Bayreuth Graduate School
of Mathematical and Natural Sciences
(BayNAT)
Regulations

Dated 25 June 2018

This translation is provided for information only.
The legally binding document is the German original.

Bayreuth Graduate School
of Mathematical and Natural Sciences
(BayNAT)
Regulations

Dated 25 June 2018

Table of contents

Addendum: BayNAT doctoral programmes

Section 1
Members

(1) BayNAT membership shall be extended to members of teaching staff at the Faculties of Mathematics, Physics and Computer Science and Biology, Chemistry and Earth Sciences who are eligible to administer examinations per Article 2(1) of the Bavarian Higher Education Employment Act (BayHSchPG).

(2) [1]Other members of the University of Bayreuth may also become members of BayNAT. [2]The University of Bayreuth's governing board shall decide on applications for membership based on proposals made by the BayNAT director; the BayNAT director shall submit these proposals to the governing board in agreement with the leadership board defined in Section 5.2 hereof.

Section 2
Governing bodies

BayNAT shall have the following governing bodies:

1. A director and a deputy director (see Section 3 hereof)

2. BayNAT members, represented at members' meetings (see Section 4 hereof)

3. A leadership board (see Section 5 hereof)

Section 3
Director

(1) [1]A director shall manage BayNAT's business based on the resolutions passed at the members' meetings.

(2) [1]The director and his or her deputy shall both be elected by the leadership board for a term of two years based on the majority of votes cast. [2]Every member of BayNAT shall be entitled to submit nominations. [3]Re-election shall be permitted.

Section 4
Members' meetings

(1) 1Members, when convened at members' meetings, shall be responsible for passing resolutions on all BayNAT matters where these regulations otherwise do not provide anything.

(2) The director shall call members' meetings at least one week in advance and include each meeting's agenda.

(3) 1BayNAT members may at any time request by majority vote that the director call a members' meeting.

(4) 1Minutes shall be kept of every members' meeting.

(5) Members' meetings shall meet quorum when all members have been duly summoned and the majority of members are present; written transfers of voting rights shall be considered when determining members' absence and voting rights.

Section 5
Leadership board

(1) The leadership board shall comprise the chairpersons of the executive boards for all BayNAT doctoral programmes in addition to the director and his or her deputy.

(2) The leadership board shall be responsible for decisions regarding the acceptance of new members pursuant to Section 1.2 hereof, the election of the director and his or her deputy pursuant to Section 4.2 hereof, changes to the addenda to this document (the doctoral programmes) pursuant to Section 8.1 hereof and the addition of new doctoral programmes pursuant to Section 8.2 of these regulations.

Section 6
Objective

[1]BayNAT's objective shall be to provide young scientists an outstanding education alongside their research work so that they might respond to the future requirements of the many and diverse facets of modern science and contribute creatively to the development of scientific concepts. [2]To this end, BayNAT shall offer in its individual doctoral programmes an interdisciplinary education with international components and organized supervision to complement students' research. [3]Doctoral programmes shall give exceptionally qualified students the opportunity to switch from a master's programme to doctoral research by combining master's and doctoral studies in the same programme, and also to obtain qualification for a master's degree in one graduate programme (through the fast-track option). [4]Students shall be supported in their independent research with practical and theoretical specialization modules that are research-based and career-related.

Section 7
Doctoral degree

[1]Participation in a doctoral programme shall enable doctoral students to obtain the academic degree of "Doktor/Doktorin der Naturwissenschaften" (Dr. rer. nat.) based on the BayNAT doctoral degree regulations as amended. [2]The basic requirements for acceptance as doctoral candidates and general examination procedures (including the fast-track option) shall be governed by the BayNAT doctoral degree regulations within the overall framework of the relevant doctoral programme.

Section 8
Doctoral programmes

(1) The BayNAT doctoral programmes are listed in an addendum to these regulations.

(2) [1]Applications for other doctoral programmes shall be submitted to the director of BayNAT. [2]Such programmes shall be established by the majority vote of the leadership board.

