

§ 8. Module, Lehrveranstaltungen und Semesterzuordnung

| Masterstudium Physics | | | | | | Semester mit ECTS-Anrechnungspunkten | | | |
|--|--|-------------|------------|-------------|-------------|---|-----------|------------|-----------|
| Modul | Lehrveranstaltung | SSt. | LV | | ECTS | I | II | III | IV |
| | | | Typ | ECTS | | | | | |
| Pflichtmodul G: General Physics | | | | | | | | | |
| | Statistical Physics ¹ | 2 | VO | 4 | 4 | | | | |
| | Statistical Physics ¹ | 1 | UE | 2 | 2 | | | | |
| | Advanced Quantum Mechanics ¹ | 2 | VO | 4 | 4 | | | | |
| | Advanced Quantum Mechanics ¹ | 1 | UE | 2 | 2 | | | | |
| | Introduction to General Relativity and Cosmology | 2 | VO | 3 | 3 | | | | |
| Zwischensumme Pflichtmodul G | | 8 | | 15 | 15 | | | | |
| Pflichtmodul M: Preparation for the Master's Thesis² | | | | | | | | | |
| Zwischensumme Pflichtmodul M | | | | | 14 | | | 12 | 2 |
| Summe Pflichtmodule | | | | | 29 | 15 | | 12 | 2 |
| 5 Vertiefungsmodule (je 9 ECTS) | | | | | 45 | 12 | 18 | 15 | |
| Allgemeines Wahlmodul (Elective Topics) | | | | | 9 | | 9 | | |
| Summe Wahlmodule lt. § 9 | | | | | 54 | 12 | 27 | 15 | |
| Masterarbeit | | | | | 30 | | | | 30 |
| Masterprüfung | | | | | 1 | | | | 1 |
| Freifach lt. § 10 | | | | | 6 | 3 | 3 | | |
| Summe Gesamt | | | | | 120 | 30 | 30 | 27 | 33 |

¹: gemeinsame Abhaltung mit Masterstudium „Technical Physics“

²: Dieses Modul wird in § 8b definiert.

Modul M: Preparation for the Master's Thesis

| Modul M: Preparation for the Master's Thesis | | | | | | | |
|--|------|--------|------|-------------------|----|-----------------------|----------------------|
| Modul / Lehrveranstaltung | SSt. | LV Typ | ECTS | Semesterzuordnung | | Uni-Graz ¹ | TU-Graz ¹ |
| | | | | WS | SS | | |
| Modul M0: Preparation for the Master's Thesis | | | | | | | |
| Practical Training in the Area of the Master's Thesis ² | 4 | LU/PT | 10 | X | X | X | |
| Tutorial in the Area of the Master's Thesis ² | 2 | PV | 2 | X | X | X | |
| Master's Seminar in the Area of the Master's Thesis ² | 2 | SE | 2 | | X | X | |

¹: Zuordnung der Lehrveranstaltung zu den beteiligten Universitäten. Beide Universitäten sind genannt, wenn die Lehrveranstaltung von beiden Universitäten gemeinsam, parallel oder im Wechsel angeboten wird.

²: Diese Lehrveranstaltungen können auch mit einem Untertitel, der das Fachgebiet der Master Theses näher beschreibt, angeboten werden.

