Module handbook

M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]



Learning outcomes



Competences

The Master of Science "Psychology of Sport and Exercise" is a research-oriented consecutive course of studies. It aims to integrate research topics of psychology and sport science such that a perspective emerges related to movement, health, organization, and relevant aspects of neuro- and social science. During their studies, students acquire academic knowledge and competences to represent, scientifically explore, and to transfer these aspects to the applied field.

With respect to **scientific competences**, they acquire and deepen the ability to process research questions from a broad range of sport psychological basic research (e.g. the role of motivation, emotion, and cognition in sports). In addition, they acquire a broad spectrum of research methods related to data analysis and study conduction. Thereby, they take advantage of the national and international networks of the participating institutes, specifically of the Institute of Psychology. Overall, the graduates are being qualified for activities and occupation in sport psychology, sport science, as well as in psychology.

With respect to **competences in the applied field,** the students acquire and deepen the ability to develop, conduct and evaluate sport psychological consulting, diagnostics and intervention on a solid scientific ground. This is supported by the acquisition of organizational competences, e.g. the ability to develop networks, conduct educative workshops. Thus, here knowledge-related competences will go in hand with concrete competence related to occupational actions.

Generally, the students will extend their *general*, *i.e.* translational competences going beyond their professional profile. By this and the unique curriculum of PSE, students will be able to apply their knowledge to other fields and solve complex problems in an innovative way.

Going beyond this, students learn basic strategies of *scientific problem solving*. This will allow them to make competent decisions in situations with restricted access to information. Further, they will be able to acquire knowledge and competences in new fields. This will be achieved by interdisciplinary work groups where they test project and self management. Additionally, the studies support and sharpen the *attitude towards life-long learning* in academic occupation. Also, students will be supported to be able to fulfil social, ethical and moral aspects.

Competences related to communication and emotions are becoming increasingly important for work success. Thus, learning and acting in teams is an essential aspect when studying PSE, as well as presenting research topics. Thereby, different target groups will be addressed ranging from the scientific community to the applied field, as well as laypeople. Graduates should be able to present, discuss and communicate sovereignly with respect to the demands of these target groups.

Other aspects like the development of personality or social competences will be taken into account as well by providing an academic framework that allows the graduates to develop themselves to sensible, interested and critical individuals. Especially intercultural exchange is a challenge that provides the opportunity for experience and to learn critical reflection. The communication competences will be extended by integrating different teaching strategies (e.g. tutor system in PSE 1 and project work in PSE10, team work in PSE4).



Module: Introduction in Psychology, Sport and Exercise

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Einführung in Psychologie, Sport und Bewegung
Abbreviation	PSE1
Subject related semester / Duration	1. SRS / 1
Total Workload / Total ECTS points	150 h / 5
Courses of the module Title Semester hours per week / Contact time / Self- study / Semester of study / Type of class / Language of instruction / Mandatory attendance	 a) Revision course on sport science, psychology and research methods SHW / 15 h / 40 h / 1. SRS / LEC / English / no b) Revision course on sport science, psychology and research methods SHW / 15 h / 40 h / 1. SRS / TUT / English / yes c) Nobel laureates of sport and psychology SHW / 15 h / 25 h / 1. SRS / SE / English / no
Key competencies	 The students are able to outline and combine declarative knowledge from BAsport and BA-psychology backgrounds explain, discuss and teach own declarative knowledge to others
Central contents Tracking and Laurin Matheda	 a) Revision course on sport science, psychology and research methods: Re-Activate and teach knowledge and add new knowledge from sport science, including motor learning, control, biomechanics, central and peripheral system, methods used in sports Bevision course on sport science, psychology and research methods:
Teaching and Learning Methods	Revision, laudatio, learning through teaching. Former BA- psychology students will provide teaching for former BA- sport students and vice versa



Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. Overview Prerequisites
Intermediate Assessments	For PSE 1 c) "Nobel laureates of sport and psychology": presented laudatio
Assessment / extent / share of the module grade	PSE1 a), b): Written exam ungraded (Multiple choice, 90 minutes) PSE1 c): Presentation ungraded
Weight of module	100 %
Module Commissioner	Cf. Overview Module Commissioner



