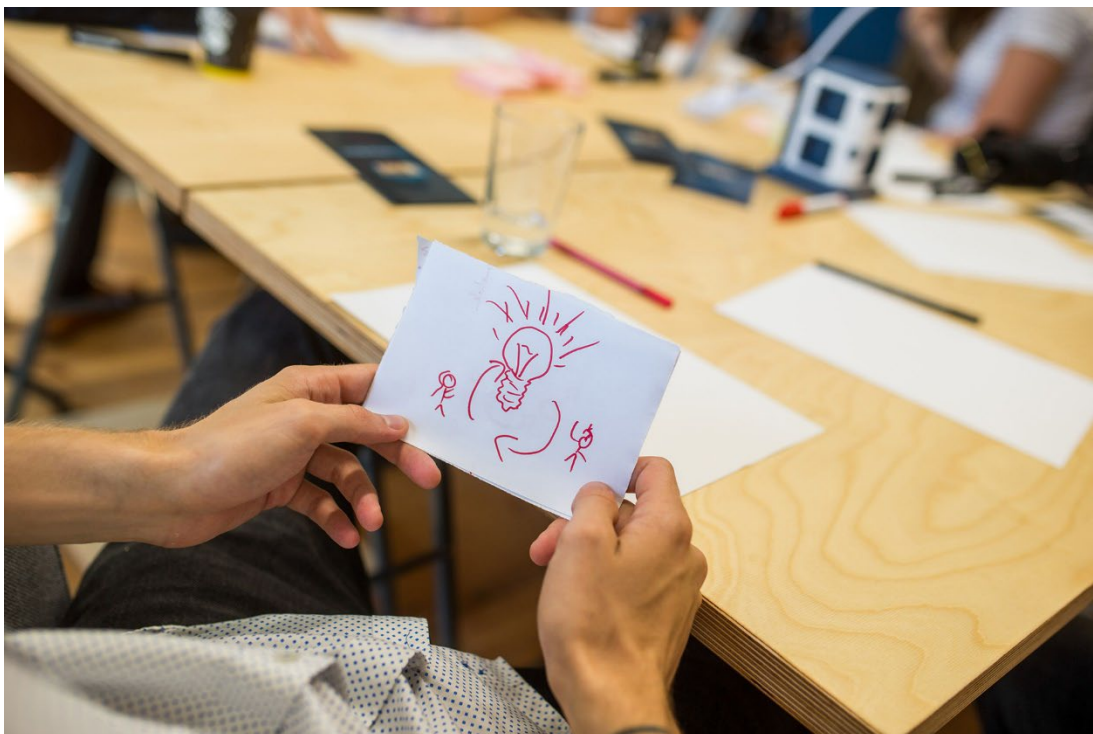


Module Handbook for the Qualification Program at the Doctoral Center Analytics4Health



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Module Handbook for the Qualification Program at the Doctoral Center Analytics4Health

Responsible: Manager Doctoral Affairs, Operational Head of A4H, promotion@hs-coburg.de

1. The concept of the qualification program

The modular qualification concept offers courses in the three fields of application "teaching" for didactic competence acquisition, "research" for scientific competence expansion and "transfer" for the communication of results. The qualification program is aimed at the professional, personal and doctoral-relevant development of doctoral candidates: on the one hand through framing compulsory courses, for example to promote good scientific practice, and on the other hand through various freely selectable compulsory elective courses. Possible development goals in this regard should already be defined in the supervision agreement. The qualification program thus follows the recommendations of the Science Council. Competencies for researchers according to the EU Competence Framework for Researchers are addressed and reflected across the modules.

The qualification program consists of six modules with coordinated content and is designed to last three years. The Doctoral Center ensures that all modules are provided as required during the dissertation processing period. The successful participation of the doctoral candidates is documented in the long term at the Doctoral Center and confirmed by a certificate of participation with an overview of all completed modules in the end. The individual qualification achievements of the doctoral candidates in the qualification program are credited with a minimum amount of hours per course, the teaching commitment is in SWS. Participation in the qualification program (see Table 1) is a mandatory requirement for doctoral studies (§ 13 (4) AVBayHig, §2 (2) PromO) and is continuously monitored. Constructive sanctions (e.g. feedback discussion) are available in the event of a lack of willingness to participate. The qualification program comprises a minimum of approx. 57 hours over six semesters, i.e. an average of approx. 9.5 hours per semester, in addition to the teaching integration of 4-8 SWS and elective options (see Table 1).

