

## **Module handbook**

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

**Valid for first-year students: Winter term 2022/23 onward**



**Deutsche  
Sporthochschule Köln**  
German Sport University Cologne

## 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]  
**Valid for first-year students:** Winter term 2021/22 onward

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	<p>a) Revision course on sport science, psychology and research methods 1 SHW / 15 h / 40 h / 1. SRS / LEC / English / no</p> <p>b) Revision course on sport science, psychology and research methods 1 SHW / 15 h / 40 h / 1. SRS / TUT / English / yes</p> <p>c) Nobel laureates of sport and psychology 1 SHW / 15 h / 25 h / 1. SRS / SE / English / no</p>
Key competencies	<p>The students are able to ...</p> <ul style="list-style-type: none"> <li>• outline and combine declarative knowledge from BA-sport and BA-psychology backgrounds</li> <li>• explain, discuss and teach own declarative knowledge to others</li> </ul>
Central contents	<p>a) Revision course on sport science, psychology and research methods:</p> <ul style="list-style-type: none"> <li>• 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</li> </ul> <p>b) Revision course on sport science, psychology and research methods:</p> <ul style="list-style-type: none"> <li>• Re-Activate and teach knowledge and add new knowledge from psychology including biopsychology, developmental, social, cognitive psychology, methods used in psychology</li> </ul> <p>c) Nobel laureates of sport and psychology:</p> <ul style="list-style-type: none"> <li>• Search for persons and areas of research and transfer of knowledge in the area the students BA was not based on</li> <li>• Understand the evaluation of performance in sport and psychology</li> <li>• Present a laudatio as a group for a person you think deserves a Nobel laureate for his/her added value to the field</li> </ul>
Teaching and Learning Methods	Revision, laudatio, learning through teaching. Former BA-psychology students will provide teaching for former BA-sport students and vice versa

# Module Description

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. <a href="#">Overview Prerequisites</a>
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. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

# Module Description

**Module:** Research Methods: Advanced Studies  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2021/22 onward

German module title	Forschungsmethoden für Fortgeschrittene
Abbreviation	PSE2
Subject related semester / Duration	1. & 2. SRS / 2
Total Workload/Total ECTS points	390 h / 13
Courses of the module Title Semester hours per week / Contact time / Self-study / Semester of study / Type of class / Language of instruction / Mandatory attendance	<p>a) Statistics Lectures Series 1 SHW / 15 h / 30 h / 1 / LEC / English / no</p> <p>b) Tutorial Software aided application of a advanced statistics 3 SHW / 45 h / 120 h / 1 / TUT / English / yes</p> <p>c) Measurement and research design 2 SHW / 30 h / 90 h / 2 / SE / English / yes</p> <p>d) Tutorial Software aided study conduction 1 SHW / 15 h / 45 h / 2 / TUT / English / yes</p>
Key competencies	<p>The students are able to ...</p> <ul style="list-style-type: none"> <li>• understand, describe, identify and select procedures of advanced inferential statistics</li> <li>• apply (i.e., calculate, interpret and report) procedures of advanced inferential statistics with the use of software</li> <li>• describe and apply complex quantitative research methods that are relevant in empirical research.</li> <li>• develop and transfer models and methods into basic and applied research.</li> <li>• conduct, analyze and interpret complex research designs in basic and applied research.</li> <li>• apply software for study conduction.</li> </ul>
Central contents	<p>a) Statistics Lectures Series Multivariate data handling and statistics:</p> <ul style="list-style-type: none"> <li>• Advanced inference statistics</li> <li>• Structural equation models</li> </ul> <p>b) Tutorial Software aided application of a advanced statistics:</p> <ul style="list-style-type: none"> <li>• Computer aided application of the statistical models learned in the lecture with the use of statistical programs like SPSS or R</li> <li>• Computer aided application of additional statistical models relevant to the research in the field of sport psychology (e.g. multilevel modeling)</li> </ul> <p>c) Measurement and research design:</p> <ul style="list-style-type: none"> <li>• Developing research questions and deriving research designs</li> <li>• Learning about the foundations of good scientific practice and the ideas of Open Science</li> <li>• Learning how to plan and conduct studies</li> </ul>

