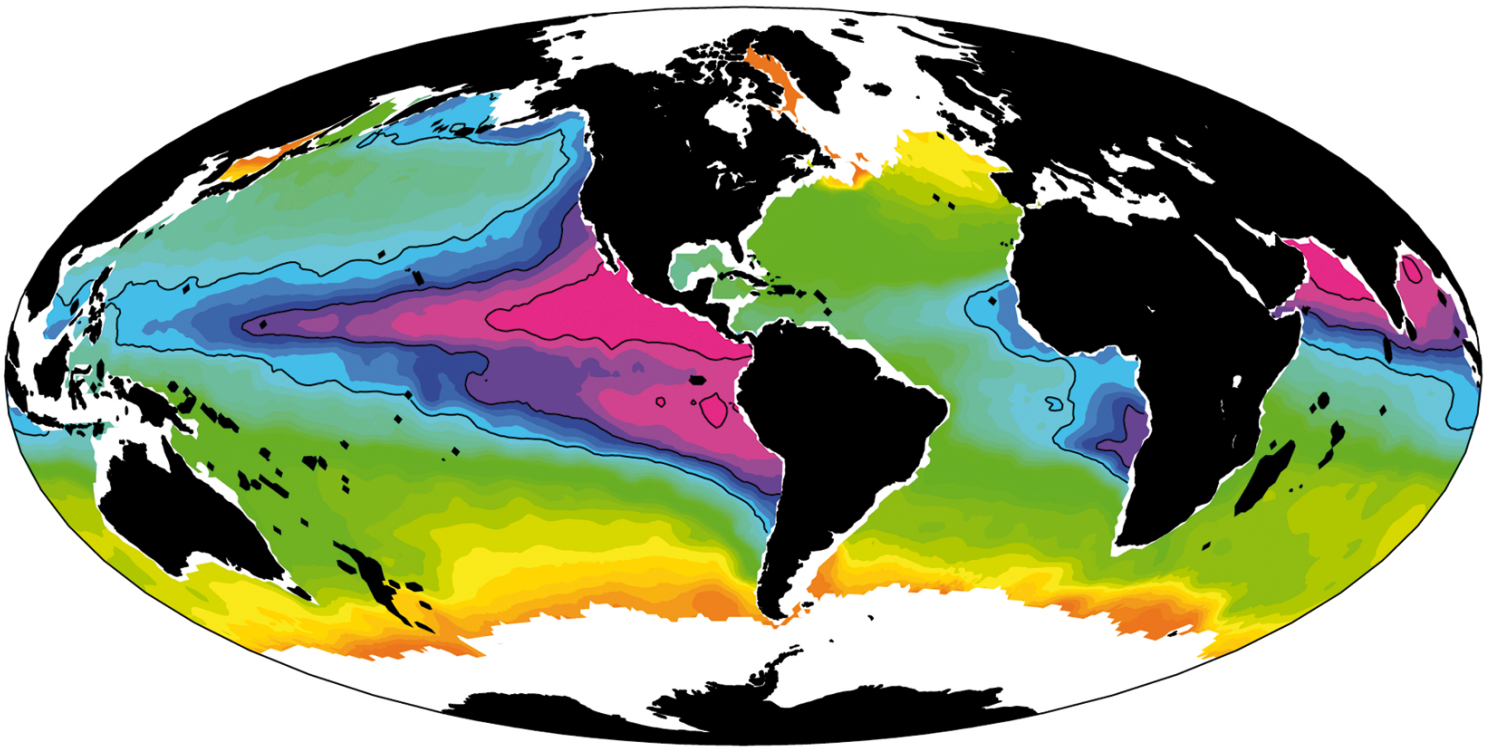
future ocean
KIEL MARINE SCIENCES
INTEGRATED SCHOOL OF OCEAN SCIENCES

SFB 754

PhD Programme

jointly conducted by the
Collaborative Research Centre 754
and the
Integrated School of Ocean Sciences



Climate - Biogeochemistry Interactions in the Tropical Ocean
Collaborative Research Centre 754
at the Christian-Albrechts-University, Kiel

C A U
Christian-Albrechts-Universität zu Kiel

GEOMAR

The ISOS-SFB754 PhD Programme is an initiative of the Integrated School of Ocean Sciences (ISOS) of the Excellence Cluster “The Future Ocean” Kiel and the Collaborative Research Centre 754 and has been developed as part of the SFB 754 Young Scientists Support of Phase II (2012-2015). The programme has been sanctioned by the SFB 754 members and the SFB 754 board.

