Essentials of Sports Neurology Essentials of Sports Neurology Module: Workload (h): Credits: Intended stage in **Frequency** at Duration of the 1 240 8 course of studies: which the class module: 1st is offered: 1 Semester Annually 1 Module Structure: Courses Teaching Class Study Status Number of methods time time (h) (O/F) participants (h) Pathophysiology and L 30 90 0 Up to 120 a) Neuroanatomy b) S 30 90 0 20 Neurological and Neurodegenerative Diseases and Injuries Alternatives within the Module: 2 none 3 **Prerequisites:** none 4 **Contents:** M1 focuses on the impartment of neurological knowledge as a basis for further application and research-oriented contents of the program. First, a basic understanding of neuro-anatomical, physiological and pathophysiological mechanisms of the nervous system is established. Specific knowledge with regards to symptoms and syndromes of diseases and injuries within the nervous system (i.e. different types of dementia and epilepsy, multiple sclerosis, concussion) as well as systemic diseases with the nervous system involved (i.e. connective tissue disease, angiopathy) completes the acquisition of neurological knowledge. Due to the application of different teaching and learning arrangements, comprehensive key skills like practicing different types of presenting, or working effectively in small groups are enforced. 5 Learning outcomes / Competences: Knowledge about mechanisms of pathogenesis and maintaining health Knowledge about physiology and pathophysiology of the nervous system Deepened knowledge about specific diseases and injuries of the nervous system and ways to handle them Development of interpersonal skills and communication competence through working in small groups and presenting results 6 **Examination:** [x] One examination containing contents of courses a) and b) **Belongs** Duration **Emphasis for** Туре Module grade to Written exam 60-120 min 100%

Module Handbook "Applied Neurosciences in Sports & Exercise"

7	Information about the concrete terms and conditions of the examination is provided by the lecturer within the first 3 weeks of the lecture period.										
			.,.								
	Belongs	Туре	Duration	CA / QP							
	a)										
	a) b) Presentation or ca 10 min. QP										
		Short colloquium									
_	Information provided by	h about the concrete requirements for Cou y the lecturer within the first 3 weeks of the	rse Achievement or Qualifi e lecture period.	ied Participation is							
8	Prerequisit None	es for participating in examinations:									
9	Prerequisit	es for assigning Credits:									
	The assignr	nent of credits is restricted until Qualified F	Participation is verified and	the examination is							
	passed.										
10	Emphasis fo	or final grade:									
11	8/120										
11	Dossible for	ror other study programs:									
12	Module Co	ordinator:									
	Prof. Dr. Dr	. Reinsberger									
13	Language:										
	Teaching la	nguage English									

L= Lecture

S = Seminar

O=obligate

F=facultative

Esse	Essentials of Exercise Neuroscience									
Essentials of Exercise Neuroscience										
Mod	lule:		Workload (h):	Credits:	Intended	stage in	Frequency	y at	Duration of the	
2			240	8		course of	f studies:	which the class		module:
						1 st		is offered	:	1 Semester
								Annually		
1	Modu	le Stru	cture:							
		Cours	ses		Те	aching	Class	Study	Status	Number of
						ethods	time	time (h)	(O/F)	participants
							(h)			
	a) Physiology, Testing and				L		30	90	0	Up to 120
		Presc	ription of Exercise	9						
	b)	Neur	ophysiological Asp	oects of	S		30	90	0	20
		Train	ing and Performa	nce						
2	Alterr	natives	within the Modu	le:						
	none									
3	Prere	quisite	s:							
	none									
4	Conte	nts:								
	M2 fo	cuses o	on the impartmen	t of knowle	dge	about exe	ercise neu	uroscience as	s a basis f	or further
	applic	ation a	nd research-orien	ted content	ts of	f the prog	ram. First	t, a basic unc	lerstandi	ng of
	physic	ological	I mechanisms and	adaptation	s wi	thin the d	lifferent p	physical com	ponents a	as well as their
	assess	sment a	and general exerci	se training	prin	ciples is e	stablishe	d. Specific kr	nowledge	with regards to
	the ex	posure	e of the nervous sy	stem due to	o tra	aining and	l perform	ance enhance	cement a	nd failed
	perfor	rmance	e enhancement, re	spectively ((I.e.	injury, fat	igue, ove	rtraining), co	ompletes	the acquisition
	OI Das	ac exer	cise neuroscience	kov skills lil	. Du ko n	racticing	difforent	tupos of prov		g and learning
	offoct	ivoly in	small groups are	onforcod	ке р	acticitie	umerent	types of pres	senting, c	JI WUIKIIIg
E	Loorni	ing out	sinal groups are							
5		ng out	ge about basic pri	nciples of e	vorc	rico nhyciy	مامعر			
	 De 	eepene	ed knowledge ab	out specific	c ex	cosures	to the n	nervous svst	em due	to performance
	er	hance	ment							
	■ De	evelopi	ment of interpers	onal skills	and	commun	ication c	ompetence [·]	through	working in small
	gr	oups a	nd presenting res	ults						
6	Exami	ination	:							
	[x] O	ne exa	mination containi	ng contents	s of c	courses a)	and b)			
								_		
	Belongs Type Duration Emphasis for									
	to Module grade									
	Written exam 60-120 min 100%									
							C . I			
	Inforn	nation	about the concret	e terms and		nditions o	of the exa	mination is p	provided l	by the lecturer
	withir	i the fir	rst 3 weeks of the	lecture peri	iod.					

