

# Subdivided Module Catalogue for the Subject

# **Translational Neuroscience**

as a Master's with 1 major with the degree "Master of Science" (120 ECTS credits)

> Examination regulations version: 2015 Responsible: Faculty of Medicine

JMU Würzburg • generated 18-Apr-2025 • exam. reg. data record 88|h36|-|-|H|2015

### UNIVERSITÄT WÜRZBURG

### **Learning Outcomes**

The Translational Neuroscience program at the Medical Faculty of Würzburg covers the following main areas:

- biological-scientific and clinical-theoretical basics
- constructive work in interprofessional and interdisciplinary teams
- basic, translational and clinical research
- diagnostic tools and therapeutic options

### Scientific qualifications

- Graduates possess a professionally oriented, science-based education and apply scientific thinking and action in a targeted manner to gain new knowledge in medicine.
- They have a basic understanding of scientific work and use professionally legitimate methods of knowledge and testing procedures.
- They adequately assess the possibilities and limits of scientific knowledge in medicine.
- They critically evaluate scientific approaches and results and take their social responsibility and the well-being of patients into account.
- They are able to conduct systematic literature searches, independently derive new questions, formulate hypotheses and identify suitable research methods and apply these to their own scientific work.
- They comply with the principles of good scientific practice.

### Qualification for scientific employment

• Graduates are prepared for a wide range of fields of action in professional institutions and in the private sector, for example in the areas of research, health, education and training, the world of work and culture.

### **Enabling social engagement**

- They identify the ethical dimensions of scientific activity and deal with ethical challenges appropriately.
- They know and take into account the ethical, legal, societal and socio-economic framework conditions of scientific action.
- They communicate their knowledge and skills to others and apply the principle of lifelong learning.

### Personality development

- They are capable of self-criticism, recognize their personal limits and can reflect on their responsibility and how they deal with their own mistakes.
- They are aware of the different roles in teams. They are able to recognize problems in working together and to offer constructive criticism, and they are prepared to take on leadership tasks and responsibility depending on the situation.

### Abbreviations used

Course types:  $\mathbf{E}$  = field trip,  $\mathbf{K}$  = colloquium,  $\mathbf{O}$  = conversatorium,  $\mathbf{P}$  = placement/lab course,  $\mathbf{R}$  = project,  $\mathbf{S}$  = seminar,  $\mathbf{T}$  = tutorial,  $\ddot{\mathbf{U}}$  = exercise,  $\mathbf{V}$  = lecture

Term: **SS** = summer semester, **WS** = winter semester

Methods of grading: **NUM** = numerical grade, **B/NB** = (not) successfully completed

Regulations: **(L)ASPO** = general academic and examination regulations (for teaching-degree programmes), **FSB** = subject-specific provisions, **SFB** = list of modules

Other: **A** = thesis, **LV** = course(s), **PL** = assessment(s), **TN** = participants, **VL** = prerequisite(s)

### Conventions

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

### Notes

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should the module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

### In accordance with

the general regulations governing the degree subject described in this module catalogue:

### ASPO2015

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

### 13-Jul-2015 (2015-27)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.

## The subject is divided into

Abbreviation	ion Module title			ECTS Method		Method of	nage
			credits	grading	page		
Compulsory Courses (50 ECTS credits)							
03-TN-MNS-152-m01	Methods ir	Neurosciences	5	B/NB	27		
03-TN-NB1-152-m01	Clinical Ne	urobiology 1	5	NUM	32		
03-TN-NB2-152-m01	Clinical Ne neurobiolo	urobiology 2: Trend-setting and current findings in gy	5	B/NB	34		
03-TN-NN1-152-m01	Neurology/	Neurosurgery 1	5	NUM	37		
03-TN-NN2-152-m01	Neurology/	Neurosurgery 2	5	B/NB	39		
03-TN-PSYT1-152-m01	Psychiatric	Neurosciences	5	NUM	44		
03-TN-PSYT2-152-m01	Current fine	dings in psychiatric neurosciences	5	B/NB	46		
06-TN-BPSY1-152-m01	Biopsychol	ogy 1	5	NUM	49		
06-TN-BPSY2-152-m01	Biopsychol	ogy 2	5	B/NB	50		
03-TN-LR1-152-m01	Advanced I	ab rotation 1	5	NUM	24		
Compulsory Electives (40 I	CTS credits	5)	1	<u> </u>			
Module Group General Co	ompulsory E	lectives					
03-TN-P-152-m01	Pain		5	B/NB	41		
03-TN-NI-152-m01	Neuroinflaı	nmation	5	B/NB	36		
03-TN-IC-152-m01	lon channe	ls	5	NUM	22		
03-TN-FI-152-m01	Functional	Neuroimaging	5	B/NB	20		
03-TN-DI-152-m01	Developme	ental Neuroimaging	5	B/NB	15		
03-TN-PN-152-m01	Biology and	d Disease of the Peripheral Nerve	5	B/NB	43		
03-TN-DNP-152-m01	Developme	ental Neuropsychiatry	5	B/NB	16		
03-TN-CN-152-m01	Cellular Ne	urobiology	5	NUM	12		
03-TN-EP-152-m01	Experiment	tal Psychiatry	5	NUM	18		
03-TN-DCN-152-m01	Developme	ental cognitive Neuroscience	5	NUM	13		
03-TN-ASL-152-m01	Advanced S	Subject Lecture 1 (actual lectures to be specified)	10	B/NB	7		
03-TN-ASL-2-152-m01	Advanced S	Subject Lecture 2 (actual lectures to be specified)	5	B/NB	8		
03-TN-ASL-3-152-m01	Advanced S	Subject Lecture 3 (actual lectures to be specified)	5	B/NB	9		
03-TN-MP-1-152-m01	Meeting Pa	Inticipation 1 (Poster)	5	B/NB	28		
03-TN-MT-1-152-m01	Meeting Pa	rticipation 1 (Talk)	10	B/NB	31		
03-TN-ATP-1-152-m01	Advanced <sup>-</sup>	Training Program GSLS 1	5	B/NB	10		
03-TN-ATP-2-152-m01	Advanced <sup>-</sup>	Training Program GSLS 2	5	B/NB	11		
03-TN-TU-1-152-m01	Tutorial 1		3	B/NB	47		
03-TN-TU-2-152-m01	Tutorial 2		5	B/NB	48		
Module Group Compulso	rv Electives	Lab Courses			4-		
03-TN-LR2-152-m01	Advanced I	ab rotation 2	10	NUM	25		
03-TN-LR3-152-m01	Advanced I	ab rotation 3	10	NUM	26		
03-TN-FL-1-152-m01	External Lab Rotation 1		10	B/NB	17		
03-TN-AL-1-152-m01	Advanced I	Practical Course Neuroscience Lab 1	10	B/NB	6		
Module Group Sections o	f Graduate	School GSLS: Neuroscience	1 10				
07-MI SRG-NS1-152-m01	Research G	roun Seminar Neurosciences 1	5	B/NB	53		
07-MI SRG-NS2-152-m01	Research G	iroup Seminar Neurosciences 2	5	B/NB	5/		
07-MLSGP-NS1-152-m01	Graduate P	Program Seminar Neurosciences 1	5	B/NB	51		
			ر <sub>ا</sub>				
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07-MLSGP-NS2-152-m01	Graduate Program Seminar Neurosciences 2	5	B/NB	52			
07-MLSWS-NS1-152-	Workshop Neurossiansos (	_	B/NB				
m01		5		57			
07-MLSWS-NS2-152-	Vorkshop Neurosciences 2		B/NB	58			
m01							
07-MLSRNS1-152-m01	Retreat Neurosciences 1		B/NB	55			
07-MLSRNS2-152-m01	152-mo1 Retreat Neurosciences 2		B/NB	56			
Thesis (30 ECTS credits)							
03-TN-MST-152-m01	T-152-mo1 Masterthesis in Translational Neuroscience		NUM	30			
03-TN-MSK-152-mo1 Oral Examination Translational Neuroscience		5	NUM	29			

Module title			Abbreviation			
Advanced Practical Course Neuroscience Lab 1				03-TN-AL-1-152-m01		
Module	e coord	inator		Module offered by		
progra	mme co	ordinator		Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
10	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Studen	ts inde	pendently work on a well	-defined scientific lal	o project.		
Intend	ed leari	ning outcomes				
Studen theoret sentati	its have ical kn ons ab	e reinforced previously ac owledge in the lab. Stude out scientific data.	equired lab skills, acq ents have gained expo	uired new lab techn ertise in writing lab r	iques and learned how to apply reports and know how to give pre-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
P (4) Module	e taugh	t in: English				
Metho ster, in	<b>d of ass</b> formati	e <b>ssment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
b) log ( c) oral d) oral e) pres Langua	approx examin examin entatio ige of a	. 10 to 30 pages) or ation of one candidate e ation in groups of up to g n (20 to 45 minutes) ssessment: English	ach (30 to 60 minutes 3 candidates (approx.	s) or 30 to 60 minutes) o	Dr.	
Allocat	ion of p	olaces				
Additio	onal info	ormation				
Worklo	ad					
300 h						
Teachi	ng cvcl	9				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Master Master	Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017)					
Master	's degr	ee (1 major) Translationa	l Neuroscience (2018)			
Supple	mentar	y course Translational Ne	euroscience (2018)	)		
Master	's degre	ee (1 major) Translational	Neuroscience (2022)	)		
Supple	Supplementary course Translational Neuroscience (2022)					

Module title					Abbreviation
Advanced Subject Lecture 1 (actual lectures to be specified)					03-TN-ASL-152-m01
Module	e coord	inator		Module offered by	
prograr	nme co	ordinator		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
10	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
		graduate	Please consult with	course advisory serv	vice in advance.
Conten	ts				
Cutting	edge t	opics in neurosciences, o	content varies each s	emester.	
Intende	ed learı	ning outcomes			
Studen	ts gain	an overview of current to	pics in neuroscience	s.	
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V (4)		,			
Module	e taugh	t in: English			
Method ster, inf a) writte c) oral e	<b>formati</b> formati en exar examin	sessment (type, scope, la on on whether module ca nination (30 to 60 minut ation of one candidate ea	nguage — if other tha an be chosen to earn es, including multiple ach (30 to 60 minutes	an German, examina a bonus) e choice questions) ( s) or	tion offered — if not every seme-
d) oral Langua	examin ge of a	ation in groups of up to generation in groups of up to generation and the second second second second second se	3 candidates (approx	. 30 to 60 minutes)	
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
300 h					
Teachir	ng cycl	9			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	irs in			
Master	's degr	ee (1 major) Translational	Neuroscience (2015)		
Master	's degr	ee (1 major) Translational	Neuroscience (2018)	)	
Supple	mentar	y course Translational Ne	euroscience (2018)	,	
Master'	's degr	ee (1 major) Translational	Neuroscience (2022	)	
Supplementary course Translational Neuroscience (2022)					

Module title					Abbreviation
Advanced Subject Lecture 2 (actual lectures to be specified)					03-TN-ASL-2-152-m01
Module	coord	inator		Module offered by	· · · · · · · · · · · · · · · · · · ·
progran	nme co	ordinator		Faculty of Medicine	2
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
		graduate	Please consult with	course advisory serv	vice in advance.
Conten	ts				
Cutting	edge t	opics in neurosciences, o	content varies each se	emester.	
Intende	ed learn	ning outcomes			
Studen	ts gain	an overview of current to	pics in neuroscience	S.	
Courses	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	ın)
V (2) Module	taugh	t in: English			
Method ster, inf	<b>l of ass</b> formati	sessment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) writte b) oral e c) oral e Langua	en exar examin examin ge of a	nination (30 to 60 minut ation of one candidate e ation in groups of up to 3 ssessment: English	es, including multiple ach (30 to 60 minute 3 candidates (approx.	e choice questions) s) or 30 to 60 minutes)	or
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teachir	ng cycl	9			
	<u> </u>				
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)	
Module	appea	irs in			
Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)					