Module: Research Methods: Advanced Studies

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Forschungsmethoden für Fortgeschrittene
Abbreviation	PSE2
Subject related semester / Duration	1. & 2. SRS / 2
Total Workload / Total ECTS points	390 h / 13
Cours es of the module	a) Statistics Lectures Series
Title	1 SHW / 15 h / 30 h / 1 / LEC / English / no
Semester hours per week / Contact time / Self-	b) Tutorial Software aided application of advanced
study / Semester of study / Type of class /	statistics
Language of instruction / Mandatory	3 SHW / 45 h / 120 h / 1 / TUT / English / yes
attendance	c) Measurement and research design
	2 SHW / 30 h / 90 h / 2 / SE / English / yes
	d) Tutorial Software aided study conduction
	1 SHW / 15 h / 45 h / 2 / TUT / English / yes
Key competencies	The students are able to
	 understand, describe, i dentify and select procedures of advanced inferential statistics
	apply (i.e., calculate, interpret and report) procedures of advanced inferential statistics with the use of software
	describe and apply complex quantitative research
	methods that are relevant in empirical research.
	develop and transfer models and methods into basic
	and applied research.
	 conduct, a nalyze and interpret complex research
	designs in basic and applied research.
	apply software for study conduction.
Central contents	a) Statistics Lectures Series Multivariate data handling and
	statistics:
	Advanced inference statistics
	Structural equation models
	b) Tutorial Software aided application of advanced
	statistics:
	Computer a ided application of the statistical models
	learned in the lecture with the use of statistical
	programs like SPSS or R
	Computer a ided application of additional statistical
	models relevant to the research in the field of sport
	psychology (e.g. multilevel modeling)
	c) Measurement and research design:
	 Developing research questions and deriving research designs
	Learning a bout the foundations of good scientific
	practice and the ideas of Open Science
	 Learning how to plan and conduct studies



To ching and learning Methods	 Meta-analysis Statistical significance vs. practical relevance (i.e. statistical power) Qualitative approaches Tutorial Software aided study conduction: Introduction to scientific programming Software aided research design and study conduction Introduction to online and offline questionnaire design Introduction to a programming language for conducting experiments Teacher contered to sching computer aided tutorials
Teaching and Learning Methods	Teacher-centered teaching, computer aided tutorials,
	presentations, group work, self-experience, interactive
	demos
Recommended Literature	Specific literature recommendations are given in the
	respective courses by the lecturer during the course of the
	semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. <u>Overview Prerequisites</u>
Intermediate Assessments	None
Assessment / extent / share of the module	PSE2 a), b): Written exammc items + open questions: 90
grade	minutes
	PSE2 c): Presentation (group-wise, 60-75 minutes)
Weight of module	Written exam: 60%
	Presentation: 40%
Module Commissioner	Cf. Overview Module Commissioner
	Presentation: 40%



Module: Diagnostics, Intervention and Evaluation

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Diagnostik, Intervention und Evaluation
Abbreviation	PSE3
Subject related semester / Duration	1. & 2. SRS / 2
Total Workload / Total ECTS points	360 h / 12
Courses of the module Title Semester hours per week / Contact time / Self- study / Semester of study / Type of class / Language of instruction / Mandatory attendance	 a) Diagnostics, intervention and evaluation 2 SHW / 30 h / 60 h / 1 / LEC / English / no b) Diagnostics, intervention and evaluation in research settings 2 SHW / 30 h / 120 h / 1 / TUT / English / yes c) Diagnostics, intervention and evaluation in applied settings 1 SHW / 15 h / 75 h / 2 / TUT / English / yes
Key competencies	 The students are able to recite and describe principles and methods in diagnostics and evaluation apply principles and methods in different settings of psychology of sport and exercise develop and realize diagnostics and/or evaluations in different settings of psychology of sport and exercise
Central contents	a) Diagnostics, intervention and evaluation: I. Diagnostics • systematic of psychological objects of diagnostic • diagnostical approaches in sport psychology • quality criteria • different types of diagnostic measures (e.g. questionnaire, interview, observation/behavior measurement, Multi-method/ mixed methods, • psychological opinion (expert report) • ethical concerns of diagnostics II. Intervention • Theory based modeling of intervention/treatments • Nature/structure of psychological intervention/treatments • Differences between individual and group treatments • Effect bias (environment, situation, persons) • Treatments in research • Treatments in applied sport psychology • Ethical concerns of intervention III. Evaluation • process of evaluation • evidence levels



