Certified translation from the German language

Study regulations for the International Masters/ Doctoral Programme of Clinical Exercise Science (CES) at the Faculty of Human Sciences at the University of Potsdam

From 16th July 2009

The Faculty Board of the Faculty of Human Sciences of the University of Potsdam has, based upon § 70 sect. 2 no. 1 in combination with § 89 of the Higher Education Act of Brandenburg (BbgHG) of 18th December 2008 (GVBl. I p. 318), altered by Article 16 of the law of 3rd April 2009 (GVBl. I p. 318), issued the following regulations regarding studies and examinations on 16th July 2009:[1]

Summary of Content

I. General Part

§ 1 Object of the Study Regulations

These study regulations apply in amendment to and specification of the general regulations for the bachelor's and master's courses of study, with the exception of teacher training courses, of the University of Potsdam of 24th September 2009 (AmBek. UP 9/2009, p. 160) and the graduation regulations of the Faculty of Human Sciences of the University of Potsdam of 17th October 2006 (AmBek. UP 1/2007 p.56) content, structure and examinations of the integrated International Master's and Doctoral Programme Clinical Exercise Science (CES).

§ 2 Aim of the Programme

(1) The aim of the programme is a clinically and research-oriented continuation of vocational qualification preparation for managerial and scientific activities in the fields of application of physical activity in sport and medicine with a focus upon prevention and rehabilitation. A distinction is here made between clinical application with patients and application in health sport, leisure sport and top-class sport. The participants deepen and extend the knowledge, abilities and skills already acquired in a relevant, successfully completed Bachelor's or other course of study with additional qualifications. This includes theoretical, methodical and experimental foundations of scientific work and improves ability for fields of activity relating to research and teaching.

[1] Approved by the President of the University of Potsdam with the letter of 2nd November 2009.

(2) The option of completing this programme entirely in the English language is also intended to make it particularly attractive to foreign students. Before the start of a programme, the examination committee specifies in which language the courses are to be conducted.

(3) Special access conditions apply to acceptance onto the programme; these are specified in an admission regulation.

§ 3 Structure and Duration of the Programme

(1) The programme consists of a first section that starts with the winter semester and a second section that can also be started with the winter semester. The scope is measured in ECTS credit points (CP), the allocation of which is based upon the volume of work to be carried out. The full-time workload for an academic year here corresponds to 60 ECTS credit points.

(2) The participants of the master's and Doctoral Programme first run through a shared year of study, consisting of training comprising theoretical content and scientific method.

(3) Afterwards, the participants can either continue the master's programme with vocationally qualifying content and complete a six-month master's thesis or immediately start the three-year doctoral section of the programme.

(4) On the master's programme, the normal duration of study is two years (120 CP); the normal duration of study for the doctoral programme is a total of four years (240 CP).

(5) The programme is structured in modules.

§ 4 Examinations and College Grades

(1) Participants with the aim of obtaining the master's degree complete the programme with the successful master's thesis including master's colloquium in accordance with §§ 7 and 8. The doctoral programme is completed with the passing of the doctoral examination in accordance with §§ 9 and 10.

(2) The master's thesis including master's colloquium is intended to ascertain whether the necessary specialist skills have been acquired, whether theory has successfully been combined with empirical aspects and a strong research-oriented way of looking at problems on a scientific basis with specialist scientific methods within a predetermined time limit has been successfully applied. The results must be presented in a formally, linguistically and objectively convincing way.

(3) The dissertation and the doctoral examination are intended to ascertain whether the person to be examined posses the ability to conduct in-depth, independent scientific work.

(4) After the successful completion of the master's thesis, the Faculty of Human Sciences awards the university degree of "Master of Science" (abbreviation: "M.Sc.").

(5) After the doctoral examination has been passed, the Faculty of Human Sciences awards the university degree "Doctor of Philosophy"" (abbreviated: "Ph.D.").

(6) The faculty of Human Sciences issues a certificate for the M.Sc. and/or the Ph.D. with the date of the graduation in English (Appendix 2a, c) or upon request in German (Appendix 2b, d). The master's certificate includes the title and grade of the master's thesis and the overall mark. The Ph.D. certificate includes the title of the

dissertation, the overall mark is stated in a transcript of records attached to the Ph.D. certificate.

§ 5 Examination Board

(1) A Clinical Exercise Science (CES) examination board is appointed by the Faculty of Human Sciences, for the organisation and supervision of teaching and examinations.

(2) This consists of five members: three members of the group of the professors, a member - with a doctorate - of the group of scientific employees and a member from the ranks of the participants of the master's/doctoral programme.

(3) The examination board makes the decisions concerning the selection of the applicants for the master's/doctoral programme, the type and scope of the performance records necessary for admission to the programme and admission to the doctoral section.

(4) The examination board coordinates the specialist studies consultation participated in by the professors involved in the programme.

(5) Six months after the start of the second section of the doctoral programme at the latest, the examination board appoints, after a hearing of the student in question, a supervisor with a postdoctoral lecturing qualification or the equivalent thereof, and at least one additional professor with a doctorate or a professor from the programme to supervise the dissertation proposal. In justified cases, the work can be carried out under the guidance of up to two university-external professors.
(6) The examination board ensures the conducting of the examinations. Its members have the right to attend the taking of the examinations as observers.

§ 6 Repetition of Examinations

(1) All examinations (module examination or interim examinations) must be repeated in the case of an evaluation with the grade "inadequate", but for a maximum of two times. Before the second repeat examination, it is required to attend the relevant course again.

(2) It is not possible to repeat examinations that have been passed.

II. Special Part

§ 7 First Joint Section of the Master's/Doctoral Programme

(1) The first joint section consists of intensive theoretical training by means of lectures and seminars, combined with practical training in the departments involved in the programme, with tutorial support.