	Module title				
Advanced Subject Lecture 3 (actual lectures to be specified)					
	Module offered by				
	Faculty of Medicine				
after succ. com	pl. of module(s)				
prerequisites					
e consult with	course advisory serv	vice in advance.			
t varies each s	emester.				
neuroscience	s.				
rs, language —	if other than Germa	ın)			
e — if other tha hosen to earn	an German, examina a bonus)	tion offered — if not every seme-			
luding multiple o to 60 minute dates (approx.	e choice questions) o s) or 30 to 60 minutes)	or			
for teaching-c	legree programmes)				
Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)					
	<b>be specified</b> ifter succ. com         prerequisites         consult with         varies each set         neuroscience         's, language —         - if other that         hosen to earn         uding multiple         to 60 minute         dates (approx.         for teaching-d         science (2015)         science (2018)         ence (2022)	Despecified)         Module offered by Faculty of Medicine (fter succ. compl. of module(s)         prerequisites         e consult with course advisory serve         varies each semester.         neurosciences.         's, language — if other than German, examina hosen to earn a bonus)         uding multiple choice questions) or dates (approx. 30 to 60 minutes)         for teaching-degree programmes)         science (2015) science (2017) science (2018) ence (2022)			

Module title			Abbreviation		
Advanced Training Program GSLS 1			03-TN-ATP-1-152-m01		
Module	e coord	inator		Module offered by	•
program	nme co	ordinator		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Transfe	rable s	kills tutorials: scientific v	vriting and presentat	ion skills.	
Intende	ed learn	ning outcomes			
Studen	ts have	e developed fundamental	scientific writing and	presentation skills.	•
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	in)
T (2) Module	taugh	t in: English			
Methoo ster, in	<b>l of ass</b> formati	e <b>ssment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
c) oral d) oral e) prese Langua	examin examin entatio ge of a	ation of one candidate e ation in groups of up to g n (20 to 45 minutes) ssessment: English	ach (30 to 60 minutes 3 candidates (approx	s) or . 30 to 60 minutes) c	Dr
Allocat	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	9			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	ins in			
Master	's degre	ee (1 major) Translational	l Neuroscience (2015)		
Master	's degre	ee (1 major) Translational	Neuroscience (2017)		
Master	's degre	ee (1 major) Translational	l Neuroscience (2018)	)	
Master	inentar 's degra	y course manstational Ne	Neuroscience (2018)	)	
Supple	mentar	y course Translational Ne	euroscience (2022)	,	

Module title			Abbreviation		
Advanced Training Program GSLS 2			03-TN-ATP-2-152-m01		
Module	e coord	inator		Module offered by	
program	<u>nme co</u>	ordinator		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Transfe	rable s	kills tutorials: patent law	, validation of enorm	ous amounts of image	ging data using special software.
Intende	ed leari	ning outcomes			
Studen	ts are f	amiliar with the fundame	ental principles of pat	ent law and special	software.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
T (2) Module	e taugh	t in: English			
Methoo ster, in	<b>l of ass</b> formati	s <b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
c) oral d) oral e) prese Langua	examin examin entatio ge of a	ation of one candidate e ation in groups of up to g n (20 to 45 minutes) ssessment: English	ach (30 to 60 minutes 3 candidates (approx	s) or . 30 to 60 minutes) c	or
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Translationa	l Neuroscience (2015)		
Master	's degr	ee (1 major) Translationa	Neuroscience (2017)	)	
Master	's degre	ee (1 major) Translational	l Neuroscience (2018)	)	
Master	inentar 's degri	e (1 major) Translational	Neuroscience (2018)	)	
Supple	mentar	y course Translational Ne	euroscience (2022)	, 	

Module title					Abbreviation	
Cellular Neurobiology 03-TN-CN-152-mo1					03-TN-CN-152-m01	
Module	e coord	inator		Module offered by		
Institut	te of Cli	nical Neurobiology		Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	Its					
Students will get a theoretical introduction and amplification of topics in cellular neurobiology. The following to- pics will be discussed: structure, function, and molecular functional components of the peripheral nerves of the nervous system including its neuronal and non-neuronal cells as well as the neuromuscular endplate, motor be- havioral tests in mouse models for motoneuron diseases; functional and morphological analysis of motoneurons and motor endplates, anatomical, cellular/neuronal plasticity at selected brain structures, e.g. hippocampus and cerebellum, molecular and cellular pathomechanisms of neuromotor disorders, optogenetic approaches and their use to understand circuit biology, immunohistochemistry /immunfluorescence in hippocampal/cerebellar slices, confocal microscopy, primary neuron preparations of dorsal root ganglia and hippocampal neurons, mou- se perfusion, whole cell patch clamp recordings to determine ion channel properties. <b>Intended learning outcomes</b>						
Studen proach pathon with a f evaluat critical	its who ies in ne nechan focus o te, and ly reflec	successfully completed t eurobiology. They are trai isms of neural model sys n the molecular, cellular classify their own data th ct their data in the contex	this module are able ned in preparations tems. The students a and physiological me nat were collected du t of the experimental	to understand and d and recording techni re able to evaluate d echanisms. Addition ring the lab course. I methods used.	lispose current experimental ap- iques to study the function and clinical aspects of neurobiology ally, they are able to document, Furthermore, the students can	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
V (o) +	P (2)					
Metho ster, in	<b>d of ass</b> formati	s <b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
b) Log	(approx	x. 10 to 30 pages)				
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
150 h						
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)		
Module appears in						
Master Master Master Supple Master Supple	Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2022)         Supplementary course Translational Neuroscience (2022)					

Developmental cognitive Neuroscience       Module offered by         Module coordinator       Module offered by         University Hospital, Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy       Faculty of Medicine         ECTS       Method of grading       Only after succ. compl. of module(s)         5       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Students will get an introduction to the key cognitive, behavioral and brain developmental steps. There will be strong focus on how the computational lens of reinforcement learning models, tightly linked to monoamine transmission and dopamine in particular, can useful to investigate research questions in developmental neuroscience. It will be discussed how developmental neuroscience can be a useful tool to investigate the development of psychiatric conditions, in particular ADHD and substance use problems. The methods focus will be on behavioral experiments, neuroimaging, in particular task-based fMRI, and computational modelling. Students will learn to critically evaluate the role of these techniques. Students will give presentation on the topics based on state-	Module title			Abbreviation			
Module coordinator       Module offered by         University Hospital, Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy       Faculty of Medicine         ECTS       Method of grading       Only after succ. compl. of module(s)         5       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents           Students will get an introduction to the key cognitive, behavioral and brain developmental steps. There will be strong focus on how the computational lens of reinforcement learning models, tightly linked to monoamine transmission and dopamine in particular, can useful to investigate research questions in developmental neuroscience. It will be discussed how developmental neuroscience can be a useful tool to investigate the development of psychiatric conditions, in particular ADHD and substance use problems. The methods focus will be on behavioral experiments, neuroimaging, in particular task-based fMRI, and computational modelling. Students will learn to critically evaluate the role of these techniques. Students will give presentation on the topics based on state-	Development	al cognitive Neuroscience	03-TN-DCN-152-m01				
University Hospital, Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy       Faculty of Medicine         ECTS       Method of grading       Only after succ. compl. of module(s)         5       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents       Students will get an introduction to the key cognitive, behavioral and brain developmental steps. There will be strong focus on how the computational lens of reinforcement learning models, tightly linked to monoamine transmission and dopamine in particular, can useful to investigate research questions in developmental neuroscience. It will be discussed how developmental neuroscience can be a useful tool to investigate the development of psychiatric conditions, in particular ADHD and substance use problems. The methods focus will be on behavioral experiments, neuroimaging, in particular task-based fMRI, and computational modelling. Students will learn to critically evaluate the role of these techniques. Students will give presentation on the topics based on state-	Module coord	linator	Module offered by				
ECTSMethod of gradingOnly after succ. compl. of module(s)5numerical gradeDurationModule levelOther prerequisites1 semestergraduateContentsStudents will get an introduction to the key cognitive, behavioral and brain developmental steps. There will be strong focus on how the computational lens of reinforcement learning models, tightly linked to monoamine transmission and dopamine in particular, can useful to investigate research questions in developmental neuroscience. It will be discussed how developmental neuroscience can be a useful tool to investigate the development of psychiatric conditions, in particular ADHD and substance use problems. The methods focus will be on behavioral experiments, neuroimaging, in particular task-based fMRI, and computational modelling. Students will learn to critically evaluate the role of these techniques. Students will give presentation on the topics based on state-	University Hos Psychiatry, Ps	spital, Department of Chil sychosomatics and Psych	ld and Adolescent otherapy	Faculty of Medicine			
5       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents       Students will get an introduction to the key cognitive, behavioral and brain developmental steps. There will be strong focus on how the computational lens of reinforcement learning models, tightly linked to monoamine transmission and dopamine in particular, can useful to investigate research questions in developmental neuroscience. It will be discussed how developmental neuroscience can be a useful tool to investigate the development of psychiatric conditions, in particular ADHD and substance use problems. The methods focus will be on behavioral experiments, neuroimaging, in particular task-based fMRI, and computational modelling. Students will learn to critically evaluate the role of these techniques. Students will give presentation on the topics based on state-	ECTS Methe	od of grading	Only after succ. con	npl. of module(s)			
DurationModule levelOther prerequisites1 semestergraduateContentsStudents will get an introduction to the key cognitive, behavioral and brain developmental steps. There will be strong focus on how the computational lens of reinforcement learning models, tightly linked to monoamine transmission and dopamine in particular, can useful to investigate research questions in developmental neuroscience. It will be discussed how developmental neuroscience can be a useful tool to investigate the development of psychiatric conditions, in particular ADHD and substance use problems. The methods focus will be on behavioral experiments, neuroimaging, in particular task-based fMRI, and computational modelling. Students will learn to critically evaluate the role of these techniques. Students will give presentation on the topics based on state-	5 nume	rical grade					
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of-the-art research articles.	Students will get an introduction to the key cognitive, behavioral and brain developmental steps. There will be strong focus on how the computational lens of reinforcement learning models, tightly linked to monoamine transmission and dopamine in particular, can useful to investigate research questions in developmental neuroscience. It will be discussed how developmental neuroscience can be a useful tool to investigate the development of psychiatric conditions, in particular ADHD and substance use problems. The methods focus will be on behavioral experiments, neuroimaging, in particular task-based fMRI, and computational modelling. Students will learn to critically evaluate the role of these techniques. Students will give presentation on the topics based on state-						
Intended learning outcomes	Intended lear	ning outcomes					
Students who successfully completed this module will have acquired insights into the current scientific state of normal and altered cognition and motivation as well as brain development. Developmental changes of basic co- gnition and motivation such as working memory, reinforcement learning and emotion processing will be addressed via behavioral and neuroscientific studies. Abnormal development will be explained in the context of the neuropsychiatric disorders such as attention-deficit / hyperactivity disorder, autism, substance use and anxie- ty / depression. The influences of main monoaminergic neuromodulators, in particular dopamine in the context of reinforcement learning, will be discussed.							
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)	Courses (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)		
V (o) + S (o) + Ü (2) Module taught in: English	V (o) + S (o) + Module taugh	Ü (2) It in: English					
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)	Method of ass ster, informat	<b>sessment</b> (type, scope, la ion on whether module ca	nguage — if other th an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-		
a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Language of assessment: English	a) written exa b) log (approx c) oral examir d) oral examir e) presentatio Language of a	or or					
Allocation of places	Allocation of	places					
Additional information	Additional inf	ormation					
Workload							
150 h	150 h						
Teaching cycle	Teaching cycl	ρ					
<b>Peferred to in LPO L</b> (examination regulations for teaching degree programmes)	Poforrad to in	IPOL (ovamination regu	lations for toaching	dograa programmaa			
	Referred to In			uegree programmes)			
	 Modulo encor	are in					

