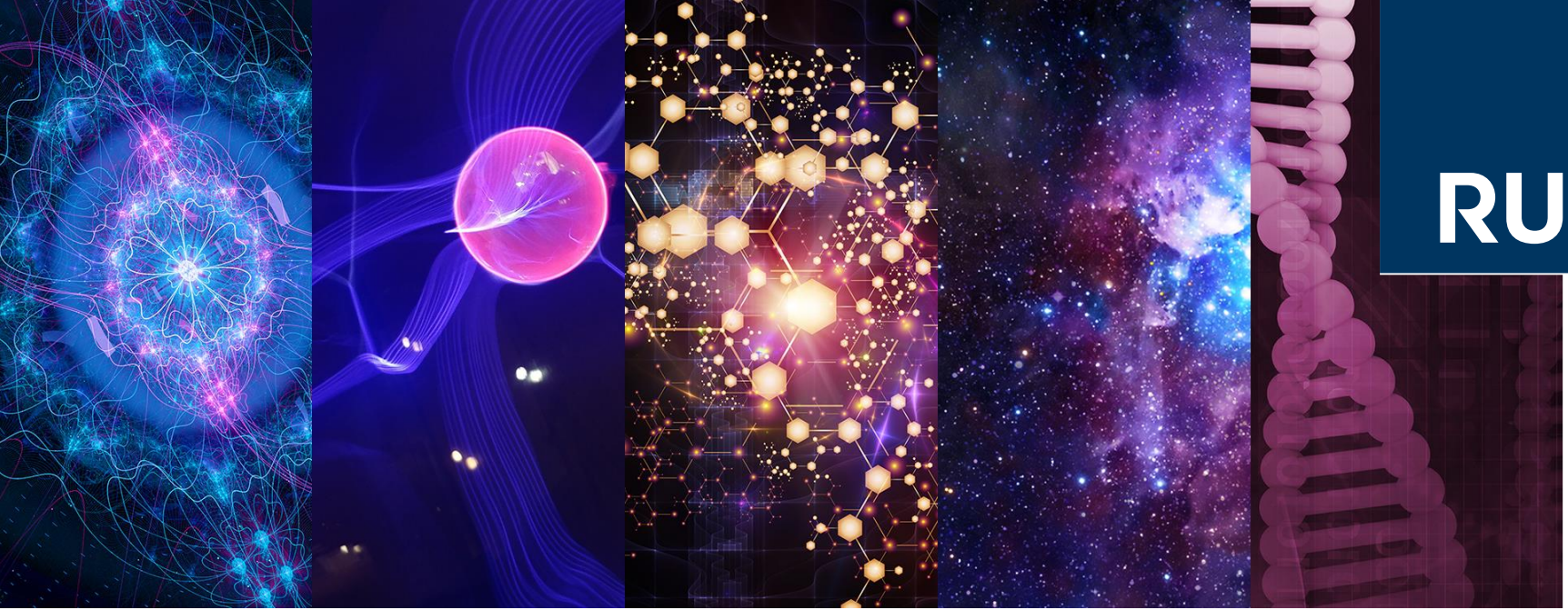


RUB

RUHR-UNIVERSITÄT BOCHUM

STUDYING PHYSICS AT RUB

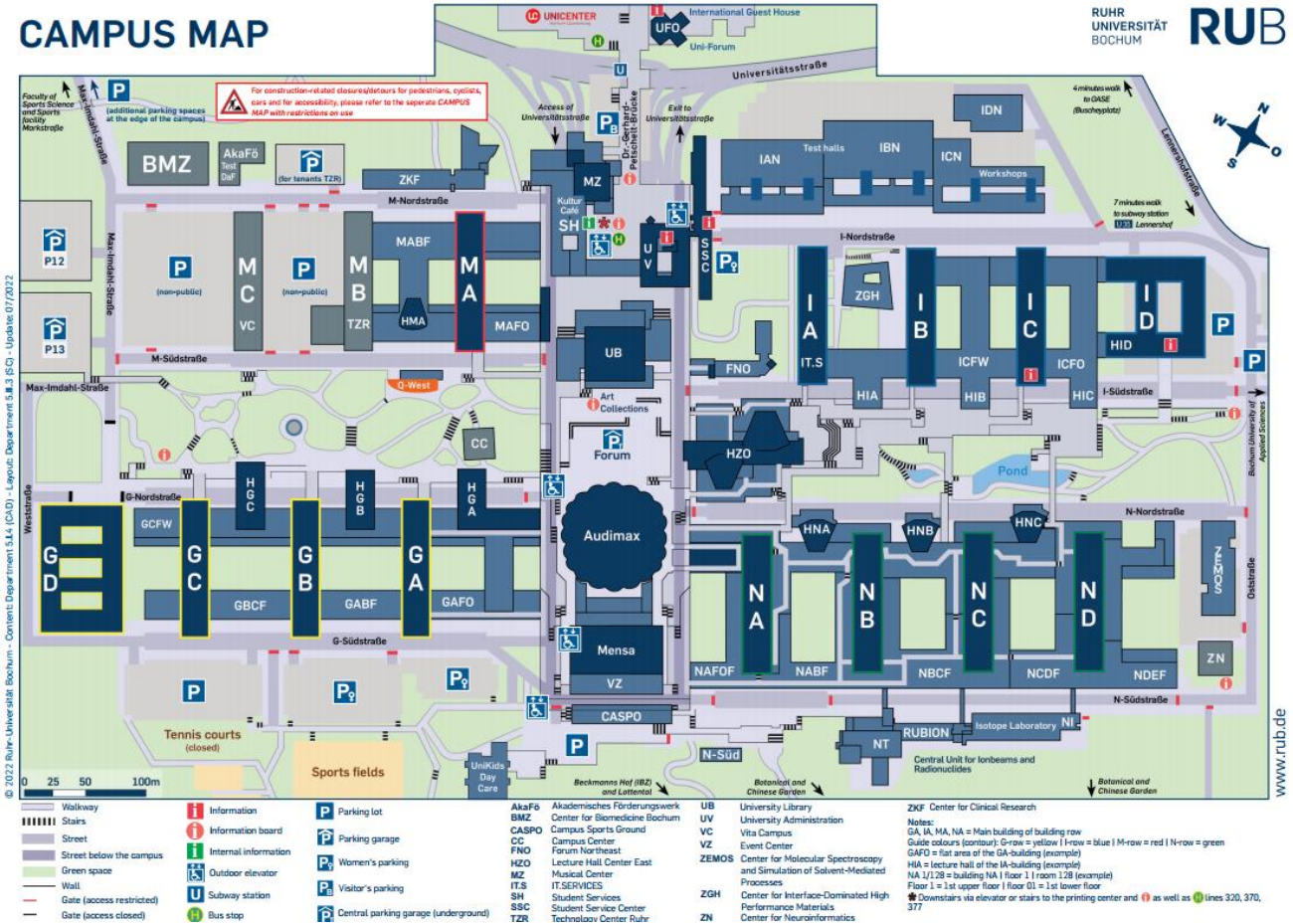
Physik und Astronomie
from matter to materials

Niklas Fornefeld, consultant for the admission procedure

Overview

- The faculty of Physics and Astronomy
- Your study advisors
- Our study program
- Further support services
- The next steps

Note: you will receive these slides at the end of the interview!



Physik und Astronomie
from matter to materials

RUHR UNIVERSITÄT BOCHUM RUB

The Faculty of Physics and Astronomy at RUB

- 24 professors
- approx. 800 students overall
- approx 40 M.Sc. students graduating/year
- approx. 25 PhD students graduating/year

