

# Module Catalogue

for the Subject

## **Translational Neuroscience**

with the degree "Zusatzstudium"

(90 ECTS credits)

Examination regulations version: 2018 Responsible: Faculty of Medicine

JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record ZS|h36|-|-|H|2018



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#### Module Catalogue for the Subject Translational Neuroscience Suppl. course, 90 ECTS credits

## The subject is divided into

section / sub-section	ECTS credits	starting page
Compulsory Courses	50	5
Compulsory Electives	40	22
Subarea General Compulsory Electives	20	23
Subarea Compulsory Electives Lab Courses	20	62



## 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:

#### SPO+ASPO2015

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

29-Jan-2019 (2018-65)

#### 18-Dec-2019 (2019-63)

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.

Suppl. course Translational Neuroscience (2018)





## **Compulsory Courses**

(50 ECTS credits)

Module title				Abbreviation		
Methods in Neurosciences					03-TN-MNS-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)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
proach biodist	es, prot ributior	tein and molecular biolog n of imaging biomarkers,	gy techniques, PCR, a pain behaviour, gait	dvanced protein bio analysis, biostatistic	odels and gene-knockout ap- chemistry, imaging techniques, cs of psychiatric genetic studies, enesis, neural stem cells.	
Intende	ed learr	ning outcomes				
		ble to review and expand ad techniques to design e			techniques and are able to choo- neurosciences.	
Course	<b>S</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
V (o) +						
		t in: English				
		r <b>essment</b> (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
b) oral ( c) oral ( d) pres	examin examin entatio	nination (30 to 60 minuto ation of one candidate e ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	ach (30 to 60 minute	s) or		
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
150 h						
Teachir	ng cycl	9				
Referre	d to in	LPOI (examination regulations	s for teaching-degree progra	mmes)		
Module	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) Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)						

Module title			Abbreviation			
Clinical Neurobiology 1				03-TN-NB1-152-m01	L	
Module coordinator Mo			Module offered by			
Institut	e of Cli	nical Neurobiology	_	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
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, the earned knowledge in neurobiology is recessed <b>Intended learning outcomes</b> 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 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						
		mation from recent public	·	man)		
V (2) Module	e taugh	t in: English				
		<b>sessment</b> (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, informati	ion on whether
b) oral c) oral	examir examin	mination (30 to 60 minut nation of one candidate e nation in groups of up to 3 ssessment: English	ach (30 to 60 minute	s) or	or	
Allocat	ion of <sub>l</sub>	places				
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) Translational Neuroscience (2015)						
	_	ational Neuroscience (2018)	JMU Würzburg •	generated 19-Apr-2025 • exa	-	page 7 / 66

#### Julius-Maximilians-UNIVERSITÄT WÜRZBURG



Master's degree (1 major) Translational Neuroscience (2017) Supplementary course Translational Medicine (2018) Master's degree (1 major) Translational Medicine (2018) 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				Abbreviation	
Clinical Neurobiology 2: Trend-setting and current findings in neurobiology				03-TN-NB2-152-mo:	1	
Module coordinator Module offered by				•		
Institut	e of Cli	nical Neurobiology		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	i i		
1 semes	ster	graduate				
Conten	ts					
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, the earned knowledge in neurobiology is recessed. <b>Intended learning outcomes</b> Students who successfully completed this module are able to remind and understand the current theoretical						
evaluat relevan <b>Courses</b> S (2)	ion, stu t inforn <b>s</b> (type, n	mechanisms at molecu udents are able to critica nation from recent publ umber of weekly contact hours, t in: English	al read and evaluate c ications.	urrent publications i		
Method	l of ass	essment (type, scope, langu le for bonus)	age — if other than German,	examination offered — if no	ot every semester, informati	ion on whether
		n (20 to 45 minutes) ssessment: English				
Allocati	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
150 h			_			
Teachir	ng cycle	9				
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)						
Suppl. cour	se Transla	tional Neuroscience (2018)	-	generated 19-Apr-2025 • ex tudium Translational Neuros	-	page 9 / 66





Module title				Abbreviation		
Neurology/ Neurosurgery 1			03-TN-NN1-152-m01			
Module	e coord	inator		Module offered by		
Departr	nent of	Neurology, Department	of Neurosurgery	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5		rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten						
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. 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 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						
	<b>S</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
V (2) Module	taugh	t in: English				
Method	d of ass		ge — if other than German, e	examination offered — if no	t every semester, information on whether	
b) oral ( c) oral (	examin examin	nination (30 to 60 minut ation of one candidate e ation in groups of up to 3 ssessment: English	ach (30 to 60 minute	s) or	or	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
	- 4					
	Workload					
150 h Teachir		<b>a</b>				
	יש נענו	5				

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

Module title					Abbreviation	
Neurology/ Neurosurgery 2				03-TN-NN2-152-m01		
Module coordinator				Module offered by		
Departr	ment o	f Neurology, Department	t of Neurosurgery	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites	<b>i</b>		
1 seme	ster	graduate				
Conten	ts					
diated from pa and tra their ar plastici treatme experin on func proache transfe <b>Intende</b> Studen cellular chanisr trauma logical and mo questio extract cord an	ContentsStudents 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.Intended learning outcomesStudents 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 h					
S (2)		number of weekly contact hours, t in: English				
Method	d of ass		age — if other than German,	examination offered — if no	t every semester, information on whether	
		n (20 to 45 minutes) ssessment: English				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Workload						
150 h	150 h					
Teachir	ıg cycl	e				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Suppl. cour	rse Transla	ational Neuroscience (2018)	-	<ul> <li>generated 19-Apr-2025</li> <li>exastudium Translational Neurose</li> </ul>		



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

Module title				Abbreviation		
Psychiatric Neurosciences					03-TN-PSYT1-152-m	01
Module	coord	inator		Module offered by	ed by	
University Hospital, Department of Psychiatry, Psychoso- matics and Psychotherapy 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 semes	ster	graduate				
Content	ts					
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 disorders, 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 involved 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, animal models for psychiatric disorders, neuroimaging methods in humans.						
		ning outcomes				
psychia these d into cur Courses	itric dis isorder rent co	successfully completed orders. They will have a rs (e.g. which neurotran oncepts and experimenta umber of weekly contact hours,	cquired insights into smitter systems and b al approaches studyin	the neurobiological b prain regions are invo ng these psychiatric c	oasis of the etiopath olved), how they are	ogenesis of
V (2) Module	taugh	t in: English				
		essment (type, scope, langu	age — if other than German, o	examination offered — if no	t every semester, informati	on on whether
a) writte b) oral e c) oral e	en exar examin examin	le for bonus) nination (30 to 60 minu ation of one candidate o ation in groups of up to ssessment: English	each (30 to 60 minute	s) or	or	
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad		_			
150 h			_			
Teaching cycle						
Referre	d to in	LPOI (examination regulation	ns for teaching-degree progra	mmes)		
Module				<u></u>		
	-	ee (1 major) Translationa ee (1 major) Translationa				
	-	ee (1 major) Translationa				
	-	ational Neuroscience (2018)		generated 19-Apr-2025 • exa	ım. reg. da-	page 15 / 66
			-	tudium Translational Neurosc	-	, , , , , , , , ,





Module title					Abbreviation
Current findings in psychiatric neurosciences					03-TN-PSYT2-152-m01
Module	e coord	inator		Module offered by	<u> </u>
		spital, Department of Psy sychotherapy	chiatry, Psychoso-	Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. cor	mpl. of module(s)	
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites	5	
1 seme	ster	graduate			
Conten	Its				
		seminar is based on fund ving our present knowled			pics to document the experi-
Intend	ed lear	ning outcomes			
		acquire a theoretical und entific results in the field			biology work and will learn how
Course	<b>S</b> (type, r	number of weekly contact hours, l	language — if other than Ge	erman)	
S (2) Module	e taugh	t in: English			
		<b>sessment</b> (type, scope, langua vle for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
•		n (20 to 45 minutes) ssessment: English			
Allocat	ion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progr	ammes)	
Module	e appea	ars in			
Master's degree (1 major) Translational Neuroscience (2015)					
	-	ee (1 major) Translationa			
Master's degree (1 major) Translational Neuroscience (2018)					
		ry course Translational N		、 、	
		ee (1 major) Translationa		2)	
Supple	ementai	ry course Translational N	euroscience (2022)		

