Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

Subdivided Module Catalogue

for the Subject

Exercise Science and Training

as a Master's with 1 major

with the degree "Master of Science"

(120 ECTS credits)

Examination regulations version: 2023
Responsible: Faculty of Human Sciences
Responsible: Institute of Sport Science

Learning Outcomes

Scientific Qualification

- The students have acquired a deep understanding of fundamental constructs, theories and models, as well as training and diagnostic methods in sport and exercise science. They can identify and analyze various influencing factors on processes related to the development and maintenance of different functional systems through physical activity and/or training in the domains of sports. They are capable of categorizing, discussing, and addressing exercise science questions based on evidence. Furthermore, they are aware of current research questions in sport and exercise science and can present and discuss them in a nuanced manner.
- The students are familiar with and understand various specialized training tools and training methods, and practical concepts for the development and maintenance of different functional systems in various domains of sports. Using the acquired subject-specific and methodological competencies, they can highlight, classify, and compare the different advantages and disadvantages of specific training tools, methods, and action concepts. They can also derive recipient-specific implementations in the practical domains of sports.
- They can independently analyze, address, and present a research question in the field of sport and exercise science from various perspectives and objectives.
- The students acquire advanced methodological skills in scientific working, data set evaluation and data analysis, and scientific communication. They can independently identify and analyze these methods and evaluate and discuss them in the relevant context. They can select, apply, and interpret these methodological skills for specific questions in the field.
- The students are familiar with various valid and reliable diagnostic methods and monitoring technologies in various application areas of sports, and can choose, apply, and evaluate them in a way that is suitable for the intended recipients. They can analyze and interpret the results and derive recommendations for applied sports in different domains. The students develop methodological skills in practical work with various diagnostic procedures.
- The students are capable of independently and systematically conducting empirical studies in the field of sports science according to scientific criteria, evaluating them using the latest methods, and relating the findings to theoretical concepts, models, and theories.

Ability to take up qualified employment

- The students have acquired professional knowledge, serving as the foundation for independent action in various fields within the realm of sports science, including research-oriented institutions, clubs, sports associations, and companies within the sports industry. Furthermore, the competencies gained during the course enable self-directed learning. This process combines personal and social skills with the acquisition of professional knowledge. In addition, fundamental insights and knowledge about institutions and organizations are conveyed. The practical phase also serves the purpose of reflecting on one's own professional self-concept and professional ethics.
- The students have acquired professional knowledge to implement the conceptual development, planning, and dissemination of training processes into practice at the interface between science and practice.

Empowerment for civic engagement

- Graduates have developed the willingness and ability to contribute their skills to participatory processes and actively participate in decision-making. They possess extensive knowledge regarding (sports) scientific and societal issues and can substantiate their positions.

Personal development

- Graduates are capable of working independently and taking personal responsibility. They can collaboratively work with other individuals or groups. Graduates can convey their conclusions

and the underlying information and motivations clearly, based on the current state of research. They are able to engage in discussions with experts, athletes, and laypersons on information, issues, and solutions at a scientific level.

Abbreviations used

Course types: **E** = field trip, **K** = colloquium, **O** = conversatorium, **P** = placement/lab course, **R** = project, **S** = seminar, **T** = tutorial, **Ü** = exercise, **V** = lecture

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

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

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

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

Conventions

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

Notes

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

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

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

In accordance with

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

ASPO2015

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

15-Feb-2023 (2023-21)

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

The subject is divided into

Abbreviation	Module title	ECTS credits	Method of grading	page
Compulsory Courses (80 ECTS credits)				
06-EST-TAM-232-m01	Theories and Models	5	NUM	23
06-EST-ATM-232-m01	Advanced Training Methods	5	NUM	7
06-EST-INF-232-m01	Influencing Factors	5	NUM	10
06-EST-TAD-232-m01	Advances in Technologies	5	NUM	22
06-EST-COT-232-m01	Current Trends	5	NUM	8
06-EST-INM-232-m01	Information Management	5	NUM	11
06-EST-REM-232-m01	Research Methods	5	NUM	17
06-EST-DIM-232-m01	Diagnostic Methods	5	NUM	9
06-EST-MOT-232-m01	Monitoring Technology	5	NUM	13
06-EST-RPS-232-m01	Research Project Skills	5	NUM	18
06-EST-ANI-232-m01	Data Analysis and Interpretation	5	NUM	6
06-EST-SCC-232-m01	Science Communication	5	NUM	20
06-EST-SAI-232-m01	Interaction of Science and Application	5	NUM	19
06-EST-SCL-232-m01	Scientific Debate	5	NUM	21
06-EST-INT-232-m01	Internship	10	B/NB	12
Compulsory Electives (10 ECTS credits)				
06-EST-PRH-232-m01	Intervention & Implementation Project - Health	10	B/NB	15
06-EST-PRT-232-m01	Intervention & Implementation Project - Performance	10	B/NB	16
Thesis (30 ECTS credits)				
06-EST-MT-232-m01	Master-Thesis	30	NUM	14

Module title			Abbreviation
Data Analysis and Interpretation			06-EST-ANI-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Basic and advanced methods of statistical evaluation of data (e.g., data management, exploratory data analysis, descriptive statistics, analytical statistics, correlation measures, correlations, regressions, analysis of variance). Aspects of the selection, applicability and evaluation of statistical methods are discussed. Methods for the visual processing of data are discussed.