(3) [1]The leadership of each doctoral programme shall be exercised by an executive board consisting of at least three lecturers who are entitled to administer examinations and are part of the BayNAT Graduate School; a chair and a deputy shall be elected from among these persons. [2] At least two members of the executive board shall be lecturers entitled to administer examinations pursuant to Article 2(1)(1) of the Bavarian Higher Education Employment Act (Bayerisches Hochschulpersonalgesetz – BayHSchPG) as amended. [3]Members of the respective doctoral programmes who are entitled to administer examinations shall elect the members of the executive board, and one person for each who may substitute for them, for a three-year term.

(4) [1]The executive board shall meet quorum when all members have been duly summoned and the majority of members are present; it may adopt resolutions by a simple majority of votes cast. [2]It shall not be permitted to abstain from voting, cast secret ballots or vote by proxy. [3]Should a vote result in a tie, the chair shall have the casting vote.

(5) [1]The executive board may adopt resolutions to accept new members of a doctoral programme if proposed. [2]Any member of the relevant doctoral programme who is entitled to administer examinations shall be entitled to submit such proposals.

(6) [1]The chair of the executive board shall keep a list of the members of the doctoral programme and share it with the director of the Graduate School. [2]The chair shall be responsible for administering elections for each subsequent term of office in accordance with Section 8.3 above.

Section 9
Effective date, supersession

[1]These regulations shall take effect on 26 June 2018. [2]Simultaneously, the Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) Regulations dated 10 July 2015, as amended by the by-laws dated 15 January 2018, shall become ineffective.

Addendum: BayNAT doctoral programmes

I. Experimental Geosciences

1.
Organization

(1) [1]This doctoral programme shall be provided by the Bavarian Research Institute of Experimental Geochemistry and Geophysics at the University of Bayreuth. [2]The members of this doctoral programme shall be academic staff who work in the field of experimental geosciences at the University of Bayreuth and are entitled to administer examinations. [3]Academics in this field who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The executive board for this doctoral programme shall consist of three lecturers who are entitled to administer examinations and their deputies, all elected pursuant to Section 8.3 hereof. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern studies and the degree earned through the “Experimental Geosciences” doctoral programme, which, on completion, admits candidates to the degree of “Doktor/Doktorin der Naturwissenschaften” (Dr. rer. nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral degree regulations”).

3.
Objective of the doctoral programme

[1]The objective of the Experimental Geosciences doctoral programme shall be to provide young scientists an outstanding education that equips them to respond to the future requirements of the many and diverse facets of experimental geosciences and to contribute creatively to the development of scientific concepts. [2]To this end, the doctoral programme shall provide a broad, interdisciplinary education through research and by fostering competence across different subject areas.

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the Experimental Geosciences doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional on the performance of extra academic work to an extent and at a time specified by the executive board at the beginning of the doctoral programme; such work shall form part of the 30 credits of coursework.

(2) Admission based on the fast-track procedure set out in Section 4.2 of the BayNAT doctoral degree regulations shall be possible if applicants have previously earned a degree in a subject related to the Experimental Geosciences doctoral programme, have studied at least one semester of a master's programme related to the Experimental Geosciences doctoral programme at the time of applying and have earned at least 27 credits in this master's programme.

(3) In this case, applicants shall submit to an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral student shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations. [2]This committee shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. [3]At least two members shall belong to the Experimental Geosciences doctoral programme. [4]At least one member shall be university lecturer and two members shall be entitled to administer examinations for the purposes of the doctoral degree regulations.

(3) [1]When starting doctoral studies (i.e. within the first six months), doctoral students shall prepare a research plan of approximately five to ten pages presenting the thesis project (current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it in a meeting with them.

(4) [1]At a later stage of studies in the doctoral programme, doctoral students shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee. [2]They may also hold a presentation in a research seminar instead of submitting a written report.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside their research activity, all doctoral students shall complete an individual training programme which is optimally focused on their individual skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Doctoral students shall obtain at least 30 credits from their participation in these courses and projects and from their plans and reports pursuant to Section 5.3 and 5.4 above. [5]These courses and projects are listed in Appendix 2 of this doctoral programme description. [6]Work that is performed outside of this doctoral programme shall be recognized if it is equivalent. [7]Requirements shall be reduced by five credits for every half-year if doctoral studies last fewer than three years. [8]The time of thesis submission shall be agreed with the mentoring committee.

(7) [1]The doctoral programme shall include appropriate measures for networking with areas of excellence, for promoting international work and study and for interdisciplinary events

conducive to both the personal and professional lives of students. [2]Accordingly, doctoral students shall be the subject and form part of the activities defined in more detail in Appendix 2 of this doctoral programme description.

