Universität Bremen

Fachbereich 02
Biologie/Chemie

Master of Science Biochemistry and Molecular Biology (BMB)

1st semester

Module A
Basics in Biochemistry and Molecular Cell Biology
Lectures, exercises, lab work
15 CP

Module B
Models, Methods (9 CP mandatory) and Specialization (6 CP) in BMB: Molecular/Cellular Biology, Biochemistry, Neurobiology, Genetics or Microbiology
15 CP

2nd semester

Modules D
Choice of 3 practical lab courses, 6 CP each
3-4 week blocks (Tuesdays-Fridays)
offer of courses may vary*
18 CP

Module C
Project Management
Preparation of lecture for Bachelor students, Preparation of BMB Symposium
6 CP

Module F
Project Proposal Collaborative research grant
Presentation at BMB Symposium
(early October)
9 CP

3rd semester

Modules E1
Lab Project 1 (incl. Poster Presentation)
Research project
15 CP

Modules E2
Lab Project 2
Research project
12 CP

4th semester

Module G
Master Thesis
Scientific project, thesis, presentation and defence in colloquium
30 CP

***Modules D**

Offered modules

- Protein/Ligand Interactions
- Atomistic Modelling of Biomacromolecules
- Bacterial Genomes: Bioinformatics, Mutant Construction and Proteomics
- Cell Physiology of Marine Organisms: Cellular Energy Budget and Metabolic Finger Printing
- Functional Analysis of Bacteria-plant Interactions: Transcriptomics, Advanced PCR Techniques and Bacterial Mutant Assessment
- Functional Genomics of Marine Eukaryotes
- Investigation and Engineering of Plant Reproduction Using State of the Art Gene Editing Tools
- Molecular and cellular Virology
- MRI and MRS in Biomedical Research
- Plant and Fungal Transformation as Tool for Functional Analysis and *in vivo* Visualization