

## **STUDYING**



#### Profile & Content

The Master's program has a prescribed length of two years, is research-oriented and covers advanced knowledge of three research areas:

Solid state physics & nanoelectronics, quantum optics and gravitation.

The course gives access to the cutting edge of modern physics with a highlight on introduction into scientific work during a one-year research phase.

### **Course Objectives**

Experimental: The ability to design appropriate experiments and to interpret the observations based on a thorough knowledge.

Theoretical: The formal mathematical analysis as well as the development of models and numerical methods on different levels of abstraction.

Application: Technical internships offers targeted education and training in engineering disciplines, nanoelectronics, photonics, solar energy research and environmental physics.

The Laser Zentrum Hannover (LZH) gives access to excellence medical research areas.

Skills: Interdisciplinary key competences, precise representation and presentation of structured problem solving, efficient project management and collaboration in international teams.

# LIVING & LEARNING

#### The University

Founded in 1831, today, 26,600 students are enrolled at Leibniz Universität Hannover. It is an international university with currently more than 3,500 international students and about 400 partner universities worldwide. It is a member of TU9, the nine outstanding German universities with an excellent spectrum in teaching and research.

Leibniz Universität Hannover is named after the universal scholar and scientist Gottfried Wilhelm Leibniz (1664–1716), who lived and worked in Hannover.

#### The Town

Hannover, the capital of the federal state of Lower Saxony,
has just over half a million inhabitants and is centrally located: Berlin,
Hamburg and Goettingen are easy to reach by bus or train. The Harz
mountain range is about an hour away. As host to several fairs,
Hannover is very open and welcoming to international guests and partners.

Hannover is a "green" city with many parks, which are ideal places to relax. The "Eilenriede" contained within Hannover, is one of Europe's largest city-forests. With a 650 hectare forest area it is bigger than Hyde Park or Central Park, making it an ideal place for jogging or going for walks.

Germany is among the safest countries in the world, and Hannover is no exception.

### Costs, Fees & Opportunities

There are no tuition fees, upon enrollment, students have to pay approx. 410 EUR as administrative fee, incl. semester ticket for free public transport for six months in Hannover, and on local trains within Lower Saxony.

The average living expense in Hannover is roughly 790 Euros per month, incl. rent, food, health, clothing, communication, cultural events, sports, leisure activities and other amounts for studying.

There are many opportunities to work as a student assistant (Hiwi) as well as a graduate inside or outside the University.

The International Office offers a variety of support services for international students. It helps finding students a suitable accommodation, offers a pickup service from the airport or railway station, provides newly arrived students with a 'study-buddy' and helps them to deal with administrative issues. Moreover, it organizes an orientation week at the beginning of each semester.

Feel free to contact us:

www.physics.uni-hannover.de

RESEARCH



## We aim for the top!

Physics in Hannover wins a leading position in nationally and internationally competitive areas.

The Max Planck Institute (Albert Einstein Institute) and the Institute for Gravitational Physics play a leading role in gravitational wave astronomy.

The Institute of Meteorology and Climatology focuses on current issues of applied meteorology and atmospheric physics related to weather, climate and environment.

Research on laser physics, and the interaction of light with matter is carried out at the Institute of Quantum Optics on a range of current topics from quantum gases to the production of plasmas with ultrashort laser pulses.

Topics of the Institute of Radioecology and Radiation Protection range from the physics of nuclear activity to the metrology of radioactive pollution.

Present research topics at the Institute of Solid State Physics cover e. g. the quantum Hall effect, dynamics in one-dimensional quantum wires and quantum dots.

The Institute of Theoretical Physics works in the key areas quantum optics, solid state and gravitational physics.

The physics group of the Institute of Didactics of Mathematics and Physics focuses its work on the fundamentals of physics education.

One special topic is the quantum physics education.