

# ZMT Doctoral Study Regulations<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> At the ZMT, doctoral studies are considered to be equivalent to PhD studies.



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#### 1. Purpose of the Doctoral Study Regulations

The aim of these regulations is to provide doctoral/PhD students and supervisors at ZMT with the necessary framework to ensure best practice in the management of the doctoral research process at ZMT. These regulations are applied in accordance with the regulations of the respective universities where the students are enrolled. All doctoral/PhD projects within ZMT have to comply with these regulations.

This document will periodically be revised by the doctoral studies circle<sup>2</sup> at ZMT taking into account the feedback from students and supervisors as well as applicable national and international policies and practices for doctoral/PhD studies.

## 2. Scope of a Doctoral Project and Dissertation

The scope of the doctoral project is that the doctoral/PhD student acquires skills for developing into an independent scientist, completes the research project, and gains the doctoral degree. The doctoral/PhD student and the ZMT supervisor are both responsible for reaching this aim. The doctoral/PhD project is completed with the submission of the doctoral/PhD dissertation and the subsequent colloquium.

The doctoral/PhD dissertation is a substantial piece of scholarly writing that contains a significant contribution of new knowledge to the field of study. It presents the results and their analysis and is the student's original research. The dissertation must be a coherent document that provides a complete and systematic account of the student's research. Depending on the respective university's regulations it may incorporate work from submitted, accepted or published articles, which may or may not have co-authors. The modality of the doctoral dissertation (cumulative or monograph, as well as the minimum number of planned publications) is mutually agreed on within the first panel meeting, following the rules of the respective university and faculty where the student is enrolled.

The dissertation reflects the student's ability to do the following:

- Identify and critically analyse the relevant literature
- Use and describe in detail the appropriate methodology for the research undertaken
- Conduct research and present findings that result in a significant and original contribution to scientific knowledge
- Locate the work of the dissertation and its findings within the broader field or discipline
- Communicate the research and analyses effectively

In this context, the scientific supervisor offers constructive criticism and suggests improvements, but does not actively intervene in the writing of the final dissertation, except for the publications.

<sup>&</sup>lt;sup>2</sup> The doctoral studies circle is responsible for the long-term strategic planning with regard to the further development of the doctoral studies program at ZMT. It is composed of the doctoral studies coordinator and members of all scientific "status groups" (doctoral/PhD students, postdoctoral researchers, work group leaders, and the extended board of directors (one representative, each, of department leaders and the directorate).



The doctoral/PhD students and their ZMT supervisors have to obey to the code of conduct for scientists as outlined in the regulations of the German Research Foundation (DFG): http://www.dfg.de/en/research\_funding/principles\_dfg\_funding/good\_scientific\_practice/.

As regular members of a ZMT department, the doctoral/PhD students and their supervisors also have to comply with the rules established by the leadership of ZMT (Authorship\_guidelines\_2017.pdf and Leitlinien guter wissenschaftlicher Praxis ZMT\_2017.pdf) as well as the Bremer Criteria (http://www.zmt-bremen.de/Binaries/Binary11462/Bremen\_Criteria\_May2015.pdf)

Following these guidelines will ensure that the student gets appropriate recognition for their efforts (e.g.: authorship on papers and acknowledgements at seminars).

## 3. Supervision Concept and Duration of the Doctoral/PhD Studies

Financial support for a doctoral/PhD student generally covers and is limited to three years. In special situations of scholarship holders, the time interval may differ. If exceptional situations arise that prohibit the completion of the dissertation within the regular three years, the scientific supervisor (defined in § 5) needs to inform the doctoral studies coordinator as soon as a severe delay is realized, to find an adequate solution. Due to these time constraints, it is essential that a general research plan for the doctoral/PhD project is available from the very beginning. The responsibility lies on the scientific supervisor in case that the student doesn't come with its own funding. In the latter case, the doctoral/PhD project has already been outlined by the student in their proposal. Since detailed and reasonable planning of the doctoral/PhD project (which usually includes the use of laboratory facilities, the conduction of fieldwork and the consideration of all costs) is a prerequisite for the success of the project, the financial issues of the doctoral/PhD project shall be discussed and planned with the student and the scientific supervisor.

The research work of doctoral/PhD student constitutes a mainstay of ZMT's scientific activities. ZMT therefore provides administrative support (detailed in § 4) to ensure the success of the doctoral/PhD project. The scientific supervisor (defined in § 5) is responsible for the scientific support and guidance of the doctoral/PhD student. The doctoral/PhD student commit to the project and to learn and qualify as an independent researcher. The doctoral Panel (defined in § 7) brings additional expertise to the project and provides the space for scientific discussions.