Module title				Abbreviation		
Developmental Neuroimaging					03-TN-DI-152-m01	
Module	e coord	inator		Module offered by		
Univers Psychia	sity Hos atry, Ps	pital, Department of Chil ychosomatics and Psych	d and Adolescent otherapy	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not) s	successfully completed		• • • •		
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Students will get an introduction to basic physics of MRI, in particular the functional MRI signal (so called BOLD response). Different fMRI designs, block vs. event, will be introduced. Students will learn to critically evaluate such design differences. The basic steps for preprocessing fMRI data will be introduced and practiced. Using example data of a block and event design, there will be an introduction and practice session on how to implement a statistical model of task-based fMRI data. Students will give presentation on the topics based on state-of-the-art textbooks and research articles or implement analysis code. The course requires the students to use Statistical Parametric Mapping software in Matlab. Previous experience in Matlab is not required but beneficial. Intended learning outcomes Students who successfully completed this module will have acquired insights into the basics principles of functional and structural MRI data collection as well as how to perform data preprocessing and principles of statisti-						
mentec	into th	ne statistical analysis of l of informing such analys	prain activation of co is by computational	ntrols and patients.	As an outlook, we will touch on	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
S (o) + Module	Ü (2) e taugh	t in: English				
Method ster, in	<b>l of ass</b> formati	s <b>essment</b> (type, scope, la on on whether module ca	nguage — if other th an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
<ul> <li>a) written examination (30 to 60 minutes, including multiple choice questions) or</li> <li>b) log (approx. 10 to 30 pages) or</li> <li>c) oral examination of one candidate each (30 to 60 minutes) or</li> <li>d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or</li> <li>e) presentation (20 to 45 minutes)</li> </ul>						
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teachi	ng cycl	e				
Referre	d to in	LPOI (examination regu	lations for teaching-	degree programmes)		
		5	5			
Module	e appea	urs in				
Master's degree (1 major) Translational Neuroscience (2015)						

Module title					Abbreviation		
Developmental Neuropsychiatry					03-TN-DNP-152-m01		
Module	coord	inator		Module offered by			
Univers Psychia	ity Hos atry, Ps	pital, Department of Chil ychosomatics and Psych	d and Adolescent otherapy	Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
5	(not) s	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	graduate					
Conten	ts						
Studen of-the-a ders, au ver pos proache neuroin	Students will get an introduction to the main conditions in child and adolescent psychiatry as well as to state- of-the-art neuroscientific models of etiology and pathophysiology. There will be a focus on ADHD, anxiety disor- ders, autism spectrum disorder, substance use disorder, eating disorders as well as conduct problems. Whene- ver possibility, clinical interviews with patient from our department will be presented to the class. Research ap- proaches in child and adolescent psychiatry will be introduced to the students including clinical trials, functional neuroimaging and transcranial sonography. Students will learn to critically evaluate the role of these techniques.						
Intende	ed lear	ning outcomes					
Studen of child physiol order, e psycho <b>Courses</b> V (o) + 9 Module <b>Methoc</b> ster, inf a) writte b) log (a c) oral e d) oral e prese Langua	Intended learning outcomes Students who successfully completed this module will have acquired insights into neurodevelopmental aspects of child and adolescent psychiatric disorders including clinical symptoms, diagnostic criteria, etiology, patho- physiology and research approaches on ADHD, anxiety disorders, autism spectrum disorder, substance use dis- order, eating disorders as well as oppositional defiant and conduct problems. Developmental aspects of neuro- psychopharmacology are further discussed and the clinical use will be critically evaluated. Courses (type, number of weekly contact hours, language — if other than German) V (o) + S (2) Module taught in: English Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 64 minutee)						
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
150 h							
Teachir	ng cycl	e					
Referre	d to in	LPOI (examination regu	lations for teaching-	degree programmes)			
Module	appea	in and a second s					
Master's degree (1 major) Translational Neuroscience (2015)							

Module	title				Abbreviation		
External Lab Rotation 1					03-TN-EL-1-152-m01		
Module	e coord	inator		Module offered by			
program	nme co	ordinator		Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
10	(not) s	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	graduate					
Resear selecte	Research experience abroad in agencies, institutes or industry. Topics will vary according to the individual place selected for a placement						
Intende	ed learn	ning outcomes					
Studen them fo	ts are f or a car	amiliar with the structure eer in science.	es of institutes and th	e industry abroad ar	nd acquire abilities that qualify		
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	ın)		
P (4) Module	e taugh	t in: English					
Method ster, in	<b>l of ass</b> formati	<b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-		
b) log ( c) oral d) oral e) pres Langua	approx examin examin entatio ge of a	ation of one candidate ea ation of one candidate ea ation in groups of up to g n (20 to 45 minutes) ssessment: English	ach (30 to 60 minute: 3 candidates (approx.	5) or 30 to 60 minutes) o	Dr		
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
300 h							
Teachi	ng cycl	9					
Referre	d to in	LPO I (examination regu	lations for teaching-c	legree programmes)			
 Modula		re in					
Master	s dear	e (1 major) Translational	Neuroscience (2015)				
Master	's degre	ee (1 major) Translational	Neuroscience (2017)				
Master	's degre	ee (1 major) Translational	Neuroscience (2018)	)			
Supple	mentar	y course Translational Ne	euroscience (2018)				
Master	's degre	ee (1 major) Translational	Neuroscience (2022	)			
Supple	Supplementary course Translational Neuroscience (2022)						

Module title	Abbreviation				
Experimental Psychiatry 03-TN-EP-152-m01					
Module coordinator		Module offered by			
University Hospital, Department of matics and Psychotherapy, Molecu	Psychiatry, Psychoso- ar Psychiatry	Faculty of Medicine	1		
ECTS Method of grading	Only after succ. cor	npl. of module(s)			
5 numerical grade					
Duration Module level	Other prerequisites	i			
1 semester graduate					
Contents					
Brain regions and neurotransmitter systems involved in neuronal networks involved in experiencing anxiety and fear, attentional networks, learning and memory, and their importance for emotionality in humans, analysis of gene variants and their association with various psychiatric disorders and behavioural traits; animal models for psychiatric disorders, gene x environment interaction; neuroadaptive mechanisms as a result of stress exposure during different periods of lifetime; resilience, epistatic load hypothesis, mis match hypothesis, anatomical, cellular/neuronal plasticity at selected brain regions, e. g. hippocampus and amygdala; adult neurogenesis; immunohistochemistry/immunofluorescence using forebrain slices; neuronal reconstructions using the Neurolucida software.					
lab course. In addition, the student robiology/neuropsychiatry.	s will have learned to cr	itically read scientific	c publications in the field of neu-		
<b>Courses</b> (type, number of weekly co	ntact hours, language –	- if other than Germa	n)		
V (o) + P (2) Module taught in: English					
<b>Method of assessment</b> (type, scope ster, information on whether modul	e, language — if other th e can be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-		
<ul> <li>a) written examination (30 to 60 mi</li> <li>b) log (approx. 10 to 30 pages) or</li> <li>c) oral examination of one candidate</li> <li>d) oral examination in groups of up</li> <li>e) presentation (20 to 45 minutes)</li> <li>Language of assessment: English</li> </ul>	nutes, including multipl e each (30 to 60 minute to 3 candidates (appro>	e choice questions) es) or a. 30 to 60 minutes) o	or or		
Allocation of places					
Additional information					
Workload					
150 h					
Teaching cycle					
Referred to in LPO L (examination r	egulations for teaching.	degree programmes)			
Module appears in					

Module title			Abbreviation			
Functional Neuroimaging 03-TN-FI-152-mo1						
Module	e coord	inator		Module offered by		
University Hospital, Department of Nuclear Medicine			uclear Medicine	Faculty of Medicine	!	
ECTS Method of grading Only after succ. com				npl. of module(s)		
5 (not) successfully completed						
Duratio	on octor	Module level	Other prerequisites			
Conten	its	graduate				
Conten diolabe cepts c CT, SPE tures ir imagin	Content: target identification for functional and molecular neuroimaging, basic concepts of radiochemistry, ra- diolabelling of surrogate markers for PET and SPECT, basic concepts of magnetic resonance imaging , basic con- cepts of positron emission tomography, single photon emission computed tomography and hybrid devices (PET/ CT, SPECT/CT), anatomic and functional structures of the brain in small animals, anatomic and functional struc- tures in humans and patients with neurodegenerative disorders and dementia, multimodality multiparametric imaging of brain tumours using MR, PET and SPECT.					
Intend	ed learr	ning outcomes				
Studen ches in ction a robiolo ned ho learned	Students who successfully completed this module will have acquired insights into current experimental approa- ches in neurobiology. They will have been introduced to preparations and recording techniques to study the fun- ction and pathomechanisms of neural model systems. The students will have examined clinical aspects of neu- robiology with a focus on the molecular, cellular and physiological mechanisms. Additionally, they will have lear- ned how to document their own data that they collected during lab courses. In addition, the students will have learned to critically reflect their data in the context of the experimental methods used.					
V(a)	s (type)	inumber of weekly cor	llact nours, language –		(11)	
Module	s (2) e taugh	t in: English				
Metho ster, in	<b>d of ass</b> formati	essment (type, scope, on on whether module	language — if other th can be chosen to earn	an German, examina a bonus)	ition offered — if not	every seme-
a) writt b) log ( c) oral d) oral e) pres Langua	en exar (approx examin examin entatio age of a	nination (30 to 60 min . 10 to 30 pages) or ation of one candidate ation in groups of up t n (20 to 45 minutes) ssessment: English	utes, including multipl each (30 to 60 minute o 3 candidates (approx	e choice questions) s) or a. 30 to 60 minutes) o	or Dr	
Allocat	ion of p	olaces				
Additio	onal info	ormation				
			_			
Worklo	ad					
150 h						
Teachi	ng cycl	9				
Referre	ed to in	<b>LPOI</b> (examination re	gulations for teaching-	degree programmes)		
 Module	e appea	rs in				
Master Master Master Supple	Module appears inMaster's degree (1 major) Translational Neuroscience (2015)Master's degree (1 major) Translational Neuroscience (2017)Master's degree (1 major) Translational Neuroscience (2018)Supplementary course Translational Neuroscience (2018)					
waster's w (2015)	nin 1 major	iransiational Neuroscience	JMU Würzburg • g cord Master (120	enerated 18-Apr-2025 • exam ECTS) Translational Neuroso	i. reg. data re- lience - 2015	page 20 / 58



Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)

Module title			Abbreviation			
Ion channels 03-TN-IC-152-r					03-TN-IC-152-m01	
Modul	e coord	inator		Module offered by	-	
Institu	te of Cli	nical Neurobiology		Faculty of Medicine	2	
ECTS	ECTS         Method of grading         Only after succ. compl. of module(s)					
5	nume	rical grade				
Durati	on	Module level	Other prerequisites			
Conte	Contents					
Studen topics ted an mical o pathie physic tional is rece fected learne	Students will get a theoretical introduction and amplification of topics in ion channel physiology. The following topics will be discussed: physiological properties of membranes, structure-function relationships of ligand-ga- ted and voltage-gated ion channels and their subfamilies, regulation and pharmacology of ion channels, anato- mical expression profiles, developmental regulation, evolution of ion channels, sensory systems, ion channelo- pathies. The accompanied literature seminars are based on current publications of ion channel structures and physiological aspects to discuss experimental and methodological approaches and with this promoting transla- tional thinking. Using student presentations of current research results, the earned knowledge on ion channels is recessed. The practical session will include whole cell recordings at the electrophysiological setup using trans- fected cells and primary neurons. Using various neurotransmitters and blocking agents, students will apply their learned knowledge of ion channel physiology and observe the consequences at the functional level.					
Intend	led lear	ning outcomes				
ties of in a bo chann jected ty of e read, r	Students who successfully completed this module are able to remind and understand the physiological proper- ties of various ion channel families and their importance for brain physiology. The students are able to classify in a bottom-up approach to put the molecular findings into the context of pathomechanisms in various kinds of channelopathies. They will be trained in recording techniques to study ion channel properties on transfected/in- jected cell lines as well as primary neurons. With this experience, students are able to evaluate the applicabili- ty of electrophysiological recording techniques for various ion channels. Additionally, they are able to critically read, reflect, and present scientific reports in the field of channel physiology.					
Course	<b>es</b> (type	, number of weekly co	ntact hours, language –	- if other than Germa	an)	
V (o) + Modul	S (o) + e taugh	P (2) t in: English				
<b>Metho</b> ster, ir	<b>d of ass</b> nformati	s <b>essment</b> (type, scope on on whether module	, language — if other th e can be chosen to earn	an German, examina a bonus)	ition offered — if not	every seme-
a) writ b) oral c) oral d) pres Langu	ten exa l examir examin sentatio age of a	nination (30 to 60 mir ation of one candidat ation in groups of up t n (20 to 45 minutes) ssessment: English	utes, including multipl e each (30 to 60 minute o 3 candidates (approx	e choice questions) es) or . 30 to 60 minutes) o	or	
Alloca	tion of p	olaces				
Additi	onal inf	ormation				
Workl	oad					
150 h						
Teach	ing cycl	e				
Referr	ed to in	LPOI (examination re	gulations for teaching-	degree programmes)		
Modul	le appea	irs in				
Master's v (2015)	vith 1 majo	Translational Neuroscience	JMU Würzburg • g cord Master (120	enerated 18-Apr-2025 • exam DECTS) Translational Neurosc	n. reg. data re- :ience - 2015	page 22 / 58

