessment | | writte | written thesis (approx. 40 pages) | | | | | | | | |
| | other prerequisites | | Registration for assessment to be carried out electronically. Deadlines will be announced separately. Please consult with your supervisor. | | | | | | | | | |