Formal meetings are mandatory to ensure that all important understandings and recommendations are agreed upon. This is documented by written reports by the student at the end of each panel meeting (see Appendix A). The student is also liable of writing the refined project proposal (see Appendix B) and the first year report (see Appendix C).

The panel meeting reports should contain the following elements:

- The panel meeting reports have indication of what the student has achieved during the preceding period;
- Scientific work plan for the next months, to be followed up during the next panel meeting;



• If the student encounters difficulties, these must be listed in the report along with suggestions from the panel on how to resolve them.

The panel meeting reports have to be agreed upon by all panel members and shall be signed by the student and the supervisor before sending them to the doctoral studies program coordinator.

#### 4. Role of ZMT

In its relationship to the doctoral/PhD student and the respective universities, ZMT is represented by the directors, the doctoral studies circle and the doctoral studies program coordinator.

Within the first month at ZMT each doctoral/PhD student is invited for a **Welcome Talk** with the doctoral studies program coordinator. Doctoral students register for the ZMT Doctoral Program with a **Registration Form** that has to be signed by the doctoral/PhD student and the supervisor(s).

The doctoral studies program coordinator monitors all matters related to doctoral/PhD studies as well as the implementation of these regulations. For this reason, panel meeting reports and progress reports are completed independently by the doctoral/PhD student and the ZMT supervisors after each panel meeting and transmitted to the doctoral studies program coordinator.

In addition, the doctoral studies program coordinator monitors that all milestones mentioned in the timeline (see Appendix D) are met by the relevant parties. All required reports, written by the doctoral/PhD student, need to be delivered to the panel members and submitted to the doctoral studies program coordinator for archiving and monitoring.

### **Course Program for Doctoral students**

Every doctoral student at ZMT attends a Welcome Week, which is held in the autumn of every year. At the heart of the "ZMT Welcome Week" is a three-day course on the ZMT's mission. The Welcome Week also features one day of intercultural training that all doctoral students complete.

The course "Marine research in an Inter- and transdisciplinary environment" and the Intercultural Training are mandatory for all doctoral/PhD candidates of the ZMT Doctoral programme. It is offered once per year in the framework of the ZMT Welcome Week. Doctoral Students have to attend the Welcome Week in their first 12 months at ZMT. In urgent, not to be delayed matters (e.g. field trip) students have to inform the doctoral studies coordinator and it is discussed whether the student can participate in the following year.

Beyond the Welcome Week doctoral students may attend any course at the ZMT Academy. They are also offered advice on the matters relating to the doctoral programme or career development.

ZMT issues a certificate on the attended courses and successful completion of the ZMT Doctoral Programme (according to the guidelines laid down in appendix A).



#### 5. The Scientific Supervisor

The "scientific supervisor" is the lead scientist of the research project (either a senior or a postdoctoral researcher). The scientific supervisor provides guidance and support on the research carried out by the doctoral/PhD student. Where co-supervision is appropriate, e.g., for interdisciplinary or cooperative projects, or for administrative reasons, the scientific supervisor takes full responsibility for the overall management of the student training and research project, and for relevant administrative matters. This includes the compliance with security regulations in the laboratories and with the regulations concerning fieldwork (incl. diving), as well as compliance to international and national regulation (e.g., research permits, CITES, ABS).

The commitment and expertise of the scientific supervisor are critical to the success of the doctoral project. The specific responsibilities of the scientific supervisor include:

- Advising the student on their responsibilities and duties in particular at the beginning of their studies;
- Providing guidance on the standard requirements for a doctoral degree, as defined according to § 2;
- Supporting the student in the refinement of the initial research plan (crucial in particular for the first three months of the project);
- Ensuring that the student has been introduced to the members of the panel and relevant staff of ZMT at the beginning of their studies;
- Providing advice and guidance, throughout the whole time interval, about the direction
  of the research project and the strategies that might be used to achieve the research
  goals;
- Advising the student on their specific training needs;
- Communicating clearly to the student how they are performing;
- Regularly holding structured meetings to ensure progress and that all important understandings and decisions are discussed and agreed upon;
- Providing the student with opportunities to meet other researchers in the field by, e.g., facilitating their attendance at conferences as appropriate and as permitted by resources;
- Informing the student about additional funding opportunities (with support from the doctoral studies program coordinator);
- Providing guidance and feedback on written or oral presentations given by the student;
- Ensuring that adequate supervision is in place for the student during extended periods of absence by the scientific supervisor;
- Promptly reading and evaluating work written by the student and making sure that thorough feedback is provided in good time.