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Collaborative Research Centre 754 (SFB 754)
Integrated School of Ocean Sciences (ISOS)
of the Excellence Cluster “The Future Ocean”
Christian-Albrechts University, Kiel
Helmholtz-Centre for Ocean Research (GEOMAR)

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TABLE OF CONTENTS

* you will find contact details on the back of the booklet

The ISOS-SFB754 PhD Programme

All doctoral candidates of the SFB 754 will participate in the PhD Programme of the **Integrated School of Ocean Sciences (ISOS)**. They will join a network of over 130 PhD candidates from five faculties, representing interdisciplinary marine sciences at the Christian-Albrechts-University at Kiel (CAU) and the Helmholtz Centre for Ocean Research Kiel (GEOMAR). Irrespective of their participation in the programme, they must abide by the regulations of the Faculty of Mathematics and Natural Sciences at the CAU. Their degree will be issued by the faculty. Upon graduation each PhD candidate will obtain a supplementary certificate from the ISOS.

Motivation

The aim of the ISOS-SFB754 PhD Programme is to provide candidates and their supervisors with support, information and targeted activities to ensure best practice in the management of PhD research within the SFB 754. This support must translate into better and more efficient research, and we expect at least one scientific publication from each SFB 754 PhD candidate. PhD candidates and their supervisors will have access to the full range of support and activities for excellent doctoral education through the ISOS programme. A full range of additional, theme-specific offers such as topical seminars, SFB 754 retreats and the SFB 754 summer school will be conducted by the SFB 754, giving the programme in-depth and personalised support where needed. The following guidelines have been discussed and agreed on by the SFB 754 members in consultation with ISOS and comply with national and international PhD guidelines.

Important Supplementary Notes

All PhD candidates must register themselves at the Faculty of Mathematics and Natural Sciences of the Christian-Albrechts-University at the start of their PhD. They will need to be formally enrolled at the University in the semester in which the PhD thesis defence will take place.

Further information can be found at:
http://www.mnf.uni-kiel.de/de/promotion-habilitation/prom

PhD Time Schedule and Milestones

time from start	Milestones
2 weeks	• PhD candidate registers at the Faculty of Mathematics and Natural Sciences. • PhD candidate registers at ISOS through their website.
6 weeks	• 1st PhD Thesis Committee meeting to discuss project outline. Meeting report is submitted to the ISOS.
6 months	• 2nd PhD Thesis Committee meeting to discuss progress. Report submitted to the ISOS. • PhD candidate submits literature review to supervisors. • Supervisors provide feedback within one month. The final literature review is submitted to the SFB 754 scientific coordinator.
12 months	• 3rd PhD Thesis Committee meeting. Report submitted to the ISOS. • PhD candidate presents progress at SFB 754 Young Scientists Seminar Series.
18 months	• 4th PhD Thesis Committee meeting. Report submitted to the ISOS.
24 months	• 5th PhD Thesis Committee meeting. Report submitted to the ISOS. • PhD candidate presents progress at the SFB 754 Young Scientists Seminar Series.
30 months	• **6th PhD Thesis Committee meeting including timeline to thesis submission and possible extension of contract. Report submitted to the ISOS.**
33 months	• 7th PhD Thesis Committee meeting to discuss thesis submission and possible extension of contract. Report submitted to the ISOS. • PhD candidate submits draft thesis to Thesis Committee at least 2 weeks before the meeting.
36 months	• thesis submission

ISOS essential information can be found here:
http://www.futureocean.org/ausbildung-isos/phd-programme/essential-information/

ISOS at a Glance

1. ISOS Courses: Specific Courses, Lecture Series

ISOS offers a range of scientific courses across all marine disciplines in Kiel, outside of curricular programmes and also on demand. These include:

- targeted training of specific skills for direct use in research
- multidisciplinary knowledge in ocean sciences (natural sciences, law, social sciences, etc)
- in-depth disciplinary seminars

In the interdisciplinary lecture series "Big Questions" senior scientists identify the open research questions in their field and give insights into their scientific field.