To document the services rendered, in the appendix are a route sheet available as a receipt and an overview form for crediting. Please refer to the modules for details on documentation. The courses attended are then listed as an annex to the doctoral certificate. External events can be credited if they correspond to the content specified in the module handbook. Please also provide here evidence of participation with a confirmation of attendance or via your first supervisor in the route sheet. Fulfilling more than the minimum is welcomed for your development and can be credited. The semester dates in the module handbook are to be understood as recommendations.

2. Module Overview

Mod+A1:E17ue and Offer	Amount: Minimum number of courses completed during the doctoral period	Volume: Time hours min. per course (or SWS=45 min.)	Volume in total in hours	Form
a) Teaching Integration			44-88	
Seminar: Didactics training or support	facultative	variable		according to module description
Give teaching formats	e.g. 4x	4-8 SWS in total, variable division		free format according to module description
b) Qualification Trainings			35	
Seminar: Good Scientific Practice	1x	7	7	according to module description
Further qualification trainings relevant to doctoral studies	2x	7	14	according to module description
Further qualification trainings relevant to doctoral studies	variable	variable	14	according to module description
c) Doctoral Center in Dialogue	4x	2	8	Seminar with lecture according to module description
d) Milestone Presentation	2x	2	4	Presentation from Doctoral Candidates
e) Progress Status	6x	1	6	Discussion between doctoral candidates and supervisors: free format
f) Academic Discourse and Networking	3x	2	6	3x 2 hours from elective courses from 1-3 elective areas
Elective Area: Specialist Engagement		2		according to module description (e.g. conference participation, active presentation or poster walk, participation in a professional association,...)
Elective Area 2: International Networking		2		according to module description (e.g. International@Home or Abroad possible)
Elective Area 3: Self-organised format		2		according to module description (possible in a team, e.g. science slam, offer for students, organise a summer school, organise a topic in Module b),...)
The qualification programme is binding for doctoral candidates in terms of content and scope. The Doctoral Committee may allow exceptions at the request of the doctoral candidate if it can be proven that qualification objectives have been or will be achieved by other means. Participation in the qualification programme prior to admission to the doctorate will be credited to the doctoral candidate.				

3. Module Descriptions

Module a) Teaching Integration
In accordance with § 13 (4) (AVBayHIG), doctoral students are involved in teaching. This promotes key skills such as structuring, communicating and discussing subject content and enables discursive feedback into the doctorate. Relevant teaching experience can also create initial prerequisites for a possible career path as a professor.
Structure: Consists of 2 units; unit 1: voluntary didactics training and unit 2: obligatory teaching integration.

Unit 1	Didactics training or support
Who	Referat LEIQ, University didactics expert Raik Pawlowsky
Art	facultative
Doctoral Semester	1-2
Event volume during promotion	voluntarily
Time required	e.g. 7 hours depending on format
Frequency	SoSe Seminar, WS Coaching
Example formats	Seminar, Coaching
Teaching method	Interaction, input, discussion, seminar-style teaching, feedback; Or support and advice in the form of coaching for small groups or individually
Objective	Preparing doctoral students for their own teaching. Getting to know and trying out didactic methods for activating and processing knowledge.
Content (Selection)	<ul style="list-style-type: none"> • Constructive Alignment • Didactic principles from adult education • - Basics of information processing in the brain • - Tools for everyday teaching (planning, content selection, formulation of learning objectives, use of ChatGPT) • - Teaching and examination formats
Competencies	Preparing, presenting, reflecting
Evidence	Certificate of attendance via Doctoral Center

Unit 2	Teaching Integration
Who (lecturer)	Doctoral Candidate
Art	obligatory
Doctoral Semester	2-5
Event volume during doctoral period	4-8 SWS, Amount of courses freely selectable, depending on the allocation of SWS e.g. 2 seminars of 2 SWS each
Time required	Min. 4 SWS; 1 SWS = 15 Teaching Units (Unterrichtseinheiten, UE) 1 UE = 45 Minutes = ca. 11 hours 1 SWS 15 UE 11 hours 2 SWS 30 UE 22 hours 3 SWS 45 UE 33 hours 4 SWS 60 UE 44 hours
Example formats	Seminar, tutorial, laboratory practice, thesis supervision