In summary, the scientific supervisor should act as mentor and coach and be available for the student.



#### 6. The Doctoral/PhD Student

The commitment of the student to their doctoral project is essential for the success of the undertaken research. The specific responsibilities of the student include:

- Presenting their work at events of importance to the institute, representing the doctoral student body and the institute in an adequate way;
- Recording accurately and carefully all relevant tasks (e. g. lab book, meeting protocols), and producing timely progress reports as required (see Appendices A, B and C);
- Providing a working effort and output that meets the expectation for a doctoral degree, as defined in accordance to § 2;
- Taking into account the input of their scientific supervisor and the entire panel regarding the research plan;
- Communicating their activities to the relevant persons (lab staff, administration) as indicated by the scientific supervisor;
- Discussing throughout the whole time interval the progress and direction of the research with the scientific supervisor to ensure the achievement of research goals;
- Getting necessary training as advised by the scientific supervisor;
- Communicating progress and difficulties regularly to the scientific supervisor;
- Regularly discussing ideas with the scientific supervisor and/or panel members;
- Taking the opportunities to increase their scientific network and present their research (e. g. conferences, workshops, talks);
- Applying for funding for workshops or conferences if not covered by the project budget;
- Timely presenting the content of written or oral presentations to the scientific supervisor before abstract submission and performance, for receiving feedback;
- Informing about wishes to take long leave (e. g. parental leave, sabbatical leave, internship, summer schools) in due time so that this can be arranged according to the legal regulations or agreed upon with the scientific supervisor;
- Providing written work that needs feedback from the scientific supervisor in advance, so that there is reasonable time for feedback and discussion.

In summary, the student is liable to provide regular reports of progress to their scientific supervisor and ask for meetings or advice whenever needed. The doctoral/PhD student strongly encouraged to also consult other panel members. The student is strongly encouraged to make use of the interdisciplinary atmosphere at ZMT, for broadening their own scientific culture, by attending the arranged seminars and workshops within ZMT (e.g. Lunch seminars, BEST series seminars).

The doctoral/PhD student is obligated and ensures to submit all scientific data they collected or produced during their doctoral study to the ZMT database.



#### 7. The Doctoral Studies Panel

The doctoral study panel consists of three academic staff members: the scientific supervisor, a co-supervisor, also expert in the field of research (holding a doctoral degree) and a ZMT scientist from another department (holding a doctoral degree). Additional members can be assigned according to the topic of the dissertation, and these panel members can be external to ZMT. Among the panel members, one has to be the formal supervisor. The doctoral study panel does not need to mirror any examining committee according to the respective university's rules. The latter will be composed according to university regulations.

The scientific supervisor and the co-supervising specialist provide expert knowledge and respective guidance to the student. The other ZMT scientist acts as an advisor, who is not directly connected to the research project, and monitors whether the doctoral project meets the requirements defined by these regulations. This person should be identified by the supervisors in consultation with the student at the beginning of the project.

During the course of the doctoral/PhD studies, panel members can be added or replaced if deemed necessary by the supervisor(s) and the doctoral/PhD student. The doctoral studies program coordinator has to be promptly informed.

The doctoral/PhD studies panel formally meets at fixed intervals (Appendix A) to discuss work progress and future directions and to guide the student through their study period. The duration of the panel meeting may vary with the complexity of the subject discussed and should be scheduled for ca. 90 minutes.

### 8. Consequences of non-compliance to these Regulations

These regulations have been established in order to ensure that the student can submit their thesis dissertation within the commonly accepted time frame of 36 months (as restricted by the financial support) to meet the expectations required for a doctoral degree, as defined by faculty-specific University regulations and communicated by the scientific supervisor. If there are good reasons to derive from the timeline proposed in these regulations (e. g. parental leave, illness), it is the joint duty of the student and the scientific supervisor to make these reasons explicit and detail them in the Panel meeting reports adequately. In case of agreement on these reasons, the non-respect of the timeline will not be qualified as non-compliance or misconduct of the student nor the scientific supervisor.