7	Course Ach	ievement (CA) / Qualified Participation (QP):									
	Belongs Type Duration CA / QP										
	to										
	a)										
	b)	Presentation or	ca 10 min.	QP							
		Short colloquium									
	_										
	Informatio	n about the concrete requirements for Course Achieve	ement or Qualifi	ed Participation is							
	provided by	y the lecturer within the first 3 weeks of the lecture pe	eriod.								
8	Prerequisit	es for participating in examinations:									
	None										
9	Prerequisit	es for assigning Credits:									
	The assignr	nent of credits is restricted until Qualified Participatio	n is verified and	the examination is							
	passed.										
10	Emphasis f	or final grade:									
	8/120										
11	Utilization	for other study programs:									
	Possible for	r course a)									
12	Module Co	ordinator:									
	N.N.										
13	Language:										
	Teaching la	nguage English									

Met	Methods I – Research Skills										
Met	Methods I – Research Skills										
Moc 3	lule:		Workload (h): 150	Credits: 5		Intended course o 1 st and 2	I stage in f studies: nd	Frequence which the is offered Annually	y at e class :	Duration of the module: 2 Semester	
1	Modu	le Stru	cture:						I		
	Courses			Tea me	aching ethods	Class time (h)	Study time (h)	Status (O/F)	Number of participants		
	a) Developing a Research Problem			S		30	60	0	20		
	b)	Repo	rting and Presenti	ng	S		15	45	0	20	
		Resea	arch Results								
2	Altern	atives	within the Modu	le:							
	none										
3	Prerec	quisite	s:								
4	Conte	nts:									
	M3 for	cuses (on the understand	ing of resea	arch	processe	s in gene	ral and the d	evelonm	ent of working	
	profici	iently a	and systematically	in neurosci	ienti	fic setting	gs in deta	il. These com	petence	s include the	
	identif	ficatior	n of a research pro	blem, as we	ell as	s the abil	ity to sum	marize the o	current st	ate of research	
	by pur	posefu	ul searching, analy	zing and ass	sessi	ing litera	ture (i.e. e	evidence-bas	ed medio	cine). In addition,	
	differe	ent way	ys of presenting re	esearch resu	ults a	appropria	itely, toge	ther with cri	itically de	liberating,	
	repres	ent fu	rther scientific skil	ls that are p	oract	ticed and	enforced	in this mod	ule. Due t	to the	
	impler	mentat	ion of different p	esenting se	etting	gs, comp	rehensive	key skills lik	e present	ting and	
	comm	unicat	ion competences,	or working	effe	ectively o	n one's ov	wn or in sma	ll groups	are developed.	
5	Learni	ng out	comes / Compete	ences:							
	Ba	isic un	derstanding of scie	entific skills	in re	esearch s	ettings				
	■ Ca	ipabilit	y of searching, an	alyzing and	asse	essing lite	rature				
	- C0	velon	ment of (inter-) ne	and convey	s me	ethodolo	pical and	communicat	ion comr	etences	
6	Exami	nation			5, 111	ethouolo	Bicarana	communicat			
	[x] 4	compo	nent examination	S							
	Belor	ngs	Туре					Duration	Em	phasis for	
	to								Mo	odule grade	
	a)		Abstract					ca 1 page	259	%	
	b)		Presentation					ca 10 min	259	%	
	Scientific Poster + short Pre				senta	ation		ca 3 min	259	%	
	Review 3-5 pages 25%							%			
	Inform within	nation the fir	about the concret rst 3 weeks of the	e terms and lecture peri	d cor iod.	nditions o	of the exa	mination is p	orovided	by the lecturer	
7	Course	e Achie	evement (CA) / Qu	ualified Part	ticip	ation (Q	P):				

	Belongs	Туре	Duration	CA/QP
	to			
	Informatior	about the concrete requirements for Course Achieve	ment or Qualifie	ed Participation is
	provided by	the lecturer within the first 3 weeks of the lecture pe	riod.	
8	Prerequisit	es for participating in examinations:		
	None			
9	Prerequisit	es for assigning Credits:		
	The assignn	nent of credits is restricted until all component examin	nations are pass	ed.
10	Emphasis fo	or final grade:		
	5/120			
11	Utilization	or other study programs:		
	no			
12	Module Co	ordinator:		
	Dr. Reineck	e		
13	Language:			
	Teaching la	nguage English		