Teaching and Learning Methods	 b) Diagnostics, intervention and evaluation in research settings: Diagnostics, intervention and evaluation in experimental settings considering lecture content Diagnostics, intervention and evaluation in field studies considering lecture content c) Diagnostics, intervention and evaluation in applied settings: Diagnostics, intervention and evaluation in applied settings like sport psychological counseling and working with athletes/teams considering lecture content Teacher-centered teaching, group work, self-experience,
	interactive demos
Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. <u>Overview Prerequisites</u>
Intermediate Assessments	None
Assessment / extent / share of the module grade	PSE3 a): Written exam (multiple choice, 90 minutes)
Weight of module	100 %
Module Commissioner	Cf. Overview Module Commissioner



Module: Mind, Motion and Performance

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Kognition, Bewegung und Leistung
Abbreviation	PSE4
Subject related semester / Duration	1. & 2. SRS / 2
Total Workload / Total ECTS points	270 h/9
Courses of the module	a) Mind, motion and performance/Interaction of action,
Title	cognition and perception
Semester hours per week / Contact time / Self-	2 SHW/30 h/60 h/1/LEC / English/no
study / Semester of study / Type of class /	b) Research in mind, motion and performance
Language of instruction / Mandatory	2 SHW/30 h/60 h/1/SE/English/no
attendance	c) Diagnostics and interventions in mind and motion in
	sports
	2 SHW / 30 h / 60 h / 2 / TUT / English / yes
Key competencies	The students are able to
	describe and explain the interaction of action and
	perception
	reflect and discuss theories and models
	devel op research designs, empirically testing the
	interaction (behavioral, neuroscientific)
	apply diagnostics and interventions
Central contents	a) Mind, motion and performance/interaction of action,
	cognition and perception (theories, concepts, models):
	Embodiment enactivity of cognition
	embodied perception, embodied cognition, information processing.
	information processing,
	cognitive functioning (cognition)Researchin mind, motion and performance (studies,
	position stands):
	Mind, motion and performance/ embodiment
	perspective in sport settings
	Related to addresses/ coachees like athletes,
	players, coaches, referees, parents etc.
	Topic e.g. perception – action, action theoretical
	frame work, cognitive processes (e.g. focus of
	attention, problem solving, decision making in
	s ports), embodiment, expertise, cognitive
	techniques (e.g. self-talk, mental and motor
	imagery), related phenomena (e.g. paradoxical
	performance, hot hand, body representation)
	c) Diagnostics and interventions in mind and motion in
	s ports (applied sport psychology):
	applying diagnostics, and intervention
	information processing of a thletes and coaches and
	referees



	 decision making mental training techniques and interventions (e.g. focus of attention, self instruction, self talk)
Teaching and Learning Methods	Group work, presentations, independent learning, blended learning, problem based learning, selfs tudies
Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. Overview Prerequisites
Intermediate Assessments	None
Assessment / extent / share of the module grade	PSE4 a), b): written exam (60 min. with shares of multiple choice) PSE4 c): Group work, Project (including documentation) and short presentation (max. 20 min)
Weight of module	Written exam: 60% Presentation: 40%
Module Commissioner	Cf. <u>Overview Module Commissioner</u>



Module: Motivation, Emotion and Adherence

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Motivation, Emotion und Adhärenz
Abbreviation	PSE5
Subject related semester / Duration	1. & 2. SRS / 2
Total Workload / Total ECTS points	270 h / 9
Courses of the module	a) Phenomena, theories and fields of application
Title	2 SHW / 30 h / 60 h / 1 / LEC / English / no
Semester hours per week / Contact time / Self-	b) Diagnostics and enhancement of motivation and
study / Semester of study / Type of class /	emotion
Language of instruction / Mandatory	2 SHW / 30 h / 60 h / 2 / SE / English / yes
attendance	c) Change processes in motivation and emotion
attendance	2 SHW / 30 h / 60 h / 2 / TUT / English / yes
Key competencies	The students are able to
.,	explain, analyze and compare theories of motivation
	and emotion in terms of their content, structures and mechanisms
	ass ess motivation, emotion and a dherence
	plan theory-based interventions (individual and group)
	setting) on fostering motivation, emotion and
	a dherence in research and application
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	interventions on motivation, emotion and adherence in research and application
	application
	report procedures and results of a foresaid assessment
Control contents	and interventions
Central contents	a) Phenomena, theories and fields of application:
	Motivational phenomena: intention-behavior-gap,
	dropout/adherence, flow social facilitation, social
	loa fing, social contagion, social compensation
	Theories of motivation and volition – predictors, Theories of motivation – pr
	processes and outcome variables (e.g. Self-
	Determination Theory, Health-Belief-Model, Theory
	of planned behavior, social-cognitive theory)
	Motivation and emotion
	Motivation as a state or trait variable
	Studies on motivation in different settings and
	indications a cross the life span
	b) Diagnostics and enhancement of motivation and emotion:
	Diagnostics of motivational and emotional states
	(e.g., questionnaires) in research and application
	Interventions on motivational and emotional states