| Modul M: Preparation for the Master's Thesis in ... | | | | | | | |
|---|------|--------|------|-------------------|----|-----------------------|----------------------|
| Modul / Lehrveranstaltung | SSt. | LV Typ | ECTS | Semesterzuordnung | | Uni-Graz ¹ | TU-Graz ¹ |
| | | | | WS | SS | | |
| Modul M1: Preparation for the Master's Thesis in Astrophysics | | | | | | | |
| Data Analysis in Astrophysics ² | 3 | VO | 4 | X | | X | |
| Data Analysis in Astrophysics ² | 2 | UE | 3 | X | | X | |
| Selected Problems in Astrophysical Data Analysis ² | 2 | SE | 3 | | X | X | |
| Tutorial for Master's Students in Astrophysics | 2 | PV | 2 | X | X | X | |
| Master's Seminar in Astrophysics ² | 2 | SE | 2 | | X | X | |
| Master's Seminar in Astro- and Space Physics | 2 | SE | 2 | | X | X | |
| Modul M2: Preparation for the Master's Thesis in Atmospheric Physics and Climate | | | | | | | |
| Field Course Atmospheric and Climate Physics ² | 3 | PT | 6 | | X | X | |
| Climate and Environmental Change – Current Research Topics | 2 | SE | 3 | | X | X | |
| Selected Topics in Atmospheric and Climate Physics ² | 2 | SE/VO | 3 | | X | X | |
| Tutorial for Master's Students in Atmospheric Physics and Climate | 2 | PV | 2 | X | | X | |
| Modul M3: Preparation for the Master's Thesis in Space Physics and Aeronomy | | | | | | | |
| Practical Training in Space Physics and Aeronomy ² | 3 | PT | 7 | X | | X | |
| Master's Seminar in Space Physics and Aeronomy | 2 | SE | 3 | | X | X | |
| Selected Topics in Space Physics and Aeronomy ² | 2 | SE/VO | 3 | X | | X | |
| Tutorial for Master's Students in Space Physics and Aeronomy | 2 | PV | 2 | X | | X | |
| Master's Seminar in Astro- and Space Physics | 2 | SE | 2 | | X | X | |

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²: Diese Lehrveranstaltung wird im Zweijahresrhythmus angeboten.

§9. Wahlmodule (3) Verteilungsmodule

| Vertiefungsmodule | | | | | | | |
|---|------|-----------------|------|-------------------|----|-----------------------|----------------------|
| Modul / Lehrveranstaltung | SSt. | LV Typ | ECTS | Semesterzuordnung | | Uni-Graz ¹ | TU-Graz ¹ |
| | | | | WS | SS | | |
| Modul A1: Stellar Astrophysics | | | | | | | |
| ◆ Stellar Structure and Evolution ² | 3 | VO | 4 | | X | X | |
| ◆ Stellar Structure and Evolution ² | 1 | UE | 2 | | X | X | |
| ◆ The Galaxy and Extragalactic Systems ² | 2 | VO | 3 | X | | X | |
| Modul A2: Theoretical Astrophysics | | | | | | | |
| ◆ The Physics of Stellar Atmospheres ² | 3 | VO | 4 | X | | X | |
| ◆ The Physics of Stellar Atmospheres ² | 1 | UE | 2 | X | | X | |
| ◆ Magneto-hydrodynamics and Solar-terrestrial Modeling ² | 2 | VO | 3 | | X | X | |
| Modul A3: Physics of the Solar System | | | | | | | |
| ◆ Introduction to Solar Physics ² | 2 | VO | 3 | | X | X | |
| ◆ Introduction to Solar Physics ² | 1 | UE | 2 | | X | X | |
| ◆ Solar Physics Lab ² | 1 | PT | 1 | | X | X | |
| ◆ Introduction to Planetology ² | 2 | VO | 3 | X | | X | |
| ◆ Solar Physics Lab Tour | 1 | EX | 1 | | X | X | |
| Modul A4: Observing Techniques in Astrophysics | | | | | | | |
| ◆ Instrumentation and Observing Techniques in Astrophysics ² | 2 | VO | 3 | X | | X | |
| ◆ Astrophysics Lab | 2 | LU ⁴ | 3 | X | | X | |
| ◆ Astrophysical Seminar ² | 2 | SE | 3 | | X | X | |
| Modul A5: Selected Topics in Astrophysics | | | | | | | |
| Exoplanets and Astrobiology ² | 2 | VO | 3 | | X | X | |
| Introduction to Space Plasma Physics ² | 2 | VO | 3 | X | | X | |
| Astrophysics Lab 2 ² | 2 | LU ⁴ | 3 | | X | X | |
| Celestial Mechanics ² | 2 | VO | 3 | | X | X | |
| Hydrodynamics ² | 2 | VO | 3 | | X | X | |
| Sun and Space Weather ² | 2 | VO | 3 | X | | X | |
| Advanced General Relativity and Quantum Gravity ² | 2 | VO | 3 | X | | X | |
| Astroparticle Physics ² | 2 | VO | 3 | | X | X | |
| Further Lectures on Selected Astrophysical Topics ² | 2 | VO/SE | 3 | X | | X | |
| Exoplanets and our place in the universe- an interdisciplinary approach | 2 | VO | 3 | | X | | X |