	<ul style="list-style-type: none"> <li>• Meta-analysis</li> <li>• Statistical significance vs. practical relevance (i.e. statistical power)</li> <li>• Qualitative approaches</li> </ul> <p>d) Tutorial Software aided study conduction:</p> <ul style="list-style-type: none"> <li>• Introduction to scientific programming</li> <li>• Software aided research design and study conduction</li> <li>• Introduction to online and offline questionnaire design</li> <li>• Introduction to a programming language for conducting experiments</li> </ul>
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. <a href="#">Overview Prerequisites</a>
Intermediate Assessments	None
Assessment / extent / share of the module grade	PSE2 a), b): Written exam mc items + open questions: 90 minutes PSE2 c): Presentation (group-wise, 60-75 minutes)
Weight of module	Written exam: 60% Presentation: 40%
Module Commissioner	Cf. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

# Module Description

**Module:** **Diagnostics, Intervention and Evaluation**  
**Degree program:** **M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]**  
**Valid for first-year students:** **Winter term 2021/22 onward**

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	<p>a) Diagnostics, intervention and evaluation 2 SHW / 30 h / 60 h / 1 / LEC / English / no</p> <p>b) Diagnostics, intervention and evaluation in research settings 2 SHW / 30 h / 120 h / 1 / TUT / English / yes</p> <p>c) Diagnostics, intervention and evaluation in applied settings 1 SHW / 15 h / 75 h / 2 / TUT / English / yes</p>
Key competencies	<p>The students are able to ...</p> <ul style="list-style-type: none"> <li>recite and describe principles and methods in diagnostics and evaluation</li> <li>apply principles and methods in different settings of psychology of sport and exercise</li> <li>develop and realize diagnostics and/or evaluations in different settings of psychology of sport and exercise</li> </ul>
Central contents	<p>a) Diagnostics, intervention and evaluation:</p> <p>I. Diagnostics</p> <ul style="list-style-type: none"> <li>systematic of psychological objects of diagnostic</li> <li>diagnostical approaches in sport psychology</li> <li>quality criteria</li> <li>different types of diagnostic measures (e.g. questionnaire, interview, observation/behavior measurement, Multi-method/ mixed methods,</li> <li>psychological opinion (expert report)</li> <li>ethical concerns of diagnostics</li> </ul> <p>II. Intervention</p> <ul style="list-style-type: none"> <li>Theory based modeling of intervention/treatments</li> <li>Nature/structure of psychological intervention/treatments</li> <li>Differences between individual and group treatments</li> <li>Effect bias (environment, situation, persons)</li> <li>Treatments in research</li> <li>Treatments in applied sport psychology</li> <li>Ethical concerns of intervention</li> </ul> <p>III. Evaluation</p> <ul style="list-style-type: none"> <li>process of evaluation</li> <li>evidence levels</li> </ul>

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	<p>b) Diagnostics, intervention and evaluation in research settings:</p> <ul style="list-style-type: none"> <li>• Diagnostics, intervention and evaluation in experimental settings considering lecture content</li> <li>• Diagnostics, intervention and evaluation in field studies considering lecture content</li> </ul> <p>c) Diagnostics, intervention and evaluation in applied settings:</p> <ul style="list-style-type: none"> <li>• Diagnostics, intervention and evaluation in applied settings like sport psychological counseling and working with athletes/teams considering lecture content</li> </ul>
Teaching and Learning Methods	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. <a href="#">Overview Prerequisites</a>
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. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*