	 (e.g. motivational interviewing, self-talk, goal setting, autonomy support) Evaluation of motivational and emotional states in research an application Change processes in motivation and emotion Applying motivation-enhancing and emotion-regulating strategies on a single case Supervision and intervision
Teaching and Learning Methods	Teacher-centered teaching, presentations, group work, self- experience
Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. Overview Prerequisites
Intermediate Assessments	Diagnostics and enhancement of motivation and emotion: small group presentation (incl. exemplary practice)
Assessment / extent / share of the module	PSE5 a): Written exam (multiple choice, 60 minutes)
grade	PSE5 b), c): Documentation
Weight of module	Written exam: 50% Documentation: 50%
Module Commissioner	Cf. Overview Module Commissioner
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Module: Relationships, Teams, and Group Dynamics

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Sozialbeziehungen, Teams und Gruppendynamik
Abbreviation	PSE6
Subject related semester / Duration	2. & 3. SRS / 2
Total Workload / Total ECTS points	270 h/9
Courses of the module Title Semester hours per week / Contact time / Self- study / Semester of study / Type of class /	 a) Phenomena, theories and fields of application 2 SHW / 30 h / 60 h / 2 / LEC / English / no b) Enhancings ocial relationships: Treatments, interventions and evaluation in research and applied
Language of instruction / Mandatory attendance	settings (Part 1 – group oriented) 2 SHW / 30 h / 60 h / 2 / SE / English / yes c) Enhancings ocial relationships: Treatments, interventions and evaluation in research and applied settings (Part 2 – coach & parent oriented) 2 SHW / 30 h / 60 h / 3 / SE / English / yes
Key competencies	 identify and describe functional and dysfunctional interpersonal behaviors between athletes, coaches, parents and in teams, using social and interpersonal relationship theories and models. observe, describe, explain and influence behavior in teams as well as between athletes, coaches and parents plan, conduct, facilitate and evaluate theory-based interventions and treatments for groups and with coaches or parents to improve relationship quality, well-being and ability to perform
Central contents	 a) Phenomena, theories and fields of application: Theories of social relationships (e.g. social identity theory, balance theory, leadership theory, attachment theory, need theories, role theories etc.) Structures of social relationships Processes in social relationships: Outcomes of social relationships: social support, identification, social wellbeing, cohesion, motivational climate etc. Research in sport and exercise psychology on social relationship theories Enhancingsocial relationships: Treatments, interventions and evaluation in research and applied settings (Part 1 – group oriented):



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	support, reducing stress in teams, communication, cohesion • Evaluating treatments and interventions for groups and teams c) Enhancing social relationships: Treatments, interventions and evaluation in research and applied settings (Part 2 – coach & parent oriented): • Understanding the coach-athlete relationship and the athlete-coach-parent triangle • Developing, conducting and facilitating treatments and interventions for coaches and parents like: e.g., role clarification, optimizing leadership behavior, and communication, autonomy supportive behavior, psychological well-being, managing diversity (e.g., ethnicity, sexual orientation) etc., using face-to-face and distance consulting methods • Evaluating treatments and interventions for coaches and parents
Teaching and Learning Methods	Teacher-centered teaching, presentations, group work, self-
	experience, block seminar, excursion
Recommended Literature	Excerpt
	Anderson, M. (2000). Doing Sport Psychology. Champaign, IL: Human Kinetics. Carron, A. V. & Eys, M. A. (2012). Group dynamics in sport. (4th ed.). Morgantown, WV: Fitness Information Technology. Forsyth, D. R. (2014). Group dynamics (6th ed.). Belmont, CA: Wadsworth Cengage Learning. Gratton, C. & Jones, I. (2010). Research methods for sports studies (2nd ed.). London: Routledge. Jowett, S. & Lavallee, D. (2007), Social psychology in sport. Champaign, Ill.: Human Kinetics. Miles, J. C. & Priest, S. (1999), Adventure programming. State College, PA: Venture. Smith, J. R. & Haslam, S. A. (Hrsg.). (2014). Social psychology. Revisiting the classic studies. Los Angeles: Sage.
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. <u>Overview Prerequisites</u>
Intermediate As sessments	None
Assessment / extent / share of the module grade	 PSE 6 a)-c): Demonstration lesson (group-oriented: 60-90 minutes, coach-oriented: 3x 45-60 minutes) & report / small group (group-oriented: 3 students,
	 coach-oriented: 2 students), report 8-10 pages Oral exam (30 minutes, small group (group-oriented: 3 students, coach-oriented: 2 students)



