

Chemistry and Biotechnology (B. Sc.)

The professional qualification is reached in the following four phases of the degree programme:

The first study phase teaches the basics of chemistry and mathematical science. In the second phase, students acquire the basic professional qualifications by attending courses in life sciences, technical chemistry, instrumental analysis, technical English and management and communication techniques. The third study phase consists of compulsory optional courses.

By selecting these courses, students can set priorities in industrial organic chemistry, environmental technology (air pollution control), biological cleaning processes, safety engineering, water technology, bioorganic chemistry, biotechnology, bioanalysis and genetic engineering/microbiology.

The aim of the fourth study phase is to develop the essential methodology for solving chemical and biotechnological problems, initially with an external project phase and later in the Bachelor's thesis.

The foundation for the project phase is provided by experiments from typical applications in the fields of industrial chemistry and biotechnology. In addition to the independent development of a problem solution strategy, the student must deal with the accepted theory and the current literature.

The result is presented in the form of a report and a lecture.

The three-month Bachelor's thesis is usually an investigation based on real-life problems with a detailed description and explanation of the results. It aims to demonstrate that the student is competent to solve a practice-oriented problem both in technical details and in specialised multidisciplinary methods within a fixed period.

Thus, the Bachelor of Science comes with a solid basis in mathematics, natural sciences and the necessary knowledge in chemistry, biotechnology and management techniques with the possibility of professional specialisation.