Module title			Abbreviation				
Biopsychology 1			06-TN-BPSY1-152-m	101			
Module coordinator			Module offered by				
holder	of the (	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	n	Module level	Other prerequisites				
1 seme	ster	graduate					
Conten	ts						
cience. assessi gnetic r trol, clin fundam proach	The fo ments, resonal nical as nental a es and	llowing topics will be d eye-tracking, autonom nce imaging), emotion spects (e.g., anxiety dis and current literature o	uction and amplificatio liscussed: introduction lic psychophysiology, e and motivation, learnir sorders, depression, ac n lecture-relevant topic anslational thinking. Us ology is recessed.	to biopsychological lectroencephalograp ng and memory, atter ldiction). The accom s to discuss experim	research methods (h bhy, structural and fu ntion, perception, co panying seminars ar tental and methodol	oehavioral unctional ma- ognitive con- e based on ogical ap-	
		ning outcomes					
concep biopsyc cal rese basis. I	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 psychological 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 biopsychology and cognitive neuroscience and can extract relevant information from recent publications.						
Course	<b>S</b> (type, r	number of weekly contact hour	s, language — if other than Ge	rman)			
V (2)							
		<b>sessment</b> (type, scope, lang le for bonus)	guage — if other than German,	examination offered — if no	t every semester, informati	on on whether	
b) oral	examir	nation of one candidate	utes, including multiple each (30 to 60 minute o 3 candidates (approx	s) or	or		
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
150 h							
Teachi	ng cycl	e					
Referre	d to in	LPO I (examination regulati	ons for teaching-degree progra	immes)			
Module	e appea	ars in					
			nal Neuroscience (2015	)			
	-		nal Neuroscience (2017				
	Master's degree (1 major) Translational Neuroscience (2018)						
		ry course Translational	Neuroscience (2018) 1al Neuroscience (2022	)			
		ational Neuroscience (2018)		generated 19-Apr-2025 • exa	am reg da-	page 18 / 66	
Suppli Coul			-	tudium Translational Neurose	-	Page 10 / 00	





Supplementary course Translational Neuroscience (2022)

Module title			Abbreviation			
Biopsychology 2			06-TN-BPSY2-152-n	101		
Module	e coord	inator		Module offered by		
holder	of the (	Chair of Psychology I		Institute of Psychol	ogy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not) s	successfully completed				
Duratio	•	Module level	Other prerequisites			
1 seme	ster	graduate	, <u>,</u>			
Conten		0	<u> </u>			
cience. assess gnetic r trol, clir fundam proach the acq	The fo ments, resona nical as nental a es and juired k	get a theoretical introdu llowing topics will be d eye-tracking, autonom nce imaging), emotion a spects (e.g., anxiety dis and current literature of with this promoting tra knowledge in biopsycho	iscussed: introduction ic psychophysiology, e and motivation, learnir orders, depression, ad n lecture-relevant topic nslational thinking. Us	to biopsychological lectroencephalograp ig and memory, atten ldiction). The accom s to discuss experim	research methods (l bhy, structural and fu ntion, perception, co panying seminars ar nental and methodol	oehavioral unctional ma- ognitive con- e based on ogical ap-
	-	ning outcomes				
concep biopsyc cal rese basis. I	ots in bi chologi earch q Based (	successfully complete opsychology and cogni cal data and they can s uestions. They are fam on this knowledge, stud ognitive neuroscience a	tive neuroscience. Furt elect appropriate non- iliar with general psych lents are able to critica	hermore, students a invasive techniques ological concepts ar I read and evaluate	re able to describe a to address specific nd know about their current publications	and interpret psychologi- biological
Course	<b>S</b> (type, r	number of weekly contact hours	s, language — if other than Ger	rman)		
S (2)						
Method		<b>sessment</b> (type, scope, lang le for bonus)	uage — if other than German, o	examination offered — if no	ot every semester, informati	ion on whether
e) pres	entatio	n (20 to 45 minutes)				
Allocat						
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teachi		۵				
Teacini	ig cyci	6				
Deferre	d to in					
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 degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)						
Suppl. cour	rse Transla	ational Neuroscience (2018)		generated 19-Apr-2025 • exa tudium Translational Neuroso	-	page 20 / 66

Module	title				Abbreviation
Advanced lab rotation 1				03-TN-LR1-152-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)	
5	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate	Please consult with	course advisory serv	vice in advance.
Content	ts				
Student	ts get a	an intense training in at le	east two different met	thods from different	fields of neurosciences.
Intende	ed leari	ning outcomes			
					iques and learned how to apply
		<u>~</u>		•	s and presentation of raw data.
	<b>5</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
P (2) Module	taugh	t in: English			
		sessment (type, scope, langua; le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
		. 10 to 30 pages) or			
d) oral e	examin	ation in groups of up to g	3 candidates (approx	. 30 to 60 minutes)	
	-	ssessment: English			
Allocati					
 Additio	nal inf	ormation			
Additio	natini				
 Worklo	ad				
150 h					
Teachin	ng cycl	6			
	<u> </u>				
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)	
Module appears in					
Master'	s degr	ee (1 major) Translational	Neuroscience (2015)		
	-	ee (1 major) Translational			
	-	ee (1 major) Translational		)	
		y course Translational Ne			
	-	ee (1 major) Translational		)	
Supplei	Supplementary course Translational Neuroscience (2022)				





## **Compulsory Electives**

(40 ECTS credits)



## Subarea General Compulsory Electives

(20 ECTS credits)

Module title					Abbreviation		
Pain							
Module	coordi	nator		Module offered by			
Univers Care	ity Hos	pital, Department of A	naesthesia and Critical	Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
5	(not) s	uccessfully completed					
Duratio	n	Module level	Other prerequisites				
1 semes	ster	graduate					
Conten	ts						
pain me pain pa jor prim and lim A focus quent li discuss dicine. multimo Intende In this o therapy ing pair	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, studying pain in animals and humans and drug development. How to evaluate studies in "pain" is worked-out by the						
		specific article/topic ch		•		.00150.	
V (o) + I	P (2)	t in: English					
		essment (type, scope, lang	uage — if other than German,	examination offered — if no	t every semester, informati	on on whether	
		le for bonus)					
Langua	ge of a	n (20 to 45 minutes) ssessment: English					
Allocati	ion of p	laces					
Additio	nal info	ormation					
Worklo	ad						
150 h							
Teachin	ng cycle	9	-				
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module							
Master' Master'	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)						
Suppl. cour	se Transla	tional Neuroscience (2018)	JMU Würzburg • ta record Zusatzs	generated 19-Apr-2025 • exa	am. reg. da-	page 24 / 66	





Module Catalogue for the Subject Translational Neuroscience Suppl. course, 90 ECTS credits

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

Module title					Abbreviation			
Neuroin	Neuroinflammation 03-TN-NI-172-m01							
Module coordinator				Module offered by				
		Neurology, Section of stitute of Virology and	•	lopmental Neuro- Faculty of Medicine unobiology				
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)				
5	numei	rical grade						
Duratio	n	Module level	Other prerequisites					
1 semes	ster	graduate						
Content	ts							
les, syn compor phatic c 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 disease; inherited neuropathies).							
		ning outcomes successfully completed	this modulo will have	acquired solid insig	hts into fundamenta	al and disoa		
se-relev	ant as ication	pects of neuroimmuno s and will have been tr	ogy and neuroinflamm	ation. They will have	e learned to critically	read scienti-		
Courses	<b>5</b> (type, n	umber of weekly contact hours	, language — if other than Ger	man)				
V (o) + 9	S (o)							
Module	taugh	t in: English						
		<b>essment</b> (type, scope, lang le for bonus)	uage — if other than German, e	examination offered — if no	t every semester, informati	on on whether		
b) oral e c) oral e d) prese	examin examin entatio	nination (30 to 60 minu ation of one candidate ation in groups of up to n (20 to 45 minutes) ssessment: English	each (30 to 60 minute	s) or				
Allocati	on of p	olaces						
Additio	nal info	ormation						
Workloa	ad							
150 h								
Teachin	ig cycl	9						
Referre	d to in	LPOI (examination regulation	ons for teaching-degree progra	mmes)				
Master' Suppler	Module appears in         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 (2018)         Master's degree (1 major) Translational Neuroscience (2018)							
Suppl. cours	se Transla	tional Neuroscience (2018)	-	generated 19-Apr-2025 • exa tudium Translational Neurosc	-	page 26 / 66		