Module Commissioner Cf. Overview Module Commissioner



Module: Emotion, Cognition, and Performance

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Emotion, Kognition und Leistung
Abbreviation	PSE7
Subject related semester / Duration	2. & 3. SRS / 2
Total Workload / Total ECTS points	270 h/9
Cours es of the module	a) Emotion, cognition, HRV, PTLID
Title	2 SHW / 30 h / 60 h / 2 / LEC / English / no
Semester hours per week / Contact time / Self-	b) Applied HRV: HRV measurement and interpretation
study / Semester of study / Type of class /	2 SHW / 30 h / 60 h / 3 / TUT / English / yes
Language of instruction / Mandatory	c) Emotion/cognition at the brain level
attendance	2 SHW / 30 h / 60 h / 2 / SE / English / no
Key competencies	The students are able to
	 explain advanced Psychophysiology autonomous nervous system
	measure and interpret heart rate variability
	assess cognitive performance on executive and non- executive tasks
	regulate emotions in order to improve cognition
	• interpret the relationship between emotions and cognition in the brain
	measure emotions in the brain
	explain Advanced Personality foundations
	measure and interpret personality-trait like individual differences
	• use heart rate variability to build interventions (e.g., slow paced breathing, biofeedback)
	use brain measures and prepare bio-feedback and neuro-feedback interventions
	use personality-trait like individual differences to build interventions
Central contents	Influence of emotions and stress on cognition:
	distinction between executive (e.g. decision-making,
	inhibition, working memory, cognitive flexibility) and
	non-executive functions (e.g. reaction time)
	Heart rate variability: a physiological marker indexing
	emotion, stress and cognition
	Personality-trait-like individual differences: how they
	influence the emotion-cognition relationship (e.g., emotional intelligence, intuition, reinvestment)
	Electroencephalography: emotion-cognition relationship at the brain level
	Interventions: based on heart rate variability monitoring, brain measures, and personality-trait-like individual differences



Teaching and Learning Methods	Group work, presentations, independent learning
Recommended Literature	Specific literature recommendations are given in the
	res pective courses by the lecturer during the course of the
	semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. <u>Overview Prerequisites</u>
Intermediate Assessments	None
Assessment / extent / share of the module	PSE 7 a), c): Oral exam (15 Min)
grade	PSE 7 c): Presentation (incl. practical demonstration)
Weight of module	Oral exam: 70%
	Presentation: 30%
Module Commissioner	Cf. Overview Module Commissioner