2. Support: Co-Supervision, Peer Mentoring, Travel Grants, PhD Miniproposals

Each PhD candidate has a main advisor and one or two additional supervisors who will give support in all aspects related to work and career goals, and personal development.

PhD candidates can choose to have a peer mentor, who is a more senior PhD candidate. This saves (particularly first-year PhD candidates) some of the "learning by doing" pitfalls and helps build peer networks.

All PhD candidates are entitled to apply for funding for:

- travel to conferences, workshops and training courses (e.g. summer schools)
- research visits

PhD candidates can initiate and develop a small, independent research project for which competitive funding is available through a "Miniproposal", amounting to a maximum of 5,000 € for research, consumables, travel or other activities. Guidelines are posted on the ISOS website.

3. Preparing for a Life after PhD: Transferable Skills, Messe Mentoring, Science meets Industry, Meet the Prof

Academic excellence alone is often not sufficient for an excellent career start. At ISOS, PhD candidates learn what it takes to identify and pursue an academic or non-academic career.

"Messe Mentoring": Visiting a commercial, career or scientific fair is often overwhelming. Using a senior scientist as a mentor is helpful for sharing their experience, providing insights and introducing the PhD candidates to the right people.

“Science meets Industry”: PhD candidates can participate in workshops with partners from industry and private enterprises in the region, and take part in on

site visits. They network personally with invited guests from e.g. industry, policy-making, NGOs and are inspired by their career paths.

“Meet the Prof”: The PhD candidate can personally network with top-level international scientists visiting Kiel and find out what they think are the top challenges in their field and what it takes to make a career in science.

4. Networks: ISOS PhD network, PhD retreats, 3 cluster networks

The ISOS PhD candidate is part of a cross-disciplinary network of ca. 130 PhDs in Ocean Sciences. Meeting and interacting with fellow PhDs from all disciplines and five faculties is often seen as a highlight of participation in the programme.

At annual events ISOS PhDs discuss and network with experts from inside and outside academia on topics in science and society.

PhD candidates from the climate-related clusters in Bremen, Hamburg and Kiel build a network of the next generation of climate scientists.

ISOS Participation – Basic Rules & Requirements

To meet the goals of high-end training and qualification there are a few basic rules that the PhD candidate is expected to abide by. These will be checked through attendance lists and are a requirement for the PhD candidate to access financial incentives.

These minimal requirements are:

1) participation in
   - one scientific skills course per year
   - one personal skills course per year
   - and at least 60 % of the lectures in the multidisciplinary lecture series “Big Questions” (i.e. 4 lectures a semester)
2) attendance of the annual PhD retreat
3) submission of one Thesis Committee protocol per semester. Deadlines are 30th September and 31st March.

SFB 754 – Special Requirements & Guidelines

All SFB 754 PhD candidates are given a three-year contract at 75% of full-time employment. After 33 months (7th meeting of the PhD Thesis Committee), the PhD Thesis Committee will decide if an extension beyond three years is necessary. Any request for extension exceeding three years needs to be forwarded to the SFB 754 extended board for approval. This needs to be done in a timely manner as the process may take some time.

An extension of up to six months can be granted only if following conditions are fulfilled:

- **at least one scientific paper has been submitted**
- **a full first draft of the entire thesis is present**
- **the subproject that funds the PhD candidate still has the financial resources available**
- **the contract extension does not go beyond the end of the SFB 754 phase II (31.12.2015)**

However, in cases of exceptional individual hardship an extension may be granted upon request to the SFB 754 extended board.

PhD candidates who submit their PhD thesis to the faculty within 36 months of their PhD employment, are rewarded with an additional three months of full-time funding. This provides them with some extra time (i.e. three years plus three months in total) for finishing up manuscripts, submitting a postdoctoral proposal or applying for new positions. Please note that additional funding cannot be granted beyond the end of the SFB 754 phase II (31.12.2015).

Literature Review

The literature review (between 15 - 20 pages in length) should be completed within six months from start. The supervisor must provide feedback to the PhD candidate within one month from completion of the review. An electronic version will be uploaded on the SFB 754 data portal, and be available to the SFB 754 community through password-protected access.