Recognition and calculation	Half of the SWS (at least 2 SWS) must be provided from seminar teaching; other formats can be introduced with up to 2 SWS. Master's thesis supervision = 0.4 SWS, Bachelor's thesis supervision = 0.2 SWS; other formats as usual within the degree program for lecturers;
Teaching method	seminar-style teaching, coaching, support
Objective	Develop and expand own teaching skills, reflect on knowledge
Content	Subject-specific or interdisciplinary teaching of content from one of the three research focus areas of the doctoral center (data sciences, health sciences, bioanalytics), which may be the subject of the doctoral topic or another subject-related topic of the curriculum.
Competencies	Prepare, present, communicate, evaluate
Evidence	Receipt with route sheet: Signature of supervisor and/or receipt from teaching institution (faculty/coordination/...)

Module b) Qualification Trainings

Training courses on topics relevant to doctoral studies and careers development are offered for the interdisciplinary further training of doctoral candidates. The aim is personal development and encouragement in one's own academic career.

Structure: Consists of 3 units; Unit 1: Good Scientific Practice (GWP) as a compulsory element; Unit 2: 2 further topics in training courses from the compulsory elective area, each comprising 7 hours; Unit 3: further units comprising 14 hours

Unit 1	Good Scientific Practice (GWP)
Who (lecturer)	Certified trainer according to DFG Curriculum (German Research Foundation)
Art	obligatory
Doctoral Semester	1-2
Frequency	WS
Event volume during doctoral period	1
Time required	Min. 7 hours
Example formats	Full-day seminar
Teaching method	Interaction, input, discussion; seminar-style teaching
Objective	Communication of the quality criteria and approaches according to the DFG guidelines, clarity for one's own area of activity, reflection of values and attitudes
Content (Selection)	The content is based on the recommendations of the curriculum for courses on "Good Scientific Practice", which was commissioned by and developed in cooperation with the Ombudsperson for Science: - Good Scientific Practice - Scientific misconduct - Dealing with ideas, data and sources - Authorship and publication process - Supervision - Conflicts of interest and scientific cooperation

	<ul style="list-style-type: none"> - Dealing with conflicts - Dealing with scientific misconduct <p>The scope is adapted to the format.</p>
Competencies	Reflection, gain knowledge of scientific structures and quality management
Evidence	Certificate of attendance via Doctoral Center/Trainer

Unit 2	Further qualification trainings relevant to doctoral studies
Who (lecturer)	Doctoral Trainer
Art	Elective
Doctoral Semester	1-5
Frequency	WS, SoSe
Event volume during doctoral period	Min. 2 different topics
Time required	Min. 7 hours per training; 14 hours in total
Example formats	Full-day seminar, half-day seminar, lecturer course,...
Teaching method	Interaction, input, discussion; seminar-style teaching
Objective	Teaching of competences relevant to doctoral studies
Content (Selection)	Conference presentation, English-language paper writing, leadership training, project management in the doctorate, communication skills, becoming visible as a scientist
Competency	Reflection, presentation, self-marketing, knowledge of scientific structures
Evidence	Certificate of participation from the Doctoral Center, for external offers a confirmation of participation from the organizer/trainer; external formats must be clarified in advance with the Doctoral Center to ensure a good fit

Unit 3	Further qualification trainings relevant to doctoral studies
Who (lecturer)	Trainerin
Art	Elective
Doctoral Semester	1-5
Frequency	WS, SoSe
Event volume during doctoral period	Variable
Time required	Variable per training course; at least 14 hours in total: The service can be divided into several formats, including online or external, with fewer hours.
Example formats	Full-day seminar, half-day seminar, Lunch and Learn, Online-Units, Lecture Course
Teaching method	Interaction, input, discussion; seminar-style teaching
Objective	Teaching of competences relevant to doctoral studies
Content (Selection)	Conference presentation, English-language paper writing, leadership training, project management in the doctorate, communication skills, becoming visible as a scientist

Competency	Reflection, presentation, self-marketing, knowledge of scientific structures
Evidence	Certificate of participation from the Doctoral Center/Trainer, for external offers a confirmation of participation from the organizer/trainer; external formats must be clarified in advance with the Doctoral Center to ensure a good fit

Module c) Doctoral Center in Dialogue
'Doctoral Center in Dialogue' is the name of the regular doctoral seminars. Current subject-specific topics and interdisciplinary developments are discussed with external and internal speakers from academia, business and society.
Structure: Consists of 1 unit