Module	title				Abbreviation		
Advanc	ed lab	rotation 1			03-TN-LR1-152-m01		
Module	coord	inator		Module offered by	<u> </u>		
progran	nme co	ordinator		Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
5	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 semes	ster	graduate	Please consult with	course advisory serv	vice in advance.		
Conten	Contents						
Studen	ts get a	in intense training in at le	east two different met	hods from different	fields of neurosciences.		
Intende	d learr	ning outcomes					
Studen theoret	Students have reinforced previously acquired lab skills, acquired new lab techniques and learned how to apply theoretical knowledge in the lab. Students have gained expertise in the analysis and presentation of raw data.						
Courses	s (type,	number of weekly conta	ct hours, language —	if other than Germa	n)		
P (2) Module	taugh	t in: English					
Method ster, inf	l of ass	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-		
b) log (a d) oral ( Langua	b) log (approx. 10 to 30 pages) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)						
Allocati	ion of p	olaces					
	•						
Additio	nal info	ormation					
Worklo	ad						
150 h							
Teachir	ig cyclo	9					
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)			
Module	appea	rs in					
Master' Master' Master' Supple	Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018)						
Master'	s degre	ee (1 major) Translational	Neuroscience (2022)	)			
Supple	supplementary course mansialional neuroscience (2022)						

Module	title				Abbreviation		
Advanc	ed lab	rotation 2			03-TN-LR2-152-m01		
Module coordinator				Module offered by	Г		
program	nme co	ordinator		Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
10	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	graduate	Please consult with	course advisory serv	vice in advance.		
Conten	Contents						
Studen	ts sper	nd 4 weeks working unde	r supervision on a sm	all, well-defined sci	entific lab project.		
Intende	ed leari	ning outcomes					
Students have reinforced previously acquired lab skills, acquired new lab techniques and learned how to apply theoretical knowledge in the lab. Students have gained expertise in the analysis and presentation of raw data.							
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	an)		
P (4) Module	taugh	t in: English					
Methoo ster, inf	<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)						
b) log (a d) oral ( e) prese Langua	approx examin entatio ge of a	. 10 to 30 pages) or nation in groups of up to <u>3</u> n (20 to 45 minutes) ssessment: English	3 candidates (approx.	. 30 to 60 minutes) o	or		
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
300 h							
Teachir	ng cvcl	e					
	0 . ,	-					
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)			
Module		urs in					
Master'	s degr	ee (1 maior) Translational	Neuroscience (2015)	1			
Master'	s degr	ee (1 major) Translational	Neuroscience (2017)	1			
Master'	s degr	ee (1 major) Translational	Neuroscience (2018)	)			
Supple	mentar	y course Translational Ne	euroscience (2018)				
Master'	s degr	ee (1 major) Translational	Neuroscience (2022	)			
Supple	Supplementary course Translational Neuroscience (2022)						

Module	title				Abbreviation		
Advanc	ed lab	rotation 3		03-TN-LR3-152-m01			
Module	coord	inator		Module offered by			
progran	nme co	ordinator		Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
10	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	graduate	Please consult with	course advisory serv	vice in advance.		
Conten	Contents						
Studen	ts sper	nd 6 weeks independentl	y working on their ow	n small, well-define	d scientific lab project.		
Intende	ed lear	ning outcomes					
Studen theoret	Students have reinforced previously acquired lab skills, acquired new lab techniques and learned how to apply theoretical knowledge in the lab. Students have gained expertise in the analysis and presentation of raw data.						
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)		
P (4) Module	P (4)						
Mothod		accment (tune ccone la	nguaga if athor tha	n Cormon overning	tion offered if not even come		
ster, inf	<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)						
b) log (a	approx	. 10 to 30 pages) or	o candidates (annrox	20 to 60 minutes) o	or.		
e) prese	entatio	n (20 to 45 minutes)					
Langua	ge of a	ssessment: English					
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
300 h							
Teachir	ng cycl	e					
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)			
Module	appea	ars in					
Master'	s degr	ee (1 major) Translational	Neuroscience (2015)				
Master'	s degr	ee (1 major) Translational	Neuroscience (2017)	1			
Master'	s degr	ee (1 major) Translational	Neuroscience (2018)				
Supple	mentaı	y course Translational Ne	euroscience (2018)	х.			
Master'	s degr	ee (1 major) Translational	Neuroscience (2022	)			
Supple	Supplementary course Translational Neuroscience (2022)						

Module title				Abbreviation			
Methods in Neurosciences				03-TN-MNS-152-m01			
Module	e coord	inator		Module offered by			
prograi	mme co	ordinator		Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
5	(not) s	successfully completed					
Duration Module level Other prerequisites							
1 seme	ster	graduate					
Conten	ts						
Molecu proach biodist mouse	Molecular techniques, microscopic methods, immunohistochemistry, mouse models and gene-knockout ap- proaches, protein and molecular biology techniques, PCR, advanced protein biochemistry, imaging techniques, biodistribution of imaging biomarkers, pain behaviour, gait analysis, biostatistics of psychiatric genetic studies, mouse brain neuroanatomy with a focus on neuromorphology and adult neurogenesis, neural stem cells.						
Intende	ed lear	ning outcomes					
Studen se met	its are a hods ai	able to review and expan nd techniques to design o	d their knowledge of severiments in a spec	standard molecular t cific research area of	techniques and are able to choo- <sup>7</sup> neurosciences.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
V (o) + Module	P (2) P taugh	t in: English					
Metho		assmant (typo, scopo, la	nguago — if other tha	n Corman oyamina	tion offered — if not even some		
ster. in	formati	on on whether module ca	an be chosen to earn	a bonus)	tion offered — If not every seme-		
a) writt b) oral c) oral d) pres Langua	<ul> <li>a) written examination (30 to 60 minutes, including multiple choice questions) or</li> <li>b) oral examination of one candidate each (30 to 60 minutes) or</li> <li>c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or</li> <li>d) presentation (20 to 45 minutes)</li> <li>Language of assessment: English</li> </ul>						
Allocat	ion of p	olaces					
Additio	onal inf	ormation					
Worklo	ad						
150 h							
Teachi	ng cycl	e					
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)			
Module	e appea	irs in					
Master	's degr	ee (1 major) Translationa	Neuroscience (2015)	1			
Master	's degr	ee (1 major) Translationa	Neuroscience (2017)	)			
Master	's degr	ee (1 major) Translationa	Neuroscience (2018)	)			
Supple	mentai	y course Translational Ne	euroscience (2018)	N N			
waster	s degr	ee (1 major) Translational	weuroscience (2022)	)			
Supple	Supplementary course Translational Neuroscience (2022)						

Module tit	le			Abbreviation			
Meeting Pa	articipation 1 (Poster)	03-TN-MP-1-152-m01					
Module co	ordinator		Module offered by				
programme	e coordinator		Faculty of Medicine				
ECTS Me	ethod of grading	Only after succ. com	pl. of module(s)				
5 (no	ot) successfully completed						
Duration	Module level	Other prerequisites					
1 semester	graduate						
Contents							
Design and	d presentation of a poster wi	th description of the	research results of a	project.			
Intended le	earning outcomes						
Poster des research p	Poster design and oral presentation of scientific results, ability to answer specific questions in the context of the research project with a special regard to experimental design and interpretation of data.						
Courses (ty	/pe, number of weekly conta	ct hours, language —	if other than Germa	n)			
S (2)							
Module tai	ught in: English						
Method of ster, inform	<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)						
f) poster in Language (	accordance with conference	e specifications					
Allocation	of places						
Additional	information						
Workload							
150 h							
Teaching c	ycle						
	·						
Referred to	o in LPO I (examination regu	lations for teaching-c	legree programmes)				
Module ap	pears in						
Master's d	egree (1 major) Translational	Neuroscience (2015)					
Master's d	egree (1 major) Translational	Neuroscience (2017)					
Master's d	egree (1 major) Translational	Neuroscience (2018)	)				
Supplemer	ntary course Translational Ne	euroscience (2018)					
Master's d	egree (1 major) Translational	Neuroscience (2022	)				
Supplemen	Supplementary course Translational Neuroscience (2022)						

Module title				Abbreviation	
Oral Examination Translational Neuroscience					03-TN-MSK-152-m01
Module	e coord	inator		Module offered by	
prograr	nme co	ordinator		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade	o3-TN-MST		
Duratio	on .	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
The inv	estigat	ion of a current scientific	topic using modern r	nethods and techno	logies. The documentation of the
Intende		is in a written triesis, and		•	
Chudon					
sent an	is are and inter	pret raw data according t	o international stand	ards of good scientil	fic conduct. They are able to
summa	rise the	eir data in a written pape	r according to scienti	fic rules and standar	rds. Students are able to critical-
ly discu	iss and	defend their experiment	plan, results and int	erpretations in the c	ontext of current publications in
their fie	eld. The	y have acquired a broad	expertise in their fiel	d of study as well as	in related fields.
Course	<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	n)
K (2) Module	e taugh	t in: English			
Methoo ster, inf	<b>l of ass</b> formati	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
present	tation c	of Master's thesis (30 mir	utes) and discussior	ı (15 minutes)	
Langua ther lar	ge of a	ssessment: Upon agreem	ent of both examine	rs, assessment may	also be held in English or ano-
Allocat	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teachir	ng cycl	9			
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)	
Module	e appea	rs in			
Master	's degre	ee (1 major) Translational	Neuroscience (2015)		
Master	's degre	ee (1 major) Translational	Neuroscience (2017)		
Master	's degre	ee (1 major) Translational	Neuroscience (2018)	)	
Master	Master's degree (1 major) Translational Neuroscience (2022)				

Module title				Abbreviation		
Masterthesis in Translational Neuroscience					03-TN-MST-152-m01	
Module	coord	inator		Module offered by		
program	nme co	ordinator		Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
25	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
The inv researc	estigat h resul	ion of a current scientific ts in a written thesis, and	topic using modern r an oral examination	nethods and techno	logies. The documentation of the	
Intende	ed learı	ning outcomes				
Studen sent an summa ly discu their fie	Students are able to independently plan and execute a scientific research project. They are able to collect, pre- sent and interpret raw data according to international standards of good scientific conduct. They are able to summarise their data in a written paper according to scientific rules and standards. Students are able to critical- ly discuss and defend their experiment plan, results and interpretations in the context of current publications in their field. They have acquired a broad expertise in their field of study as well as in related fields.					
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
No cou	rses as	signed to module				
Methoo ster, inf	<b>l of ass</b> formati	e <b>ssment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
Master' Langua	s thesi ge of a	s (50 to 100 pages) ssessment: English				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Time to	compl	ete: 6 months.				
Worklo	ad					
750 h						
Teachir	ng cycl	e				
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)		
Module	appea	rs in				
Master'	s degr	ee (1 major) Translational	Neuroscience (2015)			
Master'	s degr	ee (1 major) Translational	Neuroscience (2017)	1		
Master'	s degr	ee (1 major) Translational	Neuroscience (2018)			
Master'	Master's degree (1 major) Translational Neuroscience (2022)					

Module offered by Faculty of Medicine	03-TN-MT-1-152-m01					
Module offered by Faculty of Medicine						
Faculty of Medicine						
npl. of module(s)						
Other prerequisites						
search results of a pr	oject.					
Talk design and oral presentation of scientific results, ability to answer specific questions in the context of the research project with a special regard to experimental design and interpretation of data.						
- if other than Germa	n)					
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme-						
degree programmes)						
Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)						
	Faculty of Medicine mpl. of module(s) search results of a pr ty to answer specific gn and interpretation – if other than Germa nan German, examina n a bonus) degree programmes) 5) 7) 3) 2)					