| Vertiefungsmodulare | | | | | | | |
|--|------|-----------------|------|-------------------|----|-----------------------|----------------------|
| Modul / Lehrveranstaltung | SSt. | LV Typ | ECTS | Semesterzuordnung | | Uni-Graz ¹ | TU-Graz ¹ |
| | | | | WS | SS | | |
| Modul C1: Principles of the Climate System | | | | | | | |
| ◆ Earth's Climate System and Climate Change | 2 | VO | 3 | X | | X | |
| ◆ Physical Oceanography, Hydrology and Climate ² | 2 | VO | 3 | | X | X | |
| ◆ Paleoclimatology ² | 2 | VO | 3 | X | | X | |
| Modul C2: Data Analysis and Simulation | | | | | | | |
| ◆ Methods of Modeling and Simulation | 2 | VO | 3 | X | | X | |
| ◆ Methods of Modeling and Simulation | 2 | UE | 3 | X | | X | |
| ◆ Time Series Analysis ² | 2 | VO ⁸ | 3 | | X | X | |
| ◆ Methods of Modeling and Simulation | 4 | VU | 6 | X | | X | |
| Modul C3: Atmospheric Physics | | | | | | | |
| ◆ Atmospheric Dynamics ² | 2 | VO ⁸ | 3 | | X | X | |
| ◆ Atmospheric Composition and Chemistry ² | 2 | VO | 3 | X | | X | |
| ◆ Radiation and Energy Balance ² | 2 | VO | 3 | X | | X | |
| Modul C4: Climate Physics | | | | | | | |
| ◆ Climate Modeling ² | 2 | VO | 3 | | X | X | |
| ◆ Climate Dynamics ² | 2 | VO ⁸ | 3 | | X | X | |
| ◆ Selected Topics in Climate Science ² | 2 | VO/SE | 3 | X | | X | |
| Modul C5: Atmospheric Measurement Methods and Observing Systems | | | | | | | |
| ◆ Atmospheric Measurement Methods: Remote Sensing ² | 2 | VO | 3 | | X | X | |
| ◆ Atmospheric and Climate Measurement Methods: Remote Sensing ² | 2 | VO | 3 | | X | X | |
| ◆ Atmospheric Measurement Methods: in situ ² | 2 | VO | 3 | X | | X | |
| ◆ Atmospheric and Climate Measurement Methods: in situ ² | 2 | VO | 3 | X | | X | |
| ◆ Seminar on Measurement Methods in Atmospheric Physics ² | 2 | SE | 3 | | X | X | |
| ◆ Seminar on Atmosphere and Climate Measurement Methods ² | 2 | SE | 3 | | X | X | |

