

Work Placement

In the second year the students have to do a practical training for twelve weeks. It is possible to spend this time abroad.

The subjects Maths (statistics, chemical mathematics) English (business and technical English) and Economy (comparison of offers, legal aspects of reminders) focus on career related aspects.

We regard the subjects German/Communication, Politics/Social Sciences, Physical and Health Education and Religious Education as supplementary to the professional education. Here you can acquire e.g. the necessary skills to write detailed test descriptions. Moreover, ethical and social aspects of the profession are discussed.

Lesson Organisation

The subjects of general education and the theoretical part of the biological subjects are taught to the whole class. In the laboratory the students will work in small teams/learning groups.

In the second year of the education the teams have to solve more complex tasks. The modern equipment of the laboratory and computer supported evaluation techniques will be helpful in finding answers to many questions.

The students usually spend about six to seven hours (8 am to about 3 pm) at school each day from Monday to Friday.

Final Qualification

After having passed the examination the student is awarded with the degree of a

State examined

Biological technical Assistant

An acknowledged professional title according to the regional laws of NRW

Supplementary Qualification

Qualified students have the possibility to acquire a certificate in Molecular Biology awarded by the Chamber of Industry and Commerce

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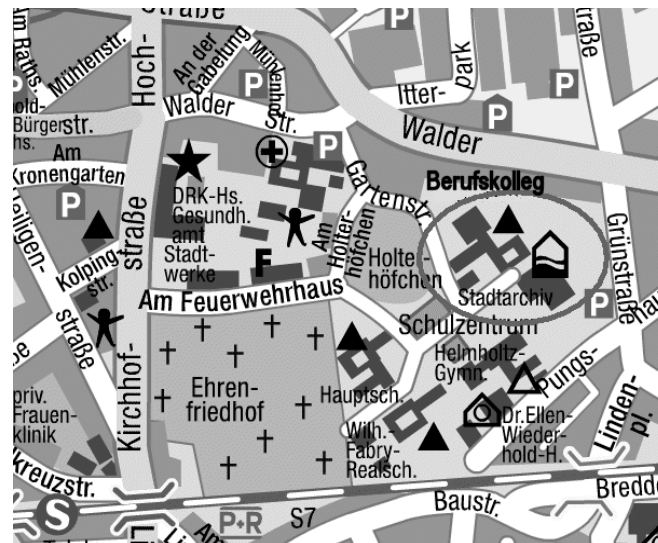
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How to find us:



Right next to the HILDORADO !



Biological technical Assistant

Vocational College: Lab Technicians

Biological technical Assistant

Job Description

During this two-year training you are qualified to solve independently technical and organisational tasks in modern and innovative companies.

Especially BioGenTec companies offer a huge variety of jobs. Therefore, your education will focus on molecular biology and cell culture, in addition to basic biological fields of work.

Modern, computer supported evaluation methods will accompany you in all fields of your laboratory work and will provide you with an ideal preparation for your practical work in the lab.

Terms of admission

Prerequisite for an admission to this training of two years is the matriculation standard.

Duration of the course

This training takes two years.

Any questions? Please give us a call

Contents of the Course

Vocational Subjects

Cell Biology / Cell Culture Technique:

Preparing media and solutions for cell culture, working under sterile conditions, characterization and cultivation of cells, quantifying cells, cryopreservation of cells, detection of contamination, various microscopic techniques, diverse methods of cell transfection, regulated and non-regulated gene-expression, description of various reporter systems, cytotoxicity test

Biochemistry / Molecular Biology

Principles of dealing with chemicals, producing and controlling solutions, planning, recording and evaluating experiments, balance reactions, correlation between structure and reaction of organic molecules and biologically relevant substances. Biochemical and molecular-biological techniques for expression, isolation, purification and characterization of proteins and enzymes, immune-chemical detections methods, molecular-biological techniques for isolation, purification, characterization, quantification, duplication and cloning of nucleic acids, modern analytical methods like HPLC and GC/MS.

Microbiology/Biological engineering

Working under sterile conditions, cultivation, enrichment, isolation and identification of micro-organisms, quantification of bacterial cells, anaerobic working techniques, microscopy, characteristics and metabolism of micro-organisms, applied microbiology, biotechnological methods, generation and enrichment of mutants, isolation of phages and plasmids, measuring and control technology of bioreactors

Zoology / Botany

Structure and function of the animal body, blood and its biochemical elements, animal protection laws, microscopy, microscopic preparation techniques, preparing microtome sections, neurophysiology, ecological aspects of soil sciences, structure and function of plants, plant substances, cultivation of plants, pest management, chemical water analysis.

Further Subjects

Scanning Electron Microscopy (SEM)

Sample preparation, SEM pictures and documentation, microanalysis

Lab Data Management

Aquisition, processing and evaluation of data on the application of standard software (Word, Excel, Access, PowerPoint), E-Mail, Internet.

Bio-Informatics

Research in internet databases, mapping DNA mole planning of lab procedures e.g. for restriction analysis design primers for PCR/Sequencing.

Work Security

Dealing with hazardous material, safety measures, rule behaviour in the laboratory, environmental and health protection, gene technology laws, ordinance on safety health protection at work, involving biological agents, work in ISO certified laboratories

Instrumental Analytics

Functioning and application of modern analytical method equipment, High Performance Liquid Chromatography (HPLC), gas chromatography combined with spectroscopy (GC/MS), REAL-Time PCR, polarimetry