# Module Description

**Module:** Mind, Motion and Performance  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2021/22 onward

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 Title Semester hours per week / Contact time / Self-study / Semester of study / Type of class / Language of instruction / Mandatory attendance	<p>a) Mind, motion and performance/Interaction of action, cognition and perception 2 SHW/ 30 h / 60 h / 1 / LEC / English / no</p> <p>b) Research in mind, motion and performance 2 SHW/ 30 h / 60 h / 1 / SE / English / no</p> <p>c) Diagnostics and interventions in mind and motion in sports 2 SHW / 30 h / 60 h / 2 / TUT / English / yes</p>
Key competencies	<p>The students are able to ...</p> <ul style="list-style-type: none"> <li>describe and explain the interaction of action and perception</li> <li>reflect and discuss theories and models</li> <li>develop research designs, empirically testing the interaction (behavioral, neuroscientific)</li> <li>apply diagnostics and interventions</li> </ul>
Central contents	<p>a) Mind, motion and performance/interaction of action, cognition and perception (theories, concepts, models):</p> <ul style="list-style-type: none"> <li>Embodiment enactivity of cognition</li> <li>embodied perception, embodied cognition,</li> <li>information processing,</li> <li>cognitive functioning (cognition)</li> </ul> <p>b) Research in mind, motion and performance (studies, position stands):</p> <ul style="list-style-type: none"> <li>Mind, motion and performance/ embodiment perspective in sport settings</li> <li>Related to addresses/ coachees like athletes, players, coaches, referees, parents etc.</li> <li>Topic e.g. perception – action, action theoretical framework, cognitive processes ( e.g. focus of attention, problem solving, decision making in sports), embodiment, expertise, cognitive techniques (e.g. self-talk, mental and motor imagery), related phenomena (e.g. paradoxical performance, hot hand, body representation)</li> </ul> <p>c) Diagnostics and interventions in mind and motion in sports (applied sport psychology):</p> <ul style="list-style-type: none"> <li>applying diagnostics, and intervention</li> <li>information processing of athletes and coaches and referees</li> </ul>

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	<ul style="list-style-type: none"> <li>• decision making</li> <li>• mental training techniques and interventions (e.g. focus of attention, self instruction, self talk)</li> </ul>
Teaching and Learning Methods	Group work, presentations, independent learning, blended learning, problem based learning, self studies
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. <a href="#">Overview Prerequisites</a>
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. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

**Module:** Motivation, Emotion and Adherence  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2021/22 onward

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 Title Semester hours per week / Contact time / Self-study / Semester of study / Type of class / Language of instruction / Mandatory attendance	<p>a) Phenomena, theories and fields of application 2 SHW / 30 h / 60 h / 1 / LEC / English / no</p> <p>b) Diagnostics and enhancement of motivation and emotion 2 SHW / 30 h / 60 h / 2 / SE / English / yes</p> <p>c) Change processes in motivation and emotion 2 SHW / 30 h / 60 h / 2 / TUT / English / yes</p>
Key competencies	<p>The students are able to ...</p> <ul style="list-style-type: none"> <li>• explain, analyze and compare theories of motivation and emotion in terms of their content, structures and mechanisms</li> <li>• assess motivation, emotion and adherence</li> <li>• plan theory-based interventions (individual and group setting) on fostering motivation, emotion and adherence in research and application</li> <li>• name and analyze similarities and differences between interventions on motivation, emotion and adherence in research and application</li> <li>• conduct und reflect a foresaid interventions in application</li> <li>• report procedures and results of a foresaid assessment and interventions</li> </ul>
Central contents	<p>a) Phenomena, theories and fields of application:</p> <ul style="list-style-type: none"> <li>• Motivational phenomena: intention-behavior-gap, dropout/adherence, flow social facilitation, social loafing, social contagion, social compensation</li> <li>• Theories of motivation and volition – predictors, processes and outcome variables (e.g. Self-Determination Theory, Health-Belief-Model, Theory of planned behavior, social-cognitive theory)</li> <li>• Motivation and emotion</li> <li>• Motivation as a state or trait variable</li> <li>• Studies on motivation in different settings and indications across the life span</li> </ul> <p>b) Diagnostics and enhancement of motivation and emotion:</p> <ul style="list-style-type: none"> <li>• Diagnostics of motivational and emotional states (e.g., questionnaires) in research and application</li> <li>• Interventions on motivational and emotional states</li> </ul>