Module	e title				Abbreviation
Clinica	l Neuro	biology 1			03-TN-NB1-152-m01
Module	e coordi	nator		Module offered by	
Institut	te of Cli	nical Neurobiology		Faculty of Medicine	
ECTS	Metho	d of grading	Only after succ. con	npl. of module(s)	
5	numer	ical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Studen pics wi thies, s kinson on, mu ses, hij emotio sleep, on func proach the ear <b>Intende</b> Studen concep cus to b evaluat relevar	<b>Contents</b> Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following topics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopathies, synapses, transmitter release, NMJ, myasthenia gravis, cerebellum, basal ganglia, ataxia and Morbus Parkinson, somatosensory system, touch, pain, schizophrenia and autism spectrum disorders, disorders of cognition, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron diseases, hippocampus, learning and memory, anterograde amnesia, visual agnosia, cortex and the limbic system, emotions, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing , sleep, EEG, epilepsy, vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological approaches and with this promoting translational thinking. Using student presentations of current research results, the earned knowledge in neurobiology is recessed Intended learning outcomes Students who successfully completed this module are able to remind and understand the current theoretical concepts in neurobiology. Furthermore, students are able to classify clinical aspects of neurobiology with the focus to disease mechanisms at molecular, cellular, and physiological levels. Based on current experimental data evaluation, students are able to critical read and evaluate current publications in neurobiology as well as extract				
Course	<b>s</b> (type,	number of weekly conta	ct hours, language –	- if other than Germa	n)
V (2) Module	e taught	in: English			
Metho ster, in	<b>d of ass</b> formati	<b>essment</b> (type, scope, la on on whether module ca	nguage — if other th an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) writt b) oral c) oral Langua	en exar examin examin age of as	nination (30 to 60 minute ation of one candidate e ation in groups of up to 3 ssessment: English	es, including multipl ach (30 to 60 minute a candidates (approx	e choice questions) ( s) or . 30 to 60 minutes)	or
Allocat	ion of p	laces			
Additio	onal info	ormation			
Worklo	ad				
150 h					
Teachi	Teaching cycle				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Modul	e annea	rs in			
Master Master	's degre	ee (1 major) Translational ee (1 major) Translational	Neuroscience (2015 Neuroscience (2017	)	

Cluical Neurobiology 2: Trend-setting and current findings in neurobiology         03-TN-NB2-152-m01           Module coordinator         Faculty of Medicine           EXIST         Method of grading         Only after succ. compl. of module(s)           S         (not) successfully completed         -           S         (not) successfully completed         -           S         (not) successfully completed         -           Summation         Module level         Other prerequisites           I semester         graduate         -           Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following topics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelogan           Students will get a theoretical introduction to the motor system, spinal reflexes, motoneuron diseases, shippocampus, learning and memory, anterograde ammesia, visual agnosia, cortex and the limbic system, semiotary disorders of conscious and unconscious mental processes, attention, smell and take and hearing, sleep, EG, epilepsy, vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current literature on lecture relevant inforus spectrum disorders disorderes disorderes disorders disorders disorderes disorders disordere	Module	e title				Abbreviation	
Module confinator         Module offered by           Institute of Clinical Neurobiology         Faculty of Medicine           CTS         Method of grading         Only after succ. compl. of module(s)           5         (inot) successfully completed         -           Duration         Module level         Other prerequisites           Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following topics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopathies, synapses, transmitter release, MM, myasthenia gravis, cerebellum, basal ggnglia, ataxia and Morbus Par-Kinson, somatcensony system, touch, pain, schizophrenia and autism spectrum disorders. disorders of cognition, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneum diseases, hippocampus, learning and memory, anterograde amersia, visual agnosia, cortex and the limbic system, semitors, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing, siee, EEG, epilepsy, vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current literature on lecture relevant topics to discusse experimental and methodological approaches and with this promoting translational thinking. Using student presentations of current research results, the earned Knowledge in neurobiology visue researd are able to remind and understand the current theoretical concepts in neurobiology with the focus to discusse mechanisms at molecular, cellular, and physiological levels. Based on current experimental and to the turne thermore, students are able to classify clinical aspects of neurobiology with the focus to disease mechanisms at molec	Clinica	l Neuro	biology 2: Trend-setti	ng and current findings	in neurobiology	03-TN-NB2-152-m0	1
Institute of Clinical Neurobiology         If aculty of Medicine           ECTS         MetHoe of grading         Only after succ. compl. of module(s)           5         (nol) successfully completed            Duration         Module level         Other prerequisites           1 semestr         graduate            Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following topics will be discussed: introduction to neurons and gila, ion channels and membrane potential, ion channelopation, muscle and muscle diseases, anatomy myschenia gravis, cerebellum, basal gradiga, taxia and Morbus Parkinson, somatorsensony system, touch, pain, schizophrenia and autism spectrum disorders, disorders of cognition, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron diseases, bipocampus, learning and memory, anterograde annesia, visual agnosia, cortex and the limbic system, emotions, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing, sidep, EE, epilepsy, vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current tilerature on lecture-relevant topics to discuss experimental and methodological approaches and with this promoting translational thinking. Using student presentations of current research results, the earned knowledge in neurobiology is recessed.           Intended learning outcomes         Students who successfully completed this module are able to cressify clinical aspects of neurobiology as well as extract relevant information from recent publications.           Courses (type, number of weekly contact hours, l	Module	e coord	inator		Module offered by		
ECTS         Method of grading         Only after succ. compl. of module(s)           5         (not) successfully completed	Institut	e of Cli	nical Neurobiology		Faculty of Medicine		
S         Introduction in Module level         Other prerequisites           Duration         Module level         Other prerequisites           Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following to- pics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopa- thies, synapses, transmitter release, NMJ, myasthenia gravis, cerebellum, basal ganglia, ataxia and Morbus Par- tinson, somatosensory system, touch, pain, schizophrenia and autims spectrum disorders, disorders of cogniti- on, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron disea- ses, hippocampus, learning and memory, anterograde annesia, visual agnosia, cortex and the limbic system, neutoins, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing , sleep, EEG, epilepsy, vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current literature on lecture-relevant horpics to discusse seprefinential and methodological ap- proaches and with this promoting translational thinking. Using student presentations of current research results, the earned knowledge in neurobiology is recessed.           Intended learning outComes         Students who successfully completed this module are able to remind and understand the current theoretical concepts in neurobiology. Furthermore, students are able to remind and understand the current theoretical concepts in neurobiology. Furthermore, students are able to critical read and evaluate current publications.           Courses (type, number of weekly contact hours, language – if other than German)         S (2)           Module tarythin: English         Interdet	ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
Duration         Module level         Other prerequisites           1 semester         graduate            Contents             Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following to- pics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopa- thies, synapses, transmitter release, NMI, myasthenia gravis, cerebellum, basal gangia, ataxia and Morbus Par- Kinson, somatosensory system, touch, pain, schizophrenia and autism spectrum disorders, disorders of cogniti- on, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron disea- ses, hippocampus, learning and memory, anterograde annesia, visual agnosia, cortex and the limbic system, emotions, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing, siepp. EEG, epilepsy. vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological ap- proaches and with this promoting translational thinking. Using student presentations of current research results, the earned knowledge in neurobiology is recessed.           Intended learning outcomes	5	(not) s	successfully completed				
Attentions         production           Contents         Contents           Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following topics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopathies, synapses, transmitter release, NMM, myasthenia gravis, cerebellum, basal ganglia, ataxia and Morbus Parkinson, somatosensony system, touch, pain, schizophrenia and autism spectrum disorders, disorders of cognition, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron diseases, hippocampus, learning and memory, anterograde amnesia, visual agnosia, cortex and the limbic system, emotions, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing, siepep, EEG, epilepsy, vision and diseases of the visual system. The accompanied lifterature seminars are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological approaches and with this promoting translational thinking. Using student presentations of current research results, the earned knowledge in neurobiology is recessed.           Intendel learning outcomes         Students who successfully completed this module are able to classify clinical aspects of neurobiology with the focus to disease mechanisms at molecular, cellular, and physiological levels. Based on current research results, the evaluation, students are able to critical recent and and evaluate current publications in neurobiology as well as extract relevant information from recent publications.           Courses (type, number of weekly contact hours, language – if other than German)         S (2)           Module taught in: English         Method of assessment (type, scope,	Duratio	on stor	Module level	Other prerequisites			
Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following to pics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopa- thines, synapses, transmitter release, NM, myasthenia gravis, cerebellum, basal ganglia, ataxia and Morbus Par- kinson, somatosensony system, touch, pain, schizophrenia and autism spectrum disorders, disorders of cogniti- on, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron disea- ses, hippocampus, learning and memory, anterograde amnesia, visual agnosia, cortex and the limbic system, emotions, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing , sheep, EEG, epilepsy, vision and diseases of the visual system. The accompanied litterature seminars are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological ap- proaches and with this promoting translational thinking. Using student presentations of current research results, the earned knowledge in neurobiology ruthermore, students are able to crassify clinical aspects of neurobiology with the fo- cus to disease mechanisms at molecular, cellular, and physiological levels. Based on current experimental data evaluation, students are able to critical read and evaluate current publications in neurobiology as well as extract relevant information from recent publications. Courses (type, number of weekly contact hours, language — if other than German) S (2) Module taught in: English	Conten	its	graduate				
Intended learning outcomes         Students who successfully completed this module are able to remind and understand the current theoretical concepts in neurobiology, Furthermore, students are able to classify clinical aspects of neurobiology with the focus to disease mechanisms at molecular, cellular, and physiological levels. Based on current experimental data evaluation, students are able to critical read and evaluate current publications in neurobiology as well as extract relevant information from recent publications.         Courses (type, number of weekly contact hours, language — if other than German)       S (2)         Module taught in: English       Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)         e) presentation (20 to 45 minutes)       Language of assessment: English         Aldictional information	Studen pics wi thies, s kinson on, mu ses, hij emotio sleep, on fund proach the ear	Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following to- pics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopa- thies, synapses, transmitter release, NMJ, myasthenia gravis, cerebellum, basal ganglia, ataxia and Morbus Par- kinson, somatosensory system, touch, pain, schizophrenia and autism spectrum disorders, disorders of cogniti- on, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron disea- ses, hippocampus, learning and memory, anterograde amnesia, visual agnosia, cortex and the limbic system, emotions, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing, sleep, EEG, epilepsy, vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological ap- proaches and with this promoting translational thinking. Using student presentations of current research results,					
Students who successfully completed this module are able to remind and understand the current theoretical concepts in neurobiology. Furthermore, students are able to classify clinical aspects of neurobiology with the focus to disease mechanisms at molecular, cellular, and physiological levels. Based on current experimental data evaluation, students are able to critical read and evaluate current publications in neurobiology as well as extract relevant information from recent publications. Courses (type, number of weekly contact hours, language — if other than German) S (2) Module taught in: English Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus) e) presentation (20 to 45 minutes) Language of assessment: English Allocation of places	Intend	ed lear	ning outcomes	3,			
Courses (type, number of weekly contact hours, language — if other than German)         S (2)         Module taught in: English         Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)         e) presentation (20 to 45 minutes)         Language of assessment: English         Allocation of places            Additional information            Workload         150 h         Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)	Studen concep cus to evaluat relevar	Students who successfully completed this module are able to remind and understand the current theoretical concepts in neurobiology. Furthermore, students are able to classify clinical aspects of neurobiology with the focus to disease mechanisms at molecular, cellular, and physiological levels. Based on current experimental data evaluation, students are able to critical read and evaluate current publications in neurobiology as well as extract relevant information from recent publications.					
S (2) Module taught in: English Method of assessment (type, scope, language – if other than German, examination offered – if not every seme- ster, information on whether module can be chosen to earn a bonus) e) presentation (20 to 45 minutes) Language of assessment: English Allocation of places  Addictional information  Workload 150 h Teaching cycle  Referred to in LPO I (examination regulations for teaching-degree programmes)  Module appears in Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's Mith 1 major Translational Neuroscience (2018) Master's Mith 1 majo	Course	<b>s</b> (type	, number of weekly cor	ntact hours, language –	- if other than Germa	ın)	
Method of assessment (type, scope, language — if other than German, examination offered — if not every seme-ster, information on whether module can be chosen to earn a bonus)   e) presentation (20 to 45 minutes)   Language of assessment: English   Allocation of places Additional information Workload 150 h Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's with 1 major Translational Neuroscience (2018) Master's with 1 major Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's with 1 major Translational Neuroscience (2018) Master's with 1 major Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's With 1 major Translational Neuroscience (2018) Master's Numere Transla	S (2) Module	e taugh	t in: English				
e) presentation (20 to 45 minutes) Language of assessment: English          Allocation of places            Additional information            Additional information            Workload         150 h         Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Master s with 1 major Translational Neuroscience (2018)	Metho ster, in	<b>d of ass</b> formati	s <b>essment</b> (type, scope, on on whether module	language — if other th can be chosen to earn	an German, examina a bonus)	tion offered — if not	every seme-
Allocation of places            Additional information            Morkload         150 h         Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)	e) pres Langua	entatio age of a	n (20 to 45 minutes) ssessment: English				
Additional information	Allocat	ion of p	olaces				
Additional information     Workload   150 h   Teaching cycle     Referred to in LPO I (examination regulations for teaching-degree programmes)     Module appears in   Master's degree (1 major) Translational Neuroscience (2015)   Master's degree (1 major) Translational Neuroscience (2017)   Master's degree (1 major) Translational Neuroscience (2018)   Supplementary course Translational Neuroscience (2018)   Supplementary course Translational Neuroscience (2018)   Master's with 1 major Translational Neuroscience (2018)							
Workload 150 h Teaching cycle Referred to in LPO1 (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018)	Additio	onal inf	ormation				
Workload         150 h         Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)							
150 h         Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)	Worklo	ad					
Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)	150 h						
Referred to in LPO I (examination regulations for teaching-degree programmes)             Module appears in          Master's degree (1 major) Translational Neuroscience (2015)          Master's degree (1 major) Translational Neuroscience (2017)          Master's degree (1 major) Translational Neuroscience (2018)          Supplementary course Translational Neuroscience (2018)          Master's with 1 major Translational Neuroscience (2018)          Master's with 1 major Translational Neuroscience (2018)          Master's with 1 major Translational Neuroscience (2018)	Teachi	ng cycl	е				
Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)							
Module appears in Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's with 1 major Translational Neuroscience (2018)	Referre	ed to in	LPOI (examination re	gulations for teaching-	degree programmes)		
Module appears in         Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)							
Master's degree (1 major) Translational Neuroscience (2015)         Master's degree (1 major) Translational Neuroscience (2017)         Master's degree (1 major) Translational Neuroscience (2018)         Supplementary course Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)         Master's with 1 major Translational Neuroscience (2018)	Module	e appea	ars in				
Master's with 1 major Translational Neuroscience       JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-       page 34 / 58         (2015)       cord Master (120 ECTS) Translational Neuroscience - 2015       page 34 / 58	Master Master Master Supple	's degro 's degro 's degro ementar	ee (1 major) Translation ee (1 major) Translation ee (1 major) Translation y course Translational	nal Neuroscience (2015 nal Neuroscience (2017 nal Neuroscience (2018 Neuroscience (2018)	) ) ))		
	Master's w (2015)	ith 1 majoi	Translational Neuroscience	JMU Würzburg • g cord Master (120	enerated 18-Apr-2025 • exam DECTS) Translational Neurosc	i. reg. data re- ience - 2015	page 34 / 58



Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)

Module	title				Abbreviation
Neuroir	nflamm	ation			03-TN-NI-152-m01
Module	coord	inator		Module offered by	
Departr biology	nent of and In	f Neurology, Section of De stitute of Virology and Im	evelopmental Neuro- Imunobiology	Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Introdu les, syn compor phatic o non of t clinics, generat	Introduction to neural cells and structures relevant for neuroinflammation (glial cells, myelin, myelin molecu- les, synapses, nodes of Ranvier), components of the innate immune system I: macrophages and microglial cells, components of the innate immune system II: dendritic cells, NK cells, granulocytes; antigen presentation; lym- phatic organs, components of the adaptive immune system: lymphocytes and antigen recognition, the phenome- non of tolerance and autoimmunity, experimental models for neuroinflammation (EAE, cuprizone, EAN); the BBB, clinics, pathogenesis and therapy of multiple sclerosis, role of inflammation in primarily neurological/neurode- generative disorders (Alzheimer's disorder; inherited neuropathies).				
Intende	ed leari	ning outcomes			
Studen se-relev fic publ literatu	ts who /ant as lication re.	successfully completed to pects of neuroimmunologies and will have been trai	his module will have gy and neuroinflamm ned in the ability to e	e acquired solid insig aation. They will have extract relevant infor	ths into fundamental and disea- e learned to critically read scienti- mation from the original scientific
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	n)
V (o) + : Module	S (2) taugh	t in: English			
Methoo ster, inf	<b>l of ass</b> formati	s <b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) writte c) oral e d) oral e e) prese Langua	en exar examin examin entatio ge of a	nination (30 to 60 minut ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	es, including multiple ach (30 to 60 minute 3 candidates (approx	e choice questions) o s) or . 30 to 60 minutes) o	or or
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachir	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
			0		
Module	appea	urs in			
Master'	s degr	ee (1 major) Translational	Neuroscience (2015)	)	

Module	Module title				Abbreviation	
Neurol	ogy/ Ne	urosurgery 1			03-TN-NN1-152-mo:	1
Module	e coord	nator		Module offered by	<u>,</u>	
Depart	ment of	Neurology, Departme	nt of Neurosurgery	Faculty of Medicine		
ECTS	Metho	d of grading	Only after succ. cor	npl. of module(s)		
5	nume	ical grade				
Duratio	on	Module level	Other prerequisites	i		
1 seme	ster	graduate				
Conten	Contents					
Students will get a theoretical introduction and scientific background from the following topics: antibody-me- diated CNS diseases – experimental analysis of auto-antibody function; Lessons on nociceptor function learned from pain genetics; Translational approaches in stroke medicine; Subarachnoid hemorrhage - pathophysiology and translational therapy approaches; Pathophysiology of brain trauma: experimental brain trauma models and their analysis; Neurophysiology of hearing in tumor and trauma; The molecular basis of glioma-biology; Neuro- plasticity after CNS damage by brain tumors; Connectomics in neurology; understanding neuronal networks for treatment of tremor syndromes; stem cell based models of movement disorders; basics of electrophysiology in experimental and clinical practice; the molecular basis of myopathies. The accompanied journal clubs are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological ap- proaches and with this promoting translational thinking. Students will give presentations and thereby earn and transfer knowledge. <b>Intended learning outcomes</b> Students who successfully completed this module will have acquired insights into the current molecular and cellular pathophysiology of diseases prevalent in neurology and neurosurgery. They will understand basic me- chanisms of disease in the motor and sensory system and of higher functions. They will understand about brain trauma and brain tumor biology. They will have gained theoretical knowledge about animal models for neuro- logical and neurosurgical diseases and will be introduced into behavioral, neurophysiological, morphological and molecular biological analysis methods. They will have learnt how to raise appropriate bed-to-bench research questions and how to devise study plans. They will learn how to read scientific publications critically and how to						
cord ar	nd analy	ze data and how to pr	esent them in oral and	written form.	un)	
V(2)	J (type,	number of weekly col	anguage –			
Module	e taugh	in: English				
Metho ster, in	<b>d of ass</b> formati	<b>essment</b> (type, scope, on on whether module	language — if other th can be chosen to earn	an German, examina a bonus)	ition offered — if not	every seme-
a) writt b) oral c) oral Langua	en exar examin examin age of a	nination (30 to 60 min ation of one candidate ation in groups of up to ssessment: English	utes, including multipl each (30 to 60 minute o 3 candidates (approx	e choice questions) es) or . 30 to 60 minutes)	or	
Allocat	tion of p	laces				
Additio	onal info	ormation				
Workload						
150 h						
Teachi	ng cycle	9				
Referre	ed to in	LPO I (examination re	gulations for teaching-	degree programmes)		
Master's w (2015)	ith 1 major	Translational Neuroscience	JMU Würzburg • g cord Master (120	enerated 18-Apr-2025 • exam DECTS) Translational Neurosc	n. reg. data re- lience - 2015	page 37 / 58

### Module appears in

Modul	e title				Abbreviation
Neuro	logy/ No	eurosurgery 2			03-TN-NN2-152-m01
Modul	e coord	inator		Module offered by	
Depar	tment of	f Neurology, Department	of Neurosurgery	Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not) s	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conte	Contents				
diated from p and tra their a plastic treatm experi on fun proach transfe	Students will get a theoretical introduction and scientific background from the following topics: antibody-me- diated CNS diseases – experimental analysis of auto-antibody function; Lessons on nociceptor function learned from pain genetics; Translational approaches in stroke medicine; Subarachnoid hemorrhage - pathophysiology and translational therapy approaches; Pathophysiology of brain trauma: experimental brain trauma models and their analysis; Neurophysiology of hearing in tumor and trauma; The molecular basis of glioma-biology; Neuro- plasticity after CNS damage by brain tumors; Connectomics in neurology; understanding neuronal networks for treatment of tremor syndromes; stem cell based models of movement disorders; basics of electrophysiology in experimental and clinical practice; the molecular basis of myopathies. The accompanied journal clubs are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological ap- proaches and with this promoting translational thinking. Students will give presentations and thereby earn and transfer knowledge.				
Intend	ed lear	ning outcomes			
cellula chanis trauma logical and m questi extract cord a <b>Course</b> S (2) Modul	Students who successfully completed this module will have acquired insights into the current molecular and cellular pathophysiology of diseases prevalent in neurology and neurosurgery. They will understand basic me- chanisms of disease in the motor and sensory system and of higher functions. They will understand about brain trauma and brain tumor biology. They will have gained theoretical knowledge about animal models for neuro- logical and neurosurgical diseases and will be introduced into behavioral, neurophysiological, morphological and molecular biological analysis methods. They will have learnt how to raise appropriate bed-to-bench research questions and how to devise study plans. They will learn how to read scientific publications critically and how to extract the relevant data bringing them forward in their own project. In addition, they will have learnt how to re- cord and analyze data and how to present them in oral and written form. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) S (2)				
Metho ster, ir	<b>d of ass</b> formati	essment (type, scope, la on on whether module ca	nguage — if other th an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
e) pres Langua	sentatio age of a	n (20 to 45 minutes) ssessment: English			
Alloca	tion of p	olaces			
Additi	onal inf	ormation			
Workle	oad				
150 h					
Teachi	ng cvcl	e			
	- /				
Referr	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	irs in			

Module	e title				Abbreviation	
Pain					03-TN-P-152-m01	
Module	e coord	inator		Module offered by		
Univers Care	ity Hos	spital, Department of A	naesthesia and Critical	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Students will receive a theoretical introduction and consolidation in topics of pain processing as well as clinical pain medicine. Contents include an introduction to nociceptors and their activation via specific ion channels, the pain pathway with its synapses, and the descending pathways. Clinically, the classification of pain and the major primary and secondary pain syndromes are discussed. Pain research will be reflected with the possibilities and limitations of preclinical animal models on the one hand and measurement of pain in patients on the other. A focus will also be on the translation of results from research for the clinic and drug development. The subsequent literature seminar will be based on fundamental and current literature on topics relevant to the lecture to discuss clinical studies, experiments and new methods and thereby promote translational thinking in pain medicine. Presentations of current research results and the connection to the clinic (examination of patients) and multimodal interdisciplinary therapy will be used to deepen the learned knowledge in pain medicine. <b>Intended learning outcomes</b> In this course, students will learn about the (patho-) physiology of pain, neuroanatomical structures and pain therapy including interdisciplinary multimodal pain therapy. These include molecular mechanism of pain, study-ing pain in animals and humans and drug development. How to evaluate studies in "pain" is worked-out by the students in a specific article/topic chosen by the student and presented within in a talk during the course. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) V (o) + P (2) Module taught in: English						
ster, inf e) prese	formati entatio	on on whether module n (20 to 45 minutes)	can be chosen to earn	a bonus)		
Langua	ge of a	ssessment: English				
Allocat	ion of j	Diaces				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teachir	ıg cycl	e				
Referre	d to in	LPOI (examination reg	gulations for teaching-o	legree programmes)		
Module	annes	urs in				
Master'	's degr	ee (1 major) Translation	al Neuroscience (2015)	)		
Master'	's degr	ee (1 major) Translatior	al Neuroscience (2017)	)		
Master'	's degr	ee (1 major) Translatior	al Neuroscience (2018)	)		
Supple	mentai	y course Translational	Neuroscience (2018)			
Master'	s degr	ee (1 major) Translatior	al Neuroscience (2022	)		
Master's wi (2015)	th 1 majo	r Translational Neuroscience	JMU Würzburg • ge cord Master (120	enerated 18-Apr-2025 • exam ECTS) Translational Neurosc	. reg. data re- ience - 2015	page 41 / 58