Module: Stress, Mental Health, and Wellbeing

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Stress, mentale Gesundheit und Wohlbefinden
Abbreviation	PSE8
Subject related semester / Duration	3. SRS / 2
Total Workload / Total ECTS points	270 h / 9
Cours es of the module	a) Stress, mental health and wellbeing in sport and exercise
Title	psychology
Semester hours per week / Contact time / Self-	2 SHW / 30 h / 60 h / 3 / LEC / English / no
study / Semester of study / Type of class /	b) Diagnostics in stress, mental health and wellbeing
Language of instruction / Mandatory	2 SHW / 30 h / 60 h / 3 / SE / English / yes
attendance	c) Coaching and stress management skills, improving
	mental health and wellbeing
	2 SHW / 30 h / 60 h / 4 / TUT / English / yes
Key competencies	Students are able to
	obtain in-depth theoretical insight into stress, mental
	health and wellbeing; structures and mechanisms for
	critical scientific observations, recitation, discussion and
	as basis for the practical use of sport psychological
	interventions.
	critically regard and discuss neuroscientific literature and
	tools about physical activity treatments regarding
	mental health and wellbeing
	select, implement, critically evaluate specific diagnostics
	for as pects of stress, mental health and wellbeing
	identify characteristics of a well-functioning and a less
	well-functioning psychological states to prevent,
	recognize and handle malfunctions and impaired
	psychological states in a thletes or to refer a thletes to
	s pecialists
	apply life coaching and stress management methods
	develop interventions for individuals who want to
	increase or change their mental health and wellbeing
Central contents	a) Stress, mental health and wellbeing in sport and exercise
	psychology:
	Subclinical (e.g. stress, arousal, pain) and clinical
	as pects (e.g. anxiety, burnout, depression, addictive
	behavior)
	Physical activity as a cause (e.g. elites port as a
	cause for burnout, injuries as a cause for injury
	anxiety, etc.)
	Physical activity as a treatment (e.g. physical activity
	programs as an intervention for burnout, physical
	activity programs as an intervention for enhancing
	self-confidence)
	Physical activity as a preventive strategy against



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	mental illness/disorders and to maintain mental health and wellbeing b) Diagnostics in stress, mental health and wellbeing: • Assessment and Classification Instruments (e.g. Classification System) • Practicing data collection, data analysis and data interpretation • Ethical aspects c) Coaching and counselling skills for stress management skills, improving mental health and wellbeing: • Effectiveness of stress management trainings • Central stress management skills (identification of competencies and stressors, mental training and managing emotions (mindfulness), problem- solving approach, relaxation (PMR), etc. • Introduction to coaching, session structure, set- up • Co-active Fundamentals Coaching: Listening and powerful questions • Co-active Fulfillment Coaching: Values and Life purpose
Teaching and Learning Methods	Teacher-centered teaching, presentations, group work, self-experience
Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. Overview Prerequisites
Intermediate Assessments	Intermediate assessments will take place. Details for each seminar will be given in the first session.
Assessment / extent / share of the module grade	PSE 8a): Written exam (multiple choice) 90 min.
Weight of module	100% Written exam
Module Commissioner	Cf. Overview Module Commissioner



Module: Perception, Cognition and Psychophysiology

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Wahrnehmung, Kognition und Psychophysiologie
Abbreviation	PSE9
Subject related semester / Duration	3. SRS / 1
Total Workload/Total ECTS points	270 h/9
	Methods of cognitive neuroscience and psychophysiology, e.g. EEG TMS EMG Eye tracking Neuroscientific, psychomotoric and psychological theories related to perception and cognition and their role in sports, e.g.: Cognitive Control Perceptual learning Memory Attention Advances of perception Advances of neuro- and psychophysiology b) Psychophysiology of perception and cognition: Central and peripheral psychophysiology of perception and cognition Methods of psychophysiologyrelated to perception and cognition Cognition and Perception in Sports c) Applied psychophysiology: How to measure psychophysiological variables in a lab and in applied settings



	 Advanced signal processing Advanced mobile psychophysiology Behavioral data (errors, response times, kinematics) Advanced knowledge of measurement theory, inference statistics and linear models Advanced knowledge in electrical circuits and electrical measurement (e.g. conductivity and resistance)
Teaching and Learning Methods	Teacher-centered teaching, presentations, group work, self-experience, experiments, excursion
Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. Overview Prerequisites
Intermediate Assessments	PSE9 c): Intermediate assessments take place
Assessment / extent / share of the module grade	PSE9 a): Oral exam (individual examination, 30 minutes) PSE9 b): Presentation (individual examination, 15 minutes)
Weight of module	Oral exam 60% Presentation 40%
Module Commissioner	Cf. Overview Module Commissioner



