Physical Differences

Numbers and Facts

Start: Winter and summer semester
Duration: 4 semesters
Degree: Master of Science

Application and Enrolment

Admission requirements
Usually, the condition of admission to a Master's Programme is a Bachelor's degree or a comparable degree in the same or a closely related course of studies and a proof of professional and personal qualification.

For details on the conditions of admission and on the application for admission please refer to the admissions regulations.

Application
Applicants with German university entrance qualification apply online at the University of Oldenburg.

EU and international applicants apply via uni-assist e.V.

For more detailed information and deadlines, refer to:
www.uni-oldenburg.de/en/students/application-and-enrolment

Contacts

For questions about the Master's programme
Academic Advisory Service
Prof. Dr. Niklas Nilius
Phone: +49-(0)441-798-3152
E-mail: niklas.nilis@uni-oldenburg.de

Student association of the Institute of Physics
E-mail: fspphysik@uni-oldenburg.de
Internet: fachschaft.physik.uni-oldenburg.de

General advice regarding studies
Study and Career Counselling Service - Zentrale Studien- und Karriereberatung

Application procedures / Entry requirements
Admissions Office - Immatriculationsamt

StudierendenServiceCenter
Campus Haarentor A12
26129 Oldenburg
0441-798-2728
studium@uni-oldenburg.de
www.uni-oldenburg.de/en/students/service-advice

Further Information

Homepage of the Institute of Physics
www.uni-oldenburg.de/physik

Courses of study
www.uni-oldenburg.de/en/students/degree-programmes

Funding
www.uni-oldenburg.de/studium/finanzierung
The Master's Programme of Physics is research-oriented and serves the impartment of comprehensive advanced knowledge in the main disciplines of physics as well as a specialist training in the fields of physical research represented at Oldenburg University (www.uni-oldenburg.de/physik/forschung).

The students are qualified for independent, problem-oriented, interdisciplinary and responsible work in coping with current scientific problems of physical research and are capable of presenting their results convincingly. They are qualified to get into complex novel matters and problems rapidly, develop effective strategies independently and creatively and to plan their implementation.

Structure and content

The four-semester programme Master of Physics comprises 120 credit points (CP) equally distributed between an advanced phase and a research phase of two semesters each. The programme is organized in modules to be studied in a recommended order (curriculum and module descriptions: www.uni-oldenburg.de/physik/studium/studiengaenge).

Advanced phase (60 CP)
- Continuation module Experimental Physics 6 CP
- Continuation module Theoretical Physics 6 CP
- Continuation module Applied Physics 6 CP
- Advanced module I 9 CP
- Advanced module II 9 CP
- Advanced laboratory course of Physics 9 CP
- Open studies in Physics 15 CP

60 CP

Research phase (60 CP)
- Specialization module 15 CP
- Knowledge of methods and project planning 15 CP
- Master's thesis and presentation 30 CP

Three continuation modules in Experimental Physics, Theoretical Physics and Applied Physics are studied during the first two semesters (6 CP each). Additionally, two advanced modules of 9 CP each are to be studied in optional courses oriented towards the main research fields of the Institute of Physics. Furthermore, a research-oriented advanced laboratory course of Physics is completed (9 CP). Additional courses from the curriculum of the M.Sc. Physics or other Natural Sciences can be selected in the ‘Open Studies’ module. No specific examinations are required to finish this module.

The research phase of the third semester comprises two modules totalling 30 CP that serve the specialization and effective preparation of the Master’s thesis.

The Master’s thesis (30 CP) is prepared during the fourth semester, usually in one of the working groups of the Institute of Physics, and is completed by a lecture.

Careers and occupational fields

Manifold fields of activities in fundamental and applied physical research, technical development, teaching, and also in banking and insurance business, management consultancy, patent licensing, and administration are open to physicists holding a Master’s degree. The Deutsche Forschungsgemeinschaft (DPG) comments on their excellent professional prospects as follows: “Now as before there is a lack of specialists. The current demand corresponds to almost two complete years of Physics graduates. Physicists will continue being in demand.” (DPG bulletin 3/2010)

Besides starting a career Master graduates are qualified for a PhD programme in Physics.