Met	ethods II – Statistical Skills									
Met	ethods II – Statistical Skills									
Мос	lule:		Workload (h):	Credits:		Intended	l stage in	Frequency	y at	Duration of the
4			150	5		course of studies:		which the class		module:
						1 st and 2 ^r	nd	is offered	:	2 Semester
								Annually		
1	Modu	ıle Stru	cture:							
					_					
		Cours	ses		Те	aching	Class	Study	Status	Number of
					m	ethods	time	time (h)	(O/F)	participants
	a) Understeeding Different						(h)			
	a) Understanding Different			nt	L		30	60	0	Up to 120
		Statis	stical Methods and	ł						
		Conc	epts							
	b)	Appli	ed Statistics in		S/	/	30	30	0	20
		Neur	oscientific Researd	ch	eL	earning				
		Settir	ngs							
2	Alterr	natives	within the Modu	le:						
	none									
3	Prere	quisite	s:							
	none									
4	Conte	ents:								
	M4 fo	ocuses o	on the exposure to	o research m	netł	nods in bio	ostatistics	s with a stror	ng neuros	scientific
	emph	asis. Th	ne impartment of a	a theoretica	al ur	nderstand	ing of sta	tistics (i.e. de	escriptive	e – test statistics;
	paran	netrical	– non-parametric	al; epidemi	iolo	gy; regres	sion analy	/sis; testing f	or differ	ences or
	correl	lations)	and its purposefu	I applicatio	n, a	re key abi	lities to a	chieve in thi	s module	e. Through the
	imple	mentat	tion of eLearning i	n course b)	the	theoretic	al unders	tanding is pr	oved and	d developed by
	dealir	ng with	concrete statistica	al examples	. Th	e present	ation and	discussion o	of statisti	cal results
	repre	sent fu	rther important le	arning obje	ctiv	es. Beside	es statistic	cal competer	nces, con	nprehensive key
	skills l	like wo	rking self-organize	ed alone and	d in	small gro	ups, will ł	nelp develop	problem	solving
	strate	gies.								
5	Learn	ing out	comes / Compete	ences:						
	• D	eepene	ed knowledge abo	ut research	me	thods in t	he field o	f neuroscien	ce and b	iostatistics
	 Ca 	apabilit	y of planning, acc	omplishing,	ana	alyzing, in	terpreting	g and evalua	ting expe	eriments
	• D	evelopi	ment of problem	solving st	rate	egies, self	r-organiza	ition as wel	I as con	nmunication and
ç	pi Even	instia	ng competences							
0			nination containi	na contonto	of		and h			
				ing contents		Louises a	anu bj			
	Belongs Type Emphasis for									
	to Module grade							odule grade		
	Written exam							60-120 mi	in 10	0%
									1 10	
	Inform	nation	about the concret	e terms and	d co	nditions o	of the exa	mination is n	rovided	by the lecturer
	withir	n the fir	st 3 weeks of the	lecture peri	iod.					.,
7	Cours	e Achie	evement (CA) / O	ualified Part	ticir	pation (OI	P):			
					- 1		•			

	Belongs	Туре	Duration	CA / QP
	to			
	a)			
	b)	Presentation or	ca 10 min.	QP
		2-4 homework	1-2pages each	
	Information	about the concrete requirements for Course Achiev	ement or Qualifie	ed Participation is
	provided by	the lecturer within the first 3 weeks of the lecture p	eriod.	
8	Prerequisit	es for participating in examinations:		
	None			
9	Prerequisit	es for assigning Credits:		
	The assignm	nent of credits is restricted until Qualified Participation	on is verified and	the examination is
	passed.			
10	Emphasis fo	or final grade:		
	5/120			
11	Utilization	for other study programs:		
	Possible for	course a)		
12	Module Co	ordinator:		
	Prof. Dr. Dr.	. Reinsberger		
13	Language:			
	Teaching la	nguage English		

Met	Methods III – Measurement Skills										
Met	Aethods III – Measurement Skills										
Mod	lule			Workload (h):	Credits:		Intended	stage in	Frequency	y at	Duration of the
5				240	8		course of studies:		which the class		module:
							1 st		is offered:		1 Semester
	1								Annually		
1	Mo	odule S	Stru	cture:							
						_			6 1	6 1 1	
		C	ours	ies		Теа	aching	Class	Study	Status	Number of
						me	ethods	time	time (h)	(0/F)	participants
	a) Developing Methodological			C		(n)	75	0	20		
	a) 0	evei	oping Methodolo	gicai	2		45	/5	0	20
			omp	etences in Applie	a						
	h		neuro			c		20	00	0	20
	D		ppiy		.dl ciontific	3		30	90	0	20
	Competence in Neuroscientific				cientific						
2	Alternatives within the Module:			0.							
2	none										
3	Prerequisites:										
_	none										
4	Со	ntents	5:								
	M	1 focus	ses o	on the impartmen	t of knowled	dge a	and skills	regarding	g neuroscien	tific mea	surement
	teo	chniqu	es. A	A basic understand	ding of med	ical	and tech	nical corr	elations of di	ifferent r	nethods (i.e.
	EE	G, MR ⁻	т, ре	T, EMG, ANS-diag	gnostics) is f	und	amental	to achiev	e before stud	dents car	n apply that
	ma	ainly th	neore	etical understand	ing in plann	ing,	conducti	ng and ar	nalyzing smal	l experin	nents on their
	ow	n in th	ne la	b and in the field.	Working in	sma	all groups	and deal	ling with pro	blems re	garding
	me	ethodo	ologi	cal problems or su	urrounding	conc	ditions du	ring the e	experimental	periods	enforce the
	de	velopn	nent	of problem solvi	ng strategie	s, co	ommunica	ation and	(inter-) pers	onal skill	S.
5	Lea	arning	out	comes / Compete	ences:		•				
		Deep	bility	d knowledge abo	ut neuroscie ate applicati	entit ion a	ric measu	rement te	echniques	roscient	ific massurament
	-	techr	niau	es as well as inte	nretation a	and r	anu evait presentat	ion of res	selected neu sults	roscient	
	-	Deve	elopr	nent of problem s	olving strat	egie	S				
6	Exa	aminat	tion	•		-					
	[x]	One	exar	mination containii	ng contents	of c	ourses a)	and b)			
	В	elongs	s ľ	Туре					Duration	En	nphasis for
	to	כ								M	odule grade
				Oral exam					10-30 min	10	0%
	1				• • • • • • • •	ا م ا		£ + h		ا النا مي	h
	int wit	ormati thin th		st 3 weeks of the	e terms and lecture pori	a cor	IULIONS C	n the exa	mination is p	novided	by the lecturer
7				SUS WEEKS OF LIFE	alified Part	ticin	ation (O	b) .			
,	CU	uise A	cille			ucip		·)•			
	В	elongs	s '	Туре					Duration	CA	/ QP
	to	5									