Intended learning outcomes

Students acquire methodological skills in basic and advanced methods of statistical evaluation of data. They know and understand these methods, can evaluate and compare them with other methods. The students can select and apply the appropriate statistical methods for specific questions of the subject and are able to interpret the results.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title	Abbreviation
Advanced Training Methods	06-EST-ATM-232-m01

Module coordinator	Module offered by
holder of the Chair of Integrative and Experimental Exercise Science and Training	Institute of Sport Science

ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--

Duration	Module level	Other prerequisites
1 semester	graduate	--

Contents

Special training tools and training methods as well as specific concepts of action in relation to the motor abilities (e.g., blood flow restriction, vibration training, hypoxia training, velocity-based strength training, exercise snacks, unstructured training) to develop and maintain different functional systems in the fields of health-related sports, recreational sports, fitness sports and/or competitive sports.

Intended learning outcomes

Students know and understand various special training tools, training methods and concepts of action for developing and maintaining different functional systems in the fields of health sports, recreational sports, fitness sports and/or competitive sports. With the acquired professional competencies and methodological competencies they illustrate, categorize, and compare the various advantages and disadvantages of specific training tools, training methods and concepts of actions, and can provide a targeted implementation in the fields of health-related sports, recreational sports, fitness sports and/or competitive sports.

Courses (type, number of weekly contact hours, language — if other than German)

VL (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 60 minutes)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Current Trends			06-EST-COT-232-m01
Module coordinator			**Module offered by**
holder of the Chair of Integrative and Experimental Exercise Science and Training			Institute of Sport Science
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Current topics and trends related to exercise science and training (e.g., nutrition, new training methods, recovery strategies, training tools, technologies) on processes related to developing and maintaining different functional systems with physical activity and/or training in the fields of health-related sports, recreational sports, fitness sports, and/or competitive sports.

Intended learning outcomes

The students know and understand current topics and trends about processes for developing and maintaining different functional systems through physical activity and/or training in the fields of health-related sports, recreational sports, fitness sports, and/or competitive sports. They can analyze, classify, discuss and reflect on various and current topics and trends related to processes for developing and maintaining functional systems through physical activity and/or training.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Diagnostic Methods			06-EST-DIM-232-m01
Module coordinator			**Module offered by**
holder of the Chair of Integrative and Experimental Exercise Science and Training			Institute of Sport Science
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Psychological and physiological diagnostic methods in health sports, recreational sports, fitness sports, and/or competitive sports (e.g., performance diagnostic of motor abilities, anthropometry, body composition, muscle volume, respiratory gas analysis, functional movement diagnostics, sport-specific diagnostics).

Intended learning outcomes

The students know various diagnostic methods in health-related sports, recreational sports, fitness sports, and/or competitive sports and can select, apply and evaluate them appropriately for a target group. Additionally, they can interpret the respective results and provide recommendations for sports practice. The students will be able to develop methodological skills in practical work with different diagnostic procedures.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Influencing Factors			06-EST-INF-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Intra- and interpersonal, organizational, environmental, and socio-political influencing factors involved in processes for developing and maintaining different functional systems through physical activity and/or training in the fields of health-realted sports, recreational sports, fitness sports and/or competitive sports.

Intended learning outcomes

The students can describe and understand various influencing factors that are involved in processes for developing and maintaining different functional systems through physical activity and/or training in the fields of health-related sports, recreational sports, fitness sports and/or competitive sports. They can analyze, classify, and evaluate these influencing factors as well as provide targeted recommendations for action.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Information Management			06-EST-INM-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Basic concepts of information processing, information technology and programming skills (e.g., data literacy, database systems, data aggregation) are presented, elaborated and discussed.

Intended learning outcomes

The students know basic concepts of information technology and software technology and can describe and classify them. Students can apply basic programming concepts and use them for themselves.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Internship			06-EST-INT-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
10	(not) successfully completed	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Eight-week internship in an institution in the fields of health-related sports, recreational sports, fitness sports and/or competitive sports or in a scientific institution. The internship can be completed in Germany or abroad.