(2) 60 ECTS credit points (CP) are necessary for successful conclusion of the first section. These can be obtained in the following way (see Module Description Appendix 4):
(a) Basic and advanced module with content on scientific methods "Scientific Methods and Evaluation" with lectures and accompanying seminars:
12 CP each per semester
(b) Basic and advanced module with subject-specific content "Exercise in Prevention and Rehabilitation" with lectures and accompanying seminars:
12 CP each per semester
(c) Basic module "Applied Methods" with compulsory elective subject options from the spheres of activity Medical training Therapy, Performance Physiology, Project Work in Studies, Working as a Tutor or Mentor, among others:
12CP in 2 semesters

§ 8 Second Section of the Master's Programme

(1) The second section includes deepening, especially vocationally qualifying teaching in the following modules (see Module Description Appendix 4):
(a) Specialisation module with content on scientific methods "Scientific Methods and Evaluation" with one main seminar:
8 CP per semester
(b) Advanced module "Applied Methods" for vocational qualification with main seminar and professional practical training in projects of the spheres of activity of medical training therapy, performance physiology, project work in studies, and tutorial and mentoring activity, among others.
22 CP per semester

(2) The successful completion of the second section requires the producing of the master's thesis.
(a) The master's thesis is produced as a scientific work in the framework of an independent project after the successful completion of the first section of the master's programme under the supervision of a professor of the graduate/doctoral programme. It is composed in English. 25 credit points are granted for the empirical work in the framework of the master's thesis. The work must include a short summary in German as an appendix.
(b) The students can carry out experimental parts of the master's thesis after consultation with the examination board. The examination board ensures that the partner institution appoints an appropriate advisor who ensures the supervision of the participants.
(c) The working time limit of six months starts on the day of the handing-over of the thesis subject by the examination office, which also puts the submission deadline on record. The work counts as having been completed on time if it is handed in to the examination office before the elapsing of the specified time limit.
(d) The submission time limit can in justified exceptional cases be postponed by three more months, in the case of illness it can be extended corresponding to the length of time for which the student is certified on sick leave. The extension of the time limit is granted by the chairman of the examination board after consultation with the advisor. If the candidate does not submit the thesis within the time limit then it counts as having been evaluated "inadequate".
(e) The equivalent to a master's thesis is a publication that is accepted for publication in a peer-reviewed specialist journal and that credits the candidate as the first author. For this form of master's thesis, a summary of the subject and a general discussion must be submitted to the examination board. The date of submission here counts as punctual completion of the work.

(3) Master's Colloquium
(a) Participants in the second section of the master's programme attend a master's colloquium taking place regularly in the lecture period and present their work on at least one of these occasions.
(b) The mark of the presentation is included in the overall mark for the master's thesis.

§ 9 Master of Science

(1) The awarding of the university degree "Master of Science" (M.Sc.) requires:
(a) the obtaining of the necessary credit points for the master's study section (at least 120 CP);
(b) the successful completion of a scientific master's thesis.

(2) The mark to be awarded is composed, in a three to one ratio, of the average of the module marks and the master's thesis (including master's colloquium).

§ 10 Second Section of the Doctoral Programme

(1) In the second section of the doctoral programme, the degree holders primarily carry out scientific research work.

(2) This section is to be completed within three years. In exceptional cases, it can be extended a maximum of twice, by half a year each time.

(3) The degree holders are advised during their dissertation by two advisors of the programme. One of them must possess a postdoctoral lecturing qualification or the equivalent and normally provides one of the expert opinions. The other advisor must have obtained a doctorate. In justified cases, these can be external to the university (see § 5 sect. 5). The degree holders are entitled to suggest who the advisor should be. The examination committee decides four weeks after admission to the doctoral section.

(4) Subjects of the dissertation are specified by the advisors in agreement with the degree holder within the first year after admission to the doctoral section. The degree holders are entitled to suggest which subjects they would like to deal with. The advisors make the decision. If the degree holders and advisors cannot agree on subjects, the degree holder has the one-off option of changing the advisors, in accordance with § 9 sect. 3. The examination committee takes the decision one year after admission to the doctoral section at the latest.

(5) For their dissertation, the participants normally carry out a large project or three small ones. The degree holders present the planned project or planned projects in the doctoral colloquium within the first year after admission to the doctoral section (written study design and presentation).

(6) The participants can carry out their project or projects for their dissertation at an external institution, after consultation with the advisors. The advisors ensure that the partner institutions appoint at least one professor to supervise the participant.

(7) For interdisciplinary further education, modules are offered with special events, colloquia and seminars, in accordance with Appendix 4. The participants are to prove 20 ECTS credit points CP from this field every year.
(a) 8-12 credit points a year can be obtained from the modules "Scientific Qualification I; II; III" with the doctoral seminar, journal club, advanced seminar in statistics and conference contributions.
(b) 8-12 credit points a year can be obtained from the specialisation modules "Applied Methods I; II; III" with the scientific tutorial and practical spheres of activity in projects as compulsory and compulsory elective elements. The practical spheres of activity are e.g. in the following areas:
(ba) Patient care (including Medical Training Therapy, Performance Physiology Diagnostics).
(bb) Vocational training (tutorial or mentoring supervision of students from bachelor courses of study in the initial study phase).
(bc) Organisation and administration (including managing the Journal Club, homepage maintenance, acquisition of third-party funds, planning of specialist conferences)

§ 11 Dissertation

(1) 120 CP are awarded for the empirical work in the framework of the dissertation.

(2) The dissertation is to be composed in writing in English. The work must include a brief summary in German as an appendix.

(3) Equivalent to the dissertation is a collection of at least three scientific publications that have been accepted for publication in peer-reviewed journals. In these publications, the doctoral candidate must be credited as the first author. In this form of doctorate, a summary of the subject dealt with and a general discussion must be submitted to the examination board. Upon submission, the student affirms that he or she has composed the work independently and has not used any sources or aids other than those stated and has adhered to the rules of good scientific practice.