	<p>(e.g. motivational interviewing, self-talk, goal setting, autonomy support)</p> <ul style="list-style-type: none"> <li>Evaluation of motivational and emotional states in research and application</li> </ul> <p>c) Change processes in motivation and emotion</p> <ul style="list-style-type: none"> <li>Applying motivation-enhancing and emotion-regulating strategies on a single case</li> <li>Supervision and intervention</li> </ul>
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. <a href="#">Overview Prerequisites</a>
Intermediate Assessments	Diagnostics and enhancement of motivation and emotion: small group presentation (incl. exemplary practice)
Assessment / extent / share of the module grade	PSE5 a): Written exam (multiple choice, 60 minutes) PSE5 b), c): Documentation
Weight of module	Written exam: 50% Documentation: 50%
Module Commissioner	Cf. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

**Module:** Relationships, Teams, and Group Dynamics  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for students who started:** Winter term semester 2022/23

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 / Language of instruction / Mandatory attendance	<p>a) Phenomena, theories and fields of application 2 SHW / 30 h / 60 h / 2 / LEC / English / no</p> <p>b) Enhancing social relationships: Treatments, interventions and evaluation in research and applied settings (Part 1 – group oriented) 2 SHW / 30 h / 60 h / 2 / SE / English / yes</p> <p>c) Enhancing social relationships: Treatments, interventions and evaluation in research and applied settings (Part 2 – coach &amp; parent oriented) 2 SHW / 30 h / 60 h / 3 / SE / English / yes</p>
Key competencies	<p>Students are able to...</p> <ul style="list-style-type: none"> <li>• identify and describe functional and dysfunctional interpersonal behaviors between athletes, coaches, parents and in teams, using social and interpersonal relationship theories and models.</li> <li>• observe, describe, explain and influence behavior in teams as well as between athletes, coaches and parents</li> <li>• 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</li> </ul>
Central contents	<p>a) Phenomena, theories and fields of application:</p> <ul style="list-style-type: none"> <li>• Theories of social relationships (e.g. social identity theory, balance theory, leadership theory, attachment theory, need theories, role theories etc.)</li> <li>• Structures of social relationships</li> <li>• Processes in social relationships</li> <li>• Outcomes of social relationships: social support, identification, social wellbeing, cohesion, motivational climate etc.</li> <li>• Research in sport and exercise psychology on social relationship theories</li> <li>• Sexual violence in sport</li> </ul> <p>b) Enhancing social relationships: Treatments, interventions and evaluation in research and applied settings (Part 1 – group oriented):</p>

	<ul style="list-style-type: none"> <li>• Developing, conducting and facilitating treatments and interventions for and with groups and teams like: e.g., group goal setting, group identification enhancement, team development, optimizing social support, reducing stress in teams, communication, cohesion</li> <li>• Evaluating treatments and interventions for groups and teams</li> </ul> <p>c) Enhancing social relationships: Treatments, interventions and evaluation in research and applied settings (Part 2 – coach &amp; parent oriented):</p> <ul style="list-style-type: none"> <li>• Understanding the coach-athlete relationship and the athlete-coach-parent triangle</li> <li>• 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</li> <li>• Evaluating treatments and interventions for coaches and parents</li> </ul>
Teaching and Learning Methods	Teacher-centered teaching, presentations, group work, self-experience, block seminar, excursion
Recommended Literature	<p><i>Excerpt</i></p> <p>Anderson, M. (2000). <i>Doing Sport Psychology</i>. Champaign, IL: Human Kinetics.</p> <p>Carron, A. V. &amp; Eys, M. A. (2012). <i>Group dynamics in sport</i>. (4th ed.). Morgantown, WV: Fitness Information Technology.</p> <p>Forsyth, D. R. (2014). <i>Group dynamics</i> (6th ed.). Belmont, CA: Wadsworth Cengage Learning.</p> <p>Gratton, C. &amp; Jones, I. (2010). <i>Research methods for sports studies</i> (2nd ed.). London: Routledge.</p> <p>Jowett, S. &amp; Lavalley, D. (2007), <i>Social psychology in sport</i>. Champaign, Ill.: Human Kinetics.</p> <p>Miles, J. C. &amp; Priest, S. (1999), <i>Adventure programming</i>. State College, PA: Venture.</p> <p>Smith, J. R. &amp; Haslam, S. A. (Hrsg.). (2014). <i>Social psychology. Revisiting the classic studies</i>. Los Angeles: Sage.</p>
Type of module (compulsory/elective)	Compulsory
Prerequisites	Cf. <a href="#">Overview Prerequisites</a>
Intermediate Assessments	None
Assessment / extent / share of the module grade	PSE6 a) - c)  Oral exam: 30 minutes, small group (2 students)
Weight of module	Oral exam: 100%