Supplementary course Translational Neuroscience (2022)

Module title					Abbreviation			
Ion channels					03-TN-IC-152-m01			
Module	e coord	inator		Module offered by				
Institut	e of Cli	nical Neurobiology	F	Faculty of Medicine				
ECTS	Metho	od of grading	Only after succ. con	Only after succ. compl. of module(s)				
5	nume	rical grade						
Duratio	on	Module level	Other prerequisites					
1 seme	ster	graduate						
Conten	ts							
topics ted and mical e pathies physio tional t is reces fected learned	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.							
		ning outcomes						
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>S</b> (type, r	number of weekly contact hour	s, language — if other than Ger	rman)				
V (o) + Module		P (2) t in: English						
		<b>sessment</b> (type, scope, lang le for bonus)	uage — if other than German, o	examination offered — if no	t every semester, informati	on on whether		
b) oral c) oral d) pres	a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or d) presentation (20 to 45 minutes) Language of assessment: English							
Allocat	ion of p	olaces						
Additio	onal inf	ormation						
Worklo	ad							
150 h								
Teachi	ng cycl	e						
Referre	ed to in	LPO I (examination regulati	ons for teaching-degree progra	immes)				
Suppl. cou	rse Transla	ational Neuroscience (2018)	-	generated 19-Apr-2025 • exa tudium Translational Neuroso	_	page 28 / 66		



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

Module title					Abbreviation			
Functional Neuroimaging					03-TN-FI-152-m01			
Module coordinator				Module offered by				
Univers	sity Hos	pital, Department of N	uclear Medicine					
ECTS	Metho	od of grading	Only after succ. cor	Only after succ. compl. of module(s)				
5	(not) s	successfully completed						
Duratio	on	Module level	Other prerequisites	;				
1 seme	ster	graduate						
Conten	ts							
diolabe cepts o CT, SPE tures ir imagin;	elling o of positi ECT/CT) n huma g of bra	t identification for func f surrogate markers for ron emission tomograp , anatomic and functio ns and patients with ne in tumours using MR, F ning outcomes	PET and SPECT, basic hy, single photon emis nal structures of the br eurodegenerative disor	concepts of magnetic ssion computed tomo rain in small animals	c resonance imaging ography and hybrid o , anatomic and funct	g, basic con- devices (PET/ tional struc-		
ches in ction a robiolo ned ho	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.							
Course	<b>S</b> (type, r	umber of weekly contact hour	s, language — if other than Ge	rman)				
V (o) + Module		t in: English						
		s <b>essment</b> (type, scope, lang le for bonus)	uage — if other than German,	examination offered — if no	ot every semester, informat	ion on whether		
b) log ( c) oral d) oral e) pres	approx examin examir entatio	mination (30 to 60 min . 10 to 30 pages) or ation of one candidate ation in groups of up to n (20 to 45 minutes) ssessment: English	each (30 to 60 minute	es) or				
Allocat	-							
Additio	nal inf	ormation						
Worklo	ad							
150 h								
Teachi	ng cycl	е						
Referre	ed to in	LPO I (examination regulation	ons for teaching-degree progra	ammes)				
Module	e appea	in and a second s						
Master	's degr	ee (1 major) Translatior ee (1 major) Translatior ee (1 major) Translatior	al Neuroscience (2017	)				
Suppl. coui	rse Transla	ational Neuroscience (2018)	-	• generated 19-Apr-2025 • exa studium Translational Neuros	-	page 30 / 66		





Module title					Abbreviation		
Developmental Neuroimaging					03-TN-DI-172-m01		
Module	coord	inator		Module offered by			
University Hospital, Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy				Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
5		rical grade		• • • •			
Duratio		Module level	Other prerequisites	6			
1 seme	ster	graduate					
Conten	ts		-				
respons such de ample d a statis art text	se). Dif esign d data of tical m books	get an introduction to b ferent fMRI designs, blo ifferences. The basic st a block and event desig odel of task-based fMR and research articles or Mapping software in N	ock vs. event, will be ir eps for preprocessing gn, there will be an int I data. Students will gi implement analysis c	ntroduced. Students fMRI data will be intr roduction and practi ve presentation on t ode. The course requ	will learn to critically roduced and practice ce session on how to he topics based on s lires the students to	v evaluate ed. Using ex- o implement state-of-the- use Statisti-	
		ning outcomes					
tional a cal ana mented	Students who successfully completed this module will have acquired insights into the basics principles of func- tional and structural MRI data collection as well as how to perform data preprocessing and principles of statisti- cal analysis. Behavioral data from an experiment conducted during functional MRI will be analyzed and imple- mented into the statistical analysis of brain activation of controls and patients. As an outlook, we will touch on opportunities of informing such analysis by computational modeling.						
Courses	<b>S</b> (type, n	umber of weekly contact hours	, language — if other than Ge	rman)			
S (o) + Module		t in: English					
		s <b>essment</b> (type, scope, langu le for bonus)	uage — if other than German,	examination offered — if no	ot every semester, informati	on on whether	
b) log (a c) oral e d) oral e e) prese Langua	approx examin examin entatio ge of a	mination (30 to 60 minu . 10 to 30 pages) or ation of one candidate ation in groups of up to n (20 to 45 minutes) ssessment: English	each (30 to 60 minute	s) or			
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
150 h							
Teaching cycle							
Referre	d to in	LPO I (examination regulation	ons for teaching-degree progra	ammes)			
Module				<u></u>			
		ee (1 major) Translation ee (1 major) Translation					
Suppl. cour	se Transla	ational Neuroscience (2018)	-	• generated 19-Apr-2025 • exa tudium Translational Neurose	-	page 32 / 66	





Module title					Abbreviation		
Regeneration in the nervous system					03-TN-PN-172-m01		
Module coordinator				Module offered by			
Departr biology		Neurology, Section of D	evelopmental Neuro-	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					
Content	ts						
sion, re CIDP, m seases sed on t	genera iyasthe III: inho fundan	nts of the PN I: origin, do tion and surgical recons enia; clinic and therapy), erited NPs (including mo nental literature on lectu peripheral nerve researc	titution, physiology a Diseases II: diabetes odels and attempts for pre-relevant topics to c	nd pathophysiology, ; iatrogenic (e. g. vin treatment approach	, Diseases I: inflamm cristine; clinic and tl nes). The literature se	atory (GBS, herapy), Di- eminar is ba-	
Intende	d learr	ning outcomes					
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.							
Courses	<b>5</b> (type, n	umber of weekly contact hours,	language — if other than Ger	man)			
V (o) + 9 Module	• •	t in: English					
		s <b>essment</b> (type, scope, langua le for bonus)	age — if other than German, e	examination offered — if no	t every semester, informati	on on whether	
b) log (a c) oral e d) oral e e) prese Langua	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 Allocation of places						
	1. 6						
Additio	nat info	ormation	_				
Worklo							
	au						
150 h <b>Teachir</b>		•					
Teacini	ig cycli	5					
 Deferre	d to in		o fortooching des				
		LPO I (examination regulation	is for teaching-degree progra	mmes)			
Module	annoa	rs in					
		ee (1 major) Translationa	I Neuroscience (2017)	1			
	-	ee (1 major) Translationa					
Suppl. cour	se Transla	ational Neuroscience (2018)		generated 19-Apr-2025 • exa cudium Translational Neurosc	-	page 34 / 66	