(4) The examination board appoints three professors, designated for the subject, as experts, including the supervisor of the work and at least one external expert who may not belong to the University of Potsdam.
The expert opinions must recommend the acceptance or rejection of the dissertation and give reasons. In the case of acceptance, they suggest the grade:
-A (*summa cum laude*): exceptional dissertation work
- B (*magna cum laude*): very good dissertation work
- C (*cum laude*): good dissertation work
- D (*rite*): adequate work, worthy of a dissertation
- F (*non sufficit*): inadequate work, not appropriate for a dissertation

The examination board makes the decision concerning the acceptance of the doctoral work.

(5) The dissertation is normally defended in English. This takes place publicly and is followed by disputation. This is evaluated with the following grades:
-A (*summa cum laude*): exceptional disputation work
- B (*magna cum laude*): very good disputation work
- C (*cum laude*): good disputation work
- D (*rite*): adequate work, worthy of a disputation
- F (*non sufficit*): inadequate work, not appropriate for a disputation

(6) The disputation in which the students defend their doctoral dissertation is evaluated by an examination committee, which includes the supervisor and other advisors as well as the examination board. The chairperson of the examination board acts as the chairperson of the examination committee.

(7) The overall mark to be awarded is composed of the evaluation of the dissertation work and the oral examination mark, in a weighting ratio of two to one.

(8) Participants who do not successfully complete the second section of the doctorate and/or do not want to complete the doctorate, receive a transcript of records which records the work performed. Upon application to the examination board and with performance of the necessary work (see § 8), you can also complete the programme in accordance with § 8 with the title M.Sc.

§ 12 Ph.D.

(1) The awarding of the title "Ph.D." requires:
a) the meeting of the preconditions for admission
(see admission regulation);
(b) the obtaining of the necessary credit points for the second section according to § 10 (at least 180 CP in the second section of the doctoral programme);
(c) the acceptance of the dissertation by the examination committee in accordance with § 11;
(d) a successful disputation in accordance with § 11;
(e) a publication of the dissertation.

(2) The Ph.D. certificate is issued by the president of the University of Potsdam and the dean of the Faculty of Human Sciences under the date of the disputation in accordance with the conditions of the faculty's respectively current regulation on doctorates.

(3) The title must not be borne before the handing over of the certificate.

§ 13 Lesson Plan

The recommended lesson plan is attached as Appendix 3. Detailed information about the courses can be found in the module descriptions in Appendix 4. This can be deviated from in the event of important reasons or after the recognition of equivalent work.

III. Final Clauses

§ 14 Coming Into Effect

This regulations enter into force on the day after its publication in the Official Announcements of the University of Potsdam.

Appendices:

Appendix 1a: Transcript of Records for the first segment of the CES
Appendix 1b: German version of the above
Appendix 2a: Master's Certificate
Appendix 2b: German version of the above
Appendix 2c: Doctoral Certificate
Appendix 2d: German version of the above
Appendix 3a: Lesson Plan of Graduate Programme
Appendix 3b: Lesson Plan of Doctoral Programme
Appendix 4: Module Descriptions

Appendix 1a

University of Potsdam
Faculty of Human Sciences

Transcript of Records

With this transcript we certify that
Ms./Mrs./Mr. *)……(Student ID No.:……..)
born on ……in……has successfully completed the first segment of the International Graduate Programme Clinical Exercise Science (CES) with the average grade……

Module	Course title	Name of academic teacher	Course type (e.g. lecture, seminar, exercise)	Examination (e.g. written exam, term paper, presentation)	ECTS-Credit Points	ECTS-grade

(seal of university)

…….

Potsdam (Date)

Prof. Dr……. Prof. Dr…….

Dean of the Faculty of Human Sciences Chairman of the Examination Board

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* Please delete if inapplicable

Appendix 1b

Universität Potsdam
Humanwissenschaftliche Fakultät

Zeugnis

Hiermit wird bescheinigt, dass
Frau/Herr *)……(Matrikelnr.:……..)
geb. am ……in…….
den ersten Abschnitt des Internationalen Master-/Promotionsprogramms Clinical Exercise Science (CES) mit der mittleren Modulnote …… erfolgreich abgeschlossen hat.

Modul	Kurstitel	Dozent/-in	Kurstyp (z.B. Vorlesung, Seminar, Übung)	Prüfungsform (z.B. Klausur, Hausarbeit, Präsentation)	ECTS-Credit Points	ECTS-Note

(Siegel der Hochschule)

……, den…….

Potsdam (Datum)

Prof. Dr……. Prof. Dr…….

Die Dekanin/Der Dekan der Humanwissenschaftlichen Fakultät Vorsitz des Prüfungsausschusses

_____

* Nicht Zutreffendes bitte streichen

Appendix 2a

University of Potsdam
Faculty of Human Sciences

Master's Certificate

The University of Potsdam
Faculty of Human Sciences
certifies that
Ms./Mrs./Mr. *) ……
born on ……in……
has been awarded the degree

Master of Science (M.Sc.),

in the International Graduate Program Clinical Exercise Science (CES)
pursuant to the regulations of (Date)
on…… (Date)
upon successful completion of coursework with the average grade……,
and upon successful completion of the master's thesis

(Title of thesis)
with the grade…….

Overall grade: …….

(seal of university)

…….
Potsdam (Date)

Prof. Dr. …….
Dean of the Faculty of Human Sciences

Prof. Dr. ……..
Chairman of the Examination Board

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* Please delete if inapplicable

Appendix 2b

Universität Potsdam
Humanwissenschaftliche Fakultät

Masterurkunde

Die Universität Potsdam
Humanwissenschaftliche Fakultät
verleiht mit dieser Urkunde
Frau/Herrn *) ……
geb. am ……in……
den Hochschulgrad

Master of Science
(abgekürzt M.Sc.),

nachdem sie/er *) das Studium im Internationalen Master-/Promotionsprogramm Clinical Exercise Science (CES)
gemäß Ordnung vom (Datum)
am…… (Datum)
aufgrund von Studienleistungen mit der mittleren Modulnote ……
sowie aufgrund der Masterarbeit

(Titel der Arbeit)
mit der Note……. erfolgreich abgeschlossen hat.

