

# MSc in Biotechnology at the Faculty of Agronomy and Bioengineering



**Award:** Master of Science

**Duration:** 3 semesters (1.5 years)

**Tuition Fee:** 4200 EUR (1400 EUR per semester)

**Start date:** every October 1<sup>st</sup>

## **Brief description**

The Master's Degree program in the Biotechnology is addressed to the foreigners holding a BSc degree in the disciplines related to the content of the program. The program of studies consist of the following subjects: use of microorganisms in biotechnology, industrial applications of cell and tissue cultures, bioinformatics, recent advances in biotechnology, genetic engineering, application of biotechnology in plant breeding, biotechnology in chemical industry and energetics, plant biotechnology, cytogenetics and chromosome engineering, gene expression and regulation, molecular diagnostics, data processing and experimental design.

## **Course overview**

The purpose of training students in the field of Biotechnology is to prepare graduates able to combine the technology and modern methods of the experimental biology and to undertake the interdisciplinary tasks, requiring cooperation with specialists from other fields. The students taking the second stage of the Biotechnology are being prepared to carry out research work aimed at, among others, the use of living organisms to obtain new products and an implementation of the innovative manufacturing processes. The graduate obtains the knowledge and professional skills to perform primary analysis and basic research using biological material, to use the technological devices and equipment, to make decisions while operating industrial processes in the field of biotechnology, including designing bioprocesses and bioproducts, to use biotechnology techniques allowing selection and targeted modifications of microorganisms and cells of higher organisms, to run processes of biosynthesis and biotransformation, to isolate and purify

bioproducts and to proceed their analytics and diagnostics, to assess an environmental risk associated with the applied technology and to effectively deal with it, to assess the economic impact of the activities, business management and organization of production, as well as analyzing the market for biotechnology products. Studies of the second degree prepare additionally to participate in the work of scientific research and to study the third degree (PhD).

The classes are conducted by academic teachers who are specialists in their fields, so that Biotechnology at our University is among the best fields in the country. Teaching laboratories are equipped with devices designed to learn the latest technology, which makes them unique in the country. Thesis of Biotechnology students are carried out in the Departments of University or partner Research Institutes in Poznan.

## **Career options**

The graduated biotechnologists have many career paths, but their careers are generally focused on work in the research and development sectors related to the production of new generation materials, pharmaceuticals, health care, food industry, livestock and crop production, the scientific institutions engaged in research in the medical diagnostics and industrial biotechnology, running own business.

## **Leading modules**

- Plant Biotechnology
- Animal Biotechnology
- Industrial Biotechnology
- Genetic Diagnostics

## **Entry requirements**

Candidates for registration to this course must first hold at least a Bachelor of Science degree in one of the following areas:

- Animal Sciences
- Biotechnology
- Biology
- Horticulture