Module title					Abbreviation		
Developmental Neuropsychiatry					03-TN-DNP-172-mo:	1	
Module coordinator				Module offered by			
		spital, Department of Ch ychosomatics and Psyc		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 semes	ster	graduate					
Conten	ts						
of-the-a ders, au ver pos proache neuroin	art neur utism s sibility es in ch naging	get an introduction to the roscientific models of en- pectrum disorder, subs , clinical interviews with hild and adolescent psy and transcranial sonog give presentation on the	tiology and pathophys tance use disorder, ea n patient from our dep chiatry will be introdu raphy. Students will le	iology. There will be iting disorders as we artment will be prese ced to the students i earn to critically evalu	a focus on ADHD, ar Il as conduct proble ented to the class. Re ncluding clinical tria uate the role of these	nxiety disor- ms. Whene- esearch ap- ls, functional e techniques.	
Intende	ed leari	ning 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, pathophysiology and research approaches on ADHD, anxiety disorders, autism spectrum disorder, substance use disorder, eating disorders as well as oppositional defiant and conduct problems. Developmental aspects of neuropsychopharmacology are further discussed and the clinical use will be critically evaluated.							
Course	<b>S</b> (type, n	umber of weekly contact hours	, language — if other than Ge	rman)			
V (o) + S Module		t in: English					
		<b>essment</b> (type, scope, langu le for bonus)	uage — if other than German,	examination offered — if no	t every semester, informati	on on whether	
b) log (a c) oral e d) oral e e) prese	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						
Allocati	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
150 h			_				
Teachir	ıg cycl	9					
Referre	d to in	LPOI (examination regulatio	ns for teaching-degree progra	mmes)			
Module							
	-	ee (1 major) Translation ee (1 major) Translation					
Suppl. cour	se Transla	ational Neuroscience (2018)	-	generated 19-Apr-2025 • exa tudium Translational Neuroso	_	page 36 / 66	





Supplementary course Translational Neuroscience (2018) Master's degree (1 major) Translational Neuroscience (2022) Supplementary course Translational Neuroscience (2022)

Module title Abbreviation						
Cellular Neurobiology					03-TN-CN-152-m01	
Module	e coord	inator		Module offered by		
Institut	e 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	ts					
pics wi nervou haviora and mo and cen their us slices, se perfi Intende Studen proach pathon with a f evaluat criticall Course V (o) +	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> Students who successfully completed this module are able to understand and dispose current experimental ap- proaches in neurobiology. They are trained in preparations and recording techniques to study the function and pathomechanisms of neural model systems. The students are able to evaluate clinical aspects of neurobiology with a focus on the molecular, cellular and physiological mechanisms. Additionally, they are able to document, evaluate, and classify their own data that were collected during the lab course. Furthermore, the students can critically reflect their data in the context of the experimental methods used. <b>Courses</b> (type, number of weekly contact hours, language – if other than German) V (o) + P (2)					
		le for bonus)	guage — if other than German,	examination offered — if no	ot every semester, informati	on on whether
b) Log	(approx	k. 10 to 30 pages)				
Allocat	ion of <sub>l</sub>	olaces				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teachi	ng cycl	е				
Referre	d to in	LPO I (examination regulation	ons for teaching-degree progra	ummes)		
Module	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) Supplementary course Translational Neuroscience (2022)						
	.se manali		-	tudium Translational Neuros	-	Page 30 / 00

Module title					Abbreviation
Experimental Psychiatry				03-TN-EP-152-m01	
Module	coord	inator		Module offered by	
		spital, Department of Psyc ychotherapy, Molecular F		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 semes	ster	graduate			
Content	ts				
fear, att gene va psychia during c lular/ne	ention riants tric dis differer eurona chemis	al networks, learning and and their association wit sorders, gene x environm nt periods of lifetime; res l plasticity at selected bra	d memory, and their i h various psychiatric ent interaction; neur ilience, epistatic load ain regions, e. g. hipp	importance for emoti disorders and behav oadaptive mechanis d hypothesis, mis ma pocampus and amyg	lved in experiencing anxiety and onality in humans, analysis of vioural traits; animal models for ms as a result of stress exposure atch hypothesis, anatomical, cel- dala; adult neurogenesis; immu- ructions using the Neurolucida
Intende	d learr	ning outcomes			
rimenta treatme gene ex ly, they lab cour	l appro nt of p pression will ha rse. In	baches in psychiatry and sychiatric disorders. The on analysis and in variou we learned how to evalua	especially in the neu y will have been trair s methods studying ite and present data	probiological basis of ned in molecular biol structural neuronal p in oral and written fo	to current concepts and expe- the etiopathogenesis and the ogy methods, e. g. genotyping, plasticity of the brain. Additional- orm that was collected during the publications in the field of neu-
Courses	<b>5</b> (type, n	umber of weekly contact hours, l	anguage — if other than Gei	rman)	
V (o) + F Module		t in: English			
		<b>essment</b> (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	t every semester, information on whether
b) log (a c) oral e d) oral e e) prese	approx examin examin entatio	nination (30 to 60 minute . 10 to 30 pages) or ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	ach (30 to 60 minute	s) or	
Allocati					
Additio	nal inf	ormation			
Workloa	ad				
150 h					
Teachin	ig cycl	e			
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	ammes)	



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

Module title Abbreviation				Abbreviation	
Developmental cognitive Neuroscience 03-TN-DCN-152-m01					03-TN-DCN-152-m01
Module	coord	inator		Module offered by	
		pital, Department of Chil ychosomatics and Psycho		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 semes	ster	graduate			
Conten	ts				
strong f transmi cience. of psycl oral exp to critic	ocus o ission a It will l hiatric perimen ally eva	n how the computational and dopamine in particul be discussed how develo conditions, in particular nts, neuroimaging, in par	l lens of reinforceme ar, can useful to inve pmental neurosciene ADHD and substance ticular task-based fM	nt learning models, t estigate research que ce can be a useful to e use problems. The r IRI, and computatior	elopmental steps. There will be ightly linked to monoamine estions in developmental neuros- ol to investigate the development methods focus will be on behavi- nal modelling. Students will learn n on the topics based on state-
Intende	ed learn	ning outcomes			
normal gnition sed via neurops ty / dep of reinfo	and alt and mo behavi sychiat pressio orceme <b>s</b> (type, n	tered cognition and motiv otivation such as working ioral and neuroscientific ric disorders such as atte n. The influences of main ent learning, will be discu	vation as well as brai g memory, reinforcen studies. Abnormal de ention-deficit / hyper monoaminergic neu ssed.	in development. Dev nent learning and em evelopment will be e ractivity disorder, aut rromodulators, in par	nto the current scientific state of elopmental changes of basic co- notion processing will be addres- xplained in the context of the tism, substance use and anxie- ticular dopamine in the context
Module	taugh	t in: English			
		s <b>essment</b> (type, scope, langua; le for bonus)	ge — if other than German,	examination offered — if no	t every semester, information on whether
b) log (a c) oral e d) oral e e) prese	approx examin examin entatio	nination (30 to 60 minute . 10 to 30 pages) or ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	ach (30 to 60 minute	s) or	
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teachir	ng cycl	e			
Referre	d to in	LPOI (examination regulations	s for teaching-degree progra	ammes)	