Supplementary course Translational Neuroscience (2022)

Module	title	_			Abbreviation
Biology and Disease of the Peripheral Nerve			03-TN-PN-152-m01		
Module	coord	inator		Module offered by	
Departr biology	nent of	f Neurology, Section of De	evelopmental Neuro-	Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semester graduate					
Conten	ts				
Cellular sion, re CIDP, m seases sed on knowle	Cellular elements of the PN I: origin, development, structure, myelin formation, Cellular elements of the PN II: le- sion, regeneration and surgical reconstitution, physiology and pathophysiology, Diseases I: inflammatory (GBS, CIDP, myasthenia; clinic and therapy), Diseases II: diabetes; iatrogenic (e. g. vincristine; clinic and therapy), Di- seases III: inherited NPs (including models and attempts for treatment approaches). The literature seminar is ba- sed on fundamental literature on lecture-relevant topics to document the experiments underlying our present				
Intende	d lear	ning outcomes			
Studen riphera with the Additio have le trained	Students who successfully completed this module will have acquired insights into cellular elements of the pe- ripheral nerve, physiology and pathophysiology. The students will have examined clinical aspects of diseases with the involvement of peripheral nerves with a focus on the molecular mechanisms and therapeutical options. Additionally, they will have learned how to evaluate and present data in oral form. In addition, the students will have learned to critically read scientific publications in the field of peripheral nerve diseases and will have been trained in the ability to extract relevant information from the original literature				
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V (o) + 1 Module	S (2) taugh	t in: English			
Methoo ster, inf	<b>l of ass</b> formati	s <b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) writte b) log (a c) oral e d) oral e e) prese Langua	en exar approx examin examin entatio ge of a	nination (30 to 60 minut . 10 to 30 pages) or ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	es, including multiple ach (30 to 60 minute: 3 candidates (approx	e choice questions) o s) or . 30 to 60 minutes) o	Dr Dr
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachir	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	appea	irs in			
Master	s degr	ee (1 major) Translational	Neuroscience (2015)	1	

Module	Module title				Abbreviation	
Psychia	atric Ne	eurosciences			03-TN-PSYT1-152-m	01
Module	e coord	inator		Module offered by		
Univers matics	ity Hos and Ps	spital, Department of Ps ychotherapy	sychiatry, Psychoso-	- Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Basic k (e.g. ge orders, disorde with ps selecte ved in t the ana mal mo <b>Intende</b> Studen psychia these d	Basic knowledge about the characteristics of various psychiatric disorders, the proposed neurobiological basis (e.g. gene by environment interaction) as well as the treatment approaches: Anxiety disorders, somatoform dis- orders, social interaction disorders, psychotic disorders, attention deficit hyperactivity disorder, substance use disorders, neurodegenerative disorders. Basic knowledge about the genetic and neural mechanisms associated with psychiatric disorders such as gene by environment interaction, anatomical, cellular/neuronal plasticity of selected brain regions, e.g. hippocampus and amygdala and brain regions and neurotransmitter systems invol- ved in the processing of emotions. Basic knowledge about state-of-the-art research methods in the field such as the analysis of gene variants and their association with various psychiatric disorders and behavioral traits, ani- mal models for psychiatric disorders, neuroimaging methods in humans. <b>Intended learning outcomes</b> Students who successfully completed this module will have gained an overview of the characteristics of diverse psychiatric disorders. They will have acquired insights into the neurobiological basis of the etiopathogenesis of these disorders (e. g. which neurotransmitter systems and brain regions are involved), how they are treated and					
	rrent co	ncepts and experimen	tal approaches studyir	ig these psychiatric (	disorders.	
Course:	s (type	, number of weekly con		- II OLIIEI LIIAII GEIIIIA	iii <i>)</i>	
V (2) Module	taugh	t in• English				
Methoo ster, inf	<b>d of ass</b> formati	essment (type, scope,	language — if other the can be chosen to earn	an German, examina a bonus)	tion offered — if not	every seme-
a) writte b) oral c) oral e Langua	en exa examir examin ge of a	mination (30 to 60 min ation of one candidate ation in groups of up to ssessment: English	utes, including multiple each (30 to 60 minute 9 3 candidates (approx	e choice questions) ( s) or . 30 to 60 minutes)	or	
Allocat	ion of <b>j</b>	olaces				
Additio	nal inf	ormation				
		-				
Worklo	ad					
150 h						
Teachir	ng cycl	e				
	.5	•				
Poforro						
Referre	u to m			degree programmes)		
 Module	annes	ors in				
Master	's dear	ee (1 major) Translation	al Neuroscience (2015	)		
Master Master Supple	's degr 's degr mentai	ee (1 major) Translation ee (1 major) Translatior y course Translational	al Neuroscience (2015) al Neuroscience (2017) al Neuroscience (2018) Neuroscience (2018)	)		
Master's wi	ith 1 majo	r Translational Neuroscience	JMU Würzburg • g	enerated 18-Apr-2025 • exam	. reg. data re-	page 44 / 58
(2015)			coru Master (120	LCTS) Hallstational Neurosc	ience - 2015	



Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)

Module	title				Abbreviation
Current	findin	gs in psychiatric neurosc	iences		03-TN-PSYT2-152-m01
Module	coord	inator		Module offered by	
Universi matics a	ity Hos and Ps	pital, Department of Psyc ychotherapy	chiatry, Psychoso-	Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not) s	successfully completed			
Duration	n	Module level	Other prerequisites		
1 semes	ter	graduate			
Content	S				
The liter ments u	ature nderly	seminar is based on fund ing our present knowleds	lamental literature o ge in neuropsychiatri	n lecture-relevant top ic diseases.	pics to document the experi-
Intende	d learı	ning outcomes			
Student to publis	s will a sh scie	acquire a theoretical undentific results in the field	erstanding of how m of neurobiology/neu	ethods in molecular ropsychiatry.	biology work and will learn how
Courses	(type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
S (2)					
Module	taugh	t in: English			
Method ster, info	<b>of ass</b> ormati	e <b>ssment</b> (type, scope, la on on whether module ca	nguage — if other th an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
e) prese Languag	ntatio ge of a	n (20 to 45 minutes) ssessment: English			
Allocatio	on of p	olaces			
Addition	nal inf	ormation			
Workloa	nd				
150 h					
Teachin	g cycl	9			
Referred	d to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	appea	rs in			
Master's degree (1 major) Translational Neuroscience (2015) Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2022) Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)					

Module	title				Abbreviation
Tutoria	l 1				03-TN-TU-1-152-m01
Module	e coord	inator		Module offered by	
program	nme co	oordinator		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
3	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Studen minars	ts work and pr	as tutors. They support actical courses.	teaching and are invo	lved in the organisa	tion and planning of lectures, se-
Intende	ed lear	ning outcomes			
Tutors v they wi	will lea ll learn	rn how to convey comple to organise and plan the	x topics and to indep ir own projects and to	endently supervise a teach the contents	a group of students. In addition, to students.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
T (1) Module	taugh	t in Fnglish			·
Method	d of ace	assmant (typo, scopo, la	nguago — if other tha	n Corman ovamina	tion offered — if not even some
ster, in	formati	on on whether module ca	an be chosen to earn	a bonus)	
a) writt b) log ( c) oral ( d) oral e) pres	en exai approx examin examir entatio	mination (30 to 60 minut . 10 to 30 pages) or ation of one candidate en ation in groups of up to 3 n (20 to 45 minutes)	es, including multiple ach (30 to 60 minutes 3 candidates (approx.	e choice questions) ( 6) or . 30 to 60 minutes) (	or or
Allocat	ion of p				
Additio	nal inf	ormation			
Worklo	ad				
90 h					
Teachi	ıg cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	urs in			
Master	's degr	ee (1 major) Translational	l Neuroscience (2015)		
Master	's degr	ee (1 major) Translational	l Neuroscience (2017)	1	
Master	's degr	ee (1 major) Translational	Neuroscience (2018)		
Supple	mentai	y course Translational Ne	euroscience (2018)		
Master	's degr	ee (1 major) Translational	l Neuroscience (2022	)	
Supple	mentai	າງ course Translational Ne	euroscience (2022)		

Module	title				Abbreviation
Tutoria	12				03-TN-TU-2-152-m01
Module	e coord	inator		Module offered by	
prograr	nme co	oordinator		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Studen minars	ts work and pr	as tutors. They support actical courses.	teaching and are invo	lved in the organisa	tion and planning of lectures, se-
Intende	ed lear	ning outcomes			
Tutors v they wi	will lea ll learn	rn how to convey comple to organise and plan the	x topics and to indep ir own projects and to	endently supervise a teach the contents	a group of students. In addition, to students.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
T (2) Module	e taugh	t in: English			
Methoo ster, in	<b>l of ass</b> formati	<b>sessment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) writt b) log ( c) oral ( d) oral e) prese Langua	en exai approx examin examir entatio ge of a	mination (30 to 60 minut . 10 to 30 pages) or ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	es, including multiple ach (30 to 60 minute: 3 candidates (approx.	e choice questions) ( 5) or . 30 to 60 minutes) (	or
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ıg cycl	e			
Referre	d to in	LPO I (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Translational	l Neuroscience (2015)		
Master	's degr	ee (1 major) Translational	l Neuroscience (2017)	1	
Master	's degr	ee (1 major) Translational	Neuroscience (2018)		
Supple	mentai	y course Translational Ne	euroscience (2018)		
Master	's degr	ee (1 major) Translational	l Neuroscience (2022	)	
Supple	Supplementary course Translational Neuroscience (2022)				

Module	e title				Abbreviation	
Biopsy	cholog	y 1			06-TN-BPSY1-152-m	101
Module	e coord	inator		Module offered by		
holder	of the C	Chair of Psychology I		Institute of Psychol	ogy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Studen cience. assess gnetic f trol, cli fundan proach the acc <b>Intendo</b> Studen concep biopsy cal reso basis. I cholog <b>Course</b> V (2) <b>Methoo</b>	Students will get a theoretical introduction and amplification of topics in biopsychology and cognitive neuros- cience. The following topics will be discussed: introduction to biopsychological research methods (behavioral assessments, eye-tracking, autonomic psychophysiology, electroencephalography, structural and functional ma- gnetic resonance imaging), emotion and motivation, learning and memory, attention, perception, cognitive con- trol, clinical aspects (e.g., anxiety disorders, depression, addiction). The accompanying seminars are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological ap- proaches and with this promoting translational thinking. Using student presentations of current research results, the acquired knowledge in biopsychology is recessed. <b>Intended learning outcomes</b> Students who successfully completed this module are able to remind and understand the current theoretical concepts in biopsychology and cognitive neuroscience. Furthermore, students are able to describe and interpret biopsychological data and they can select appropriate non-invasive techniques to address specific psychologi- cal research questions. They are familiar with general psychological concepts and know about their biological basis. Based on this knowledge, students are able to critical read and evaluate current publications in biopsy- chology and cognitive neuroscience and can extract relevant information from recent publications. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) V (2)					
a) writt b) oral	en exar examin examin	on on whether module nination (30 to 60 min ation of one candidate ation in groups of up to	te can be chosen to earn utes, including multiple each (30 to 60 minute o a candidates (approx	a bonus) e choice questions) ( es) or 30 to 60 minutes)	or	
Allocat	ion of r	laces	j culturates (approx	. je te ee minutes)		
Additic	nal inf	ormation				
Additio	mat mit					
Worklo	ad					
150 h						
Teachi	ng cycl	6				
	0 . 7	-				
Referre	d to in	<b>IPOI</b> (examination re	gulations for teaching-	degree programmes)		
			<u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>	<u> </u>		
Module	e appea	irs in				
Master Master Master Supple Master Supple	's degre 's degre 's degre mentar 's degre mentar ith 1 major	ee (1 major) Translatior ee (1 major) Translatior ee (1 major) Translatior y course Translational ee (1 major) Translatior y course Translational Translational Neuroscience	nal Neuroscience (2015 nal Neuroscience (2017 nal Neuroscience (2018 Neuroscience (2018) nal Neuroscience (2022) Neuroscience (2022) JMU Würzburg • g	) ) ) enerated 18-Apr-2025 • exam	ı. reg. data re-	page 49 / 58
(2015)			cord Master (120	ECTS) Translational Neurosc	ience - 2015	