# Module Description

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Module Commissioner	Cf. <a href="#">Overview Module Commissioner</a>
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*Subject to modifications*

# Module Description

**Module:** Emotion, Cognition, and Performance  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2021/22 onward

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
Courses of the module Title Semester hours per week / Contact time / Self-study / Semester of study / Type of class / Language of instruction / Mandatory attendance	<p>a) Emotion, cognition, HRV, PTLID 2 SHW / 30 h / 60 h / 2 / LEC / English / no</p> <p>b) Applied HRV: HRV measurement and interpretation 2 SHW / 30 h / 60 h / 3 / TUT / English / yes</p> <p>c) Emotion/cognition at the brain level 2 SHW / 30 h / 60 h / 2 / SE / English / no</p>
Key competencies	<p>The students are able to ....</p> <ul style="list-style-type: none"> <li>• explain advanced Psychophysiology autonomous nervous system</li> <li>• measure and interpret heart rate variability</li> <li>• assess cognitive performance on executive and non-executive tasks</li> <li>• regulate emotions in order to improve cognition</li> <li>• interpret the relationship between emotions and cognition in the brain</li> <li>• measure emotions in the brain</li> <li>• explain Advanced Personality foundations</li> <li>• measure and interpret personality-trait like individual differences</li> <li>• use heart rate variability to build interventions (e.g., slow paced breathing, biofeedback)</li> <li>• use brain measures and prepare bio-feedback and neuro-feedback interventions</li> <li>• use personality-trait like individual differences to build interventions</li> </ul>
Central contents	<ul style="list-style-type: none"> <li>• <b>Influence of emotions and stress on cognition:</b> distinction between executive (e.g. decision-making, inhibition, working memory, cognitive flexibility) and non-executive functions (e.g. reaction time)</li> <li>• <b>Heart rate variability:</b> a physiological marker indexing emotion, stress and cognition</li> <li>• <b>Personality-trait-like individual differences:</b> how they influence the emotion-cognition relationship (e.g., emotional intelligence, intuition, reinvestment)</li> <li>• <b>Electroencephalography:</b> emotion-cognition relationship at the brain level</li> <li>• <b>Interventions:</b> based on heart rate variability monitoring, brain measures, and personality-trait-like individual differences</li> </ul>



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Teaching and Learning Methods	Group work, presentations, independent learning
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. <a href="#">Overview Prerequisites</a>
Intermediate Assessments	None
Assessment / extent / share of the module grade	PSE 7 a), c): Oral exam (15 Min) PSE 7 c): Presentation (incl. practical demonstration)
Weight of module	Oral exam: 70% Presentation: 30%
Module Commissioner	Cf. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