	a)									
	b)	Written homework or	2-3 pages	QP						
		presentation	ca 10 min.							
	Information about the concrete requirements for Course Achievement or Qualified Participation is									
	provided by the lecturer within the first 3 weeks of the lecture period.									
8	Prerequisites for participating in examinations:									
	None									
9	Prerequisit	es for assigning Credits:								
	The assignment	nent of credits is restricted until Qualified Participation	n is verified and	the examination is						
	passed.									
10	Emphasis f	or final grade:								
	8/120									
11	Utilization	or other study programs:								
	no									
12	Module Co	ordinator:								
	Dr. Vieluf									
13	Language:									
	Teaching la	nguage English								

Арр	oplied Sports Neurology									
Арр	oplied Sports Neurology									
Moc 6	lule:		Workload (h): 150	Credits: 5	Intended course c 2 nd	Intended stage in course of studies: 2 nd		y at e class :	Duration of the module: 1 Semester	
1	Modu	ıle Stru	cture:							
	Courses				Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of participants	
	a)	Treat and E	ing Diseases with Exercise	Sports	S	30	60	0	20	
	b)	Apply the T Disea	ring Sports and Ex reatment of Neur uses	ercise in ological	S	30	30	0	20	
2	Alternatives within the Module:									
3	Prere	quisite								
Δ	Module 1 is passed.									
5	M6 fo the cc and d and p neuro reflec patier perso Learn • Ki pr	ocuses of ontents iscusse rove the logical ting the nts with nal as w ing out nowled revention	on research and or of M1. First, mod d based on recent e application of sp or neurodegenera ese work experien n different physica vell as communica comes / Compete ge about the mc on	ccupation-o e of action o literature. / ports and ex ative disease ces is a key l and / or co ation skills w ences: ode of actio	riented appli of sports and At the same ercise in the es (i.e. deme element for ognitive impa- vith regards to on of sports	cation of exercise time, stuc rapeutic g ntia, epile future occ irments is to the "the and exer	the theoretic in neurologic lents get the groups of pat psy, MS). Ev cupational pro- s supposed t erapist – pat	cal know cal thera chance cients wit aluating ractice. V o improv ient" rela neurolog	ledge based on py is imparted to experience th specific and critically Vorking with ve (inter-) ationship.	
	 If A(e) D(ranster cquisiti kercise evelopi	of knowledge into on of occupation in therapy and pro ment of (inter-) pe	al competer evention set ersonal and	ith patients; nces related tings communicat	to presc ion skills t	ription and ription worl	applicati king with	etences on of sports and patients	
6	Exami [x] O	ination ne exa	: mination containin	ng contents	of courses a) and b)				
	Belongs Type Duration Emphasis for to Module grade									
	Report10-15 pages100%									
7	Inform within	nation and the fire	about the concret st 3 weeks of the	e terms and lecture peri	conditions o	of the exa	mination is p	provided	by the lecturer	
′	cours		evement (CA) / QU	uaimed Part	icipation (Q	rj:				

	Belongs	Туре	Duration	CA / QP
	to			
	a)	Presentation or	ca 10 min	QP
		Short colloquium		
	b)	Protocols (work experience) or	3-5 pages each	QP
		Short colloquium	ca 10 min.	
	Information	about the concrete requirements for Course Achiev	ement or Qualifie	d Participation is
	provided by	the lecturer within the first 3 weeks of the lecture p	eriod.	
8	Prerequisit	es for participating in examinations:		
	None			
9	Prerequisit	es for assigning Credits:		
	The assignn	nent of credits is restricted until Qualified Participation	on is verified and t	the examination is
	passed.			
10	Emphasis fo	or final grade:		
	5/120			
11	Utilization	for other study programs:		
	no			
12	Module Co	ordinator:		
	Prof. Dr. Dr	. Reinsberger		
13	Language:			
	Teaching la	nguage English		