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

Module title Abbreviation						
RNA-M	etaboli	smus/ RNA metabolism			03-TN-RM-172-m01	
Module	e coord	inator		Module offered by		
Institut	e of Cli	nical Neurobiology	<b>F</b>	Faculty of Medicine		
ECTS	Methe	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					
neurod vestiga the bac jointly o gulatio	egener ting RN kgrour discuss n in ne	high-impact paper from t ration is jointly analyzed IA. The course organizer and for the paper to be di their relevance. Indivic urodegenerative disease nctions of RNA-binding	in depth. Emphasis is will give a short intro- scussed. Afterwards, s lual topics include: RN es; high-throughput se	s placed on understa duction at the begin students individually IA expression, functi	nding of novel appro ning of each seminar describe the origina on and localization;	baches for in- r describing al data and RNA dysre-
			<u> </u>			
After su based i current learn h will be thomeo	Intended learning outcomes After successful completion of this module, students will have gained a deeper understanding of current RNA- based research in the area of neurodegeneration. This outcome is achieved by a weekly in-depth analysis of a current article in this field. Students will become familiar with many techniques applied in RNA research and will learn how to critically interpret the results in the context of neurodegenerative diseases. By doing so, students will be able to evaluate methodological advances in RNA research and obtain a deeper understanding of the pa- thomechanisms underlying neurodegeneration. Through discussion and active participation, students will im- prove their communication and analysis skills.					
Course	<b>S</b> (type, r	number of weekly contact hours,	, language — if other than Ger	rman)		
S (o) Module	e taugh	t in: English				
		<b>sessment</b> (type, scope, langu le for bonus)	age — if other than German,	examination offered — if no	t every semester, informati	on on whether
b) log ( c) oral ( d) oral e) pres	approx examin examir entatio	mination (30 to 60 minu . 10 to 30 pages) or lation of one candidate nation in groups of up to n (20 to 45 minutes) ssessment: English	each (30 to 60 minute	s) or		
Allocat	ion of <sub>l</sub>	olaces				
Additio	nal inf	ormation				
Worklo	Workload					
150 h	150 h					
Teachi	Teaching cycle					
	- · · · · · · · · · · · · · · · · · · ·					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in Master's degree (1 major) Translational Neuroscience (2017)						
	-	-				
Suppl. cour	rse Transl	ational Neuroscience (2018)	-	generated 19-Apr-2025 • exa tudium Translational Neuroso	-	page 43 / 66

#### Julius-Maximilians-UNIVERSITÄT WÜRZBURG



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 Abbreviation						
Electro	Electrophysiology in human and animals				06-TN-EPHY-182-m	01
Module coordinator Module offered				Module offered by		
Departı	ment o	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				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
animal ral ana which p respon	model lysis of plays a ses to s	ailed theoretical introduc s, this module will allow electrophysiological sign crucial role in low-level a simple visual input will b	to apply analysis to t nals but also on a frea ns well as higher-leve	hese different types quency based analys l cognitive functions	of data. It will focus sis, i.e. oscillatory br . Different electrophy	on tempo- ain activity,
		ning outcomes				
technic experie module rent kir spikes	This module will give a detailed theoretical and practical insight into different electrophysiological recording techniques and the resulting data obtained in human and animal brain recordings. Through hands-on analysis experience with such data, namely multi-electrode recordings, ECoG recordings and EEG/ MEG recordings, the module will allow students to learn analysis techniques and understand the information content of these different kinds of electrophysiological data. The recording and analysis methods introduced can build a bridge from spikes to the local field, from human to the animal model, from invasive to non-invasive approaches and will therefore stimulate translational thinking.					
		number of weekly contact hours, I	_	rman)		
S (2)						
Module	e taugh	t in: English				
		<b>sessment</b> (type, scope, langua ıle for bonus)	ge — if other than German, o	examination offered — if no	t every semester, informati	on on whether
b) log ( c) oral ( d) oral e) prese f) poste	10 to 3 examin examir entatio er acco	mination (30 to 60 minut o pages) or ation of one candidate e nation in groups of up to n (20 to 45 minutes) or rding to specific congress ssessment: English	ach (30 to 60 minute 3 candidates (30 to 6	s) or	or	
Allocat	ion of <sub>l</sub>	olaces				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teaching cycle						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	ars in				
Master	Master's degree (1 major) Translational Neuroscience (2018)					
Supple	mentai	ry course Translational N	euroscience (2018)			
Suppl. cour	rse Transla	ational Neuroscience (2018)	· · · · · · · · · · · · · · · · · · ·	generated 19-Apr-2025 • exa tudium Translational Neuroso	•	page 45 / 66





Module Catalogue for the Subject Translational Neuroscience Suppl. course, 90 ECTS credits

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

Module title					Abbreviation
Optical methods for visualization and manipulation of neura synapses to behavior			manipulation of neur	al circuits- from	03-TNOM-191-m01
Module	coordi	inator		Module offered by	
Institute	e of Cli	nical Neurobiology		Faculty of Medicine	
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 semes	ster	graduate			
Content	ts				
cience. field, ph fluoresc ji (Imag vectors, of circui <b>Intende</b> Student scence image a ter under rescence student are used compet le to eva approact to allow	Students will get a theoretical introduction in light microcopy methods in neurobiology and systems neuros- cience. Main topics are: Physics of light, building of a standard microscope, objectives, numeric aperture, bright field, phase contrast, fluorescence microscopy, confocal microscopy, resolution, contrast, Airy disc patterns, fluorescent molecules and dyes, image processing, preparation of images for publication, Software: GIMP and Fi- ji (Image)), imaging of calcium ions, genetically encoded calcium indicators (GCamp), viral techniques, lentiviral vectors, MMLV-based vectors, AAV, rabies virus, new developments in image analysis, deep learning, principles of circuit neuroscience, optogenetics, video-based behavioral analysis. <b>Intended learning outcomes</b> Students who successfully completed this module will have acquired distinct knowledge about light & fluore- scence microscopy, in vivo calcium imaging and optogenetic methods in neuroscientific research. Processes of image acquisition, image preparation and image analysis will be introduced. Thus, students will be able to bet- ter understand, design and evaluate experiments based on microscopy and modern optical methods in the neu- rosciences. In short lab visits, the students will learn about principle components of microscopes (e.g. epifluo- rescence, confocal). The students will learn how these components are used to get better microscopy data. The students will see how molecular tools (e.g. viral vectors) and modern methods (optogenetics, chemogenetics) are used to better understand the anatomy and function of neurons and neural networks. They will also be ab- le to evaluate methods of systems neuroscience and will be able to theoretically design representative technical approaches. Short student presentations (3 – 4 min) will mediate specific presentation competence with the aim to allow presentation of complex microscopy methods in a focused and understandable way for a heterogeneous expert audience. The overall aim is that students will be able to				
Courses	<b>5</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (2) Module	taught	t in: English			
module is	creditab	le for bonus)			t every semester, information on whether
b) Proto c) Oral e d) Oral e) Prese	a) Written Examination (30 to 60 minutes; also multiple choice) or b) Protocol (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 three students (30 to 60 minutes) or e) Presentation (20 to 45 minutes) Language of assessment: English				
Allocati	on of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h	150 h				

# Teaching cycle

**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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### Module appears in

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	Module title Abbreviation				
Project	desigr	1			03-TN-PDES-182-m01
Module	coord	inator		Module offered by	
Institut	e of Cli	nical Neurobiology		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 semes	ster	graduate			
Conten	ts				
pics wil statistic	l be di cs, scie	scussed: Official Regulati	ions, Planing of a scie d citing literature. Us	entific project, Data   ing student former la	Naster Thesis. The following to- production, Data evaluation, ab rotations a "dummy"-Ma-
Intende	ed learr	ning outcomes			
prepari plannin are able	ng and Ig scier e to crit	writing a Master Thesis. htific projects and of scie	Furthermore, student ntific writing. Based o	s are able to classify on current experimer	rstand important aspects of a y important aspects in terms of ntal data evaluation, students ll as extract relevant information
Courses	<b>S</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (2) Module	taugh	t in: English			
Method	l of ass	<b>essment</b> (type, scope, langua	ge — if other than German, e	examination offered — if no	t every semester, information on whether
		le for bonus)			
b) log (: c) oral e d) oral e e) prese f) poste	to to 30 examin examin entatio er accor	nination (30 to 60 minut o pages) or ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes) or ding to specific congress ssessment: English	ach (30 to 60 minutes 3 candidates (30 to 60	5) or	Dr
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teachir	Teaching cycle				
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)	
Module	appea	irs in			
	-	ee (1 major) Translational		)	
		y course Translational Ne		)	
	-	ee (1 major) Translational v course Translational Ne		)	
Supplementary course Translational Neuroscience (2022)					

