

General course structure of the Master Biochemistry programme

Winter semester: Mostly basic modules (MBC.Gx), maybe 1 advanced one
Every student in the Master Biochemistry must complete all 3 basic modules.

MBC.G1 Biomolecular chemistry (Spectroscopy)

2 SWS lecture on „Spectroscopy methods in life sciences“

2 SWS seminar on „Spectroscopy methods in life sciences“ (students prepare talks)

3 SWS practical course on „Spectroscopy methods“, in groups of 2-3 students in labs
SWS means „Semesterwochenstunden“, i.e. hours/week, a 2 SWS lecture is a 90 min lecture once per week

Written exam for lecture at end of winter semester, mark for seminar talk and for protocol of practical course

MBC.G2 Biochemistry I

2 SWS lecture on „Structure and function of nucleic acids“

3 SWS lecture on „Regulatory aspects of biochemistry“

2 SWS lecture on „Basics of analytical biochemistry“

3 written exams for lectures (one for each) at the end of the winter semester

MBC.G3 Biochemistry II

2 SWS lecture on „Regulation of gene expression“

2 SWS lecture on „Molecular Cell Biology“

2 written exams for lectures (one for each) at the end of the winter semester

The rest of the module is taught in the summer semester as follows:

2 SWS lecture on „Biochemistry of hormones“ with written exam at end of summer semester

1 SWS seminar on „Molecular pharmacology“ (students prepare talks) with mark for talk

Summer semester: Mostly advanced modules (MBC.Ax)

Every student in the Master Biochemistry must complete 3 advanced modules. These consist of (lectures,) seminars and in particular practical courses on that topic.

	In which semester?
A1 Biomolecular chemistry (=Natural product chemistry)	summer
A2 Organic chemistry	winter:A2/summer:A17
A4 Genomic instability and tumor biology	summer
A6 Molecular medicine of ion transport	summer
A8 Theoretical systems biology	summer
A10 Prokaryotic gene regulation	summer
A11 Cellular plasticity (=stem cells, neurobiology, aging)	summer
A12 Pharmacological cell biology	winter
A13 Molecular aspects of immunobiology	summer
A14 Molecular and microbial infection biology	summer
A15 Virus/host cell interaction	summer
A16 Chemical ecology of signalling compounds	summer
A18 Epigenetic mechanisms of gene regulation	summer/winter

You can choose a certain specialization (Natural product / Ecological chemistry („green“ biochemistry), Stem cells / Tumors / Epigenetics (the „Aging“ field), Immune/infection biology) or mix any modules.

2nd year: Master thesis for two semesters (containing T1 and T2 modules for preparation). You apply to different labs of your choice and then choose the one that suits you best.