Unit 1	Doctoral Seminar (Doksem)
Who (lecturer)	Members of the Doctoral Center and guests
Art	Elective
Doctoral Semester	1-5
Frequency	WS, SoSe
Event volume during doctoral period	4
Time required	Min. 2 hours; in total min. 8 hours
Example formats	Keynote speech with discussion
Teaching method	Interactive lecture
Objective	Maintaining scientific discourse by exchanging information on current projects/topics/findings; categorising research results in the social context and current trends
Content (Selection)	<ul style="list-style-type: none"> • Participation at Guest lectures in the Interdisciplinary Scientific Colloquium (IWK) • Participation at Seminar organised by doctoral candidates or professors • Participation at Interactive presentation with discussion on career paths, current research questions, research and development
Competency	Knowledge transfer, design, discourse culture
Evidence	Receipt with route sheet: certificate of participation from the Doctoral Center/IWK via signature; in the case of external offers, a confirmation of participation from the organiser; the suitability of external offers must be clarified with the Operational Manager in advance

Module d) Milestone Presentation

The milestone presentation helps to structure the doctoral period and to communicate about the project, including in interdisciplinary dialogue. Especially at the beginning and during the doctorate, your own project is prepared, initial findings or results are presented and challenges are discussed. It also provides practice for presentations and the defence. Preparatory training is offered. The module is intended to support the motivation and quality of doctoral candidates through feedback and the planning of manageable stages and focus on progress in the longterm project. The Doctoral Center organises the event in consultation with the doctoral candidates. It may be presented in the language in which the dissertation is written.

What: It is about the current state of affairs, recommended after semesters 2 and 5. The timetable and structure of the exposé can provide orientation. The aim is to share where the doctoral candidate is currently in their process, what has already been done and what is challenging. This can include the research design, the chosen approach, the research questions and any initial results. An update on the procedure and any critical reflection on the project are just as much a part of the presentation as questions from the audience. It is not about finalised theses, but rather an interim status. Questions from the presenter to the audience may also be included. The focus of the presentation should be prepared in consultation with the first supervisor.

Structure: Consists of 1 unit in the form of two separate presentations. The milestone presentation takes place as a special event at 'Doctoral Center in Dialog'.

Unit1	Milestone Presentation
Who (lecturer)	Doctoral Candidates
Art	Obligatory
Doctoral Semester	1-5, recommended in 3 und 5
Frequency	WS, SoSe
Event volume during doctoral period	2
Time required	Min. 2 hours, (usually. 20-30 minutes presentation and 20 minutes discussion; further counts as preparation time); in total min. 4 hours
Example formats	Keynote speech with discussion
Teaching method	Presentation
Objective	Present your own project and progress, interdisciplinary transfer, Feedback
Content (Selection)	State of the art, research question and procedure, research design, results
Competency	Knowledge transfer, preparing knowledge, answering questions, explaining
Evidence	Receipt with route sheet: Signature of doctoral Centrer or supervisor

Module e) Progress state

Supervisors and doctoral candidates agree on the type and sequence of supervision in the doctoral agreement at the beginning (cf. §11 PromO). The regular review of progress is a characteristic of the quality of results (cf. section 3.5) and forms a helpful and plannable structuring element within the doctoral process and supervision. At least one meeting per semester between the first supervisor and the doctoral candidate must be included in the qualification programme, even if more doctoral supervision took place. The Doctoral Center thus ensures that supervisors and doctoral candidates meet at least once a semester to discuss the doctorate.

Structure: 1 unit in the form of individual support formats

Unit 1	Further
Who (lecturer)	Doctoral Candidates and Supervisors
Art	Obligatory
Doctoral Semester	1-6
Frequency	WS, SoSe
Event volume during doctoral period	Min. 6
Time required	Min. 2 hours per Semester; in total min. ca. 12 hours
Example formats	Freely selectable, the status of the project and the next steps should be agreed by presentation, discussion, feedback on parts of the text, etc.
Teaching method	Feedback Dialogue
Objective	Subject and doctorate-related Development; planning the doctorate, strengthening motivation, orientation
Content (Selection)	State of the art, research question and approach, research design, results, relevance
Competency	Prepare knowledge, explain questions, recognise and clarify challenges
Evidence	Receipt with progress sheet: Signature of first supervisor and doctoral candidate; if necessary, progress sheet serves informally as an application for changes

Module f) Academic Discourse and Networking

The doctoral students should be introduced to the scientific communities and hold scientific formats such as lectures or poster presentations themselves. International exchange plays a relevant role here, as does the promotion of personal commitment. A paper or conference contribution represents a major milestone in gaining (inter)national visibility and placing one's work in the discourse. Publications of the cumulative dissertation or monograph are creditable. The participation at conferences has to be active as presenter or anything else, not in a "passive" role.

