

Studying in REMAGEN (Koblenz University of Applied Sciences)

Optics and Laser Engineering

Why Optics and Laser Engineering?

The Bachelor program Optics and Laser Engineering is the answer of the RheinAhrCampus to the increased demand for engineers in the fields of laser development and laser and optics application. This program is characterised by modern equipment, a strong connection of practical education and applied research as well as internationality. The studies in laser medicine provide a direct link to the Bachelor programs Medical Engineering and Sports Medical Engineering and Measurement and Sensor Engineering.

Fields of career:

Research and development (in industry, university and research centers)

- Development construction and installation of equipment
- Development of special laser and optical systems
- Marketing and sales in different positions within companies
- Manufacturing and quality control
- Production
- Optical communication and topics in information technology
- Marketing and Sales departments
- Teaching, training and skill development
- Self employment (engineering company, consulting)
- Project leadership in technical divisions

Topics of study:

During the basic study phase in the first three semesters, students are introduced to the basis of physics, mathematics and chemistry as well as skills in technical subjects such as computer programming, electrical and measurement engineering, electronics, technical mechanics and material science. During the following three semesters this knowledge is extended and deepened with a specialization in the relevant discipline.

Thus the students acquire the competence required for their practical Bachelor project work which may take place either at the RheinAhrCampus, in industrial companies or other research sites.

The acquired theoretical knowledge is applied in extended practical laboratory work. The Bachelor program Optics and Laser Engineering thereby concentrates on fields that dominate the commercial applications: laser measurement technology, which includes holography, laser material processing, micro processing of materials by laser, laser lithography (which is highly important for the production of computer chips), optical communications technology (more and more important for information technology) and laser medicine with its increasing importance for diagnostics as well as therapy.

Admission requirements:

Advanced technical college certificate or a general qualification for university entrance. Students whose native language is not German need to demonstrate their proficiency in German (as specified by our [Admissions Office](#)). Application for registration is possible for the summer or the winter term.

Final degree: Bachelor of Science (B. Sc.)

Duration: Six semesters encompassing three semesters of basic studies and three semesters within the main study phase (including the Bachelor project).

Master Course in Applied Physics: At the RheinAhrCampus a Master course in Applied Physics is offered which is designed for students with a Bachelor of Science degree.

Contact:

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