| Vertiefungsmodulare | | | | | | | |
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| Modul E1: Surface Science: Basic Principles | | | | | | | |
| Surface Science | 2 | VO | 3 | X | | X | |
| ♦ Experimental Methods in Surface Science | 2 | VU ⁴ | 3 | | X | X | X |
| ♦ Research Laboratory Surface Science | 2 | LU ⁷ | 3 | | X | X | X |
| Thin Film Science and Processing | 2 | VO | 3 | | X | | X |
| Modul E2: Surface Science: Advanced Topics | | | | | | | |
| Molecular Interfaces ² | 2 | VO | 3 | | X | X | |
| Scanning Probe Techniques | 2 | VO | 3 | | X | X | |
| Synchrotron Radiation Techniques | 2 | VO | 3 | X | | X | |
| Surface Chemistry | 2 | VO | 3 | | X | | X |
| Vacuum Technology | 2 | VO | 3 | X | | X | X |
| Special Topics in: „Surface Science“ ² | 2 | VO | 3 | X | X | X | |
| Modul E3: Spectroscopy / Photon Science | | | | | | | |
| ♦ Spectroscopy | 2 | VO | 3 | X | | X | X |
| ♦ Research Laboratory Spectroscopy | 2 | LU | 3 | | X | X | X |
| Synchrotron Radiation Techniques | 2 | VO | 3 | X | | X | |
| X-ray and Neutron Scattering | 2 | VO | 3 | | X | | X |
| Magnetic Resonance: NMR and ESR ² | 2 | VO | 3 | | X | X | |
| Application of Group Theory | 2 | VO | 3 | | X | X | |
| Research Laboratory Photon Science | 2 | LU ⁷ | 3 | X | X | X | X |
| Laser Spectroscopy | 2 | VO | 3 | X | | | X |
| Photonics: Light, Matter, and Time | 2 | VO | 3 | | X | | X |
| Structured Light and Nanoscale Wave Phenomena | 2 | VO | 3 | X | | X | |
| Photonics: Light, Matter, and Time | 2 | VO | 3 | | X | | X |
| Optical Waveguides, Photonic Circuitry and Applications | 2 | VO | 3 | | X | X | |
| Optical Measurement Techniques | 2 | VO | 3 | X | | | X |
| Modul E4: Nano-optics and Laser Optics⁵ | | | | | | | |
| ♦ Advanced Optics | 2 | VO | 3 | X | | X | |
| ♦ Optics - A Photonics Perspective | 2 | VO | 3 | X | | X | |
| ♦ Research Laboratory Nano and Laser Optics | 2 | LU ⁷ | 3 | X | X | X | X |
| Nano Optics | 2 | VO | 3 | | X | X | |
| Laser Physics | 2 | VO | 3 | X | | X | |
| Ultrafast Laser Physics | 2 | VO | 3 | | X | | X |
| Modul E5: Quantum Optics and Molecular Physics⁵ | | | | | | | |
| ♦ Fundamental Optics | 2 | VO | 3 | X | X | | X |
| ♦ Optics - A Spectroscopy Perspective | 2 | VO | 3 | X | X | | X |
| ♦ Research Laboratory Quantum Optics and Molecular Physics | 2 | LU ⁷ | 3 | X | X | X | X |
| Laser Physics | 2 | VO | 3 | X | | X | |
| Ultrafast Laser Physics | 2 | VO | 3 | | X | | X |
| Quantum Optics | 2 | VO | 3 | | X | | X |
| Modelling of Molecular Systems | 2 | VO | 3 | X | | | X |

| Vertiefungsmodule | | | | | | | |
|---|------|-----------------|------|-------------------|----|-----------------------|----------------------|
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| | | | | WS | SS | | |
| Modul E6: Nano and Quantum Matter | | | | | | | |
| ♦ Solid-state Physics: Size Effects and Quantum Phenomena | 2 | VO | 3 | X | | X | |
| Modern Materials ² | 2 | VO | 3 | X | | X | |
| Scanning Probe Techniques | 2 | VO | 3 | X | | X | |
| Nano- and Quantum Magnetism ² | 2 | VO | 3 | X | | X | |
| Application of Group Theory | 2 | VO | 3 | | X | X | |
| Theory of Superconductivity | 2 | VO | 3 | X | | | X |
| Phase Transitions and Critical Phenomena | 2 | VO | 3 | X | | | X |
| Theory of Magnetism and Collective Phenomena | 2 | VO | 3 | X | | | X |
| Quantum Transport Theory | 2 | VO | 3 | | X | X | X |
| Exotic States in Solids | 2 | VO | 3 | | X | X | |
| Nanostructures and Nanotechnology | 2 | VO | 3 | | X | | X |
| 2D Materials | 2 | VO | 3 | | X | X | |
| Modul E7: Biological Applications | | | | | | | |
| ♦ Research Laboratory Biophysics | 2 | LU | 3 | | X | X | |
| Molecular Biophysics 1 | 2 | VO | 3 | X | | X | |
| Molecular Biophysics 2 | 2 | VO | 3 | | X | X | |
| Biological and Biobased Materials | 2 | VO | 3 | | X | | X |
| Biophotonics | 2 | VO | 3 | | X | X | |
| Biomagnetism ² | 2 | VO | 3 | X | | X | |
| Soft Matter Physics | 2 | VO | 3 | X | | | X |
| Theoretical Biophysics | 2 | VO | 3 | X | | | X |
| Modul E8: Industrial Applications | | | | | | | |
| ♦ Topics of Industrial Relevance | 2 | VO | 3 | X | | X | |
| ♦ Signal Theory and Signal Processing | 2 | VU ⁶ | 3 | | X | X | X |
| Patent Law and Technology Transfer | 2 | VO | 3 | | X | X | |
| Ultrasound Methods ² | 2 | VO | 3 | | X | X | |
| Thin Film Science and Processing | 2 | VO | 3 | | X | | X |
| Modelling and Simulations of Semiconductors | 2 | VO | 3 | | X | | X |
| Temperature Measurements | 2 | VO | 3 | X | | | X |
| Light Engineering | 2 | VO | 3 | X | | | X |
| Excursion | 1 | EX | 1 | X | | X | |