Module: Scientific Project

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

Abbreviation Subject related semester / Duration 1.3.5RS/1 Total Workload/Total ECTS points 270h/9 Courses of the module Title Semester hours per week / Contact time / Self- study / Semester of study / Type of class / Language of instruction / Mandatory attendance Perparation, realization and evaluation of a scientific project, choose between a) and b) Health and social psychology Relationships, teams and group dynamics or Motivation, emotion, stress, and mental health 25HW / 30h / 210h / 3 / TUT / English / yes Performance psychology Emotion, cognition, psychophysiology, performance or Action, cognition, perception, performance 25HW / 30h / 210h / 3 / TUT / English / yes Participation in studies 15HW / 15h / 1-3 participation instudies / TUT / English / yes Key competencies Students are able to work methodologically, empirically, conceptually and systematically (this includes: to revie withe state-of-the- artin a field, to identify research gap(s), to develop (statisticall) hypotheses, to conduct an experiment, to apply scientific methods and analyze/interpret data, to effectively communicate research findings; to identify limitations, to inferfuture research findings estimate chances and risks associated with a research project (e.g., high dropout rates or small sample sizes) assess feasibility and logic of research designs (e.g. to avoid including too many constructs, independent/confounding variables) evaluate ethical considerations associated with scientific research obtain project management skills and team competences realistically estimate effort, and predict resources, required to conduct research projects Principals of planning and realizing a research project	German module title	Wissenschaftliches Projekt
Total Workload/Total ECTS points Courses of the module Title Semester hours per week / Contacttime / Self- study / Semester of study / Type of class / Language of instruction / Mandatory attendance Action, cognition, psychophysiology, Emotion, cognition, psychophysiology, Emotion, cognition, psychophysiology, Emotion, cognition, psychophysiology, performance or Action, cognition, psychophysiology, performance or Action, cognition, psychophysiology, performance or Students are able to Students are able to work methodologically, empirically, conceptually and systematically (this includes: to review the state-of-the- artin a field, to identify research gap(s), to develop (statistical) hypotheses, to conduct an experiment, to apply scientific methods and analyze/interpret data, to effectively communicate research findings; to identify limitations, to inferfuture research questions, to discuss practical implications) graphically edit and present research findings estimate chances and risks associated with a research project (e.g., high dropout rates or small sample sizes) assess feasibility and logic of research designs (e.g. to avoid including too many constructs, independent/confounding variables) evaluate ethical considerations associated with scientific research obtain project management skills and team competences real istically estimate effort, and predict resources, required to conduct research projects Central contents Principals of planning and realizing a research project	Abbreviation	PSE10
Courses of the module Title Semester hours per week/Contact time/Self- study/Semester of study/Type of class/ Language of instruction/Mandatory attendance Preparation, realization and evaluation of a scientific project, choose between a) and b) a) Health and social psychology • Relationships, teams and group dynamics or • Motivation, emotion, stress, and mental health 2 SHW/30h/210h/3/TUT/English/yes or b) Performance psychology • Emotion, cognition, psychophysiology, performance or • Action, cognition, perception, performance 2 SHW/30h/210h/3 / TUT/English/yes c) Participation in studies 1 SHW/15h/15h/1-3 participation instudies/TUT/ English/yes Students are able to • work methodologically, empirically, conceptually and systematically (this includes: to review the state-of-the- art in a field, to identify research gaps, to develop (statistical) hypotheses, to conduct an experiment, to apply scientific methods and analyze/interpret data, to effectively communicate research findings; to identify limitations, to inferfuture research findings • estimate chances and risks associated with a research project (e.g. high dropout rates or small sample sizes) • assess feasibility and logic of research designs (e.g. to avoid including too many constructs, independent/confounding variables) • evaluate ethic alconsiderations associated with scientific research • obtain project management skills and team competences • realistically estimate effort, and predict resources, required to conduct research projects • Principals of planning and realizing a research project	Subject related semester / Duration	13. SRS / 1
Title Semester hours per week/Contact time / Self- study / Semester of study / Type of clasy / all Health and social psychology • Relationships, teams and group dynamics or • Motivation, emotion, stress, and mental health 2 SHW / 30h / 210h / 3 / TUT / English / yes or • Motivation, emotion, psychophysiology, performance or • Action, cognition, perception, performance 2 SHW / 30h / 210h / 3 / TUT / English / yes c) Participation in studies 1 SHW / 15h / 15h / 1-3 participation in studies / TUT / English / yes Key competencies Key competencies Key competencies Students are able to • work methodologically, empirically, conceptually and systematically (this includes: to review the state-of-the- art in a field, to identify research gaps, to design experiments addressing the research gap(s), to develop (statistical) hypotheses, to conduct an experiment, to apply scientific methods and analyze/interpret data, to effectively communicate research findings; to identify limitations, to inferfuture research questions, to discuss practical implications) • graphically edit and present research designs (e. g. to avoid including too many constructs, independent/confounding variables) • assess feasibility and logic of research designs (e. g. to avoid including too many constructs, independent/confounding variables) • evaluate ethical consider ations associated with scientific research • obtain project management skills and team competences • realistically estimate effort, and predict resources, required to conduct research projects	Total Workload / Total ECTS points	270h/9
Students are able to • work methodologically, empirically, conceptually and systematically (this includes: to review the state-of-the-art in a field, to i dentify research gaps, to design experiments addressing the research gap(s), to devel op (statistical) hypotheses, to conduct an experiment, to apply scientific methods and analyze/interpret data, to effectively communicate research findings; to identify limitations, to infer future research questions, to discuss practical implications) • graphically edit and present research findings • estimate chances and risks associated with a research project (e.g. high dropout rates or small sample sizes) • assess feasibility and logic of research designs (e.g. to avoid including too many constructs, independent/confounding variables) • evaluate ethical considerations associated with scientific research • obtain project management skills and team competences • realistically estimate effort, and predict resources, required to conduct research projects • Principals of planning and realizing a research project	Title Semester hours per week / Contact time / Self- study / Semester of study / Type of class / Language of instruction / Mandatory	choose between a) and b) a) Health and social psychology • Relationships, teams and group dynamics or • Motivation, emotion, stress, and mental health 2 SHW / 30h / 210h / 3 / TUT / English / yes or b) Performance psychology • Emotion, cognition, psychophysiology, performance or • Action, cognition, perception, performance 2 SHW / 30h / 210h / 3 / TUT / English / yes c) Participation in studies 1 SHW / 15h / 1-3 participation in studies / TUT /
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Central contents • Principals of planning and realizing a research project	key competencies	 work methodologically, empirically, conceptually and systematically (this includes: to review the state-of-the-art in a field, to identify research gaps, to design experiments addressing the research gap(s), to devel op (statistical) hypotheses, to conduct an experiment, to apply scientific methods and analyze/interpret data, to effectively communicate research findings; to identify limitations, to infer future research questions, to discuss practical implications) graphically edit and present research findings estimate chances and risks associated with a research project (e.g. high dropout rates or small sample sizes) assess feasibility and logic of research designs (e.g. to avoid including too many constructs, independent/confounding variables) evaluate ethical considerations associated with scientific research obtain project management skills and team competences realistically estimate effort, and predict resources,
 Developing research questions, generating hypotheses, 	Central contents	Principals of planning and realizing a research project