Арр	Applied Exercise Neuroscience									
App	Applied Exercise Neuroscience									
Moc 7	dule:		Workload (h):	Credits:		Intended stage in course of studies:		Frequency	y at class	Duration of the
′			150	5		2 nd	i studies:	which the class		1 Semester
						-		Annually	•	i Semester
1	Modu	le Stru	cture:					,		
		Cours	ses		Te	eaching	Class	Study	Status	Number of
					m	ethods	time	time (h)	(O/F)	participants
				<u> </u>			(h)		_	
	a)	Appli	ed Neuroscience (of Training	S		30	60	0	20
	b)	and C	competition		c		20	20	0	20
	5)	LACIC	ise science		5		30	50	0	20
2	Altern	natives	within the Modu	le:	1					
	none									
3	Prerec	quisite	s:							
	Modu	le 2 is j	passed.							
4	Conte	nts:	an recearch and a	counction o	ria	ntod annli	cation of	tha thaarati		ladge based on
	the co	ntents	of M2 First mod	e of action (of t	raining an	d nerforn	nance enhan	cement v	within the
	nervo	us svst	em is imparted an	d discussed	l ba	sed on red	cent litera	ture for diffe	erent spo	orts. In doing so.
	the ur	ndersta	nding of opportur	nities and lir	nita	ations of d	lealing ap	propriately v	vith neu	rophysiological
	expos	ures dı	uring training and	competitior	n is	as fundan	nental as	identifying s	ymptoms	s related to a
	misma	atch in	dealing with neur	ophysiologi	cal	exposures	s. At the s	ame time, st	udents g	et the chance to
	experi	ience a	nd prove the mon	nitoring of n	eur	ophysiolo	gical expo	osures in sele	ected spc	orts settings with
	(comp	oetitive) athletes and spo	rts teams. E	Eval	luating and	d critically	reflecting tl	nese wor	k experiences is
	a key	elemer	it for future occup	bational pra	ctic	e. Workin	g with ath	nletes and sp	orts tear	ns with different
	nerso	or expo nal as y	vell as communic:	arying sport ation skills w	ts s vith	pecific nei regards t	o the "tra	iner –athlete	anus wili > / team'	' relationshin
5	Learni	ing out	comes / Compete	ences:						
	■ Kr	nowled	ge about sports s	pecific expo	sur	es to the r	nervous sy	ystem		
	■ Tr	ansfer	of knowledge into	practice w	vith	athletes;	developm	ent of didac	tic comp	etences
	 Ac 	cquisiti	on of occupat	ional com	ipe	tences r	ecessary	for appr	opriately	dealing with
	ne ■ De	eveloni	ment of (inter-) of	rsonal and	cor	nmunicati	on skills t	hrough work	ing with	athletes
6	Exami	ination								diffected
	[x] One examination containing contents of courses a) and b)									
	Belongs Type Duration Emphasis for									
	to Module grade									
			Report					10-15 pag	es 10	0%
	1						£ +			
	within	nation the fir	about the concret rst 3 weeks of the	e terms and lecture peri	ט ג iod.	naitions c	or the exa	mination is p	rovided	by the lecturer

7	Course Achievement (CA) / Qualified Participation (QP):							
	Belongs	Туре	Duration	CA / QP				
	to							
	a)	Presentation or	ca 10 min	QP				
		Short colloquium						
	b)	Protocols (work experience) or	3-5 pages each	QP				
		Short colloquium	ca 10 min.					
	Informatior	about the concrete requirements for Course Achieve	ment or Qualified	Participation is				
	provided by the lecturer within the first 3 weeks of the lecture period.							
8	Prerequisites for participating in examinations:							
	None							
9	Prerequisit	es for assigning Credits:						
	The assignn	nent of credits is restricted until Qualified Participatio	n is verified and th	e examination is				
	passed.							
10	Emphasis fo	or final grade:						
	5/120							
11	Utilization	for other study programs:						
	no							
12	Module Co	ordinator:						
	N.N.							
13	Language:							
	Teaching la	nguage English						

Stud	Study Project "Therapy"									
Study Project "Therapy"										
Mod 8	lule:		Workload (h): 900	Credits: 30	Intended course o 2 nd and 3	Intended stage in course of studies: 2 nd and 3 rd		y at class :	Duration of the module: 2 Semester	
1	Modu	le Stru	cture:							
	Courses				Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of Participants	
	a)	a) Introduction "Specific Topic"		opic"	S	30	810	F	20	
	b)	Grou	p Discussion and F	Report	S	60	F		20	
2	Alterr	atives	within the Modu	le:					1	
3	Prere	quisite	s:							
	Modu	les 1 ai	nd 5 are passed.							
5	 Neurological topics within current research questions in the area of sports medicine are implemented in theoretical and practical (experimental, conceptual) small group work. Topics are either research of occupation related and allow the transfer of theoretical knowledge into scientific work, including the application of relevant neuroscientific methods. Learning outcomes / Competences: Competences in developing a relevant research question within the area of sports neurology and using appropriate methods to answer that question based on an experimental design, or a conceptual framework Deepened competences in working in small groups Competences in scientific writing Examination: [x] One examination containing contents of courses a) and b) 						are implemented hither research or rk, including the ts neurology and htal design, or a			
	Belo to	ngs	Туре				Duration	En Mo	nphasis for odule grade	
			Project Report				50-150 pa	ges 10	0%	
7	Inforn withir Cours	nation a the fir e Achie	about the concret est 3 weeks of the evement (CA) / Qu	e terms and lecture peric ualified Parti	conditions o od. cipation (Q	of the exa P):	mination is p	orovided	by the lecturer	
	Belo to	ngs	Туре				Duration	CA	/ QP	
	a)		Presentation				ca 15 min	. QF		
	b)									