Intended learning outcomes

To gather experience with professional competencies and acquire professional knowledge in the fields of health-related sports, recreational sports, fitness sports and/or competitive sports, or in the scientific field. Acquisition of practical professional and methodological skills as well as social and personal skills during the internship. The students can practice, assess, evaluate and critically reflect practical relevant knowledge from their studies and transfer this knowledge to professional practice.

Courses (type, number of weekly contact hours, language — if other than German)

R (4)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

placement report (approx. 8 pages)
Language of assessment: English

Allocation of places

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Additional information

Duration of practical course: 8 weeks.
Prior to the placement, approval must be obtained from the placement supervisor.

Workload

300 h

Teaching cycle

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Monitoring Technology			06-EST-MOT-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Presentation of and working with monitoring technologies to support the process of developing and maintaining different functional systems through physical activity and/or training in the fields of health sports, recreational sports, fitness sports, and/or competitive sports. Targeted selection, application, evaluation, and interpretation of monitoring technologies and development of concepts and/or recommendations for health-related sports, recreational sports, fitness sports, and/or competitive sports.

Intended learning outcomes

The students know various monitoring technologies in health-related sports, recreational sports, fitness sports, and/or competitive sports. They can select, apply, evaluate, interpret results and develop concepts and/or recommendations for action in relation to health-related sports, recreational sports, fitness sports, and/or competitive sports.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title	Abbreviation
Master-Thesis	06-EST-MT-232-m01

Module coordinator	Module offered by
holder of the Chair of Integrative and Experimental Exercise Science and Training	Institute of Sport Science

ECTS	Method of grading	Only after succ. compl. of module(s)
30	numerical grade	--

Duration	Module level	Other prerequisites
1 semester	graduate	--

Contents

Independent preparation of an English-language document (Master thesis) to work on and answer a relevant question from the (sport) scientific field, under consideration of scientific standards. The research question, hypothesis, methods, results, discussion, and practical recommendations should be presented conclusively and comprehensibly and correspond to the international scientific standard.

Intended learning outcomes

Methodological and self-competence in scientific working and writing. Students can plan, structure, execute, evaluate, discuss, and write a scientific thesis, considering scientific standards. Based on the results of the Master thesis, students can derive recommendations for sports practice and future scientific work.

Courses (type, number of weekly contact hours, language — if other than German)

No courses assigned to module
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Master's thesis (approx. 80 pages)
Language of assessment: English

Allocation of places

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Additional information

Time to complete: 6 months.
Registration on a continuous basis as agreed upon with supervisor

Workload

900 h

Teaching cycle

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Intervention & Implementation Project - Health			06-EST-PRH-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
10	(not) successfully completed	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Planning, implementation, and evaluation of a (sport)scientific project (e.g., training study, prevention project, evaluation study, training intervention, survey, proof of concept) and/or designing a conceptual framework for practical implementation in different target groups within a health-promoting and health-preserving setting.

Intended learning outcomes

Students can independently develop, implement, and evaluate (sport)scientific projects (e.g., for specific populations regarding maintaining, improving or regaining health) and/or design conceptual frameworks for practical implementation in different target groups with a health-promoting and health-preserving setting. The students acquire methodological, social and personal skills in the field of (sport)scientific project implementation and evaluation.

Courses (type, number of weekly contact hours, language — if other than German)

R (4)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

300 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Intervention & Implementation Project - Performance			06-EST-PRT-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
10	(not) successfully completed	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Planning, implementation, and evaluation of a (sport)scientific project (e.g., training study, prevention project, evaluation study, training intervention, survey, proof of concept) and/or designing a conceptual framework for practical implementation in different target groups within recreational sports, fitness sports, or competitive sports.

Intended learning outcomes

Students can independently develop, implement, and evaluate (sport)scientific projects (e.g., for specific populations regarding maintaining, improving or regaining health) and/or design conceptual frameworks for practical implementation in different target groups within recreational sports, fitness sports, or competitive sports. The students acquire methodological, social and personal skills in the field of (sport)scientific project implementation and evaluation.

Courses (type, number of weekly contact hours, language — if other than German)

VL (2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

300 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Research Methods			06-EST-REM-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Advanced methodological skills in scientific working as well as knowledge and procedures to ensure excellent scientific practice (e.g., research ethics, study designs, literature research, reviews, qualitative and quantitative methods, publication models, scientific writing).

Intended learning outcomes

The students acquire advanced methodological competencies. The students know the advantages and disadvantages of advanced methods in scientific work and can classify them and compare them to other methods. They can identify these methods on their own and evaluate and discuss them in the respective context. The students can select, apply and interpret adequate research methods for specific questions related to the subject.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Research Project Skills			06-EST-RPS-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Theories and methods of (project) management in the (sport)scientific context. The focus lies on general project planning measures and on practical methods for project documentation and project evaluation for (sports) scientific research projects.