Nuclear + Particle Physics

Solid State Physics

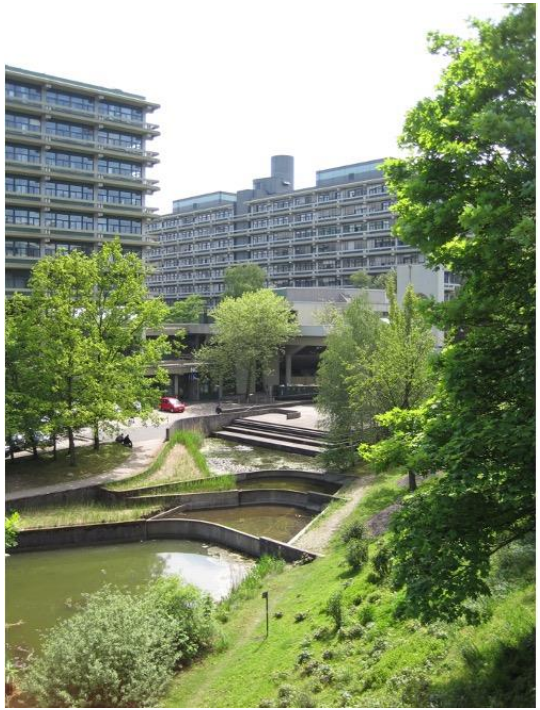
Plasma Physics

Astronomy/ Astrophysics

Neuro-informatics

Didactics

Biophysics



The Faculty of Physics and Astronomy at RUB

Student advisory service at the faculty

Dr. Andreas Kreyssig
Student advisor for international students
- your first point of contact

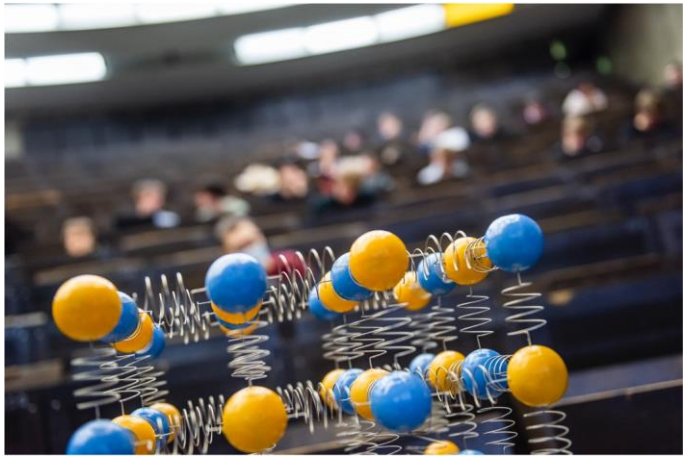
Dr. Ivonne Möller
Advises on general questions concerning examination regulations

We ask all students to contact us by email:
master-international@physik.rub.de

Our Master‘s Program

First: you are all admitted to the program, and you can enroll after this interview.

The requirements can be taken during study!



General Structure:

- Two year program = four semesters (standard period of study)
- Approx. 30 credit points (CP) earned per semester
- **First year:** study phase (60 CP)
- **Second year:** prepatory modules + Master‘s thesis (60 CP)

Our Master‘s Program

BUT….

…two years are the standard period of study according to examination regulations

…no one from the faculty checks the achievements per semester

…if less than 30 CP are acquired, this has no consequences

…it is possible to study for more than two years (the study period is not limited)

→ Your individual plan can differ from the „official“ and standardized regulation

Our Master‘s Program

General Structure: First Year

Five areas:

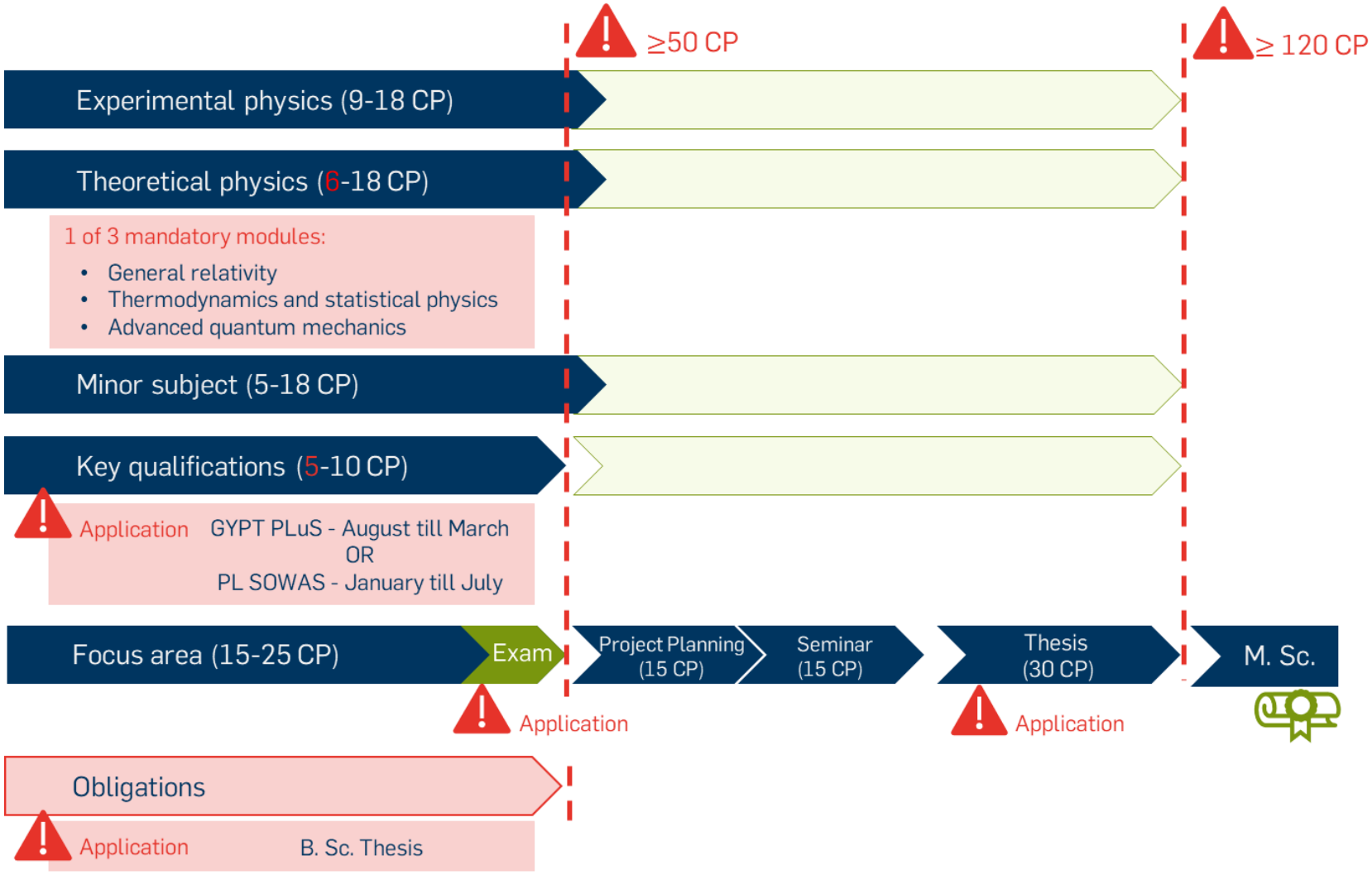
- Experimental physics (9-18 CP)
- Theoretical physics (6-18 CP)
- Your focus area (15-25 CP)
- Minor subject (5-18 CP)
- Key qualifications (5-15 CP)

Complete list of offered courses
→ see **course catalogue**

General Structure: Second Year

Preparation and writing of your master‘s thesis

- Three compulsory modules:
  - Knowledge of Methods and Project Planning (15 CP)
  - Project seminar for the Master's thesis (15 CP)
  - Master's thesis (30 CP)


≥50 CP
≥ 120 CP
Experimental physics (9-18 CP)
Theoretical physics (6-18 CP)
1 of 3 mandatory modules:
• General relativity
• Thermodynamics and statistical physics
• Advanced quantum mechanics
Minor subject (5-18 CP)
Key qualifications (5-10 CP)
Application GYPT PLuS - August till March
OR
PL SOWAS - January till July
Focus area (15-25 CP)
Exam
Application
Project Planning (15 CP)
Seminar (15 CP)
Thesis (30 CP)
Application
M. Sc.
Obligations
Application B. Sc. Thesis

Requirements for International Students

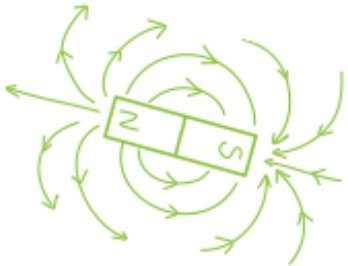
Requirement 1:

Introduction to quantum mechanics and statistical physics (6 CP)

- At almost all international universities, the scope in the area of theoretical physics is smaller,

  so that many applicants receive this requirement.