(8) [1]The content of the doctoral programme shall provide for the acquisition of professional and technical competence as well as the improvement of so-called “key competence”. [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description. [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme’s executive board.

(9) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

6.
Thesis format

[1]In accordance with Section 12 of the BayNAT doctoral degree regulations, the doctoral thesis shall represent the product of independent academic work performed by a doctoral student. [2]Individual research papers that have been written by a doctoral student may also be combined into one thesis (i.e. a cumulative thesis).

Appendix 1: Eligibility test for fast-track admission to doctoral studies

1. Applicants may be admitted to the Experimental Geosciences doctoral programme following two semesters of master's studies. They may submit applications for this when:

   - A member of the doctoral programme who is entitled per Section 8.1 of the BayNAT doctoral degree regulations to administer examinations has agreed in writing to guide the doctoral studies, and

   - Applicants, at the time of application, have successfully passed at least one semester of a master's programme in a subject related to the Experimental Geosciences doctoral programme and have earned at least 27 credits in that master's programme

2. Applicants shall undergo an eligibility test.

3. Applications for admission to the eligibility test shall be submitted by the applicant and a person entitled to administer examinations within the meaning of Section 2 sentence 1 of the BayNAT doctoral degree regulations (normally the doctoral project's supervisor) to the executive board of the Experimental Geosciences doctoral programme.

   The application shall include the following:

   - A cover letter explaining the applicant's motivation for admission via the fast-track option for the Experimental Geosciences doctoral programme.

   - Evidence of a completed university degree related to the Experimental Geosciences doctoral programme.

   - Evidence of at least 27 credits previously earned through a master's programme related to the Experimental Geosciences doctoral programme.

   - If available, evidence of special qualifications (e.g. professional training, awards, internships, scholarships, study or work abroad) if they are in a field related to the Experimental Geosciences doctoral programme.

4. An interview shall be held with each applicant for the eligibility test. It shall be held by a panel consisting of two members from the executive board and the member of the Experimental Geosciences doctoral programme who will be guiding the candidate's doctoral project. This interview shall last 30 to 60 minutes. During this interview, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission to the Experimental Geosciences doctoral programme. The criteria for this shall be outstanding, specialist knowledge of geosciences and the foundations of natural sciences in addition to an ability to comprehend and present complex scientific contexts. Applicants shall be accepted for fast-track admission if the majority of the interview panel considers them suitable.

5. Minutes shall be taken of the proceedings of the eligibility test interview, recording the date, duration and location of the interview as well as the names of the applicant and examiners. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by the panel members.

6. The executive board shall base each decision on the documents submitted by the applicant and on the result of the interview held with the applicant. Its decision may be either "suitable" or "unsuitable".

7. For final admission to the Experimental Geosciences doctoral programme, evidence shall be provided of at least 60 credits worth of work performed in a master's programme in a subject related to the Experimental Geosciences doctoral programme.

8. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Recommended content of the Experimental Geosciences doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The credits earned for activity in each course shall be determined individually for each doctoral student in line with the effort required, based on the general specifications provided by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). [3]Other work may be recognized in consultation with the executive board.

Assessment components	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Research plan	4 credits	4	4
Written report on work or presentation in research seminar	2 credits	4	6
Participation in research seminar	2 credits per semester	6	12
Courses, lectures, intensive courses and work placements pertaining to specific methods	1 credit per weekly contact hour	4	12
Weekend seminars, active participation with presentation	2 credits	0	6
Weekend seminars, participation	1 credit	0	3
Presentations at international conferences	2 credits	0	6
Presentations at national conferences, poster presentations at conferences	1 credit	0	6
Authoring of submitted manuscripts (as lead author)	4 credits per manuscript	0	8
Courses, lectures, intensive courses and work placements pertaining to subjects related to experimental geosciences	1 credit per weekly contact hour	0	6
Courses on soft skills	1 credit per weekly contact hour	2	6
Study abroad longer than one month	5 credits per month	0	10
Participation in the preparation and organization of experiments at major research facilities (synchrotrons, neutron sources etc.)	2 credits per week	0	6