Structure: 1 Unit from 3 Elective Areas, in total 3 courses from 1 to 3 elective areas must be submitted:

Elective Area 1: Specialist Engagement

Cooperations are becoming increasingly important for projects, which is why doctoral candidates should become visible in their specialist community or a professional association and benefit from networks during and after their doctorate.

Events and Activities: conference contribution, paper, learning material, editorship, supervision of interns,...

Learning Objective: Professional and doctoral development, network competence, transfer.

Elective Area 2: International Networking

Building international networks and developing diversity competence are relevant professional tools both inside and outside academia.

Existing HSCO networks - supported by the International Office - can be utilised, e.g. partnerships with research-intensive universities such as Winnipeg, the University of Siena, the University of Twente or Split, where joint summer schools are already held, as well as the exchange network for doctoral students with Georgetown University.

Events and Activities: Summer Schools, Stays abroad, intercultural training, language courses, English-language conferences, participation in international symposia, organising intercultural events yourself, supervising foreign interns/students,...

Where: The events can take place abroad or International@Home by introducing visiting academics or organising welcome formats on campus, for example in cooperation with the International Office.

Learning Objectives: Establishing and expanding contacts with the international specialist community as a network for doctoral students and as potential cooperation partners; building diversity expertise.

Elective 3: Selforganised format

For a collaborative and co-operative thinking space for all participants, there is a place for formats. There is a place for formats that find little room away from the academic presentation of results, especially when it comes to sharing unfinished processes and thoughts. In this module, doctoral candidates can work together or alone to develop a format for doctoral candidates or students or a joint format for all doctoral center members and implement it, e.g. at module c).

Events and Activities: Science Slam, Collegial counselling, Pomodoro sessions, working weekend in a monastery, children's university, girls' and technology event, excursion, doctoral representatives...

Learning Objectives: Scientific project management, participation, transfer.

Unit 1	Event and Activities
Who (lecturer)	Doctoral Candidates
Art	Elective
Doctoral Semester	1-5
Frequency	WS, SoSe
Event volume during doctoral period	3
Time required	The elements can take up different amounts of time. A minimum of 2 hours per element is assumed; a total of at least 6 hours
Example formats	Freely selectable and combinable from elective areas 1-3
Teaching method	Selectable per format
Objective	Specialist and doctoral development, networking
Content (Selection)	Elective Area 1: own lecture, poster, participation in a professional association,... Elective Area 2: International@Home or Abroad Elective Area 3: Science Slam, Summer School, organise a topic in Modul c)
Competency	Working on current issues, Networking
Evidence	Receipt with routing sheet: signature of supervisor or provider and proof of Doctoral Center or other provider for each format

4. Sample semester plan

Sample semester plan for the qualification programme

Semester	Modul a) Teaching Integration	Modul b) Qualification Training	Modul c) und d) Doctoral Center in dialogue; Milestone presentation	e) Progress Status	Modul f) Academic discourse and networking	Other offers visited
Semester 1	Seminar Didactics training	Seminar: Good Scientific Practice	Doctoral Center in Dialogue	Progress Status		
Semester 2	Teaching Unit	Seminar	Doctoral Center in Dialogue	Progress Status		Participation at Seminar at BayZiel
Semester 3	(Co)Supervision of Master Thesis	Seminar	Milestone Presentation	Progress Status	Conference	Participation of a fitting Lecturer
Semester 4	Teaching Unit	Seminar	Doctoral Center in Dialogue	Progress Status	Publication	Presentation of journal publication for PhD candidates; Training in the library on Chat GPT and Research
Semester 5	Tutorium	Seminar	Milestone Presentation	Progress Status	City guide for international students	
Semester 6			Doctoral Center in Dialogue	Progress Status		

5. Attachments for Documentation

Please use the following attachments for documentation:

- **General Route Sheet.** for ongoing proof of participation: This is to document your participation in modules a, c, d, f.
 - o Proof for module a) see under module a). Confirmation is also possible for documented/completed teaching performance collected on a Route Sheet
 - o Proof for module b): See under module b): Certificate of participation at a workshop
- **Progress sheet as evidence of progress status:** This is used to document module e) and to apply for possible changes to your doctoral project
- **Overview form:** List all events or elements attended here; attach the route sheets and certificates of attendance as proof. This is how you apply for recognition of your participation in the qualification program when submitting your dissertation. If you have previously completed the qualification program, you could contact the operational management for a preliminary check.

