

## Master Biology / Modules

### Focus Subjects / Schwerpunkte

#### Biochemistry

##### Theoretical Modules (12 CP)

BIO-M-TM-PBE	Protein Biochemistry and Enzymology	Prof. Dr. Reinhard Sterner
BIO-M-TM-RNA	RNA Biochemistry	Prof. Dr. Gunter Meister

##### Practical Modules (12 CP)

BIO-M-PM-PBE	Protein Biochemistry and Enzymology	Prof. Dr. Reinhard Sterner
BIO-M-PM-RNA	RNA Biology	Prof. Dr. Gunter Meister
BIO-M-PM-CD	Chromatin Dynamics and Nuclear Architecture	Prof. Dr. Gernot Längst
BIO-M-PM-RB	Ribosome Biogenesis	Prof. Dr. Herbert Tschochner
BIO-M-PM-PTR	Post-transcriptional regulation of gene expression	Prof. Dr. Jan Medenbach

#### Bioinformatics

##### Theoretical Modules (12 CP)

BIO-M-TM-BI	Computational Biology	Prof. Dr. Till Rudack
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##### Practical Modules (12 CP)

BIO-M-PM-BI	Sequence- and Structure-based Computational Biology	Prof. Dr. Till Rudack
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#### Biophysics

##### Theoretical Modules (12 CP)

BIO-M-TM-BP	Structural Biology/Biophysics I and II	Prof. Dr. Remko Sprangers Prof. Dr. Christine Ziegler
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##### Practical Modules (12 CP)

BIO-M-PM-MP	Structure Biology of Membrane Proteins	Prof. Dr. Christine Ziegler
BIO-M-PM-S	Biomolecular NMR-Spectroscopy	Prof. Dr. Remko Sprangers

#### Plant Cellular Biochemistry and Genetics

##### Theoretical Modules (12 CP)

BIO-M-TM-CPBG	Cellular Plant Biochemistry and Genetics	Prof. Dr. Thomas Dresselhaus Prof. Dr. Klaus Grasser
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##### Practical Modules (12 CP)

BIO-M-PM-MCDP	Molecular Cell and Developmental Biology	Prof. Dr. Thomas Dresselhaus
BIO-M-PM-PB	Plant Biotechnology	Prof. Dr. Thomas Dresselhaus
BIO-M-PM-MBP	Molecular Biology and Biochemistry of Plants	Prof. Dr. Klaus Grasser

#### Ecology and Nature Conservation

##### Theoretical Modules (12 CP)

BIO-M-TM-ENC	Ecology and Nature Conservation	Prof. Dr. Peter Poschlod
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##### Practical Modules (12 CP)

BIO-M-PM-ENC	Ecology and Nature Conservation	Prof. Dr. Peter Poschlod
BIO-M-PM-MEGNC	Molecular Ecology and Genetics of Nature	Prof. Dr. Christoph Reisch

#### Biodiversity

##### Theoretical Modules (12 CP)

BIO-M-TM-BD	Biodiversity	Prof. Dr. Peter Poschlod
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##### Practical Modules (12 CP)

BIO-M-PM-BD	Biodiversity	Prof. Dr. Peter Poschlod
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#### Evolutionary and Systematic Botany

##### Theoretical Modules (12 CP)

BIO-M-TM-ESB	Evolutionary and Systematic Botany	Prof. Dr. Christoph Oberprieler
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##### Practical Modules (12 CP)

BIO-M-PM-ESB	Evolutionary and Systematic Botany	Prof. Dr. Christoph Oberprieler
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## Theoretical Ecology

### Theoretical Modules (12 CP)

BIO-M-TM-TE	Theoretical Ecology	Prof. Dr. Florian Hartig
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### Practical Modules (12 CP)

BIO-M-PM-TE	Theoretical Ecology	Prof. Dr. Florian Hartig
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## Molecular Ecology and Evolutionary Biology

### Theoretical Modules (12 CP)

BIO-M-TM-MEE	Molecular Ecology and Evolutionary Biology	Prof. Dr. Jürgen Heinze
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### Practical Modules (12 CP)

BIO-M-PM-MEESI	Molecular Ecology and Evolutionary Biology	Prof. Dr. Jürgen Heinze
BIO-M-PM-CE	Chemical Ecology	Prof. Dr. Joachim Ruther
BIO-M-PM-IMI	Molecular Ecology of Insect-Microbe Interactions	Prof. Dr. Erhard Strohm
BIO-M-PM-MEBE	Molecular, Evolutionary and Behavioural Ecology	Prof. Dr. Erhard Strohm
BIO-M-PM-ICDSI	Individual and Collective Decision Making	Dr. Tomer J. Czaczkes
BIO-M-PM-MEGNC	Molecular Ecology and Genetics of Nature	Prof. Dr. Christoph Reisch
BIO-M-PM-ESB	Evolutionary and Systematic Botany	Prof. Dr. Christoph Oberprieler

## Zoology

### Theoretical Modules (12 CP)

BIO-M-TM-Z	Zoology	
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### Practical Modules (12 CP)