Module title				Abbreviation	
Project Development					03-TN-PDEV-182-m01
Module	coord	inator		Module offered by	
Institut	e of Cli	nical Neurobiology		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 semes	ster	graduate			
Conten	ts				
followir writing,	ng topio readin	s will be discussed: Plar	ning of a scientific pro nt former lab rotation	oject, Data productio	cientific Grant application. The n, Data evaluation, , scientific Application is written, by each
Intende	ed learr	ning outcomes			
to inver portant and exp	nt a sci aspect perimer	entific project and how to ts in terms of preparing, p	o write a grand applic blanning and structur lents are able to critic	ation. Furthermore, s ing a scientific proje cal read and evaluate	rstand important aspects of how students are able to classify im- ect. Based on current knowledge e current publications in neuro-
Courses	<b>5</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (2) Module	taugh	t in: English			
		e <b>essment</b> (type, scope, langua <sub>)</sub> le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
b) log (: c) oral e d) oral e e) prese f) poste	to to 30 examin examin entatio er accor	nination (30 to 60 minute p pages) or ation of one candidate ea ation in groups of up to g n (20 to 45 minutes) or ding to specific congress ssessment: English	ach (30 to 60 minutes 3 candidates (30 to 60	5) or	or
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teachir	Teaching cycle				
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module	appea	rs in			
	-	ee (1 major) Translational			
		y course Translational Ne		)	
		ee (1 major) Translational y course Translational Ne		)	

Module title Abbreviation					
Ask the	exper	11			03-TN-EXP1-182-m01
Module	coord	inator		Module offered by	
progran	nme sp	eaker		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	1	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
Cutting	edge t	opics in neurosciences, o	content varies each s	emester.	
Intende	ed learr	ning outcomes			
		a deeper insight into the ychology, psychiatry, neu			guest lecturers are selected in the e compulsory subjects).
Courses	<b>S</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (2) Module	taugh	t in: English			
			ge — if other than German	examination offered — if no	t every semester, information on whether
		le for bonus)			t every semester, mornation on whether
b) log (: c) oral e	10 to 30 examin	nination (30 to 60 minuto pages) or ation of one candidate ea	ach (30 to 60 minutes	s) or	or
		ation in groups of up to g	3 candidates (30 to 6	o minutes) or	
		n (20 to 45 minutes) or ding to specific congress	requirements		
		ssessment: English			
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teachir	ng cycle	9			
Referred to in LPO I (examination regulations for teaching-degree programmes)					
		vo in			
Module Master		ee (1 major) Translational	Neuroscienco (2019)	)	
	-	y course Translational Ne		,	
		ee (1 major) Translational		)	
Supple	Supplementary course Translational Neuroscience (2022)				

Module	Module title Abbreviation					
Ask the	exper	12			03-EXP2-182-m01	
Module	coord	inator		Module offered by		
progran	nme sp	eaker		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 semes	ster	graduate				
Conten	ts					
Cutting	edge t	opics in neurosciences, o	content varies each s	emester.		
Intende	ed learn	ning outcomes				
		a deeper insight into the ychology, psychiatry, net			guest lecturers are selected in the compulsory subjects).	
Courses	<b>S</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
S (2) Modulo	taugh	t in: English				
			go if other than Corman	warmination offered if no	t every semester, information on whether	
		le for bonus)	ge — il other than German, e	zamination onered — ii no	t every semester, mormation on whether	
b) log (: c) oral e d) oral e e) prese f) poste	to to 30 examin examin entatio er accor	nination (30 to 60 minute p pages) or ation of one candidate ea ation in groups of up to <u>3</u> n (20 to 45 minutes) or ding to specific congress ssessment: English	ach (30 to 60 minute: 3 candidates (30 to 6	5) or	or	
Allocati	-					
	•					
Additio	nal info	ormation				
Worklo	ad					
150 h						
Teachir	ng cycl	9				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	Module appears in					
	-	ee (1 major) Translational		)		
		y course Translational Ne		N N		
	-	ee (1 major) Translational		)		
Supplementary course Translational Neuroscience (2022)						

Module	Module title Abbreviation					
Advanc	ed Sub	ject Lecture 1 (actual lec	tures to be specified)		03-TN-ASL-152-m01	
Module	coord	inator		Module offered by	I	
progran	nme co	ordinator		Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
10	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1-2 sem	lester	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 leari	ning outcomes				
Studen	ts gain	an overview of current to	pics in neuroscience	S.		
Courses	<b>5</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
V (4) Module	taugh	t in: English				
		<b>Sessment</b> (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether	
c) oral e d) oral e Langua	examin examin ge of a	nination (30 to 60 minut ation of one candidate es ation in groups of up to g ssessment: English	ach (30 to 60 minute	s) or		
Allocati	ion of p	Diaces				
 Additio	nalinf	ormation				
Auuitio	natini					
 Worklo	ad					
300 h						
Teachir	ng cvcl	6				
		-				
Referre	d to in	<b>LPO I</b> (examination regulations	s for teaching-degree progra	mmes)		
	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	Module appears in					
Master' Supple	Master's degree (1 major) Translational Neuroscience (2015) 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)					
Supple	mentar	y course Translational Ne	euroscience (2022)			

Module title Abbreviation					
Advanced Sul	oject Lecture 2 (actual lec	tures to be specified	)	03-TN-ASL-2-152-m01	
Module coord	linator		Module offered by	<u> </u>	
programme co	oordinator		Faculty of Medicine	2	
ECTS Meth	od of grading	Only after succ. compl. of module(s)			
5 (not)	successfully completed				
Duration	Module level	Other prerequisites			
1-2 semester	graduate	Please consult with	course advisory ser	vice in advance.	
Contents	• •	• •			
Cutting edge	topics in neurosciences, (	content varies each s	emester.		
Intended lear	ning outcomes				
Students gain	an overview of current to	opics in neuroscience	s.		
Courses (type, 1	number of weekly contact hours, I	language — if other than Ger	rman)		
V (2) Module taugh	it in: English				
Method of as module is creditat		ge — if other than German, o	examination offered — if no	ot every semester, information on whether	
b) oral examin c) oral examin	mination (30 to 60 minut nation of one candidate e nation in groups of up to g assessment: English	ach (30 to 60 minute	s) or	or	
Allocation of	places				
Additional inf	ormation				
Workload					
150 h					
Teaching cycl	e				
Referred to in	LPO I (examination regulation	s for teaching-degree progra	mmes)		
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 degree (1 major) Translational Neuroscience (2022)					
-	ry course Translational N	-			

Module	Module title Abbreviation					
Advanc	ed Sub	ject Lecture 3 (actual lec	tures to be specified	)	03-TN-ASL-3-152-m01	
Module coordinator Module offered by						
program	nme co	oordinator		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			
1-2 sem	nester	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 lear	ning outcomes				
Studen	ts gain	an overview of current to	pics in neuroscience	·S.		
Course	<b>S</b> (type, r	umber of weekly contact hours, l	anguage — if other than Ger	man)		
V (2)						
Module	e taugh	t in: English				
a) writt b) oral	en exai examir	le for bonus) mination (30 to 60 minut ation of one candidate e ation in groups of up to 3	ach (30 to 60 minute	s) or	or	
		ssessment: English		. 30 to 00 minutes)		
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
150 h						
Teachir	ng cycl	e				
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)		
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 degree (1 major) Translational Neuroscience (2022)						
Supple	mentai	y course Translational Ne	euroscience (2022)			

Module title Abbreviation					
Meeting Participation 1 (Poster)03-TN-MP-1-152-m01					03-TN-MP-1-152-m01
Modul	e coord	inator		Module offered by	<u> </u>
progra	mme co	ordinator		Faculty of Medicine	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
Design	and pr	esentation of a poster wi	th description of the	research results of a	a project.
Intend	ed lear	ning outcomes			
		and oral presentation of ect with a special regard t			ic questions in the context of the of data.
Course	<b>es</b> (type, r	number of weekly contact hours, l	anguage — if other than Gei	man)	
S (2) Modul	e taugh	t in: English			
		<b>Sessment</b> (type, scope, langua Ile for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
		cordance with conference ssessment: English	e specifications		
Allocat	tion of <sub>l</sub>	olaces			
	1				
Additio	onal inf	ormation			
Worklo	oad				
150 h					
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regulation	s for teaching-degree progra	mmes)	
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)					
		ry course Translational Ne		<b>`</b>	
	-	ee (1 major) Translational		)	
Supple	ementa	ry course Translational Ne	euroscience (2022)		

