Admission and application deadlines

The Physics Master program is open to all graduates of Bachelor programs providing a solid foundation in physics. The teaching language is English.

The Master program commences each semester, either in summer (starting in April) or in winter (starting in October). The application deadline is January 15th for the summer term and July 15th for the winter term.

Application procedures

Applications and enrollment are handled by the Admissions Office (Studierendenservice):

www.uni-osnabrueck.de/universitaet/organisation/studentisches/studierendenservice.html
[German]

International students find special support at the International Office:
www.uni-osnabrueck.de/en/services/international_office
[English]

Further Information on application procedures can be found here:
www.uni-osnabrueck.de/studieninteressierte/bewerbung
[German]

www.uni-osnabrueck.de/en/prospective_students/degree_seeking_students/application.html
[English]

International degree holders

International applicants *with foreign certificates* may have different application deadlines and addresses. Further information is available at:
www.uni-osnabrueck.de/en/studies/admission

Impressum

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Osnabrück University

Osnabrück University (UOS) is a modern university founded in 1974, offering programs in all major subjects. UOS offers an ideal learning and research environment to 11,000 full-time students (including > 900 PhD candidates).

We strive for providing high standards of research, well-structured PhD programs as well as modular and interdisciplinary study programs with internationally recognized degrees.

physics building

Physics at UOS

The natural sciences are located on the modern Westerberg campus, equipped with brand-new infrastructure (library, computer center, cafeteria), state-of-the art laboratories, and in close proximity to the engineering faculties of the University of Applied Sciences. The campus is only 10 min away from the historical city center by bike.

City of Osnabrück

- 155,000 relaxed and friendly inhabitants
- Historic city center (> 800 years)
- Short distances, easy orientation
- High quality of life, low cost of living
- Central location – 2 h to Hamburg or Cologne, 3 h to Berlin or Amsterdam
- Charming landscape, perfect for outdoor activities

UNIVERSITÄT OSNABRÜCK

Physics

International Master Program

www.**physik.uni-osnabrueck**.de

Background

Physics influences our view of the world as few other disciplines do – from sub-atomic particles to the whole cosmos. Many of the devices accompanying our daily life started out as somewhat ‘fancy’ ideas in the lab: the laser once was known as ‘a potentially useful invention looking for actual applications’; now it is indispensible in modern medicine, consumer electronics, and tele-communications. The GPS navigation system we all rely on is unthinkable without the theory of relativity – in short, physics is a fundamental science touching our everyday life in numerous ways.

Our new international master program Physics intends to bring prospective students a solid base in general physics, while offering them advanced hands-on research experiences in state-of-the art labs or at the theoretical forefront. Based in a modern, yet charming, science campus, the physics department has an excellent teacher-to-student ratio – with us, you are not just a number but can interact closely with the faculty.

Profile

We offer a broad variety of research fields in condensed matter physics, such as quantum phenomena of systems in reduced dimensions, with applications in nano-science and novel materials.

Our theoretical groups are leading a national Research Unit on the emergence of thermodynamics in non-equilibrium systems. This work is based on statistical physics of complex classical and quantum systems.

Experimental methods cover ultrafast optics, x-ray and photo-electron spectroscopies, magnetometry, spin resonance, highest-resolution scanning probe microscopy, and electronic transport.

New facilities are constantly added such as powerful computer clusters and state-of-the-art nano- and microelectronics fabrication, allowing you to get first-hand experience in modern work environments.

Modular Study Program

Students create their individual, fully modular, program selecting courses with 120 credit points (CP) in total. The teaching language is English.

first and second term	**60 CP**
major: Physics (8-9 modules), incl. advanced lab courses (12 CP) and at least two core modules (6 CP each) among: Applied Solid State Physics, Biophysics, Surface Science, Condensed Matter Theory, Ultrafast Physics + your choice among 40 modules in total	42 CP
minor — 2-3 modules in one of these areas: Applied System Science, Biology, Chemistry, Computer Science, Economics, Languages, Mathematics, Philosophy (of Science)	18 CP
third and fourth term	**60 CP**
professional specialization	12 CP
research project	15 CP
master thesis and colloquium	33 CP

Research Group Topics

Experimental

- Electron Spectroscopy and Electronic Structure
- Electronic Transport
- Macromolecular Structure by Electron Spin Resonance
- Nano Science
- Organometallic Networks on Insulators
- Quantum Spintronics
- Ultrafast Physics
- Ultrathin Films and Interfaces

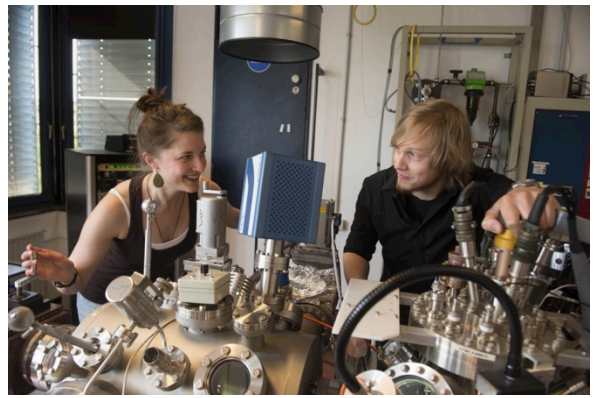
Theoretical

- Quantum Thermodynamics
- Statistical Physics
- Transport and Relaxation in Many-Body Systems

Scientific Environment

The international master program Physics is offered by the department of physics. We continuously develop our course programs to provide both a solid foundation in general physics and immersion into advanced topics.

State-of-the-art facilities at the department provide a sound research environment for exciting developments in physics. Interdisciplinary research with chemistry and biology is actively pursued and encouraged due to the short distances provided by the campus and the open collaborative atmosphere.



Career Perspectives

Physics graduates are much sought after on the job market due to their broad technical knowledge, great versatility, and outstanding problem-solving skills. They work in the fastest-growing markets in the world, such as the nanotechnology, photonics, and energy sectors.

Applied and technology-oriented career options are thus plentiful for our graduates with their solid knowledge in nanomaterials, advanced materials science, as well as molecular or quantum electronics and photonics.

About 1/3 of all physicists pursue a PhD degree, with concomitant chances for higher level jobs in industry or academia. Graduates of our Physics Master program will also be ideally qualified as PhD candidates for interdisciplinary and international research programs within the natural sciences in Osnabrück.