BIO-M-PM-BESI	Behavioural Ecology of Social Insects	Prof. Dr. Jürgen Heinze
BIO-M-PM-CE	Chemical Ecology	Prof. Dr. Joachim Ruther
BIO-M-PM-IMI	Molecular Ecology of Insect-Microbe Interactions	Prof. Dr. Erhard Strohm
BIO-M-PM-MEBE	Molecular, Evolutionary and Behavioural Ecology	Prof. Dr. Erhard Strohm
BIO-M-PM-FM	Functional Morphology	Prof. Dr. Erhard Strohm
BIO-M-PM-ICDSI	Individual and Collective Decision Making	Dr. Tomer J. Czaczkes

## Genetics

### Theoretical Modules (12 CP)

BIO-M-TM-G	Genetics	Prof. Dr. Wolfgang Seufert Prof. Dr. Frank Sprenger
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### Practical Modules (12 CP)

BIO-M-PM-CDT	Regulation of Cell Division and mRNA Translation	Prof. Dr. Wolfgang Seufert
BIO-M-PM-CDD	Regulation of Cell Division in Drosophila	Prof. Dr. Frank Sprenger
BIO-M-PM-PTR	Post-transcriptional regulation of gene expression	Prof. Dr. Jan Medenbach

## Microbiology

### Theoretical Modules (12 CP)

BIO-M-TM-M	Microbiology	Prof. Dr. Dina Grohmann
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### Practical Modules (12 CP)

BIO-M-PM-OM	Organismic Microbiology	Prof. Dr. Reinhard Rachel
BIO-M-PM-MCB	Microbial Cell Biology	Prof. Dr. Reinhard Rachel
BIO-M-PM-CBSMB	Chemical Biology and Single-Molecule Biology	Prof. Dr. Dina Grohmann
BIO-M-PM-MoM	Molecular Microbiology	PD Dr. Winfried Hausner

## Molecular Human Biology

### Theoretical Modules (12 CP)

BIO-M-TM-MH	Molecular Human Biology	Prof. Dr. Ernst Tamm
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### Practical Modules (12 CP)

BIO-M-PM-HACB	Human Anatomy - Cell Biology	Prof. Dr. Ernst Tamm PD Dr. Rudolf Fuchshofer
BIO-M-PM-HAAM	Human Anatomy - Animal Models	Prof. Dr. Ernst Tamm PD Dr. Rudolf Fuchshofer

## Cell and Developmental Biology

### Theoretical Modules (12 CP)

BIO-M-TM-CDB	Cell and Developmental Biology	Prof. Dr. Stephan Schneuwly
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**Practical Modules (12 CP)**

BIO-M-PM-MDN	Molecular Mechanisms of Development	Prof. Dr. Stephan Schneuwly
BIO-M-PM-MCDP	Molecular Cell and Developmental Biology	Prof. Dr. Thomas Dresselhaus
BIO-M-PM-DN	Drosophila Neurogenetics	Prof. Dr. Björn Brembs

**Neurobiology****Theoretical Modules (12 CP)**

BIO-M-TM-N	Neurobiology	Prof. Dr. Inga Neumann
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**Practical Modules (12 CP)**

BIO-M-PM-MNB	Molecular Neurobiology of Behaviour	Prof. Dr. Inga Neumann Prof. Dr. Oliver Bosch
BIO-M-PM-NP	Neurophysiology	Prof. Dr. Veronica Egger
BIO-M-PM-DN	Drosophila Neurogenetics	Prof. Dr. Björn Brembs

**Secondary Subjects / Nebenfächer****Bioorganic Chemistry (inactiv)****Theoretical Modules (12 CP)**

BIO-M-TM-BC	Bioorganic Chemistry	Prof. Dr. Burkhard König
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**Practical Modules (12 CP)**

BIO-M-PM-BC	Bioorganic Chemistry	Prof. Dr. Burghard König
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**Human Genetics****Theoretical Modules (12 CP)**

BIO-M-TM-HG	Human Genetics	Prof. Dr. Bernhard Weber
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**Practical Modules (12 CP); or Advanced Modules**

BIO-M-PM-HG	Human Genetics	Prof. Dr. Bernhard Weber
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**Immunology****Theoretical Modules (12 CP)**

BIO-M-TM-I	Immunology	Prof. Dr. Thomas Hehlhans
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**Practical Modules (12 CP)**

BIO-M-PM-I	Immunology	Prof. Dr. Thomas Hehlhans
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**Medical Microbiology****Theoretical Modules (12 CP)**

BIO-M-TM-MeM	Medical Microbiology	Prof. Dr. André Gessner
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**Practical Modules (12 CP)**

BIO-M-PM-MeM	Medical Microbiology	Prof. Dr. André Gessner
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**Cognitive and Translational Neurobiology****Theoretical Modules (12 CP)**

BIO-M-TM-CTN	Cognitive and Translational Neurobiology	Prof. Dr. Christian Wetzel, Prof. Dr. Veronica Egger
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**Practical Modules (12 CP)**

BIO-M-PM-CTN	Cognitive and Translational Neurobiology	Prof. Dr. Christian Wetzel
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