Module title Abbreviation						
Meeting I	Meeting Participation 1 (Talk) 03-TN-MT-1-152-m01					
Module coordinator Module offered by						
programn	ne coordinator		Faculty of Medicine	2		
- <u> </u>	lethod of grading	Only after succ. con				
10 (r	not) successfully completed		· · · · · · ·			
Duration	Module level	Other prerequisites				
1 semeste	er graduate					
Contents	·	• •				
Design ar	nd presentation of a talk with	description of the res	search results of a p	roject.		
Intended	learning outcomes					
	gn and oral presentation of so project with a special regard			questions in the context of the of data.		
Courses (	type, number of weekly contact hours,	- language — if other than Ger	rman)			
S (4) Module ta	aught in: English					
	<b>f assessment</b> (type, scope, langua editable for bonus)	age — if other than German, o	examination offered — if no	ot every semester, information on whether		
	tation (20 to 45 minutes) of assessment: English					
Allocatio	n of places					
Additiona	al information					
Workload						
300 h						
Teaching	cycle					
Referred	to in LPO I (examination regulation	s for teaching-degree progra	immes)			
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)						
	entary course Translational N degree (1 major) Translationa		)			
	entary course Translational N		·,			

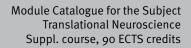
Module title Abbreviation					
Advan	ced Tra	ining Program GSLS 1			03-TN-ATP-1-152-m01
Modul	e coord	inator		Module offered by	<u> </u>
progra	mme co	oordinator		Faculty of Medicine	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not) s	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
Transfe	erable s	kills tutorials: scientific v	writing and presentat	ion skills.	
Intend	ed lear	ning outcomes			
Studer	nts have	e developed fundamenta	scientific writing and	d presentation skills	
Course	<b>es</b> (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)	
T (2) Modul	e taugh	t in: English			
		s <b>essment</b> (type, scope, langua ile for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether
e) pres Langua	sentatio	nation in groups of up to g n (20 to 45 minutes) ssessment: English			
Alloca		Jaces			
 Additid	onal inf	ormation			
Worklo	bad				
150 h					
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	mmes)	
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)					
	-	ee (1 major) Translationa ry course Translational No		)	
Supple	emental	y course manstational N	euroscience (2022)		

Module	Module title Abbreviation					
Advanc	Advanced Training Program GSLS 2 03-TN-ATP-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. con	npl. of module(s)		
5	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Transfe	rable s	kills tutorials: patent law	, validation of enorm	ous amounts of ima	ging data using special software.	
Intende	ed lear	ning outcomes				
Studen	ts are f	amiliar with the fundame	ental principles of pat	tent law and special	software.	
Course	<b>S</b> (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
T (2) Module	e taugh	t in: English				
		<b>Sessment</b> (type, scope, langua Ile for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether	
e) pres	entatio ge of a	nation in groups of up to g n (20 to 45 minutes) ssessment: English				
		Jaces				
Additio	nal inf	ormation				
	mat mit					
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's degree (1 major) Translational Neuroscience (2018) Supplementary course Translational Neuroscience (2018) Master's degree (1 major) Translational Neuroscience (2022)						
	-	ry course Translational Ne		,		

Module title					Abbreviation	
Tutoria	1				03-TN-TU-1-152-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)		
3	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
		as tutors. They support t actical courses.	eaching and are invo	olved in the organisa	tion and planning of lectures, se-	
Intende	d learr	ning outcomes				
		rn how to convey comple to organise and plan the			a group of students. In addition, to students.	
Courses	<b>5</b> (type, n	umber of weekly contact hours, la	anguage — if other than Ger	man)		
T (1) Module	taugh	t in: English				
		s <b>essment</b> (type, scope, languag le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
b) log (a c) oral e d) oral e e) prese	approx examin examin entatio	nination (30 to 60 minuto . 10 to 30 pages) or ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	ach (30 to 60 minutes	5) or		
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
90 h						
Teachir	ig cycl	e				
Referre	d to in	LPO I (examination regulations	for teaching-degree progra	mmes)		
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)					
		y course Translational Ne				
		ee (1 major) Translational		)		
Supple	Supplementary course Translational Neuroscience (2022)					

