

## Module Handbook (<https://modhb.uni-kl.de/>)

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### Notes on the module handbook of the department Biology

The below displayed informations on the courses of study, modules and courses of the department of Biology are still under construction. Till this process will be finished please use our module handbooks on

<https://www.bio.uni-kl.de/studium-lehre/studiengaenge/> (<https://www.bio.uni-kl.de/studium-lehre/studiengaenge/>)

## Module BIO-TM1-4\_14-M-5

Theoretical Module 1-4: Lecture and Reading Course - Neural Development (M, 3.0 LP)

### Module Identification

Module Number	Module Name	CP (Effort)
BIO-TM1-4_14-M-5	<i>Theoretical Module 1-4: Lecture and Reading Course - Neural Development</i>	3.0 CP (90 h)

### Basedata

CP, Effort	3.0 CP = 90 h
Position of the semester	1 Sem.
Level	[5] Master (Entry Level)
Language	[EN] English
Module Manager	Pielage, Jan, Prof. Dr. (PROF   DEPT: BIO) (/staff/99/)
Lecturers	Pielage, Jan, Prof. Dr. (PROF   DEPT: BIO) (/staff/99/)
Area of study	[BIO-ZOO] Zoology
Reference course of study	[BIO-88.Z10-SG] M.Sc. Biology (/mhb/FB-BIO/cos-582/)
Lifecycle-State	[NORM] Active

### Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
S	BIO-ZOO-01-K-5 (/mhb/courses/BIO-ZOO-01-K-5/)	P	TEILN	PL1	3.0	WiSe

- About [BIO-ZOO-01-K-5]: Title: "Lecture and Reading Course - Neural Development"; Presence-Time: 20 h; Self-Study: 70 h

- About [BIO-ZOO-01-K-5]: The study achievement [TEILN] **continuous and active participation in the courses** must be obtained.

## Examination achievement PL1

- Form of examination: **written exam (Klausur) (60-90 Min.)**
- Examination Frequency: each winter semester

## Evaluation of grades

The grade of the module examination is also the module grade.

### Contents

From [BIO-ZOO-01-K-5] **Lecture and Reading Course - Neural Development** (/mhb/courses/BIO-ZOO-01-K-5/):

- The students will hear introductory and summary lectures, read research and review papers, and discuss within the group and with the teacher current topics of neuronal development.
- Topics include e.g. nervous system formation, wiring of the nervous system, formation of neuronal circuits, animal behavior, modern methods in neurobiology.

### Competencies / intended learning achievements

#### Professional competence:

- Overview of the principles underlying neuronal development.
- Students will evaluate, discuss and compare a variety of experimental strategies, model systems and experimental methods used to advance our understanding of molecular and cellular aspects of neuronal development.
- Topics will be explored both in breadth and in depth using a combination of text books, reviews and original research papers.
- Students will learn to critically evaluate scientific literature.

#### Methodological competence: ---

#### Social competence:

- Learning to discuss scientific issues with other students and the teacher and explaining complex concepts.
- Learning to simplify complicated topics and ideas and to identify their key aspects.

#### Self-competence:

- Acquirement of scientific knowledge by self-responsible reading of English research literature, and identifying points that require further explanation.
- Critical evaluation of current research data.

Intended Learning Outcomes:

On successfully completing the module students will be able to...

- improve their knowledge in the field of neural development.
- read and understand specialist English literature (research papers and reviews).
- summarize and discuss orally research papers.

### Literature

From [BIO-ZOO-01-K-5] **Lecture and Reading Course - Neural Development** (/mhb/courses/BIO-ZOO-01-K-5/):

E. Kandel: Principles of Neuroscience, 5th edition;

L. Luo: Principles of Neurobiology;

Bear: Neuroscience;

Original literature will be provided at or prior to the beginning of the course;

### Materials

Will be provided at or prior to the beginning of the course

### Requirements for attendance (informal)

Bachelor-grade knowledge in molecular biology, genetics, animal physiology, neurobiology

### Requirements for attendance (formal)

## References to Module / Module Number [BIO-TM1-4\_14-M-5]

Course of Study	Section	Choice/Obligation
[BIO-88.Z10-SG] M.Sc. Biology (/mhb/FB-BIO/cos-582/)	Theoretical Modules 1-4: Lectures and Reading Courses	[P/WP] Compulsory or compulsory elective (depending on the chosen specialization / study profile)