SFB 754 Young Scientists Seminars

The PhD candidates should give at least two seminar talks at the SFB 754 Young Scientists Seminar. These seminars will take place in blocks, to which attendance by all PhD candidates is mandatory.

SFB 754 annual PhD Workshop

The SFB 754 will organise annual PhD workshops, which all candidates are expected to attend. The workshops will combine career-oriented training with SFB 754 specific scientific topics.

SFB 754 Summer School

The SFB 754 will organise a summer school in 2014, which covers SFB 754 relevant subjects. Participation at the summer school will be compulsory for SFB 754 PhD candidates.

SFB 754 Annual Retreats

Retreats will take place annually by the SFB 754 in which all members and active scientists including PhD candidates participate. The retreats will capture the on-going and planned SFB 754 research and are crucial for internal exchange and cooperation. Often also international guest for science support and collaboration are invited.

SFB 754 PhD Candidate Representative

All SFB 754 PhD candidates will elect a representative and his/her deputy. This person is part of the SFB 754 extended board.

The PhD Thesis Committee

The PhD Thesis Committee consists of two or three supervisors. The primary supervisor (a SFB 754 sub-project leader) is the candidate's main supervisor and takes full responsibility for the overall management of the doctoral training and research project. Therefore, the primary supervisor should be formally authorised by the Faculty of Mathematics and Natural Sciences at the CAU (Professor or PD) to take over PhD supervision. A secondary supervisor should be a SFB 754 sub-project leader, ideally from another sub-project. Optionally, a third person can be on the PhD Thesis Committee who can provide input and mentoring. The second and third supervisors do not need to have a formal status at the faculty, and may be from within the University or outside. The PhD Thesis Committee formally meets the PhD candidate every 6 months (see time schedule) to discuss recent progress and future directions.

The second and third supervisor should be jointly selected by the supervisor and PhD candidate, and are required to enter the supervision agreement through the application form on the ISOS website that is to be submitted no later than two weeks after the beginning of studies. During the course of the PhD, it may be necessary to change the membership of the panel, following consultation with the supervisors. The ISOS and the SFB 754 scientific coordinator should be promptly informed.

PhD Thesis Committee Meetings – Guidelines

The Thesis Committee agrees to conduct one joint meeting per semester. The PhD candidate is responsible for organising these meetings and writing protocols that should be forwarded to the ISOS. ISOS will make these fully available to the SFB 754 extended board. Protocols should be submitted by the end of each semester, on 30th September and 31st March.

For further suggestions on the structure of the progress report and the meetings see Appendix A and B.

Role of the PhD Supervisors

The primary supervisor is responsible for providing overall guidance on the research carried out by the PhD candidate. The commitment and expertise of this supervisor are critical to the success of the project.

The primary supervisor is also responsible for ensuring that the minimum facilities and consumables required for the completion of the proposed project are available to the PhD candidate. Given the character of the SFB 754 research activities, direct access to complex instrumentation, a cohort of technicians, and a large annual consumables budget may be prerequisites for recruitment of PhDs and allocation of research topics.

The specific responsibilities of the primary supervisor include:

- supporting the PhD candidate in the development or refinement of a research project and plan of work
- ensuring that the PhD candidate has been introduced to the members of the PhD panel at the beginning of her or his studies
- providing advice and guidance about the implementation of the research project and the strategies to achieve the research goals
- advising the PhD candidate on her / his specific training needs
- advising the PhD candidate on her / his responsibilities and duties at the beginning of her / his studies
- providing guidance on the standard of work expected for a PhD degree and communicating clearly to the PhD candidate how she / he is performing
- monitoring PhD candidate progress
- ensuring that regular contacts are maintained with the PhD candidate, and that all important understandings and decisions are agreed
- providing feedback on written and oral presentations that are given by the PhD candidate
- providing the PhD candidate with opportunities to meet other researchers in the field by facilitating her / his attendance at conferences as appropriate and as permitted by resources
- ensuring that the PhD candidate gets appropriate recognition for her / his efforts (e.g. primary authorship on papers and acknowledgements at seminars)
- ensuring that adequate supervision is in place for PhD candidates during any extended periods of absence by the supervisor

The second supervisor supports the PhD candidate and project by:

- acting as an additional source of encouragement
- being available for consultation by the PhD candidate on project-related matters
- being available for advise on social matters
- acting in supportive informal way to facilitate the clarification and resolution of PhD candidate / supervisor problems at an early stage, and in the event of a persistent problem, engaging in a more formal way (for example with requesting external inputs by the scientist responsible for PhD studies) to find a resolution
- advising the PhD candidate and supervisor(s) when a project is becoming prolonged
- providing and discussing career perspectives for the PhD candidate

The PhD Candidate

The PhD candidate is central to the research endeavour of the SFB 754.