Participation in teaching	1 credit per weekly contact hour	0	4

II. Materials Chemistry and Catalysis

1.
Organization

(1) [1]This doctoral programme shall be provided by the Bayreuth Centre for Colloids and Interfaces (BZKG). [2]The members of this doctoral programme shall be academic staff who work in the field of materials chemistry and catalysis at the University of Bayreuth and are entitled to administer examinations. [3]Academics in this field who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The executive board for this doctoral programme shall consist of five University lecturers who are entitled to administer examinations and their deputies, all elected pursuant to Section 8.3 hereof. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern studies and the degree earned through the “Materials Chemistry and Catalysis” doctoral programme, which, on completion, admits candidates to the degree of “Doktor/Doktorin der Naturwissenschaften” (Dr. rer. nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral degree regulations”).

3.
Objective of the doctoral programme

[1]The objective of the Materials Chemistry and Catalysis doctoral programme shall be to provide young scientists an outstanding education that equips them to respond to the future requirements in the chemical areas of the interdisciplinary field of materials science and to contribute creatively to the development of scientific concepts. [2]To this end, the doctoral programme shall provide a broad, interdisciplinary education through research and by fostering competence across different subject areas.

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the Materials Chemistry and Catalysis doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional on the performance of extra academic work to an extent and at a time specified by the executive board at the beginning of the doctoral programme; such work shall form part of the 30 credits of coursework.

(2) Admission based on the fast-track procedure set out in Section 4.2 of the BayNAT doctoral degree regulations shall be possible if applicants have previously earned a degree in a subject related to the Materials Chemistry and Catalysis doctoral programme, have studied at least one semester of a master's programme related to the Materials Chemistry and Catalysis doctoral programme at the time of applying, with above-average success, and have earned at least 27 credits in this master's programme.

(3) In this case, applicants shall submit to an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral student shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations. [2]This committee shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. [3]At least two members shall belong to the Materials Chemistry and Catalysis doctoral programme. [4]At least one member shall be university lecturer and two members shall be entitled to administer examinations for the purposes of the BayNAT doctoral degree regulations.

(3) [1]When starting doctoral studies (i.e. within the first six months), doctoral students shall prepare a research plan of approximately five to ten pages presenting the thesis project (current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it in a meeting with them.

(4) At a later stage of their studies, doctoral students shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside their research activity, all doctoral students shall complete an individual training programme which is optimally focused on their individual skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Doctoral students shall obtain at least 30 credits from their participation in these courses and projects and from their plans and reports pursuant to Section 5.3 and 5.4 above. [5]These courses and projects are listed in Appendix 2 of this doctoral programme description. [6]Work that is performed outside of this doctoral programme shall be counted if it is equivalent. [7]Requirements shall be reduced by five credits for every half-year if doctoral studies last fewer than three years. [8]The time of thesis submission shall be agreed with the mentoring committee.

(7) [1]The doctoral programme shall include appropriate measures for networking with areas of excellence, for promoting international work and study and for interdisciplinary events conducive to both the personal and professional lives of students. [2]Accordingly, doctoral students shall be the subject and form part of the activities defined in more detail in Appendix 2 of this doctoral programme description.

(8) [1]The content of the doctoral programme shall provide for the acquisition of professional and technical competence as well as the improvement of so-called "key competence". [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description. [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme's executive board.

(9) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

6.
Thesis format

1In accordance with Section 12 of the BayNAT doctoral degree regulations, the doctoral thesis shall represent the product of independent academic work performed by a doctoral student. 2Individual research papers that have been written by a doctoral student may also be combined into one thesis (i.e. a cumulative thesis). 3 Cumulative theses shall appear suitable if the doctoral student can submit at least three individual articles. 4Of these articles, at least half shall have been submitted to a peer-reviewed, academic journal and at least one shall have been accepted for publication or published. 5Summaries of conference contributions shall not count for this. 6Doctoral students shall be the lead author of at least one of these articles. 7The executive board shall take decisions on any exemptions regarding this.

