

Introduction to the Master's Program in Physics

October 5th, 2018

- **Welcome from Fachgruppe (Department) and Fachschaft (Student's representation)**
- **Presentation of the different tracks (focus of study)**
 - **Experimental Particle Physics (T. Hebbeker)**
 - **Astroparticle Physics (C. Wiebusch)**
 - **Quantum Field Theory and Gauge Theories (M. Czakon)**
 - **Condensed Matter Theory (R. Mazzarello)**
 - **Experimental Condensed Matter Physics (M. Morgenstern)**
 - **Nanoelectronics (M. Morgenstern)**
- **Organisational informations about the course of study**
- **Final words by Fachschaft**

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How do I get a Master's Degree?

Five requirements:

1. Successful passing of all compulsory modules of one focus of studies
 - Compulsory modules are listed in the curriculum
 - See next slide
2. At minimum 60 Credits from modules assigned to the first year of studies
Freely selectable from
 - Specialisation courses of the chosen focus of studies
 - Compulsory or specialisation courses of the other focuses of study
 - Subsidiary Modules
3. Passing of Master's Seminar und Master's Practical
 - Introduction into Master's thesis at one of the institutes
 - Master's Seminar: Acquire in-depth scientific knowledge in the chosen thesis subject
 - Master's Practical: Get acquainted with the scientific methods of the chosen field
4. Master's Thesis
5. Master's Defence Colloquium

Information on courses in RWTHOnline

Focus of Studies

- [2013] Physik
- Focus of Studies
- + Experimental Particle Physics
- + Astroparticle Physics and Cosmology
- + Quantum Field Theory and Gauge Theories
- + Experimental Condensed Matter Physics
- + Nanoelectronics
- + Condensed Matter Theory

Elective Courses

- Elective Courses
- Focus of Studies
- + Experimental Particle Physics
- + Astroparticle Physics and Cosmology
- + Quantum Field Theory and Gauge Theories
- + Experimental Condensed Matter Physics
- + Nanoelectronics
- + Condensed Matter Theory
- Specialisation Courses
- + Experimental Particle Physics
- + Astroparticle Physics and Cosmology
- + Quantum Field Theory and Gauge Theories
- + Experimental Condensed Matter Physics
- + Condensed Matter Theory
- + Nanoelectronics
- Subsidiary Subjects
- Subsidiary Subjects
- + Astronomy and Astrophysics
- + Betriebswirtschaft (Economics)
- + Biomedizinische Technik (Biomedical Engineering)
- + Biophysik (Biophysics)
- + Chemie (Chemistry)
- + Energietechnik (Energy Technology)
- + Geophysik (Geophysics)
- + Informatik (Computer Science)
- + Kristallographie (Crystallography)
- + Lasertechnik (Laser Technology)
- + Luft- und Raumfahrttechnik (Aerospace Technology)
- + Mathematik (Mathematics)
- + Patentwesen (Patent System)
- + Philosophie (Philosophy)
- + Science and International Security
- + Technische Akustik (Technical Acoustics)
- + Verfahrenstechnik (Process Technology)
- + Werkstoffe der Elektrotechnik (Electronic Materials)
- + Werkstoffphysik (Material Physics)

Which Courses should I choose?

Masterprüfungsordnung (Examination Regulation of the Master's program) offers a lot of flexibility.

How do I use this flexibility reasonably?

1. Decide for a focus of study
2. Attend the compulsory courses of the chosen focus of study
3. Choose from the offered specialisation courses
4. Complement by subsidiary subjects

What should you avoid?

- Don't dissipate on very diverse courses, but set your focus according to your interests!
- Choose your subsidiary courses only from one (at most two) subsidiary subjects!

You can decide in large part on the curriculum of your Master's program

Due to your choice of courses you are self-responsible for a reasonably and meaningful Master's Certificate!