The PhD candidate communicates progress and difficulties regularly with the supervisor and the other members of the PhD Thesis Committee, records accurately and carefully all relevant tasks being carried out, and produces timely progress reports as required (see time schedule above and Appendix A).

The PhD candidate should feel free at any time to approach their supervisory Thesis Committee for advice and support. Additional support is always available through the SFB scientific coordinator or the ISOS. The PhD candidate must recognise their responsibility in setting up and conducting the regular Thesis Committee meetings that are a cornerstone of their support. Should problems arise from time to time, each candidate may seek personal, confidential mediation through ombudspersons available at the ISOS.

PhD candidates and their interests are represented within the SFB 754. A PhD candidate representative and her / his replacement are elected by all SFB 754 PhD candidates. The SFB 754 PhD candidate representative will attend all extended board meetings.

The opinion of PhD candidates is important to the SFB 754. PhD candidates' feedback is used to improve the ISOS-SFB754 PhD Programme for current and future PhD candidates.

Role of the SFB 754 Scientific Coordinator

The SFB 754 scientific coordinator is responsible for monitoring that the guidelines of the ISOS-SFB754 PhD Programme are implemented.

The SFB 754 scientific coordinator is in close contact with ISOS. In particular, the scientific coordinator is responsible to ensure that PhD Thesis Committee meetings are taking place, that the literature reviews are stored with the SFB 754 documents and the SFB 754 extended board receives the PhD Thesis Committee meeting protocols. **The literature review will also be uploaded on the SFB 754 data portal.** Furthermore the SFB 754 scientific coordinator is responsible for all SFB 754 PhD activities such as the seminars and annual workshops as well as the organisation of the summer school in 2014. The SFB 754 scientific coordinator is the contact point for all issues related to the SFB 754.

SFB 754 scientific coordinator:
Dr. Chris Schelten, cschelten@geomar.de, phone: 600-4242

PhD Candidates with Children

The Christian-Albrechts-University and GEOMAR offer scientists with children different services. More information can be found at:

CAU: http://www.uni-kiel.de/familienservice/
GEOMAR: http://www.geomar.de/institut/gleichstellung/beruf-und-familie/

In addition the SFB 754 has some financial means for supporting PhD candidates with children. For further information, please contact the SFB 754 scientific coordinator.

Revision of the ISOS-SFB754 PhD Programme

The efficacy of these guidelines and their efficient operation will depend on their regular revision. Revisions take into account:

- feedback from PhD candidates and supervisors
- evolving practice, nationally and internationally

The SFB 754 scientific coordinator together with the SFB 754 speaker and SFB 754 extended board is in charge of the revision process and the assurance that as the guidelines are developed and revised they remain in compliance with legal regulations and university policies. All revision will be made in agreement with the ISOS.

Appendix A – PhD candidate progress report

Suggested structure for the PhD candidate progress report:
to be sent to all panel members no later than three days before the panel meeting (with copy to SFB 754 scientific coordinator)

thesis working title

- *name of PhD candidate, names of panel members with respective departments*
- *date and indication of time since start of PhD*

achievements to date

- *for example describe one or two most important figures produced to date*
- *include information on manuscript in preparation, if any*

work plan for the next twelve months

1st meeting (within 6 weeks)
Initial formal meeting between the PhD candidate and the PhD Thesis Committee (1st Thesis Committee meeting, see time schedule above), during which:

- the proposed topic of research is discussed in detail, with attention given to expected standards of work
- gaps in knowledge and additional training required are identified
- consideration is given to any questions and concerns that the PhD candidate may have
- a plan and timeline of the project is developed and agreed upon
- the extent and framework for the required literature review is discussed

Subsequent 6-monthly meetings:
These may start with a short presentation by the candidate as an update on the project status.