Gesamtnote: ……

(Siegel der Hochschule)

……, den…….
Potsdam (Datum)

Prof. Dr. …….
Die Dekanin/Der Dekan der Humanwissenschaftlichen Fakultät

Prof. Dr. …….
Vorsitz des Prüfungsausschusses

_____
* Nicht Zutreffendes bitte streichen

Appendix 2c

University of Potsdam
Faculty of Human Sciences

Doctoral Certificate

The University of Potsdam
Faculty of Human Sciences
Prof. Dr. Ing. Habil. Dr. Phil. Sabine Kunst, President
Prof. Dr. ……., Dean of the Faculty of Human Sciences
certifiy that
Ms./Mrs./Mr. *) ……
born on ……..in……
has been awarded the degree

Doctor of Philosophy (Ph. D.),

pursuant to the regulations of the International Doctoral Program Clinical Exercise Science (CES)
of…… (Date)
upon successful completion of the doctoral thesis

(Title of Thesis)
and an oral thesis defense.

(seal of university)

……
Potsdam (Date)

Prof. Dr. …….
President

Prof. Dr. ……..
Dean of the Faculty of Human Sciences

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* Please delete if inapplicable

Appendix 2d

Universität Potsdam
Humanwissenschaftliche Fakultät

Promotionsurkunde

Die Humanwissenschaftliche Fakultät
der Universität Potsdam
verleiht
unter der Präsidentin Prof. Dr. Ing. Habil. Dr. Phil. Sabine Kunst,
und dem Dekan der Humanwissenschaftlichen Fakultät……..
Frau/Herrn *) ……
geb. am ……..in……
den akademischen Grad

Doctor of Philosophy (Ph.D.)

nachdem sie/er *) in ordnungsgemäßem Promotionsverfahren gemäß der Ordnung des Internationalen Master-/Promotionsprogramms Clinical Exercise Science (CES)
vom…… (Datum)
durch die bestandene Dissertation

(Titel der Dissertation)

sowie durch die bestandene Disputation ihre/seine *) wissenschaftliche Befähigung erwiesen hat.

(Siegel der Hochschule)

……, den…….
Potsdam (Datum)

Prof. Dr. ……
Präsidentin

Prof. Dr. ……..
Dekanin/Dekan der Humanwissenschaftlichen Fakultät

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* Zutreffendes einsetzen

Appendix 3: Recommended Lesson Plans

3a: Recommended Lesson Plan of the Master's Programme

<table>
<tr><th colspan="2">First Joint Segment</th><th colspan="2">Second Segment</th></tr>
<tr><td>1st Semester</td><td>2nd Semester</td><td>3rd Semester</td><td>4th Semester</td></tr>
<tr><td>Basic Module
Scientific Methods and Evaluation
Compulsory: Lecture
Compulsory: Seminar
[12 CP]</td><td>Advanced Module
Scientific Methods and Evaluation
Compulsory: Lecture
Compulsory: Seminar
[12 CP]</td><td>Specialisation Module
Scientific Methods and Evaluation
Compulsory: Main Seminar
[8 CP]</td><td rowspan="3">Master's Thesis incl. Master's Colloquium
[30 CP]</td></tr>
<tr><td>Basic Module
Exercise in Prevention and Rehabilitation
Compulsory: Lecture
Compulsory: Seminar
[12 CP]</td><td>Advanced Module
Exercise in Prevention and Rehabilitation
Compulsory: Lecture
Compulsory: Seminar
[12 CP]</td><td rowspan="2">Advanced Module
Applied Methods
Vocational Qualification
Compulsory: Main Seminar
[8 CP]

Compulsory Elective Options
[14 CP compulsory]:
MTT [6 CP]
Performance Physiology [6 CP]
Project Work in Studies [6 CP]
Tutor Activity [up to 6 CP]
Other Areas [up to 6 CP]</td></tr>
<tr><td colspan="2">Basic Module
Applied Methods
Compulsory Elective Options [12 CP compulsory]
MTT [6 CP]
Performance Physiology [6 CP]
Project Work in Studies [6 CP]
Tutor Activity [6 CP]
Other Areas [6 CP]</td></tr>
<tr><td>30 CP</td><td>30 CP</td><td>30 CP</td><td>30 CP</td></tr>
<tr><td colspan="2">60 CP</td><td colspan="2">60 CP</td></tr>
<tr><td colspan="4">120 CP</td></tr>
</table>

3b: Recommended Lesson Plan of the Second Segment of the Doctoral Programme (for first segment see 3a)

<table>
<tr><th colspan="6">Second Segment</th></tr>
<tr><th colspan="2">Training Year 2</th><th colspan="2">Training Year 3</th><th colspan="2">Training Year 4</th></tr>
<tr><td>1st Semester</td><td>2nd Semester</td><td>3rd Semester</td><td>4th Semester</td><td>5th Semester</td><td>6th Semester</td></tr>
<tr><td colspan="2">Science Module I
Scientific Qualification (8-12 CP)
Compulsory: Doctoral Colloquium
[at least 4 CP]
Compulsory: Journal Club
[at least 2 CP]
Optional: Advanced Seminar Statistics
[4CP]</td><td colspan="2">Science Module II
Scientific Qualification (8-12 CP)
Compulsory: Doctoral Colloquium
[at least 4 CP]
Compulsory: Journal Club
[at least 2 CP]
Compulsory Elective: Conference Participation
[4CP]</td><td colspan="2">Science Module III
Scientific Qualification (8-12 CP)
Compulsory: Doctoral Colloquium
[at least 4 CP]
Compulsory: Journal Club
[at least 2 CP]
Compulsory Elective: Conference Participation
[4CP]</td></tr>
<tr><td colspan="2">Specialisation Module I
Applied Methods (8-12 CP)
Compulsory: Science Tutorial
[at least 2 CP]