| Vertiefungsmodulare | | | | | | | |
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| | | | | WS | SS | | |
| Modul S1: Fundamentals of Space Physics and Aeronomy | | | | | | | |
| ◆ Introduction to Planetology ² | 2 | VO | 3 | X | | X | |
| ◆ Introduction to Aeronomy ² | 2 | VO | 3 | X | | X | |
| ◆ Introduction to Space Plasma Physics ² | 2 | VO | 3 | X | | X | |
| Modul S2: Solar and Heliospheric Physics | | | | | | | |
| ◆ Introduction to Solar Physics ² | 2 | VO | 3 | | X | X | |
| ◆ Magneto-hydrodynamics and Solar-terrestrial Modeling ² | 2 | VO | 3 | | X | X | |
| ◆ Introduction to Solar Physics ² | 1 | UE | 2 | | X | X | |
| ◆ Solar Physics Lab ² | 1 | PT | 1 | | X | X | |
| ◆ Solar Physics Lab Tour | 1 | EX | 1 | | X | X | |
| Modul S3: Physics of Planetary Atmospheres and Magnetospheres | | | | | | | |
| ◆ Physics of Planetary Atmospheres ² | 2 | VO | 3 | | X | X | |
| ◆ Earth and Planetary Magnetic Fields ² | 2 | VO | 3 | | X | X | |
| ◆ Planetary Magnetospheres ² | 2 | VO | 3 | | X | X | |
| Modul S4: Measurement Methods and Observing Systems | | | | | | | |
| ◆ Measurement Methods in Space Physics ² | 2 | VO | 3 | | X | X | |
| ◆ Space Missions and Experiments Design ² | 2 | VO | 3 | | X | X | |
| ◆ Seminar on Measurement Methods in Space Physics ² | 2 | SE | 3 | | X | X | |