Module title			Abbreviation		
Biopsychology 2 06-TN-BPSY2-152-m01					
Module coordinator			Module offered by		
holder of the	Chair of Psychology I		Institute of Psychol	ogy	
ECTS Method of grading Only after succ. compl. of module(s)					
5 (not)	successfully completed				
Duration	Module level	Other prerequisites			
1 semester	graduate				
Contents					
cience. The fo assessments, gnetic resona trol, clinical a fundamental proaches and the acquired l Intended lear Students who concepts in b	get a theoretical introduc ollowing topics will be disa , eye-tracking, autonomic nce imaging), emotion an spects (e.g., anxiety disor and current literature on l with this promoting trans knowledge in biopsycholo <b>ning outcomes</b> o successfully completed to iopsychology and cognitive	ton and amplification cussed: introduction psychophysiology, e id motivation, learnin rders, depression, ad ecture-relevant topic slational thinking. Us ogy is recessed. this module are able we neuroscience. Furt	to biopsychological lectroencephalograp g and memory, atter diction). The accomp s to discuss experim ing student presenta to remind and under hermore, students a	research methods (behavioral oby, structural and functional ma- ntion, perception, cognitive con- panying seminars are based on mental and methodological ap- ations of current research results,	
biopsycholog cal research c basis. Based chology and c	ical data and they can sel questions. They are familia on this knowledge, stude cognitive neuroscience an	lect appropriate non- ar with general psych nts are able to critica d can extract relevan	invasive techniques ological concepts ar l read and evaluate t information from re	to address specific psychologi- nd know about their biological current publications in biopsy- ecent publications.	
Courses (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S (2)					
Method of as ster, informat	<b>sessment</b> (type, scope, la ion on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
e) presentatio	on (20 to 45 minutes)				
Allocation of	places				
	<u>.</u>				
Additional inf	ormation				
Workload					
150 h					
	<b>A</b>				
Referred to in IPO I (examination regulations for teaching degree programmes)					
Module appears in					
Master's degree (1 major) Translational Neuroscience (2015)					
Master's degree (1 major) Translational Neuroscience (2017) Master's degree (1 major) Translational Neuroscience (2018)					
Supplementa	ry course Translational Ne	euroscience (2018)			
Master's degr	ee (1 major) Translational	Neuroscience (2022	)		
Supplementary course Translational Neuroscience (2022)					

Module title		Abbreviation			
Graduate Program Seminar Neurosciences 1				07-MLSGP-NS1-152-m01	
Module coordinator /			Module offered by	•	
Dean of Studi	es Biologie (Biology)		Faculty of Biology		
ECTS Meth	od of grading	Only after succ. com	pl. of module(s)		
5 (not)	successfully completed				
Duration	Module level	Other prerequisites			
1 semester	graduate				
Contents					
Invited guest fundamental	speakers present and dis research with relevance to	cuss cutting edge res o the current program	search including nov me/topics of the res	el/current methods as well as search group.	
Intended lear	ning outcomes	· · · ·			
Students acquirent methods	uire an overview of cutting	g edge research in the	eir field as well as ar	n understanding of new and cur-	
Courses (type	, number of weekly conta	ct hours, language —	if other than Germa	ın)	
S (2)					
Module taugh	t in: English				
Method of ass ster, informat	<b>sessment</b> (type, scope, la ion on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
e) presentatio Language of a	n (20 to 45 minutes) ssessment: English				
Allocation of	places				
Additional inf	ormation				
Workload					
150 h					
Teaching cycl	e				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Master's degree (1 major) FOKUS Life Sciences (2015)					
Master's degree (1 major) Translational Neuroscience (2015)					
Master's degree (1 major) Translational Neuroscience (2017)					
Master's degr	ee (1 major) Translationa	Neuroscience (2018)	)		
Master's degr	ee (1 major) Translationa	Neuroscience (2022	)		

Module title				Abbreviation	
Graduate Program Seminar Neurosciences 2				07-MLSGP-NS2-152-m01	
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Methe	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Invited fundan	guest : nental i	speakers present and dis research with relevance to	cuss cutting edge res o the current program	search including nov me/topics of the res	el/current methods as well as search group.
Intende	ed lear	ning outcomes			
Studen rent me	its acqu ethods.	uire an overview of cutting	g edge research in the	eir field as well as ar	n understanding of new and cur-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
S (2)		· · · ·			
Metho ster, in	<b>d of ass</b> format	sessment (type, scope, la ion on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
e) pres	entatio	n (20 to 45 minutes)			
Allocat	ion of	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Master's degree (1 major) Translational Neuroscience (2015)					
Master's degree (1 major) Translational Neuroscience (2017)					
Master	Master's degree (1 major) Translational Neuroscience (2018)				
Master's degree (1 major) Translational Neuroscience (2022)					

Module title				Abbreviation		
Research Group Seminar Neurosciences 1			07-MLSRG-NS1-152-m01			
Module coordinator				Module offered by		
Dean of	Studie	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
Current bers, ex	progre chang	ess in the research group: e of experiences, trouble	presentation and dis shooting tips.	scussion of the resu	lts of all research group mem-	
Intende	d lear	ning outcomes				
Student trouble	ts have shootir	e developed problem solv ng skills and are able to p	ring skills, presentation Ian experiments.	on skills, scientific d	liscussion skills as well as	
Courses	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S (2) Module	taugh	t in: English				
Method ster, inf	<b>l of ass</b> ormati	e <b>ssment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
e) prese Langua	entatio ge of a	n (20 to 45 minutes) ssessment: English				
Allocati	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
150 h						
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) FOKUS Life Sciences (2015)						
Master's degree (1 major) Translational Neuroscience (2015)						
Master'	Master's degree (1 major) Translational Neuroscience (2017)					
Master'	s degre	ee (1 major) Translational	Neuroscience (2018)			
Master'	s degre	ee (1 major) 「ranslational	Neuroscience (2022	)		

Module title				Abbreviation		
Research Group Seminar Neurosciences 2					07-MLSRG-NS2-152-m01	
Module coordinator				Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Presen	tation a	and discussion of cutting	edge literature.			
Intend	ed lear	ning outcomes				
Overvie conten	ew of cu t of pub	utting edge literature in th plications.	ne field of neuroscien	ce, ability to critical	ly read, present and discuss the	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	· if other than Germa	n)	
S (2)						
Metho ster, in	<b>d of ass</b> formati	<b>essment</b> (type, scope, la on on whether module ca	inguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
e) pres	entatio	n (20 to 45 minutes)				
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
150 h						
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) Translational Neuroscience (2015)						
Master's degree (1 major) Translational Neuroscience (2017)						
Master	Master's degree (1 major) Translational Neuroscience (2018)					
Master's degree (1 major) Translational Neuroscience (2022)						

Module title					Abbreviation	
Retreat Neurosciences 1			07-MLSRNS1-152-m01			
Module coordinator				Module offered by		
Dean of	fStudi	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
Present and the perviso	ation o ir disc rs/exa	of current research projec ussion in the research co mination committee and	t results in the form o mmunity. Discussion troubleshooting.	of a poster and/or ta and evaluation of ir	lk. Critical evaluation of results nterim progress reports with su-	
Intende	ed lear	ning outcomes				
Poster o literatu	design re in th	skills, (oral) presentatior e field, troubleshooting s	n skills, ability to critionskills, evaluation of ir	cally discuss results Iterim progress repo	taking into consideration current rts.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	ın)	
S (2) Module	taugh	t in: English				
Method ster, inf	<b>l of ass</b> formati	sessment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
e) prese Langua	entatio ge of a	n (20 to 45 minutes) ssessment: English				
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) FOKUS Life Sciences (2015)						
Master's degree (1 major) Translational Neuroscience (2015)						
Master'	Master's degree (1 major) Translational Neuroscience (2017)					
Master'	s degr	ee (1 major) Translational	Neuroscience (2018)	)		
master	Master's degree (1 major) Translational Neuroscience (2022)					

Module title					Abbreviation
Retreat Neurosciences 2				07-MLSRNS2-152-m01	
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Present and the perviso	tation o eir disc ors/exa	of current research projec ussion in the research co mination committee and	t results in the form o mmunity. Discussion troubleshooting.	of a poster and/or ta and evaluation of ir	lk. Critical evaluation of results nterim progress reports with su-
Intende	ed lear	ning outcomes			
Poster literatu	design re in th	skills, (oral) presentatior e field, troubleshooting s	n skills, ability to criti skills, evaluation of ir	cally discuss results nterim progress repo	taking into consideration current rts.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
S (2)					
Method ster, in	<b>d of ass</b> formati	<b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
e) pres	entatio	n (20 to 45 minutes)			
Allocat	ion of <sub>l</sub>	olaces			
	,				
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Master	Master's degree (1 major) Translational Neuroscience (2015)				
Master's degree (1 major) Translational Neuroscience (2017)					
Master	's degr	ee (1 major) Translational	Neuroscience (2018)	)	
Master	's degr	ee (1 major) Translational	Neuroscience (2022	)	

Module title				Abbreviation	
Workshop Neurosciences 1				07-MLSWS-NS1-152-m01	
Module coordinator				Module offered by	
Dean o	f Studie	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Discuss thods.	sion of	current methods and tec	hniques required in la	ab projects. Insights	into and training in novel me-
Intende	ed leari	ning outcomes			
Studen	ts acqu	lire proficiency in those r	nethods and techniqu	ues that are required	l in their lab projects.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
W (2) Module	e taugh	t in: English			
Methoo ster, in	<b>l of ass</b> formati	s <b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
c) oral ( d) oral ( e) preso Studen Langua	approx examin examin entatio ts will l ge of a	ation of one candidate en ation of one candidate en ation in groups of up to g n (20 to 45 minutes) be informed about the me ssessment: English	ach (30 to 60 minutes 3 candidates (approx ethod, length and sco	5) or . 30 to 60 minutes) c ope of the assessme	or nt prior to the course.
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Master's degree (1 major) FOKUS Life Sciences (2015)					
Master	Master's degree (1 major) Translational Neuroscience (2015)				
Master	's degr	ee (1 major) Translationa	Neuroscience (2017)		
Master	's degr	ee (1 major) Translational	Neuroscience (2018)	)	
Master's degree (1 major) Translational Neuroscience (2022)					

Module title				Abbreviation		
Workshop Neurosciences 2			07-MLSWS-NS2-152-m01			
Module coordinator				Module offered by		
Dean of	fStudie	es Biologie (Biology)		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	uccessfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Discuss thods.	sion of	current methods and tec	hniques required in la	ab projects. Insights	into and training in novel me-	
Intende	ed learr	ing outcomes				
Studen	ts acqu	ire proficiency in those n	nethods and techniqu	ues that are required	l in their lab projects.	
Course	<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	ın)	
W (2)		· · · ·				
Method ster, inf	<b>l of ass</b> formati	<b>essment</b> (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
a) writte b) log (a c) oral e d) oral e e) prese	en exar approx examin examin entatio	nination (30 to 60 minut . 10 to 30 pages) or ation of one candidate ea ation in groups of up to <u>a</u> n (20 to 45 minutes)	es, including multiple ach (30 to 60 minute: 3 candidates (approx.	e choice questions) ( 5) or . 30 to 60 minutes) c	or	
Allocat	ion of p	laces				
Additio	nal info	ormation				
Worklo	ad					
150 h						
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) Translational Neuroscience (2015)						
Master'	Master's degree (1 major) Translational Neuroscience (2017)					
Master'	s degre	ee (1 major) Translational	Neuroscience (2018)	)		
Master'	Master's degree (1 major) Translational Neuroscience (2022)					