Appendix 1: Eligibility test for fast-track admission to doctoral studies

1. Applicants may be admitted to the Materials Chemistry and Catalysis doctoral programme following two semesters of master's studies. They may submit applications for this when:

   - A member of the doctoral programme who is entitled per Section 8.1 of the BayNAT doctoral degree regulations to administer examinations has agreed in writing to guide the doctoral studies, and

   - Applicants, at the time of application, have successfully passed at least one semester of a master's programme in a subject related to the Materials Chemistry and Catalysis doctoral programme and have earned at least 27 credits in that master's programme

2. Applicants shall undergo an eligibility test.

3. Applications for admission to the eligibility test shall be submitted by the applicant and a person entitled to administer examinations within the meaning of Section 2 sentence 1 of the BayNAT doctoral degree regulations (normally the doctoral project's supervisor) to the executive board of the Materials Chemistry and Catalysis doctoral programme.

   The application shall include the following:

   - A cover letter explaining the applicant's motivation for admission via the fast-track option for the Materials Chemistry and Catalysis doctoral programme.

   - Evidence of a completed university degree related to the Materials Chemistry and Catalysis doctoral programme.

   - Evidence of at least 27 credits previously earned through a master's programme related to the Materials Chemistry and Catalysis doctoral programme.

   - If available, evidence of special qualifications (e.g. professional training, awards, internships, scholarships, study or work abroad) if they are in a field related to the Materials Chemistry and Catalysis doctoral programme.

4. The executive board shall decide on applicants' suitability for fast-track admission to the Materials Chemistry and Catalysis doctoral programme based on these documents. Applicants who rank among the top 30 percent of students in their year in their master's programme shall normally be deemed suitable for fast-track admission. The percentiles from the students' final grade for their bachelor's degree and from coursework in the first semester of their master's programme shall be weighted evenly for this. An interview shall be held with the other applicants for the eligibility test. It shall be held by a panel consisting of two members from the executive board and the member of the Materials Chemistry and Catalysis doctoral programme who will be guiding the candidate's doctoral project. During this interview lasting approximately 30 minutes, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission to the Materials Chemistry and Catalysis doctoral programme. The criteria for this shall be outstanding, specialist knowledge of the foundations of natural sciences in addition to an ability to comprehend and present complex scientific contexts. Applicants shall be accepted for fast-track admission if the majority of the interview panel considers them suitable.

5. Minutes shall be taken of the proceedings of the eligibility test interview, recording the date, duration and location of the interview as well as the names of the applicant and panel members. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by the panel members.

6. The executive board shall base each decision on the documents submitted by the applicant and, if applicable, on the result of the interview held with the applicant. Its decision may be either "suitable" or "unsuitable".

7. For final admission to the Materials Chemistry and Catalysis doctoral programme, evidence shall be provided of at least 60 credits worth of work performed in a master's programme in a subject related to the Materials Chemistry and Catalysis doctoral programme.

8. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Recommended content of the Materials Chemistry and Catalysis doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The credits earned for activity in each course shall be determined individually for each doctoral student in line with the effort required, based on the general specifications provided by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). [3]Other work may be recognized in consultation with the executive board.

Assessment components	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Research plan, yearly reports on work progress	2 credits per report	4	8
Research group seminar, literature seminar	2 credits per semester	6	12
Active participation in the doctoral symposium	2 credits per active participation	2	6
Attendance at summer schools/courses on methods	1 credit per course	0	4
(Poster) presentations at conferences	2 credits per conference	2	6
Advanced courses	related to students' own research	2	8
Active participation in teaching	1 credit per week	2	8
Authoring of submitted manuscripts (as lead author)	4 credits per manuscript	0	12
Training courses for teaching and learning in higher education	1 credit per course	0	2

III. Molecular Bioscience

1.
Organization

(1) [1]This doctoral programme shall be provided by the Bayreuth Centre for Molecular Biosciences (BZMB). [2]The members of this doctoral programme shall be academic staff who work in the field of molecular biosciences at the University of Bayreuth and are entitled to administer examinations. [3]Academics in this field who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The executive board for this doctoral programme shall consist of five University lecturers who are entitled to administer examinations and their deputies, all elected pursuant to Section 8.3 hereof. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern studies and the degree earned through the “Molecular Bioscience” doctoral programme, which, on completion, admits candidates to the degree of “Doktor/Doktorin der Naturwissenschaften” (Dr. rer. nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral degree regulations”).

3.
Objective of the doctoral programme

[1]The objective of the Molecular Bioscience doctoral programme shall be to provide young scientist an outstanding education that equips them to respond to the future requirements of the many and diverse facets of molecular bioscience and to contribute creatively to the development of scientific concepts. [2]To this end, the doctoral programme shall provide a broad, interdisciplinary education through research and by fostering competence across different subject areas.