- The grade of the exam does not count towards the Master's grade.



Requirements for International Students

Requirement 2:

The Bachelor thesis (12 CP, 10 weeks)

- At our faculty the complete 6th semester is reserved for the bachelor thesis.
- At almost all international universities, the scope is smaller, so that many applicants receive this requirement.
- However, this requirement serves not only to fulfil the examination regulations, but also gives you the *opportunity to get familiar with our faculty*.
- The grade of the Bachelor's thesis **does not count!** towards the Master's grade.

Requirements for International Students

Can I apply, even though I do not meet all of the criteria mentioned before?

Yes! If you do **NOT** meet all requirements mentioned, you can still apply to our program under certain conditions. In fact, we encourage you to apply and speak to our advisors about the conditions for your individual case.

→ Conditions must be proven at the latest upon admission to the Master's thesis.

→ You can be admitted to the program and start your studies, but that you will have to make up some course work.

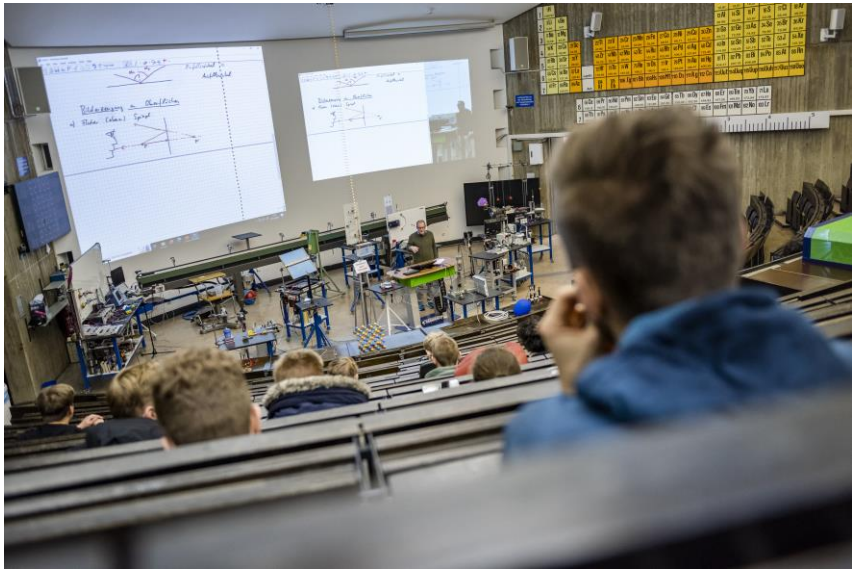
→ Your work in regard to the conditions does not have any effect upon your Master's program and grades, etc. will not be counted towards your Master's degree.