Compulsory Elective Options
[at least 6 CP compulsory]
MTT [4CP]
Performance Physiology [4 CP]
Administration [4 CP]
Tutor Activity [up to 4 CP]
Other Areas [up to 4 CP]</td><td colspan="2">Specialisation Module II
Applied Methods (8-12 CP)
Compulsory: Science Tutorial
[at least 2 CP]

Compulsory Elective Options
[at least 6 CP compulsory]
MTT [4CP]
Performance Physiology [4 CP]
Administration [4 CP]
Tutor Activity [up to 4 CP]
Other Areas [up to 4 CP]</td><td colspan="2">Specialisation Module III
Applied Methods (8-12 CP)
Compulsory: Science Tutorial
[at least 2 CP]

Compulsory Elective Options
[at least 6 CP compulsory]
MTT [4CP]
Performance Physiology [4 CP]
Administration [4 CP]
Tutor Activity [up to 4 CP]
Other Areas [up to 4 CP]</td></tr>
<tr><td colspan="6">Dissertation [120 CP]</td></tr>
<tr><td>30 CP</td><td>30 CP</td><td>30 CP</td><td>30 CP</td><td>30 CP</td><td>30 CP</td></tr>
<tr><td colspan="6">180 CP</td></tr>
</table>

Appendix 4: Module Descriptions

<table>
<tr><td colspan="6">Module Title: BM-SME Basic Module Scientific Methods & Evaluation 12 CP</td></tr>
<tr><td></td><td>Workload
360 h</td><td>Credit Points
12</td><td>Semester (recommended)
1st</td><td>Frequency of the Module
winter semester</td><td>Duration (recommended)
1 semester</td></tr>
<tr><td>Workload/ Credits</td><td colspan="2">Courses
Lecture: Methods
Seminar: Literature & Presentation</td><td>Contact Time
2 SWH/22.5 h
2 SWH/22.5 h</td><td>Independent Study
150 h
165 h
Preparation and follow-up of the courses, literature research, production of a summary work, producing a presentation.</td><td>CP
6 CP
6 CP</td></tr>
<tr><td>Learning Outcomes/ Skills</td><td colspan="5">The participants learn how to plan scientific research projects in a methodically adequate way and to present scientific subjects appropriately. They know the relevance of fundamental scientific rules for the conducting or research projects and understand fundamental analytical procedures. They are able to research and manage literature independently and to present the current state of research on given subjects in summarised form.</td></tr>
<tr><td>Content</td><td colspan="5">- scientific foundations of test planning
- study designs and hypotheses
- quality criteria and analytical principles of test procedures
- quality guidelines for scientific examinations (GCP rules, CONSORT criteria)
- basic principles of epidemiological studies
- quality criteria of scientific journals (impact points, assessment processes)
- literature databanks (PubMed, ISI Web of Knowledge, Cochrane Library)
- literature acquisition (online access, interlending)
- systematic literature research
- literature management software
- production of literature surveys
- presentation techniques using a literature survey as an example</td></tr>
<tr><td>Participation Requirements</td><td colspan="5">none</td></tr>
<tr><td>Examination Forms</td><td colspan="5">Lecture: written examination
Seminar: written examination, written and verbal seminar work each count a third towards the grade</td></tr>
<tr><td>Credit Points and Awarding of Marks</td><td colspan="5">12 credit points
The mark is calculated from the weighted average of the individual partial marks, with weighting according to credit points.</td></tr>
<tr><td>Use of the Module (in other courses of study)</td><td colspan="5"></td></tr>
<tr><td>Responsible Staff</td><td colspan="5">Professor of Sports Medicine & Sports Orthopaedics</td></tr>
</table>

<table>
<tr><td colspan="6">Module Title: AM-SME Advanced Module Scientific Methods & Evaluation 12 CP</td></tr>
<tr><td></td><td>Workload
360 h</td><td>Credit Points
12</td><td>Semester (recommended)
2nd</td><td>Frequency of the Module
summer semester</td><td>Duration (recommended)
1 semester</td></tr>
<tr><td>Workload/ Credits</td><td colspan="2">Courses
Lecture: Statistics
Seminar: Statistics & Papers</td><td>Contact Time
2 SWH/22.5 h
2 SWH/22.5 h</td><td>Independent Study
150 h
165 h
Preparation and follow-up of the courses, presentation, preparation for the written examination.</td><td>CP
6 CP
6 CP</td></tr>
<tr><td>Learning Outcomes/ Skills</td><td colspan="5">The participants learn to master descriptive statistical procedures and inferential statistical parametric and non-parametric test procedures. They are able to select suitable test procedures for given questions and study designs and to work out solution options for special statistical questions.</td></tr>
<tr><td>Content</td><td colspan="5">- descriptive analysis of data
- inferential statistical parametric and non-parametric test procedures
- selection of suitable test procedures
- presentation of results in graphics, tables and text
- types of scientific article
- structuring of scientific articles
- reviewing scientific articles
- cross-referencing scientific articles</td></tr>
<tr><td>Participation Requirements</td><td colspan="5">Module BM-SME</td></tr>
<tr><td>Examination Forms</td><td colspan="5">Lecture: written examination
Seminar: written examination, written and verbal seminar work each count a third towards the grade</td></tr>
<tr><td>Credit Points and Awarding of Marks</td><td colspan="5">12 credit points
The mark is calculated from the weighted average of the individual partial marks, with weighting according to credit points.</td></tr>
<tr><td>Use of the Module (in other courses of study)</td><td colspan="5"></td></tr>
<tr><td>Responsible Staff</td><td colspan="5">Professor of Sports Medicine & Sports Orthopaedics</td></tr>
</table>