Image: Instruction of the state of the st	Module title					Abbreviation	
programme coordinator       Faculty of Medicine         ECTS       Method of grading       Only after succ. compl. of module(s)         5       (not) successfully completed          Duration       Module level       Other prerequisites         1 semester       graduate          Contents           Students work as tutors. They support teaching and are involved in the organisation and planning of lectures, seminars and practical courses.          Intended learning outcomes           Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn to organise and plan their own projects and to teach the contents to students.          Courses (type, number of weekly contact hours, language – if other than German)       T(a)          Module taught in: English            Module (a cellable for bous)            a) written examination (30 to 6 om inutes, including multiple choice questions) or       o) of al examination of ne candidate each (30 to 6 om inutes) or           a) or ele examination of ne candidate each (30 to 6 om inutes) or            Additional information	Tutorial	2				03-TN-TU-2-152-m01	
ECTS         Method of grading         Only after succ. compl. of module(s)           5         (not) successfully completed            Duration         Module level         Other prerequisites           1 semester         graduate            Contents             Students work as tutors. They support teaching and are involved in the organisation and planning of lectures, seminars and practical courses.            Intended learning outcomes             Tutors will learn to organise and plan their own projects and to teach the contents to students. In addition, they will learn to organise and plan their own projects and to teach the contents to students.            Module targht in: English              Method of assessment (type, scope, language – if other than Geman, examination offered – if not every semester, information on whether module is creditable for bonus)             a) written examination of one candidate each (30 to 60 minutes) or              b) log (approx. 10 to 30 pages) or               d) oral examination of no candidate each (30 to 60 minutes) or               Allotion Information	Module	coord	inator		Module offered by		
5     (not) successfully completed        Duration     Module level     Other prerequisites       1 semester     graduate        Contents         Students work as tutors. They support teaching and are involved in the organisation and planning of lectures, seminars and practical courses.        Interdet learning outcomes         Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn how to organise and plan their own projects and to teach the contents to students.        Courses (type, number of weekly contact hours, language if other than Geman, examination offered if not every semester, information on whether module is creditable for bonus)        a) written examination (30 to 6 on inutes, including multiple choice questions) or     b) log (approx. 10 to 30 pages) or       o) oral examination in groups of up to 3 candidates (approx. 30 to 6 on inutes) or        a) and this creditable for bonus        alanguage of assessment: English        Additional information	progran	nme co	oordinator		Faculty of Medicine		
Duration         Module level         Other prerequisites           1 semester         graduate            Contents         Students work as tutors. They support teaching and are involved in the organisation and planning of lectures, seminars and practical courses.         Intended learning outcomes           Intended learning outcomes         Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn to organise and plan their own projects and to teach the contents to students.           Courses (type, number of weekly contact hours, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)           T (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 is creditable for bonus)           a) written examination (30 to 6 on innutes, including multiple choice questions) or         b) log (approx. 10 to 30 pages) or           c) oral examination of nor candidate each (30 to 6 on innutes) or         d) oral examination in groups of up to 3 candidates (approx. 30 to 6 on minutes) or           d) oral examination in groups of up to 3 candidates (approx. 30 to 6 on minutes) or         e) presentation               Additional information                Fanding cycle	ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
1 semester       graduate         Contents         Students work as tutors. They support teaching and are involved in the organisation and planning of lectures, seminars and practical courses.         Intended learning outcomes         Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn to organise and plan their own projects and to teach the contents to students.         Courses (type, number of weekly contact hours, language – if other than German)         T (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 is creditable for bonus)         a) written examination (30 to 60 minutes, including multiple choice questions) or         b) log (approx. 10 to 30 pages) or         c) oral examination (20 to 45 minutes)         d) availe animation (20 to 45 minutes)         a duitional in groups of up to 3 candidates (approx. 30 to 60 minutes) or         e) presentation (20 to 45 minutes)         Additional information         -         Additional information         -         -         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	5	(not) s	successfully completed				
Contents Students work as tutors. They support teaching and are involved in the organisation and planning of lectures, se- minars and practical courses. Intended learning outcomes Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn how to convey complex topics and to teach the contents to students. Courses (type, number of weekly contact hours, language – if other than German) T (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 is creditable for bonus) a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) cral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Language of assessment: English Allocation of places	Duratio	n	Module level	Other prerequisites			
Students work as tutors. They support teaching and are involved in the organisation and planning of lectures, se- minars and practical courses. Intended learning outcomes Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn how to convey complex topics and to teach the contents to students. Courses (type, number of weekly contact hours, language – if other than German) T (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 is creditable for honus) a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. to to 30 pages) or c) or al examination of nor candidate each (30 to 60 minutes) or d) or al examination of nor groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Language of assessment: English Allocation of places	1 semes	ster	graduate				
minars and practical courses. Intended learning outcomes Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn how to convey complex topics and to teach the contents to students. Courses (type, number of weekly contact hours, language – if other than German) T (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 is creditable for bonus) a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) or al examination of nor candidate each (30 to 60 minutes) or d) or al examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Language of assessment: English Allocation of places	Content	ts					
Tutors will learn how to convey complex topics and to independently supervise a group of students. In addition, they will learn to organise and plan their own projects and to teach the contents to students. Courses (type, number of weekly contact hours, language – if other than German) T (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 is creditable for bonus) a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) or al examination of nor candidate each (30 to 60 minutes) or d) oral examination of no candidate each (30 to 60 minutes) or e) presentation (20 to 45 minutes) Language of assessment: English Allocation of places Morkload Keferred 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 (2028)				eaching and are invo	olved in the organisa	tion and planning of lectures, se-	
they will learn to organise and plan their own projects and to teach the contents to students.	Intende	d learr	ning outcomes				
T (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 is creditable for 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 45 minutes)         Language of assessment: English         Allocation of places            Additional information            Korkload         150 h         Teaching cycle            Module appears in         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 degree (1 major) Translational Neuroscience (2018)         Master's degree (1 major) Translational Neuroscience (2018)         Master's degree (1 major) Translational Neuroscience (2018)							
Module taught in: English Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for 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 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 (2022)	Courses	<b>5</b> (type, n	umber of weekly contact hours, la	anguage — if other than Ger	man)		
module is creditable for bonus) a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) 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 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 (2022)		taugh	t in: English				
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 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 degree (1 major) Translational Neuroscience (2018)				ge — if other than German, e	examination offered — if no	t every semester, information on whether	
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 degree (1 major) Translational Neuroscience (2018)         Master's degree (1 major) Translational Neuroscience (2018)	b) log (a c) oral e d) oral e e) prese	approx examin examin entatio	. 10 to 30 pages) or ation of one candidate ea ation in groups of up to 3 n (20 to 45 minutes)	ach (30 to 60 minutes	s) or		
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 degree (1 major) Translational Neuroscience (2018)	Allocati	on of p	olaces				
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 degree (1 major) Translational Neuroscience (2018) Master's degree (1 major) 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 degree (1 major) Translational Neuroscience (2018)	Additio	nal inf	ormation				
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 degree (1 major) Translational Neuroscience (2018)							
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 degree (1 major) Translational Neuroscience (2018)	Worklo	ad					
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 degree (1 major) Translational Neuroscience (2018)	150 h						
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 degree (1 major) Translational Neuroscience (2018)	Teachin	ig cycl	e				
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 degree (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 degree (1 major) Translational Neuroscience (2022)	Referre	Referred to in LPO I (examination regulations for teaching-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)	Module appears in						
Supplementary course Translational Neuroscience (2022)	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)						





# Subarea Compulsory Electives Lab Courses

(20 ECTS credits)

Module title					Abbreviation
Advanc	ed lab	rotation 2			03-TN-LR2-152-m01
Module	coord	inator		Module offered by	
progran	nme co	oordinator		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 semes	ster	graduate	Please consult with	course advisory serv	<i>v</i> ice in advance.
Conten	ts				
Student	ts sper	nd 4 weeks working unde	r supervision on a sm	all, well-defined sci	entific lab project.
Intende	ed lear	ning outcomes			
					iques and learned how to apply s and presentation of raw data.
Courses	<b>S</b> (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)	
P (4) Module	e taugh	t in: English			
		<b>sessment</b> (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether
d) oral e e) prese	examir entatio	. 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
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
300 h					
Teachin	ıg cycl	e			
Referre	d to in	LPO I (examination regulations	s for teaching-degree program	mmes)	
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)					
		•		N N	
	-	-		)	
Master's degree (1 major) Translational Neuroscience (2017)					
Supplei Master'	mentai s degr	y course Translational Ne	euroscience (2018) l 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 semes	ster	graduate	Please consult with	course advisory serv	vice in advance.	
Conten	ts					
Studen	ts sper	d 6 weeks independently	y working on their ow	n small, well-define	d scientific lab project.	
Intende	ed leari	ning outcomes				
					iques and learned how to apply and presentation of raw data.	
Courses	<b>5</b> (type, n	umber of weekly contact hours, la	anguage — if other than Ger	man)		
P (4) Module	taugh	t in: English				
		s <b>essment</b> (type, scope, languag le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether	
d) oral e e) prese	examin entatio	. 10 to 30 pages) or ation in groups of up to 3 n (20 to 45 minutes) ssessment: English	3 candidates (approx.	. 30 to 60 minutes) c	or	
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
300 h						
Teachir	ng cycl	9				
<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's degree (1 major) Translational Neuroscience (2018)					
		y course Translational Ne		N N N N N N N N N N N N N N N N N N N		
	-	ee (1 major) Translational y course Translational Ne		)		

Module title					Abbreviation	
Externa	l Lab R	Rotation 1			03-TN-EL-1-152-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	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
		erience abroad in agencie placement.	es, institutes or indus	try. Topics will vary a	according to the individual place	
Intende	ed leari	ning outcomes				
		amiliar with the structure eer in science.	s of institutes and th	e industry abroad ar	nd acquire abilities that qualify	
Courses	<b>S</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
P (4) Module	taugh	t in: English				
		<b>essment</b> (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
b) log (a c) oral e d) oral e e) prese	approx examin examin entatio	nination (30 to 60 minuto . 10 to 30 pages) or ation of one candidate ea ation in groups of up to <u>3</u> n (20 to 45 minutes) ssessment: English	ach (30 to 60 minutes	s) or		
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
300 h						
Teachir	ng cycl	e				
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 degree (1 major) Translational Neuroscience (2022)						
Supplementary course Translational Neuroscience (2022)						

Module title					Abbreviation	
Advanced Practical Course Neuroscience Lab 1					03-TN-AL-1-152-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	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
Studen	ts inde	pendently work on a well	-defined scientific lal	b project.		
Intende	d lear	ning outcomes				
theoret	ical kn				iques and learned how to apply reports and know how to give pre-	
Courses	<b>5</b> (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
P (4) Module	taugh	t in: English				
module is a) writte	creditab en exar	eessment (type, scope, langua le for bonus) nination (30 to 60 minuto . 10 to 30 pages) or			ot every semester, information on whether	
c) oral e d) oral e e) prese	examin examin entatio	ation of one candidate ea ation in groups of up to g n (20 to 45 minutes) ssessment: English			or	
Allocati	-					
Additio	nal info	ormation				
Worklo	ad					
300 h						
Teachir	ig 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)					
	-	ee (1 major) Translational		)		
		y course Translational Ne		)		
		ee (1 major) Translational y course Translational Ne		J		
Juppier	nental	y course mansiational Ne				