Milestones and Time Plan

- achievements of the past 6 months with respect to the time- table set
- problems/ setbacks encountered
- timetable for the next 6 months

Appendix B – ISOS Information

What ISOS offers - at a Glance

	ISOS offer	What's the benefit?
ISOS Courses	Specific Courses	ISOS offers a range of scientific courses across all marine disciplines at the CAU, outside of curricular programmes. These give - targeted training for specific skills for direct use in research - multidisciplinary knowledge in Ocean Sciences (natural sciences, law, social sciences,…) - in-depth disciplinary seminars We produce courses on demand. Contact us with your idea!
	Lecture Series	In the interdisciplinary Lecture Series "Big Questions" senior scientists identify the open research questions in their field and give insights on future developments. *We continually inform you on our website and via E-Mail on course offers.*
Support	Co-supervision	As an ISOS PhD candidate you have a main advisor and one or two additional supervisors who will support you in all aspects related to your work and your career goals, and guide you in your participation in coursework and research travel.
	Peer Mentoring	Having a peer mentor may save you as a first year PhD student some of the "learning by doing" pitfalls and help you get ahead faster.
	Travel Grants	All ISOS candidates are entitled to apply for funding for - travel to conferences, workshops and training courses (e.g. summer schools) - research visits
	PhD Miniproposals	At the ISOS you can initiate and develop a small research project. You may apply for up to 5,000 € for research, consumables, travel or other activities. Guidelines on our website.

Preparing for a Life after PhD

Transferable Skills	Academic excellence alone is often not sufficient for an excellent career start. At ISOS, learn what it takes…
Messe Mentoring	Visiting a commercial, career or scientific fair is often overwhelming. Use a senior scientist as a mentor to share their experience, provide insights and introduce you to the right people.
Science meets Industry	Participate in workshops with partners from industry and (other) private businesses in the region, and take part in on-site visits.
Meet The Prof	Network personally with top-level international scientists visiting Kiel. Find out what they think are the top challenges in their field and what it takes to make a career in sciences.
Career Evenings	Network personally with invited guests from industry, policy-making, NGOs etc. and be inspired by their career paths.

Networks

ISOS PhD Network	You are part of a cross-disciplinary network of over 100 PhDs in Ocean Sciences. Talk to your peers, initiate social and cross-disciplinary events!
PhD retreats	At annual events ISOS PhDs discuss and network with experts from inside and outside academia on topics in science and society. Suggest a theme for the next retreat!
3 Cluster Network	PhD candidates from the climate-related Clusters in Bremen, Hamburg and Kiel build a network of the next generation of climate scientists.

Guidelines for the ISOS PhD Thesis Committee Meetings

The Thesis Committee (consisting of the PhD candidate and her / his advisors) agrees to conduct one joint meeting per semester. The PhD candidate is responsible for organising these meetings and writing protocols. Please send the protocol of this meeting to the ISOS.

These are *suggestions* based on best-practice examples. Modify as needed.

FIRST MEETING:

Definition of scientific and career goals

- goals to be met by the end of the thesis
- Is a specific initial training required?
- rough time plan for the coming three years
- milestones and timetable for the coming 6 months
- If multiple disciplines are involved, who can give input in each field?
- Has the PhD candidate identified long-term career goals?

SUBSEQUENT 6-MONTHLY MEETINGS:

These may start with a short presentation by the candidate as an update on the project status.

Milestones and Time Plan

- achievements of the past 6 months with respect to the timetable set
- problems/ setbacks encountered
- timetable for the next 6 months

Training Programme: Course Work

- PhD candidate reports on courses (scientific and transferable skills) taken in the past 6 months
- Is targeted specific training needed?
- Has the candidate undertaken teaching activities? Please specify.
- Courses planned in the next 6 months

Travel and Conferences

- PhD candidate reports on conferences attended
- Upcoming conferences; contribution, deadlines, funding from ISOS?
- Is a research stay at a partner institute planned? Please specify

Other….

- Is the PhD candidate interested in the ISOS "Miniproposal" scheme?
- Has the candidate been involved in teaching? Please specify
- Has the PhD candidate identified long-term career goals?

Submission deadline: **Please submit protocols by the end of each semester, on** 30th September **and** 31st March.

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