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the Molecular Bioscience doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional on the performance of extra academic work to an extent and at a time specified by the executive board at the beginning of the doctoral programme; such work shall form part of the 30 credits of coursework.

(2) Admission based on the fast-track procedure set out in Section 4.2 of the BayNAT doctoral degree regulations shall be possible if applicants have previously earned a degree in a subject related to the Molecular Bioscience doctoral programme, have studied at least one semester of a master's programme related to the Molecular Bioscience doctoral programme at the time of applying and have earned at least 27 credits in this master's programme.

(3) In this case, applicants shall submit to an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral student shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations. [2]This committee shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. [3]At least two members shall belong to the Molecular Bioscience doctoral programme. [4]At least one member shall also be university lecturer and two members shall be entitled to administer examinations for the purposes of the doctoral degree regulations.

(3) [1]When starting doctoral studies (i.e. within the first six months), doctoral students shall prepare a research plan of approximately five to ten pages presenting the thesis project (current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it in a meeting with them.

(4) At a later stage of studies in the doctoral programme, doctoral students shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside their research activity, all doctoral students shall complete an individual training programme which is optimally focused on their individual skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Doctoral students shall obtain at least 30 credits from their participation in these courses and projects and from their plans and reports pursuant to Section 5.3 and 5.4 above. [5]These courses and projects are listed in Appendix 2 of this doctoral programme description. [6]Work that is performed outside of this doctoral programme shall be recognized if it is equivalent. [7]Requirements shall be reduced by five credits for every half-year if doctoral studies last fewer than three years. [8]The time of thesis submission shall be agreed with the mentoring committee.

(7) [1]The doctoral programme shall include appropriate measures for networking with areas of excellence, for promoting international work and study and for interdisciplinary events conducive to both the personal and professional lives of students. [2]Accordingly, doctoral students shall be the subject and form part of the activities defined in more detail in Appendix 2 of this doctoral programme description.

(8) [1]The content of the doctoral programme shall provide for the acquisition of professional and technical competence as well as the improvement of so-called “key competence”. [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description. [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme’s executive board.

(9) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

6.
Thesis format

1In accordance with Section 12 of the BayNAT doctoral degree regulations, the doctoral thesis shall represent the product of independent academic work performed by a doctoral student. 2Individual research papers that have been written by a doctoral student may also be combined into one thesis (i.e. a cumulative thesis). 3 Cumulative theses shall appear suitable if the doctoral student can submit at least three individual articles. 4Of these articles, at least two shall be published or accepted for publication in a peer-reviewed, academic journal at the time of submitting the thesis. 5Summaries of conference contributions shall not count for this. 6Doctoral students shall be the lead author of at least one of these articles. 7The executive board shall take decisions on any exemptions regarding this.

Appendix 1: Eligibility test for fast-track admission to doctoral studies

1. Applicants may be admitted to the Molecular Bioscience doctoral programme following two semesters of master's studies. They may submit applications for this when:

   - A member of the doctoral programme who is entitled per Section 8.1 of the BayNAT doctoral degree regulations to administer examinations has agreed in writing to guide the doctoral studies, and

   - Applicants, at the time of application, have successfully passed at least one semester of a master's programme in a subject related to the Molecular Bioscience doctoral programme and have earned at least 27 credits in that master's programme

2. Applicants shall undergo an eligibility test.

3. Applications for admission to the eligibility test shall be submitted by the applicant and a person entitled to administer examinations within the meaning of Section 2 sentence 1 of the BayNAT doctoral degree regulations (normally the doctoral project's supervisor) to the executive board of the Molecular Bioscience doctoral programme.

   The application shall include the following:

   - A cover letter explaining the applicant's motivation for admission via the fast-track option for the Molecular Bioscience doctoral programme.

   - Evidence of a completed university degree related to the Molecular Bioscience doctoral programme.

   - Evidence of at least 27 credits previously earned through a master's programme related to the Molecular Bioscience doctoral programme.

   - If available, evidence of special qualifications (e.g. professional training, awards, internships, scholarships, study or work abroad) if they are in a field related to the Molecular Bioscience doctoral programme.