	Information about the concrete requirements for Course Achievement or Qualified Participation is
	provided by the lecturer within the first 3 weeks of the lecture period.
8	Prerequisites for participating in examinations:
	None
9	Prerequisites for assigning Credits:
	The assignment of credits is restricted until Qualified Participation is verified and the examination is
	passed.
10	Emphasis for final grade:
	30/120
11	Utilization for other study programs:
	no
12	Module Coordinator:
	Prof. Dr. Dr. Reinsberger
13	Language:
	Teaching language English

Stud	Study Project "Performance and Exercise Neuroscience"									
Stud	Study Project "Performance and Exercise Neuroscience"									
Mod 9	lule:		Workload (h): 900	Credits: 30	Intended course o 2 nd and 3	Intended stage inFrequency atcourse of studies:which the clas2 nd and 3 rd is offered:Annually		y at class :	Duration of the module: 2 Semester	
1	Modu	le Stru	cture:							
		Cours	ses		Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of Participants	
	a)	a) Introduction "Specific Topic"		S	30	810	F	20		
	b)	Grou	p Discussion and F	Report	S	60		F	20	
2	Altern none	atives	within the Modu	le:						
3	Prerec	quisite	s:							
	Modu	les 2 ai	nd 5 are passed.							
5	 Training or performance enhancement related topics within current research questions in the area of exercise neuroscience are implemented in theoretical and practical (experimental, conceptual) small group work. Topics are either research or occupation related and allow the transfer of theoretical knowledge into scientific work, including the application of relevant neuroscientific methods. Learning outcomes / Competences: Competences in developing a relevant research question within the area of exercise neuroscience and using appropriate methods to answer that question based on an experimental design, or conceptual framework Deepened competences in working in small groups Competences in scientific writing Examination: [x] One examination containing contents of courses a) and b) 						ns in the area of inceptual) small f theoretical nethods. cise neuroscience ental design, or a			
	Belo to	ngs	Туре				Duration	En Mo	nphasis for odule grade	
			Project Report				50-150 pa	ges 10	0%	
7	Inform within Course	nation the fir e Achie	about the concret st 3 weeks of the evement (CA) / Qu	e terms and lecture peri Jalified Part	l conditions o od. t icipation (Q	of the exa	mination is p	provided	by the lecturer	
	Belo to	ngs	Туре				Duration	CA	/ QP	
	a)		Presentation				ca 15 min.	QP	,	
	b)									

	Information about the concrete requirements for Course Achievement or Qualified Participation is
	provided by the lecturer within the first 3 weeks of the lecture period.
8	Prerequisites for participating in examinations:
	None
9	Prerequisites for assigning Credits:
	The assignment of credits is restricted until Qualified Participation is verified and the examination is
	passed.
10	Emphasis for final grade:
	30/120
11	Utilization for other study programs:
	no
12	Module Coordinator:
	N.N.
13	Language:
	Teaching language English

Inte	nternship								
Inte	rnship								
Moc 10	lule:		Workload (h): 180	Credits: 6	Intende course o 2 nd	d stage in of studies:	Frequence which the is offered Annually	y at class :	Duration of the module: 4 weeks
1	Module	e Stru	cture:					1	
		Cour	ses		Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of participants
						160	20	0	individual
2	Alterna	tives	within the Modu	le:					
3	none Preregi	uicito	c.						
5	none		3.						
4	Conten	ts:							
	Through	h obs	erving and self-co	ntained wor	king in a po	tentially re	elevant occup	pational	field, the
	with the	e occi	upational reality a	nd furtherm	nore, help re	alizing a p	roper occup	ational d	ecision.
	The inte	ernsh	ip is designed full-	time for fou	ır weeks. In	well-grour	nded conditio	ons it is p	oossible to split
	the fou	r wee	eks. It is based on a	an individua	l preference	of the stu	dents wheth	ner the ir	nternship takes
-	place in	n an E	nglish speaking se	tting.					
5	Learnin ■ Knc	i g out swled	lge about occupation	ional setting	75				
	■ Inte	egrati	ng learning outco	nes from th	e study pro	gram into	occupational	practice	2
	Cor	nsequ	ences for occupat	ional orient	ation				
6	Examin [x] One	e exa	: mination containi	ng contents	of courses a	i) and b)			
	Belong to	gs	Туре				Duration	En M	nphasis for odule grade
			Report				10-15 pag	jes 10	0%
7	Informa within t	ation the fir	about the concret	e terms and lecture peri	l conditions od.	of the exa	mination is p	provided	by the lecturer
/	course	ACHI	evement (CA) / QI	Jaimed Part	licipation (C	(٢):			
	Belong to	gs	Туре				Duration		CA / QP
	Informa	ation	about the concret	e requireme	ents for Cou	rse Achiev	ement or Ou	ualified P	articipation is
	provide	ed by	the lecturer within	the first 3	weeks of the	e lecture p	eriod.		
8	Prerequ	uisite	s for participating	in examina	tions:				