Module Title:	**VM-SME Specialisation Module Scientific Methods & Evaluation**				**8 CP**
	Workload 240 h	**Credit Points** 8	**Semester (recommended)** 3rd	**Frequency of the Module** winter semester	**Duration (recommended)** 1 semester
Workload/ Credits	**Courses** Main Seminar: evaluation		**Contact Time** 2 SWH/22.5 h	**Independent Study** 217.5 h Preparation and follow-up of the courses, homework.	**CP** 8 CP
Learning Outcomes/ Skills	The participants learn independent selection and differentiated application of methods and techniques of evaluation.				
Content	- methods of evaluation - techniques of evaluation - methods of quality assurance in the occupational milieu - completion of an evaluation on a given subject from the module Applied Methods				
Participation Requirements	Module AM-SME				
Examination Forms	Seminar: written examination, written and verbal seminar work each count a third towards the grade				
Credit Points and Awarding of Marks	8 credit points seminar mark				
Use of the Module (in other courses of study)					
Responsible Staff	Professor of Sports Medicine & Sports Orthopaedics				

Module Title:	**BM-EPR Basic Module Exercise in Prevention and Rehabilitation**				**12 CP**
	Workload 360 h	**Credit Points** 12	**Semester (recommended)** 1st	**Frequency of the Module** winter semester	**Duration (recommended)** 1 semester
Workload/ Credits	**Courses** Lecture: Exercise Physiology I Seminar: Test Procedures I		**Contact Time** 2 SWH/22.5 h 2 SWH/22.5 h	**Independent Study** 150 h 165 h Preparation and follow-up of the courses, preparation for the written exam	**CP** 6 CP 6 CP
Learning Outcomes/ Skills	The participants know fundamentals of epidemiology, aetiology and pathophysiology of illnesses of the supporting and locomotor system and of the internal and sensory organs. They know concepts of the application of physical activity in the prevention and treatment of acute and chronic illnesses. They have a mastery of the application, analysis and assessment of evaluation methods in diagnostics and preventive and rehabilitative interventions in the case of illnesses of the supporting and locomotor system and of the internal and sensory organs.				
Content	- basics and terminology in prevention and rehabilitation - importance and application of physical activity in prevention and rehabilitation - epidemiology, aetiology, pathophysiology, therapy and prognosis of illness of the supporting and locomotor system - epidemiology, aetiology, pathophysiology, therapy and prognosis of illness of the cardiopulmonary system - methods for the assessment of the performance of the cardiopulmonary system (including ergospirometry among others) - evaluation of muscular performance in healthy people and patients (including strength diagnostics, EMG, muscle function diagnostics, among others) - fundamentals of imaging diagnostics for patients - qualitative assessment methods (including subjective load capacity, sensitivity to pain, among others)				
Participation Requirements	none				
Examination Forms	Lecture: written examination Seminar: written examination, written and verbal seminar work each count a third towards the grade				
Credit Points and Awarding of Marks	12 credit points The mark is calculated from the weighted average of the individual partial marks, with weighting according to credit points.				
Use of the Module (in other courses of study)					
Responsible Staff	Professor of Sports Medicine & Sports Orthopaedics				

<table>
<tr><td>Module Title:</td><td colspan="4">AM-EPR Advanced Module Exercise in Prevention and Rehabilitation</td><td>12 CP</td></tr>
<tr><td></td><td>Workload
360 h</td><td>Credit Points
12</td><td>Semester (recommended)
2nd</td><td>Frequency of the Module
summer semester</td><td>Duration (recommended)
1 semester</td></tr>
<tr><td>Workload/ Credits</td><td colspan="2">Courses
Lecture:
Exercise Physiology II
Seminar:
Test Procedures II</td><td>Contact Time

2 SWH/22.5 h

2 SWH/22.5 h</td><td>Independent Study

150 h

165 h
Preparation and follow-up of the courses, preparation for the written exam</td><td>CP

6 CP

6 CP</td></tr>
<tr><td>Learning Outcomes/ Skills</td><td colspan="5">The participants know the relevance of evidence-basing and validation of programmes for the application of physical activity in the prevention and treatment of acute and chronic illnesses. They can assess the load capacity and adaptation potential of healthy people and patients of different ages and of different levels of performance. They have a mastery of the differential-diagnostic application of methods for the evaluation of physical performance.</td></tr>
<tr><td>Content</td><td colspan="5">- epidemiology, aetiology, pathophysiology, therapy and prognosis of neurological illnesses
- epidemiology, aetiology, pathophysiology, therapy and prognosis of illnesses of the internal and sensory organs
- validated concepts for the application of physical activity in the prevention of acute and chronic illnesses
- evidence-basing of physical activity in the therapy of acute and chronic illnesses
- methods for the assessment of physical performance under laboratory and field conditions
- analysis and derivation of recommendations for guidance of intervention based on methods for ascertaining physical performance
- simple and complex application of experimental methods for differential diagnosis in cases of restriction of physical load capacity
- methods for quality assurance of preventive and therapeutic interventions</td></tr>
<tr><td>Participation Requirements</td><td colspan="5">Module BM-EPR</td></tr>
<tr><td>Examination Forms</td><td colspan="5">Lecture: written examination
Seminar: written examination, written and verbal seminar work each count a third towards the grade</td></tr>
<tr><td>Credit Points and Awarding of Marks</td><td colspan="5">12 credit points
The mark is calculated from the weighted average of the individual partial marks, with weighting according to credit points.</td></tr>
<tr><td>Use of the Module (in other courses of study)</td><td colspan="5"></td></tr>
<tr><td>Responsible Staff</td><td colspan="5">Professor of Sports Medicine & Sports Orthopaedics</td></tr>
</table>

Module Title:	**BM-AM Basic Module Applied Methods**				**12 CP**
	Workload 360 h	**Credit Points** 12	**Semesters (recommended)** 1st and 2nd	**Frequency of the Module** Throughout the year	**Duration (recommended)** 2 semesters
Workload/ Credits	**Courses** Compulsory Elective Options: MTT Performance Physiology Project Work in Studies Tutor Activity Other Areas		**Contact Time** 4 SWH/45 h 4 SWH/45 h 4 SWH/45 h 4 SWH/45 h 4 SWH/45 h	**Independent Study** 270 h Preparation and follow-up of the courses, practical report	**CP** 6 CP 6 CP 6 CP 6 CP 6 CP
Learning Outcomes/ Skills	The participants transfer fundamental clinical-practical abilities of scientific-practical work. The focus here is on the transfer of theoretical foundations into practice. They learn the foundations of methodical, content-related and organisational principles in research and teaching.				
Content	- participation in clinical care projects for patients and athletes - empirical investigations into themes in the areas of diagnostic methods or therapeutic programmes in prevention and rehabilitation under supervision - conducting of course events for the initial study phase of BA students under supervision				
Participation Requirements	none				
Examination Forms	Practical: graded practical reports				
Credit Points and Awarding of Marks	12 credit points The mark is calculated from the weighted average of the individual partial marks, with weighting according to credit points.				
Use of the Module (in other courses of study)					
Responsible Staff	Professor of Sports Medicine & Sports Orthopaedics				

