### **General Student Advisory**

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## **Molecular Biotechnology**

# **Department 7** Applied Biosciences and Process Engineering

https://www.hs-anhalt.de/mob

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## **MASTER OF SCIENCE**

Version: MOB-1-03/12/2019

Department Applied Biosciences and Process Engineering Campus Köthen Master of Science

Modern molecular biotechnological and genetic engineering procedures are nowadays of high relevance to many realms of research and industrial processes such as biological and medical research, recombinant production of drugs, desired metabolites and optimized technical enzymes, the establishment of cellular detection systems, strategies of environmental management as well as food production. Its importance will definitely even increase in the future.

Molecular Biotechnology

This three-semester English study program was developed to enable national and international students with backgrounds in biotechnology, pharmaceutical engineering, biomedical engineering, biology, food technology and related fields of study to deepen their knowledge in this field. This applied program includes subjects like advanced genetic engineering and cell culture, OMICS technologies, next generation sequencing, databases and bioinformatics, recombinant protein production and much more. Successful graduates will have best chances to reach high positions in corresponding companies and research institutes.

#### **SKILLS ACQUIRED**

This master program aims at the transfer of comprehensive knowledge and skills in modern molecular biotechnology and genetic engineering techniques. Successful graduates will be able to work at high positions in institutes and companies doing research and production in different fields requiring the use of molecular biological methods such as medicine, pharmacy, environmental management, etc.

#### **MAJOR FIELDS OF STUDY**

- advanced genetic engineering and cell culture
- OMICS technologies
- next generation sequencing
- databases and bioinformatics
- recombinant protein production

#### **PROGRAM DURATION**

3 semesters (90 Credits)

#### **START OF PROGRAM**

Winter or summer semester

#### **CAREER PROSPECTS**

The increasing impact of modern molecular biotechnological and genetic engineering procedures in industrial processes such as biological and medical research, recombinant production of drugs, desired metabolites and optimized technical enzymes, the establishment of cellular detection systems, strategies of environmental management as well as food production enables successful graduates best chances to reach high positions in corresponding companies and research institutes.

A comprehensive pool of research equipment and close links to international partners f.e. in the pharmaceutical industry, at universities and research institutes offer great opportunities for development, both professionally and scientifically.