	None
9	Prerequisites for assigning Credits:
	The assignment of credits is restricted until the examination is passed.
10	Emphasis for final grade:
	6/120
11	Utilization for other study programs:
	no
12	Module Coordinator:
	Dr. Reinecke
13	Further notes:

Nuti	Nutrition								
Nutr	rition								
Moc 11	lule:		Workload (h): 150	Credits: 5	Intendeo course o 3 rd	Intended stage in course of studies: 3 rd		y at class :	Duration of the module: 1 Semester
1	Modu	le Stru	cture:	<u> </u>					
		Cours	ses		Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of participants
	a)	a) Nutritional Medicine			V	30	45	F	Up tp 120
	b)	Nutri	tion in Sports and	Exercise	V	30	45	F	Up to 120
2	Altern none	natives	within the Modu	le:					
3	Preree none	quisite	5:						
4	Contents: M11 focuses on the impartment of knowledge regarding correlations and interdependency of nutrition, physical activity, health and performance, with a strong emphasis on the significance of the nervous system. Basics in nutritional medicine include topics like the relation of nutrition and genetics, causes, pathogenesis and prevention of nutrition and lifestyle dependent chronic diseases (i.e. obesity, diabetes mellitus, food allergies, hypertension) as well as the relevance of nutrition in brain metabolism and in diseases of the nervous system (i.e. dementia). In the area of sports nutrition, knowledge about specific nutritional needs and conditions in different sports is acquired (i.e. nutrition in different competitive periods, eating disorders, alternative nutritional habits, application of dietary supplements, reference values for the supply of nutrients). Besides the impartment of knowledge, the development of problem solving strategies through the ability of creating nutritional schedules depending on individual needs and conditions with regards to lifestyle, sport and exercise as well as maintaining or improving health in general is considered a key						dency of gnificance of the cion and ronic diseases of nutrition in f sports ts is acquired I habits, des the e ability of ards to lifestyle, a key		
5	 Learning outcomes / Competences: Knowledge about relations of nutrition, lifestyle, physical activity, health / diseases and performance (focus on nervous system) Competences in providing appropriate nutrition schedules for individual dietary needs Development of problem solving strategies with the objective of optimizing nutrition, lifestyle and health Examination: [x] One examination containing contents of courses a) and b) 								
	Belo to	ngs	Туре				Duration	Em Mo	phasis for odule grade
			Written exam				60-120 mi	in 100	0%

	Information within the	n about the concrete tern first 3 weeks of the lectur	ns and conditions of the ex e period.	kamination is prov	ided by the lecturer
7	Course Ach	nievement (CA) / Qualifie	d Participation (QP):		
	Belongs	Type		Duration	
	to	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Duration	
		1		I	
	Informatio	n about the concrete requ	uirements for Course Achie	evement or Qualif	ied Participation is
	provided b	y the lecturer within the f	first 3 weeks of the lecture	period.	
8	Prerequisit	es for participating in example	aminations:		
	None				
9	Prerequisit	es for assigning Credits:			
	The assignr	ment of credits is restricte	ed until the examination is	passed.	
10	Emphasis f	or final grade:			
	5/120				
11	Utilization	for other study programs	s:		
	Possible fo	r courses a) and b)			
12	Module Co	ordinator:			
L	Prof. Dr. He	eseker			
13	Language:				
	Teaching la	inguage English			

Gen	General Studies								
Gen	General Studies								
Moc 12	lule:		Workload (h): 150	Credits: 5	Intended course o 3 rd	d stage in f studies:	Frequence which the is offered Annually	y at e class :	Duration of the module: 1 Semester
1	1 Module Structure:								
		Cours	ses		Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of participants
	Depends on the offer and			nd					
		stude	ent's choice using	the					
	Campus Management System		System						
2	Altern none	atives	within the Modu	le:					
3	Prereq none	luisite	s:						
4	Conter	nts:							
_	Free ch	hoice v	within the Campus	S Manageme	nt System o	f Paderbo	rn University	/.	
5	Learni ■ Ex	ng out perien	ces beyond the ov	e nces: wn professio	nal issues to	broaden	one's perce	ption	
6	Examin [x] Or	nation ne exa	: mination containi	ng contents	of courses a) and b)	Duration	Em	phasis for
	to	153	Type				Duration	M	odule grade
			Depends on the s written exam wit homework with a exam with a maxi	elected cour h a maximur maximum c mum of 45 r	rses / modul n of 4 hours of 25 pages, minutes)	e (i.e. , oral			
	Inform within	iation the fii	about the concret st 3 weeks of the	e terms and lecture perio	conditions o	of the exa	mination is p	provided	by the lecturer
7	Course	e Achie	evement (CA) / Q	ualified Part	icipation (Q	P):			
	Belor to	ngs	Туре				Duration	(CA / QP
			Depends on the s	elected mod	lule				
	Inform provid	ation ed by	about the concret the lecturer within	e requireme n the first 3 v	ents for Cour weeks of the	se Achiev lecture p	ement or Qu eriod.	alified Pa	articipation is
8	Prereq	luisite	s for participating	in examina	tions:				
9	Prereq	juisite	s for assigning Cre	edits:					