| Vertiefungsmodulare | | | | | | | |
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| | | | | WS | SS | | |
| Modul T1: Advanced Theoretical Physics 1 | | | | | | | |
| ◆ Advanced Mathematical Methods | 3 | VO | 4,5 | X | | X | |
| ◆ Quantum Field Theory | 3 | VO | 4,5 | | X | X | |
| Modul T2: Advanced Theoretical Physics 2 | | | | | | | |
| ◆ Advanced Quantum Mechanics 2 | 2 | VO | 3 | | X | X | |
| ◆ Advanced Statistical Physics | 2 | VO | 3 | X | | X | X |
| ◆ Basic Concepts of Solid-state Theory | 2 | VO | 3 | | X | X | |
| Modul T3: Computational Physics | | | | | | | |
| ◆ Numerical Methods in Linear Algebra | 2 | VU ³ | 3 | | X | X | |
| ◆ Monte-Carlo Methods | 2 | VU ³ | 3 | X | | X | |
| Computational Methods in Solid-state Physics | 2 | VU ³ | 3 | X | | X | |
| Computational Methods in Particle Physics ² | 2 | VU ³ | 3 | | X | X | |
| Computational Methods in Nano Physics | 2 | VU ³ | 3 | | X | X | |
| Quantum Computing | 2 | VO | 3 | | X | X | |
| Modul T4: Theoretical Solid-state Physics ⁵ | | | | | | | |
| ◆ Green's Functions for Solid-state Physics | 2 | VU ³ | 3 | | X | X | |
| ◆ Quantum Theory of Many-Body Systems | 3 | VU ³ | 3 | | X | X | X |
| Fundamentals of Electronic Structure Theory | 2 | VO | 3 | X | | X | X |
| Theory of Magnetism and Collective Phenomena | 2 | VO | 3 | X | | | X |
| Theory of Superconductivity | 2 | VO | 3 | X | | | X |
| Phase Transitions and Critical Phenomena | 2 | VO | 3 | X | | | X |
| Exotic States in Solids | 2 | VO | 3 | | X | X | |
| Quantum Transport Theory | 2 | VO | 3 | | X | X | X |
| Computational Methods in Solid-state Physics | 2 | VU ³ | 3 | X | | X | |
| Special Topics in: Theoretical Solid State Physics | 2 | VO | 3 | | X | X | |
| Modul T5: Theoretical Nanophysics | | | | | | | |
| Theoretical Nano- and Quantum Physics | 2 | VO | 3 | | X | X | |
| Plasmonics ² | 2 | VO | 3 | | X | X | |
| Quantum Transport Theory | 2 | VO | 3 | | X | X | X |
| Fundamentals of Electronic Structure Theory | 2 | VO | 3 | X | | X | X |
| Exotic States in Solids | 2 | VO | 3 | | X | X | |
| Theoretical Nano- and Quantum Optics | 2 | VO | 3 | | X | X | |
| Quantum Computing | 2 | VO | 3 | | X | X | |
| Computational Methods in Nanophysics | 2 | VU ³ | 3 | | X | X | |

| Vertiefungsmodulare | | | | | | | |
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| | | | | WS | SS | | |
| Modul T6: Modelling of Materials⁵ | | | | | | | |
| ♦ Fundamentals of Electronic Structure Theory | 2 | VO | 3 | X | | X | X |
| ♦ Simulating Materials Properties from First Principles | 2 | UE | 3 | | X | X | X |
| Applications of Electronic Structure Methods | 2 | VO | 3 | | X | | X |
| Ab-initio Methods for Correlated Materials | 2 | VO | 3 | X | | | X |
| Advanced Ab-Initio Techniques | 2 | VO | 3 | X | | X | X |
| Modelling of Molecular Systems | 2 | VO | 3 | X | | | X |
| Advanced Electronic Structure Theory | 2 | VO | 3 | | X | X | X |
| Modul T7: Foundations of Particle Physics | | | | | | | |
| ♦ Quantum Field Theory 2: Gauge Theories | 4 | VU ³ | 6 | | X | X | |
| Lattice Field Theory ² | 2 | VO | 3 | | X | X | |
| Functional Methods in Quantum Field Theory ² | 2 | VO | 3 | X | | X | |
| Computational Methods in Particle Physics | 2 | VU ³ | 3 | | X | X | |
| Special Topics in: "Foundations of Particle Physics" | 2 | VO | 3 | X | | X | |
| Advanced Mathematical Methods 2 ² | 2 | VO | 3 | | X | X | |
| Project in: "Foundations of Particle Physics" | 2 | PT | 3 | | X | X | |
| Special Topics in: "Particle Physics" | 2 | VO | 3 | | X | X | |
| Modul T8: Phenomenology of Particle Physics | | | | | | | |
| ♦ Hadron Physics | 2 | VO | 3 | | X | X | |
| Electroweak Physics ² | 2 | VO | 3 | | X | X | |
| Supersymmetry ² | 2 | VO | 3 | X | | X | |
| Physics Beyond the Standard Model ² | 2 | VO | 3 | | X | X | |
| Advanced General Relativity and Quantum Gravity ² | 2 | VO | 3 | X | | X | |
| Astroparticle Physics ² | 2 | VO | 3 | | X | X | |
| Special Topics in: "Phenomenology of Particle Physics" ² | 2 | VO | 3 | | X | X | |
| Project in: "Phenomenology of Particle Physics" | 2 | PT | 3 | X | | X | |
| Standard Model | 3 | VO | 4.5 | X | | X | |
| Beyond the Standard Model | 3 | VO | 4.5 | X | | X | |
| Experimental particle physics ² | 2 | VO | 3 | X | | X | |
| Collider phenomenology ² | 2 | VO | 3 | X | | X | |
| Project in: "Particle Physics" | 2 | PT | 3 | | X | X | |

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²: Diese Lehrveranstaltung wird im Zweijahresrhythmus angeboten.