	 planning research designs Advanced literature review strategies, APA standards Applying research methods (selection, application analysis) Analyzing data Advanced Planning and writing a manuscript The contents should be elaborated both theoretically as well in terms of supervision of the respective project.
Teaching and Learning Methods	Group work, presentations, (scientific) writing
Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. Overview Prerequisites
Intermediate Assessments	None
Assessment / extent / share of the module grade	PSE 10 a) or b): Project presentation and project presentation (group poster presentations)
Weight of module	100%
Module Commissioner	Cf. Overview Module Commissioner



Module: Master Thesis

Degree program: M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]

German module title	Masterarbeit
Abbreviation	PSE11
Subject related semester / Duration	4. SRS / 1
Total Workload / Total ECTS points	840 h / 28
Courses of the module Title, Semester hours per week / Contact time / Self-study / Semester of study / Type of class / Language of instruction / Mandatory attendance	a) Colloquium 2 SHW / 30 h / 30 h / 4 / SE / English / yes
Key competencies	The students are able to
	 obtain and evaluate information (summarize and improve descriptions of the current state of the art) work methodologically, conceptually and systematically (justify and motivate methodological and conceptual choices of other and own theoretical and empirical work) organize one's own work (time and project management, team respectively cooperative spirit) apply their in-depth methodological competencies (breath and rationale for method selection and usage) convert an in-depth scientific working approach (structure, logic and justification of scientific work) attain and evaluate scientific data critically (find alternative explanations and design to test alternatives)
Central contents	Project management
	 Develop a research problem Evaluate a theoretical framework and conduct a literature review Scientific writing Develop a theoretical model (and hypotheses) Apply adequate methodology to the research issue Analysis and discussion of results
Teaching and Learning Methods	
Recommended Literature	Specific literature recommendations are given in the respective courses by the lecturer during the course of the semester
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. Overview Prerequisites
Intermediate Assessments	None
Assessment / extent / share of the module grade	Master Thesis / 100%
Weight of module	100%



Module Commissioner Cf. Overview Module Commissioner