Module Title:	**AM-AM Advanced Module Applied Methods**				**22 CP**
	Workload 660 h	**Credit Points** 22	**Semester (recommended)** 3rd	**Frequency of the Module** winter semester	**Duration (recommended)** 1 semester
Workload/ Credits	**Courses**		**Contact Time**	**Independent Study**	**CP**
	Main Seminar: vocational qualification		2 SWH/22.5 h	217.5 h Preparation and follow-up of the courses, producing manuscripts, preparation of presentations, preparing for written exam	8 CP
	Compulsory Elective Options:				
	MTT		4 SWH/45 h	345 h	6 CP
	Performance Physiology		4 SWH/45 h	Preparation and follow-up	6 CP
	Project Work in Studies		4 SWH/45 h	of the courses, practical	6 CP
	Tutor Activity		2 SWH/22.5 h	report	2 CP
	Other Areas		2 SWH/22.5 h		2 CP
Learning Outcomes/ Skills	The participants orient themselves theoretically and practically in the vocational fields of activity. The focus here is on the application of physical activity in medicine and sport, for prevention and rehabilitation in patients and athletes in health, leisure and elite sport.				
Content	- organisation, conducting and quality assurance of clinical care projects for patients and athletes - empirical investigations into themes from the areas of diagnostic methods or therapeutic programmes in prevention and rehabilitation - conducting of course events for the initial study phase of BA students				
Participation Requirements	Module BM-AM				
Examination Forms	Main Seminar: paper, written homework and written examination are each included in the mark Practical: practical report				
Credit Points and Awarding of Marks	22 credit points The mark is calculated from the weighted average of the individual partial marks, with weighting according to credit points.				
Use of the Module (in other courses of study)					
Responsible Staff	Professor of Sports Medicine & Sports Orthopaedics				

<table>
<tr><td>Module Title:</td><td colspan="4">WM-SQ I Science Module Scientific Qualification I</td><td>8-12 CP</td></tr>
<tr><td></td><td>Workload
300 h</td><td>Credit Points
8-12</td><td>Semesters (recommended)
3rd and 4th</td><td>Frequency of the Module
throughout the year</td><td>Duration (recommended)
2 semesters</td></tr>
<tr><td>Workload/ Credits</td><td colspan="2">Courses
Doctoral Colloquium
(at least one semester)

Journal Club
(at least one semester)

Specialisation Seminar Statistics
(optional)</td><td>Contact Time

2 SWH/22.5 h

1 SWH/11.2 h

2 SWH/22.5 h</td><td>Independent Study

97.5 h
Presentation Preparation

48.8 h
Literature Research

97.5 h
Preparation and follow-up for the course, preparation for the written examination</td><td>CP

4 CP

2 CP

4 CP</td></tr>
<tr><td>Learning Outcomes/ Skills</td><td colspan="5">The participants can critically evaluate and discuss scientific publications and current research results. They are able to produce and present studies and/or logs of studies and study protocols independently and to convey the work steps included in these to third parties. The data obtained in the framework of studies can be correctly statistically analysed.</td></tr>
<tr><td>Content</td><td colspan="5">- planning and organisation of one's own scientific study
- discussion of current research results incl. production of a literature survey
- computer-based statistical analysis of one's own data in the framework of the obtaining of measured values during the projects
- critical presentation of current studies (peer-reviewed) from international journals</td></tr>
<tr><td>Participation Requirements</td><td colspan="5">admission onto the doctoral programme</td></tr>
<tr><td>Examination Forms</td><td colspan="5">Doctoral Colloquium: discussion and presentation of scientific results
Journal Club: presentation of published studies
Seminar: written and verbal seminar work</td></tr>
<tr><td>Credit Points and Awarding of Marks</td><td colspan="5">8-12 credit points are to be obtained, so that when the credit points from the module VM-AM I are added together a total of 20 credits is achieved.
ungraded</td></tr>
<tr><td>Use of the Module (in other courses of study)</td><td colspan="5"></td></tr>
<tr><td>Responsible Staff</td><td colspan="5">Professor of Sports Medicine & Sports Orthopaedics</td></tr>
</table>

<table>
<tr><td>Module Title:</td><td colspan="5">WM-SQ II Science Module Scientific Qualification II</td><td>8-12 CP</td></tr>
<tr><td></td><td colspan="2">Workload
300 h</td><td>Credit Points
8-12</td><td>Semesters (recommended)
5th and 6th</td><td>Frequency of the Module
throughout the year</td><td>Duration (recommended)
2 semesters</td></tr>
<tr><td>Workload/ Credits</td><td colspan="3">Courses
Doctoral Colloquium
(at least one semester)

Journal Club
(at least one semester)