In case the scientific supervisor or the student do not comply with their duties as defined under § 5 and 6, respectively, and as monitored by the Doctoral Studies Program Coordinator, communicated within the Doctoral Studies Circle, and ratified by the Ombuds Person of ZMT, the following could apply:

Misconduct by the scientific supervisor

If misconduct by a scientific supervisor has been ratified by the Ombuds Person, this scientific supervisor will not be eligible for the ZMT-internal funding for one year's cycle. In case of repeated misconduct, the directorate of ZMT will choose adequate measures.



## Misconduct by the doctoral/PhD student

Doctoral/PhD students will only be eligible for ZMT-support for attending courses/workshops or conference/research stays, if they fulfil their duties as outlined in detail in § 6.

In case of misconduct by a doctoral/PhD student, this leads to considering the student dismissal. If consideration of dismissal is confirmed by the Doctoral Studies Circle, the Doctoral Program Coordinator and the Ombuds Person after this meeting and a rehearsal of the student, the scientific supervisor informs the student in written form, co-signed by the directors, and gives them an appropriate period of time to correct their deficiencies. A copy of this letter has to be immediately sent to all members of the panel, the Doctoral Studies Circle, the Doctoral Program Coordinator, the Works Council, and the ZMT Directorate. The letter needs to detail the specific problems to be corrected by the student to avoid dismissal.

During the time assigned for correcting the deficiencies, the student is encouraged to contact any member of ZMT they trust, to seek help and advice. After the assigned time, the student, the panel (which includes the scientific supervisor) and the Doctoral Studies Circle meet to discuss whether or not the student succeeded in correcting the notified deficiencies. If the consideration of dismissal is confirmed, the scientific supervisor provides a final written justification to the scientific and administrative directors of ZMT, who will then proceed with the dismissal according to the legal requirements.

## 9. Conditions for premature termination of the Doctoral/PhD studies

If, for any reason, the Doctoral project is aimed at being terminated by either the student or the supervisor, details (e.g. intellectual property, data-depository, co-authorship, destination of funding) will be discussed with the Doctoral Studies Circle and decisions made by the directorate.



## Appendix A – Project Proposal

To be used for the 1st Panel meeting

## Suggested structure (length not to exceed 20 pages):

This structure follows the regulations of research proposals of the German Research Foundation (DFG)

1. State of the Art and Literature Review	5-7 pages
2. Detailed Project Description	1.5 pages
2.1 Objectives	4 pages
3. Work schedule (e.g. Gantt Chart)	1 page
4. Bibliography	2 pages
5. Estimation of costs	2 pages

## Appendix B – 1st Year Report

Suggested structure:

- 1. Refined Project Proposal (see Appendix A)
- 2. Progress report for first year:
  - Work planned and conducted during the first year
  - First results
  - Problems encountered
  - Revision of work plan for the dissertation (if needed)



time from start	milestones
2 weeks	Meeting with the supervisor to discuss next steps for project planning including administrative issues, logistics, project plan, Signing Supervision agreement
3 months	1st panel meeting with appointed panel members (the panel members shall be identified before the first panel meeting by the supervisor and the doctoral student): student submits the research proposal draft, which follows the structure outlined in Appendix B and contains a project plan to the panel members prior to the meeting; during the meeting the research plan is critically assessed and suggestions are given for improvements. If the plan requires a deviation from the doctoral time line as suggested in this Appendix A, alternative dates for the subsequent panel meetings need to be fixed at this stage. Writing of 1st panel report <sup>3</sup>
12 months	2nd panel meeting: student submits 1st year report and final project proposal (based on the draft submitted at the 3-months panel meeting; further attachments may be added); discussion of 1st year report and work progress, revising of the study plan for the second year, drafting of the 2nd panel report
	Participation in the ZMT Welcome Week and the course "Marine Research in an inter- and transdisciplinary environment" and the Intercultural Training (obligatory).
18-24 months	Student prepares and gives an oral presentation of their dissertation project (current state, first results and projections) in the ZMT internal meeting (e.g. department meeting)
24 months	3rd panel meeting: Discussion of work progress, to evaluate time management of the student and to estimate overall performance and feasibility of finishing the project within the 3 years' time frame, drafting of third panel report
30 months	4th panel meeting: Data collection should be completed. Discussion of progress and the work plan until submission, drafting of 4th panel report
34 - 36 months	Dissertation submission, defence and handing in of research data to the ZMT database.

 $<sup>^3</sup>$  All panel reports and the project proposal have to be sent to the panel and to the Doctoral Program Coordinator.



# Contact persons for the Doctoral Studies Program

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