Route Sheet

as evidence to attend events within the framework of the Qualification Program for doctoral candidates

Usage:

- Particularly recommended for guest lecturers that can be count in Module c) (A4H) und Modul 3 (NISys).
- For proof of performance in advance for the application
- For proof of performance:
 - o in Module a, c, d, f in the Doctoral Center Analytics4Health
 - o For all modules in the Doctoral Center NISys
 - o For cooperative doctoral candidates who want to receive proof

The route sheet and proofs have to be submitted with the document overview. A Check could be done at Manger of Doctoral Affairs (promotion@hs-coburg.de). A complete certificate of participation at the Qualification Program is created in the end.

NAME: _____

Datum/Date	Veranstaltung/ Event	Dauer/Duration	Unterschrift Verantwortliche:r/ Signatur Leading Head

Progress Sheet for Module e) Progress Status

Semester: _____

On XX.XX.XXXX, the doctoral candidate _____

met with the first supervisor _____

and, if applicable, other guests (if applicable, list such as company partners)

to discuss the progress of the doctorate.

We hereby announce the following changes to the doctoral agreement/admission letter, please delete as appropriate:

- The working title "xx"

has been changed to "yy"

- The type of doctorate (cumulative/monograph) has been changed as follows: ____

- The supervision tandem of first supervision and second supervision should be changed as follows: ____

- Other relevant changes: ____

Date, Signature Doctoral Candidate

Date, Signature First Supervisor

—
The routing slip serves as a change request in the event of changes to the letter of admission. It is submitted by the doctoral candidate to the doctoral management, promotion@hs-coburg.de and changes are approved by the doctoral committee. If there are no relevant changes to the doctorate, the doctoral candidate can submit the routing slip later together with the documentation on the fully qualification program.

Overview -Form

Application for recognition of courses attended per module (sample form)

- Fulfilled by Doctoral Candidate, see Excel Form in Mycampus (Service, Doctoral Center, Documents)
- Hand in with the Dissertation
- Proof of recognition for milestone presentation possible by Operative Manager of Doctoral Center via promotion@hs-coburg.de

Application for recognition (previous) achievements at Quali. Programme: Surname Lastname				
Attach to application for advance services; For documentation ongoing participation				
Attach evidence				
Performance, Date		Evidence Scope		
Module a) Teaching Integration		4-8SWS		e.g.
		Route Sheet		Semin.
				Super
				Super
				Super
		fulfilled	0	
Module b) Qualification Trainings (QT)		35 hours		
Unit 1: Obligatory Seminar: GOOD SCIENTIFIC PRACTICE IN THE DOCT		Certificate		7
Unit 2	Elective Seminar XX	Tn-Schein		7
Unit 2	Elective Seminar XX	Tn-Schein		7
Unit 3	Further elective formats (14 Stunden):			
Titel, Trainer/Institution ,Date		Tn-Schein		
Titel, Trainer/Institution ,Date		Tn-Schein		
Titel, Trainer/Institution ,Date		Tn-Schein		
Module c) Doctoral Center in Dialog (4 Events à 2 hours)		8 Hours		
Title, Date, Duration		Route Sheet		
Title, Date, Duration		Route Sheet		
Title, Date, Duration		Route Sheet		
Title, Date, Duration		Route Sheet		
		fulfilled	0	
Modul d) Milestone Presentation		4 Hours		
Title, Date, Frame		Route Sheet		
Title, Date, Frame		Route Sheet		
		fulfilled	0	
Module e) Status of progress		6 Hours		
Semester 1		Route Sheet		
Semester 2		Route Sheet		
Semester 3		Route Sheet		
Semester 4		Route Sheet		
Semester 5		Route Sheet		
Semester 6		Route Sheet		
		fulfilled	0	
Module f) Discourse and Networking		3 Scopes		
		Route Sheet	WB1, 2 o.3	1 Publ.
				1 Crea
				1 Post
		fulfilled	0	
To be completed by the doctoral center				
Nachweise vorhanden				
Zuordnung zu Modul passend				
Empfehlung auf Anerkennung				