**Module:** Stress, Mental Health, and Wellbeing  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2021/22 onward

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
Courses of the module Title Semester hours per week / Contact time / Self-study / Semester of study / Type of class / Language of instruction / Mandatory attendance	<p>a) Stress, mental health and wellbeing in sport and exercise psychology 2 SHW / 30 h / 60 h / 3 / LEC / English / no</p> <p>b) Diagnostics in stress, mental health and wellbeing 2 SHW / 30 h / 60 h / 3 / SE / English / yes</p> <p>c) Coaching and stress management skills, improving mental health and wellbeing 2 SHW / 30 h / 60 h / 4 / TUT / English / yes</p>
Key competencies	<p>Students are able to ...</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• critically regard and discuss neuroscientific literature and tools about physical activity treatments regarding mental health and wellbeing</li> <li>• select, implement, critically evaluate specific diagnostics for aspects of stress, mental health and wellbeing</li> <li>• identify characteristics of a well-functioning and a less well-functioning psychological states to prevent, recognize and handle malfunctions and impaired psychological states in athletes or to refer athletes to specialists</li> <li>• apply life coaching and stress management methods</li> <li>• develop interventions for individuals who want to increase or change their mental health and wellbeing</li> </ul>
Central contents	<p>a) Stress, mental health and wellbeing in sport and exercise psychology:</p> <ul style="list-style-type: none"> <li>• Subclinical (e.g. stress, arousal, pain) and clinical aspects (e.g. anxiety, burnout, depression, addictive behavior)</li> <li>• Physical activity as a cause (e.g. elite sport as a cause for burnout, injuries as a cause for injury anxiety, etc.)</li> <li>• 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)</li> <li>• Physical activity as a preventive strategy against</li> </ul>

	<p>mental illness/disorders and to maintain mental health and wellbeing</p> <p>b) Diagnostics in stress, mental health and wellbeing:</p> <ul style="list-style-type: none"> <li>• Assessment and Classification Instruments (e.g. Classification System)</li> <li>• Practicing data collection, data analysis and data interpretation</li> <li>• Ethical aspects</li> </ul> <p>c) Coaching and counselling skills for stress management skills, improving mental health and wellbeing:</p> <ul style="list-style-type: none"> <li>• Effectiveness of stress management trainings</li> <li>• Central stress management skills (identification of competencies and stressors, mental training and managing emotions (mindfulness), problem-solving approach, relaxation (PMR), etc.</li> <li>• Introduction to coaching, session structure, set-up</li> <li>• Co-active Fundamentals Coaching: Listening and powerful questions</li> <li>• Co-active Fulfillment Coaching: Values and Life purpose</li> </ul>
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. <a href="#">Overview Prerequisites</a>
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. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

# Module Description

**Module:** Perception, Cognition and Psychophysiology  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2021/22 onward

German module title	Wahrnehmung, Kognition und Psychophysiologie
Abbreviation	PSE9
Subject related semester / Duration	3. SRS / 1
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 / Language of instruction / Mandatory attendance	<p>a) Core processes of perception and cognition 2 SHW / 30 h / 60 h / 3 / LEC / English / no</p> <p>b) Psychophysiology of perception and cognition 2 SHW / 30 h / 60 h / 3 / SE / English / no</p> <p>c) Applied psychophysiology 2 SHW / 30 h / 60 h / 3 / TUT / English / yes</p>
Key competencies	<p>Students are able to ...</p> <ul style="list-style-type: none"> <li>• outline, describe, and relate in-depth theoretical insight in cognitive neuroscience theories and mechanisms of perception and cognition</li> <li>• explain and critically discuss this knowledge to others</li> <li>• plan and conduct theory based empirical and applied psychophysiological studies related to perception and cognition</li> </ul>
Central contents	<p>a) Core processes of perception and cognition: <i>Methods of cognitive neuroscience and psychophysiology, e.g.</i></p> <ul style="list-style-type: none"> <li>• EEG</li> <li>• TMS</li> <li>• EMG</li> <li>• Eye tracking</li> </ul> <p><i>Neuroscientific, psychomotoric and psychological theories related to perception and cognition and their role in sports, e.g.:</i></p> <ul style="list-style-type: none"> <li>• Cognitive Control</li> <li>• Perceptual learning</li> <li>• Memory</li> <li>• Attention</li> <li>• Advances of perception</li> <li>• Advances of neuro- and psychophysiology</li> </ul> <p>b) Psychophysiology of perception and cognition:</p> <ul style="list-style-type: none"> <li>• Central and peripheral psychophysiology of perception and cognition</li> <li>• Methods of psychophysiology related to perception and cognition</li> <li>• Cognition and Perception in Sports</li> </ul> <p>c) Applied psychophysiology:</p> <ul style="list-style-type: none"> <li>• How to measure psychophysiological variables in a lab and in applied settings</li> </ul>