Intended learning outcomes

Students acquire methodological skills in project planning, implementation and documentation as well as in critically reflected evaluation within the framework of a scientific project. The students know different theories and methods of (project) management in the (sport)scientific context and can describe and compare them with other methods. Students can select, apply and analyze theories and methods of (project) management in a future (sport)scientific project in a situation specific manner and interpret the results.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Interaction of Science and Application			06-EST-SAI-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Presentation and discussion of current casuistries for the implementation of evidence-based knowledge for practice-relevant problem solving. Collaborative work processes between science and knowledge users are presented and discussed with the aim of applying scientific evidence in a way that is appropriate for the target group. At the same time, methods are identified and discussed with which the implementation process can be evaluated.

Intended learning outcomes

The students acquire in-depth and extended professional and methodological skills for the collaborative implementation of scientific findings in practice. The students can identify, compare and evaluate essential methods for evaluating the implementation process.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Science Communication			06-EST-SCC-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Presentation of various elements in science communication (e.g., scientific communication and scientific presentation, scientific discussion and argumentation, scientific manuscript preparation, steps of the publication process, third mission). Different possibilities of preparing information and knowledge (e.g., infographics, power point, science in social media) for different target groups in different areas of science communication are addressed and discussed.

Intended learning outcomes

The students acquire advanced professional skills and methodological skills in science communication. They acquire social and personal skills related to communication and cooperation in the context of science communication. The students are familiar with various media and channels of science communication and can assess and discuss the respective advantages and disadvantages of these areas based on specific examples. The students can prepare complex knowledge for different target groups.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title	Abbreviation
Scientific Debate	06-EST-SCL-232-m01

Module coordinator	Module offered by
holder of the Chair of Integrative and Experimental Exercise Science and Training	Institute of Sport Science

ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--

Duration	Module level	Other prerequisites
1 semester	graduate	--

Contents

Research, presentation and discussion of current (sport)scientific research results and –methods for developing and maintaining different human functional systems through physical activity and/or exercise in the fields of health-related sports, recreational sports, fitness sports and/or competitive sports.

Intended learning outcomes

The students can identify, understand and critically interpret and discuss scientific publications on (sport)scientific research results and methods. The students can prepare and present (sport)scientific research results in a comprehensible and detailed manner, discuss them critically in the overall context of the topic and derive conclusions for applied sports and scientific work.

Courses (type, number of weekly contact hours, language — if other than German)

P (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Advances in Technologies			06-EST-TAD-232-m01
Module coordinator			**Module offered by**
holder of the Chair of Integrative and Experimental Exercise Science and Training			Institute of Sport Science
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Technological and digital developments (e.g., apps and wearables, artificial intelligence, training equipment) in relation to processes for developing and maintaining various functional systems through physical activity and/or training in the fields of health-related sports, recreational sports, fitness sports, and/or competitive sports.

Intended learning outcomes

Students know and understand various technological and digital developments for processes for developing and maintaining different functional systems through physical activity and/or training in the fields of health-related sports, recreational sports, fitness sports, and/or competitive sports. The students can explain, classify, and evaluate these developments. They can apply the technology to provide targeted recommendations for action.

Courses (type, number of weekly contact hours, language — if other than German)

S (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

Assessment group Seminar: a) oral examination of one candidate each (approx. 30 minutes) or b) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or c) portfolio (15-20 pages)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)

Module title			Abbreviation
Theories and Models			06-EST-TAM-232-m01
Module coordinator		**Module offered by**	
holder of the Chair of Integrative and Experimental Exercise Science and Training		Institute of Sport Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Complex and interdisciplinary theories and models in and in connection with various sports science related disciplines (e.g., stimulus-reaction adaptation model, cybernetic model, 24-hour model, behavior change, system theory, socio-economic model) in the training process to develop and maintain different functional systems through physical activity and/or training in the fields of health-related sports, recreational sports, fitness sports and/or competitive sports.

Intended learning outcomes

The students acquire in-depth and broad professional skills and methodological competences about current theories and models of processes for developing and maintaining different functional systems through physical activity and/or training in the fields of health sports, recreational sports, fitness sports and/or competitive sports. Students acquire the main methods and can theoretically provide a targeted implementation of current theories and models in the practical fields of health-related sports, recreational sports, fitness sports and/or competitive sports and improve their social competencies.

Courses (type, number of weekly contact hours, language — if other than German)

VL (2)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 60 minutes)
Language of assessment: English

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

Teaching cycle: once a year

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

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Module appears in

Master's degree (1 major) Exercise Science and Training (2023)