Teaching format in the winter semester

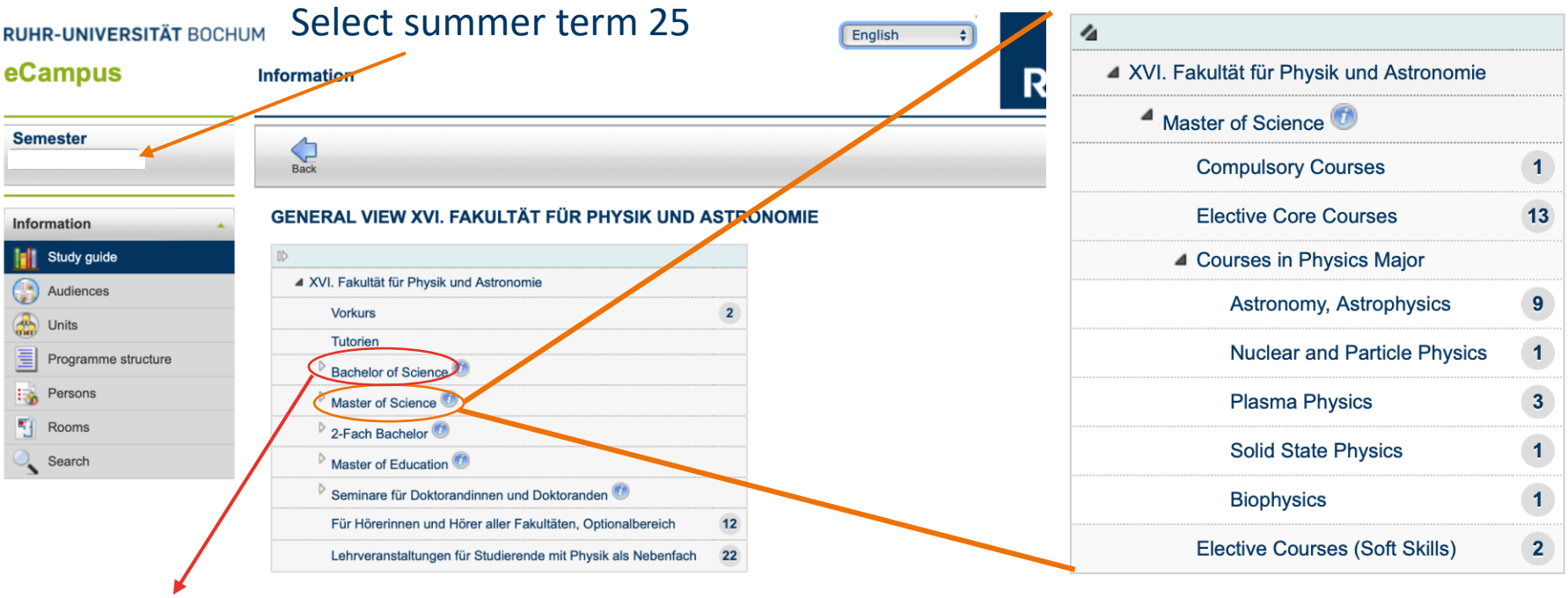
It is planned to hold all courses in attendance on the campus.

The courses start 7th October 2024.

You have to be in Bochum **latest** on 23rd October 2024
– otherwise you have to reapply for the summer term.



The course catalogue



Select summer term 25

For obligation: QM lecture

160117	Introduction to Quantum Mechanics and Statistics	Eremin, Ilya	Lecture
160118	Einführung in die Quantenmechanik und Statistik (Übung)	Eremin, Ilya	Exercise

The course catalogue

COSMOLOGY (LECTURE)

Common information | Event details | Registration procedure | Exams

Course number: 160611
Title: Cosmology (Lecture)
Event type: Lecture
Term: WS 22/23
Semester weekly hours [SWS]: 3

COSMOLOLOGY (EXERCISES)

Common information | Event details | Registration procedure | Exams

Course number: 160612
Title: Cosmolology (Exercises)
Event type: Exercise
Term: WS 22/23
Semester weekly hours [SWS]: 1

3 +1 = 4CP

Physik und Astronomie
from matter to materials

RUHR UNIVERSITÄT BOCHUM
RUB

Support Services

General Services:

- **Our Admissions Office**

  If you have questions about your admission, please contact the admissions office directly.

- **Registrar's Office**

  If you have problems or questions about issues such as paying the social contribution fee, semester spent on leave etc. the student office is responsible.

- **RUBiss team of the International Office**

  The RUBiss team provides support in social, cultural and university matters as well as in formal and legal matters. We support you throughout your studies.

Support Services

Faculty Services:

- **Student Buddy-Program**

  If you are interested to participate, please write an Email to fornefeld@physik.rub.de

- **Master Welcome**
  - information regarding your studies in Bochum
  - guided tour across the campus
  - a barbecue in a park nearby the city center, where you will be able to meet all master freshman

Note: if additional documents are needed for the visa application (in case of problems with the visa) we can offer an **additional letter** (letter of admission without conditions with the information when lectures start

Next steps

- Enrollment
- (see application portal)
- Apply for visa
- Organize accommodation
- Master Introductory Meeting in April
- Start: 7th April 2025 (start of lectures)
- Enjoy your studies at the RUB

Welcome again and
we look forward to your questions