³: 2/3 SSt./Vorlesungsteil, 1/3 SSt./Übungsteil.

⁴: Gruppengröße 10.

⁵: Gemeinsames Modul im gegenständlichen Masterstudium „Physics“ und im Masterstudium „Technical Physics“.

⁶: 2/3 SSt./Vorlesungsteil (VO), 1/3 SSt./Übungsteil. Der Übungsanteil entspricht einer Laborübung.

⁷: Gruppengröße 3.

(4) Elective Topics

| Lehrveranstaltungskatalog: Weitere Elective Topics | | | | | | | |
|--|------|-----------------|------|-------------------|----|-----------------------|----------------------|
| Lehrveranstaltung | SSt. | LV Typ | ECTS | Semesterzuordnung | | Uni-Graz ¹ | TU-Graz ¹ |
| | | | | WS | SS | | |
| Advanced Mathematical Methods | 1 | UE | 1,5 | X | | X | |
| Quantum Field Theory | 1 | UE | 1,5 | | X | X | |
| Halbleiterphysik und Mikroelektronik ² | 2 | VO | 4 | | X | X | |
| Digitalelektronik ² | 1 | VU ³ | 2 | X | | X | |
| Journal Club ^{2,4} | 2 | PV | 3 | X | | X | |
| Mechanische Fertigungstechniken ² | 1 | VU ³ | 2 | X | | X | |
| Physics of Sustainable Energy | 2 | VO | 3 | X | | | X |
| Weltraumplasmaphysik ^{2,4} | 1 | VO | | | X | | X |
| Fortgeschrittene Weltraumplasmaphysik ^{2,4} | 1 | VO | | | X | | X |
| Aktive Plasmaexperimente im Weltraum ^{2,4} | 1 | VO | | | X | | X |

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²: Abhaltung in deutscher Sprache.

³: 1/4 SSt./Vorlesungsteil, 3/4 SSt./Übungsteil. Der Übungsanteil entspricht einer Laborübung.

⁴: Diese Lehrveranstaltung wird im Zweijahresrhythmus angeboten.

| Lehrveranstaltungskatalog: Bachelor Physik | | | | | | | |
|---|------|-----------------|------|-------------------|----|-----------------------|----------------------|
| Lehrveranstaltung | SSt. | LV Typ | ECTS | Semesterzuordnung | | Uni-Graz ¹ | TU-Graz ¹ |
| | | | | WS | SS | | |
| Moderne Kapitel der experimentellen Physik ² | 2 | VO | 3 | | X | X | |
| Moderne Kapitel der theoretischen Physik ² | 2 | VO | 3 | | X | X | |
| Einführung in die Astrophysik ² | 2 | VO | 3 | X | | X | |
| Einführung in die Geophysik ² | 2 | VO | 3 | | X | X | |
| Einführung in die Meteorologie und Klimaphysik ² | 2 | VO | 3 | X | | X | |
| Physikalische Grundlagen der Materialkunde ² | 3 | VO | 4.5 | | X | | X |
| Kontinuumsphysik ² | 2 | VU ³ | 3 | | X | | X |
| Kryotechnik, Vakuumtechnik und Analysemethoden ² | 3 | VO | 4.5 | | X | | X |

¹: Zuordnung der Lehrveranstaltung zu den beteiligten Universitäten. Beide Universitäten sind genannt, wenn die Lehrveranstaltung von beiden Universitäten gemeinsam, parallel oder im Wechsel angeboten wird.

²: Abhaltung in deutscher Sprache. Empfohlen für Studierende, die Physik nicht im NAWI-Bachelorstudium Physik absolviert haben.

³: 2/3 SSt./Vorlesungsteil, 1/3 SSt./Übungsteil