	The assignment of credits is restricted until the examination is passed and - if existing - Qualified
	Participation is verified.
10	Emphasis for final grade:
	5/120
11	Utilization for other study programs:
12	Module Coordinator:
	Dr. Reinecke
13	Language:
	Depends on the selected module

Com	Communication								
Com	Communication								
Moc 13	lule:		Workload (h): 150	Credits: 5	Intendeo course o 3 rd	d stage in f studies:	Frequency at which the class is offered: Annually		Duration of the module: 1 Semester
1	Modu	ıle Stru	cture:		-				
	Courses				Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of participants
	a) Health Communication			S	30	60	F	20	
	b)	Utiliz Sport	ing Communicatic ts and Exercise	on in	S	15	45	F	20
2	Alterr none	natives	within the Modu	le:		·			/
3	Prere none	quisite	s:						
4 5 6	Conte M13 f and in intera settin Learn Co Exami [x] O	ints: focuses focuses focuses focus	s on the impartme ion. Learning and a s as fundamental a t comes / Compete lge about basic col ences in problem s i: mination containin	nt of knowle analyzing the as practicing ences: mmunication solving strate	dge regardin cories and d communica n and intera egies during of courses a	ng basic p ifferent pe tion and i ction prine communi) and b)	rinciples of (erspectives c nteraction st ciples cation proce	health) c if comm rategies sses	communication unication and in occupational
	Belo to	ngs	Туре				Duration	En M	nphasis for odule grade
			Demonstration le	sson (theory	and practic	e)	10-15 pag ca 15 min	es 10	00%
7	Inforn withir	nation h the fin	about the concret rst 3 weeks of the	e terms and lecture peric	conditions o od.	of the exa	mination is p	orovided	by the lecturer
<i>'</i>	cours					• •			
	Belo to	ngs	Туре				Duration		CA / QP
	a)		Presentation or Short colloquium				ca 10 min		QP
	Inform	nation	about the concret	e requireme the first 3 v	nts for Cour	se Achiev	ement or Qu eriod.	alified P	articipation is
8	Prere	quisite	s for participating	in examinat	tions:	p			

	None
9	Prerequisites for assigning Credits:
	The assignment of credits is restricted until Qualified Participation is verified and the examination is
	passed.
10	Emphasis for final grade:
	5/120
11	Utilization for other study programs:
	no
12	Module Coordinator:
	Dr. Reinecke
13	Language:
	Teaching language English

Mas	ster The	esis								
Mas	ster The	sis								
Module: 14			Workload (h): 900	Credits: 30	Intended course o 4 th	Intended stage in course of studies: 4 th		y at e class :	Duration of the module: 1 Semester	
1	1 Module Structure:									
		Courses			Teaching methods	Class time (h)	Study time (h)	Status (O/F)	Number of participants	
	a)	Progr	ess Reports		S	15	45	0	20	
	b)	Thesis				780		0	Individual	
	c)	Defei	nding the Thesis				60	0	individual	
2	Alteri none	natives	within the Modu	le:		1			1 1	
3	Prere Modu	quisite Iles 1, 2	s: 2, 3, 4, 5 as well as	the study p	roject (M8/N	/l9) are pa	assed.			
5	 Contents: The Master Thesis incorporates relevant research questions within the area of sports neurology or exercise neuroscience. Topics can emerge from former modules (i.e. study project). In the seminar students report about the progress of the thesis and problem strategies are developed. Learning outcomes / Competences: Capability of acting appropriately in research processes Competences in scientific writing 									
 Competences in communicating and presenting Examination: [x] two component examinations 										
	Belongs toTypeThesis					Duration		En M	Emphasis for Module grade	
						Max. 80 pages or research manuscrip incl. Revie	66 ot ew	,67%		
			Defending the Th	esis			30-45 mir	n 33	,33%	
7	Information about the concrete terms and conditions of the examination is provided by the lecturer within the first 3 weeks of the lecture period.									

	Belongs	Туре	Duration	CA / QP				
	to							
	a)	progress report	ca 15 min	QP				
	Information about the concrete requirements for Course Achievement or Qualified Participation is							
	provided by the lecturer within the first 3 weeks of the lecture period.							
8	Prerequisites for participating in examinations:							
	None							
9	Prerequisites for assigning Credits:							
	The assignment of credits is restricted until Qualified Participation is verified and the component							
	examinations are passed.							
10	Emphasis for final grade:							
	30/120							
11	Utilization for other study programs:							
	no							
12	Module Coordinator:							
	Lecturer within the program							
13	Language:							
	Teaching language English							

Abbreviations:

L = Lecture

S = Seminar

O = obligate

F = facultative