Conference Contribution
(optional)</td><td>Contact Time

2 SWH/22.5 h

1 SWH/11.2 h

2 SWH/22.5 h</td><td>Independent Study

97.5 h
Presentation Preparation

48.8 h
Literature Research

97.5 h
Preparation and follow-up for the presentation</td><td>CP

4 CP

2 CP

4 CP</td></tr>
<tr><td>Learning Outcomes/ Skills</td><td colspan="6">The participants can interpret and summarise internationally published articles and make an elaborating comparison with their own research and study results. They are able to compose and submit scientific contributions for national and international conferences.</td></tr>
<tr><td>Content</td><td colspan="6">- analysis, presentation and discussion of one's own studies and research results guided by hypotheses
- data analysis applying differentiated hypotheses of statistical verification procedures
- composing and submitting scientific conference contributions
- presentation of scientific data at national and international conferences
- critical presentation of current studies (peer-reviewed) from international journals</td></tr>
<tr><td>Participation Requirements</td><td colspan="6">Module WM-SQ I</td></tr>
<tr><td>Examination Forms</td><td colspan="6">Doctoral Colloquium: presentation based on written planning
Journal Club: presentation
conference contribution</td></tr>
<tr><td>Credit Points and Awarding of Marks</td><td colspan="6">8-12 credit points are to be obtained, so that when the credit points from the module VM-AM II are added together a total of 20 credits is achieved.
ungraded</td></tr>
<tr><td>Use of the Module (in other courses of study)</td><td colspan="6"></td></tr>
<tr><td>Responsible Staff</td><td colspan="6">Professor of Sports Medicine & Sports Orthopaedics</td></tr>
</table>

<table>
<tr><td>Module Title:</td><td colspan="5">WM-SQ III Science Module Scientific Qualification III</td><td>8-12 CP</td></tr>
<tr><td></td><td>Workload
300 h</td><td>Credit Points
8-12</td><td>Semesters (recommended)
7th and 8th</td><td>Frequency of the Module
throughout the year</td><td>Duration (recommended)
2 semesters</td></tr>
<tr><td>Workload/ Credits</td><td colspan="2">Courses
Doctoral Colloquium
(at least one semester)

Journal Club
(at least one semester)

Conference Contribution
(optional)</td><td>Contact Time

2 SWH/22.5 h

1 SWH/11.2 h

2 SWH/22.5 h</td><td>Independent Study

97.5 h
Presentation Preparation

48.8 h
Literature Research

97.5 h
Preparation and follow-up for the presentation</td><td>CP

4 CP

2 CP

4 CP</td></tr>
<tr><td>Learning Outcomes/ Skills</td><td colspan="5">The participants can finally present and summarise their own research results and place it in the context of the international literature. They can compose and submit scientific original and survey works for national and international journals with peer review procedures and present the results of their own studies and research results at national and international scientific conferences.</td></tr>
<tr><td>Content</td><td colspan="5">- differentiated presentation (descriptive and verifying hypotheses) and discussion of their own research results
- chairing and conducting discussion of research results (moderation of scientific colloquia)
- composing scientific original works
- presentation of scientific review works
- composing scientific review works
- critical presentation of current studies (peer-reviewed) from international journals</td></tr>
<tr><td>Participation Requirements</td><td colspan="5">Module WM-SQ II</td></tr>
<tr><td>Examination Forms</td><td colspan="5">Doctoral Colloquium: presentation based on written planning
Journal Club: presentation
conference contribution</td></tr>
<tr><td>Credit Points and Awarding of Marks</td><td colspan="5">8-12 credit points are to be obtained, so that when the credit points from the module VM-AM I are added together a total of 20 credits is achieved.
ungraded</td></tr>
<tr><td>Use of the Module (in other courses of study)</td><td colspan="5"></td></tr>
<tr><td>Responsible Staff</td><td colspan="5">Professor of Sports Medicine & Sports Orthopaedics</td></tr>
</table>

<table>
<tr><td>Module Title:</td><td colspan="5">VM-AM I-III Specialisation Modules Applied Methods I-III 8-12 CP each</td></tr>
<tr><td></td><td>Workload
300 h each</td><td>Credit Points
8-12 each</td><td>Semesters (recommended)
3rd-8th</td><td>Frequency of the Module
throughout the year</td><td>Duration (recommended)
2 semesters</td></tr>
<tr><td>Workload/ Credits</td><td colspan="2">Courses
Science Tutorial
(at least one semester)

Elective Options:
MTT
Performance Physiology
Tutor Activity
Administration
Other Areas</td><td>Contact Time

1 SWH/11.2 h

3 SWH/33.7 h
3 SWH/33.7 h
3 SWH/33.7 h
2 SWH/22.5 h
2 SWH/22.5 h</td><td>Independent Study

48.8 h
Literature Research

172.5 h
Preparation and follow-up
for the course events,
project report</td><td>CP

2 CP

4 CP
4 CP
4 CP
2 CP
2 CP</td></tr>
<tr><td>Learning Outcomes/ Skills</td><td colspan="5">The participants continually learn to present and discuss their own scientific work. They deepen their knowledge and abilities of and in scientific practical activities through integration in the organisation and conducting of research projects. Focuses are the transferral of theoretical foundations and extensions into practice and the blending of principles of method, content and organisation in research and teaching.</td></tr>
<tr><td>Content</td><td colspan="5">- evaluation of diagnostic methods and therapeutic programmes in prevention and rehabilitation
- organisation, conducting and quality assurance of course events in the initial study phase of bachelor students
- planning, chairing and analysis of events of the Journal Club
- administration and analysis of symposia
- acquisition of third-party-funded projects</td></tr>
<tr><td>Participation Requirements</td><td colspan="5">admission onto the doctoral programme</td></tr>
<tr><td>Examination Forms</td><td colspan="5">Science Tutorial: regular papers
Projects: project report</td></tr>
<tr><td>Credit Points and Awarding of Marks</td><td colspan="5">8-12 credit points are to be obtained, so that when the credit points from the respective module VM-SQ I-III are added together, a total of 20 credits is achieved.
Ungraded</td></tr>
<tr><td>Use of the Module (in other courses of study)</td><td colspan="5"></td></tr>
<tr><td>Responsible Staff</td><td colspan="5">Professor of Sports Medicine & Sports Orthopaedics</td></tr>
</table>

Authentication

I have examined the German original/photocopy/facsimile and this is a true translation of the same into English.

Barbara Wohanka, registered translator for the English language at the District Court of Landshut, Germany

Geisenhausen, 11 Oktober 2011