Facts and figures

Start: Winter semester
Duration: 6 semesters
Degree: Bachelor of Engineering
Language: English
Admission not restricted

Application and enrolment

Admission requirements

General admission requirements:
www.uol.de/stud/107en

Language skills:
German native speaker or level A2 (GeR)
English native speaker or level B2 (GeR)

Application

Application deadline: 15 October

German higher education entrance qualification:
Online application
www.uol.de/studium/bewerben/bachelor

EU or international applicants:
www.uol.de/en/application/international-students/bachelor

Further information

Engineering Physics website
www.uol.de/en/ep

Degree programmes at the University of Oldenburg
www.uol.de/en/students/degree-programmes

Offers for prospective students
www.uol.de/studium/studieninteressierte

Financing your studies
www.uol.de/en/students/fees/financing-your-studies

Optional period abroad
www.uol.de/en/going-abroad

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Engineering Physics (B. Eng.)

The Carl von Ossietzky University of Oldenburg and the University of Applied Sciences Emden/Leer jointly offer the international bachelor’s degree programme Engineering Physics to bridge the gap between traditional physics and engineering. Since 1998, students have been trained here to understand and develop modern technologies with a comprehensive basic education in mathematics and natural sciences combined with application-oriented engineering sciences.

In the „Laboratory Projects“, teams work on tasks from professional practice. Many students complete their final thesis in a technology-oriented company or an external research institute. More than half of the students in the international Engineering Physics programme come from abroad. The courses are entirely held in English.

Therefore, a good knowledge of the English language is required for this English-language degree programme.

Career opportunities

The Bachelor’s degree opens the way to a professional career and a Master’s degree programme. Possible occupational fields are:

– Technology-oriented industrial and research facilities
– Project work in the management sector

Further qualification is possible through a master’s degree programme. A Master’s programme can be started at many universities in Germany or abroad. At the University of Oldenburg there is, among others, the Master’s Engineering Physics.

Contents of the programme

In the first three semesters, the foundation is formed in physics and in engineering sciences. The physics and mathematics modules are closely aligned with traditional physics and engineering education. The students acquire the ability to quickly translate their knowledge into solution-finding in science and industry.

The specialisation takes place in one of the following areas:

The Biomedical Physics specialisation focuses on the application of physical principles to medical diagnostics (X-ray, ultrasound) and therapy (e.g. laser medicine, minimally invasive surgery, radiation therapy). An important subfield in Oldenburg is audiology.

In mechanical engineering, the automotive industry, aviation, the environment and the workplace, the importance of vibroacoustic issues is increasing rapidly. The physical fundamentals of sound and vibrations, including psychoacoustic effects, are studied in the focus area of Acoustics.

Laser and optics are key technologies of the 21st century. They are elementary in science for almost all breakthrough measurements, information, and communication sector, in medical and environmental measurement technology, and in production engineering.

Solar radiation and wind energy provide the highest potential for future energy supply. In the specialisation Renewable Energies theoretical basics of the conversion possibilities of these forms of energy and the corresponding limitations are imparted and for physical and technical concepts mode of action, limitations and application possibilities are discussed.

Stay abroad

It is recommended to study the fifth semester at a foreign university. Due to the close coordination of the modules to be completed with the partner universities, a stay abroad can be completed within the standard period of study. Students are supported in their preparation as well as in the exemption from tuition fees of the foreign university and scholarships.