	<ul style="list-style-type: none"> <li>• Advanced signal processing</li> <li>• Advanced mobile psychophysiology</li> <li>• Behavioral data (errors, response times, kinematics)</li> <li>• Advanced knowledge of measurement theory, inference statistics and linear models</li> <li>• Advanced knowledge in electrical circuits and electrical measurement (e.g. conductivity and resistance)</li> </ul>
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. <a href="#">Overview Prerequisites</a>
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. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

# Module Description

**Module:** Scientific Project  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2021/22 onward

German module title	Wissenschaftliches Projekt
Abbreviation	PSE10
Subject related semester / Duration	1.-3. SRS / 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	Preparation, realization and evaluation of a scientific project, <b>choose between a) and b)</b> a) Health and social psychology <ul style="list-style-type: none"> <li>Relationships, teams and group dynamics <b>or</b></li> <li>Motivation, emotion, stress, and mental health</li> </ul> 2 SHW / 30h / 210h / 3 / TUT / English / yes <b>or</b> b) Performance psychology <ul style="list-style-type: none"> <li>Emotion, cognition, psychophysiology, performance <b>or</b></li> <li>Action, cognition, perception, performance</li> </ul> 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	Students are able to ... <ul style="list-style-type: none"> <li>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 infer future research questions, to discuss practical implications)</li> <li>graphically edit and present research findings</li> <li>estimate chances and risks associated with a research project (e. g. high dropout rates or small sample sizes)</li> <li>assess feasibility and logic of research designs (e. g. to avoid including too many constructs, independent/confounding variables)</li> <li>evaluate ethical considerations associated with scientific research</li> <li>obtain project management skills and team competences</li> <li>realistically estimate effort, and predict resources, required to conduct research projects</li> </ul>
Central contents	<ul style="list-style-type: none"> <li>Principals of planning and realizing a research project</li> <li>Developing research questions, generating hypotheses,</li> </ul>

# Module Description

	<p>planning research designs</p> <ul style="list-style-type: none"> <li>• Advanced literature review strategies, APA standards</li> <li>• Applying research methods (selection, application analysis)</li> <li>• Analyzing data</li> <li>• Advanced Planning and writing a manuscript</li> </ul> <p>The contents should be elaborated both theoretically as well in terms of supervision of the respective project.</p>
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. <a href="#">Overview Prerequisites</a>
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. <a href="#">Overview Module Commissioner</a>

*Subject to modifications*

# Module Description

**Module:** Master Thesis  
**Degree program:** M.Sc. Psychology in Sport and Exercise [M.Sc. PSE]  
**Valid for first-year students:** Winter term 2020/21 onward

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 ... <ul style="list-style-type: none"> <li>• obtain and evaluate information (summarize and improve descriptions of the current state of the art)</li> <li>• work methodologically, conceptually and systematically (justify and motivate methodological and conceptual choices of other and own theoretical and empirical work)</li> <li>• organize one's own work (time and project management, team respectively cooperative spirit)</li> <li>• apply their in-depth methodological competencies (breadth and rationale for method selection and usage)</li> <li>• convert an in-depth scientific working approach (structure, logic and justification of scientific work)</li> <li>• attain and evaluate scientific data critically (find alternative explanations and design to test alternatives)</li> </ul>
Central contents	<ul style="list-style-type: none"> <li>• Project management</li> <li>• Develop a research problem</li> <li>• Evaluate a theoretical framework and conduct a literature review</li> <li>• Scientific writing</li> <li>• Develop a theoretical model (and hypotheses)</li> <li>• Apply adequate methodology to the research issue</li> <li>• Analysis and discussion of results</li> </ul>
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. <u>Overview Prerequisites</u>
Intermediate Assessments	None
Assessment / extent / share of the module grade	Master Thesis / 100%
Weight of module	100%



# Module Description

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Deutsche  
Sporthochschule Köln  
German Sport University Cologne

Module Commissioner	Cf. <a href="#">Overview Module Commissioner</a>
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