4. The executive board shall decide on applicants' suitability for fast-track admission to the Molecular Bioscience doctoral programme based on these documents. Applicants who rank among the top 20 percent of students in their year in their master's programme shall normally be deemed suitable for fast-track admission. The percentiles from the students' final grade for their bachelor's degree and from coursework in the first semester of their master's programme shall be weighted evenly for this. An interview shall be held with the other applicants for the eligibility test. It shall be held by a panel consisting of two members from the executive board and the member of the Molecular Bioscience doctoral programme who will be guiding the candidate's doctoral project. During this interview lasting approximately 30 minutes, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission to the Molecular Bioscience doctoral programme. The criteria for this shall be outstanding, specialist knowledge of the foundations of natural sciences in addition to an ability to comprehend and present complex, scientific contexts. Applicants shall be accepted for fast-track admission if the majority of the interview panel considers them suitable.

5. Minutes shall be taken of the proceedings of the eligibility test interview, recording the date, duration and location of the interview as well as the names of the applicant and panel members. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by the panel members.

6. The executive board shall base each decision on the documents submitted by the applicant and, if applicable, on the result of the interview held with the applicant. Its decision may be either "suitable" or "unsuitable".

7. For final admission to the Molecular Bioscience doctoral programme, evidence shall be provided of at least 60 credits' worth of work performed in a master's programme in a subject related to the Molecular Bioscience doctoral programme.

8. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Recommended content of the Molecular Bioscience doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The credits earned for activity in each course shall be determined individually for each doctoral student in line with the effort required, based on the general specifications provided by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). [3]Other work may be recognized in consultation with the executive board.

Assessment component	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Research plan, yearly reports on work progress	2 credits per report	4	8
Research group seminar, literature seminar	2 credits per semester	6	12
Active participation in the doctoral symposium	2 credits per active participation	2	6
Attendance at summer schools/courses on methods	1 credit per course	0	4
(Poster) presentations at conferences	2 credits per conference	2	6
Advanced courses	related to students' own research	2	8
Active participation in teaching	1 credit per week	2	8
Authoring of submitted manuscripts (as lead author)	4 credits per manuscript	0	12
Training courses for teaching and learning in higher education	1 credit per course	0	2

IV. Ecology and Environmental Research

1.
Organization

(1) [1]This doctoral programme shall be provided by the Bayreuth Centre of Ecology and Environmental Research (BayCEER). [2]The members of this doctoral programme shall be academic staff who work in the field of ecology and environmental research at the University of Bayreuth and are entitled to administer examinations. [3]Academics in this field who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The executive board for this doctoral programme shall consist of five university lecturers who are entitled to administer examinations and their deputies, all elected pursuant to Section 8.3 hereof. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern studies and the degree earned through the “Ecology and Environmental Research” doctoral programme, which, on completion, admits candidates to the degree of “Doktor/Doktorin der Naturwissenschaften” (Dr. rer. nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral degree regulations”).

3.
Objective of the doctoral programme

[1]The objective of the Ecology and Environmental Research doctoral programme shall be to prepare young scientists of special aptitude for the subject for complex activities in research, teaching and professional work. [2]To this end, the doctoral programme shall provide a broad, interdisciplinary education through research and by fostering competence across different subject areas. [3]It shall provide an interdisciplinary perspective and practical insights into how academia organizes itself.

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the Ecology and Environmental Research doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional on the performance of extra academic work to an extent and at a time specified by the executive board at the beginning of the doctoral programme; such work shall form part of the 30 credits of coursework.

(2) [1]Admission based on the fast-track procedure set out in Section 4.2 of the BayNAT doctoral degree regulations shall be possible if applicants have previously earned a degree in a subject related to the Ecology and Environmental Research doctoral programme, have studied at least one semester of a master's programme related to the Ecology and Environmental Research doctoral programme at the time of applying and have earned at least 27 credits in this master's programme.

(3) In this case, applicants shall submit to an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral student shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations. [2]This committee shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. [3]At least two members shall belong to the Ecology and Environmental Research doctoral programme. [4]At least one member shall also be university lecturers and two members shall be entitled to administer examinations for the purposes of the doctoral degree regulations.

(3) [1]When starting doctoral studies (i.e. within the first six months), doctoral students shall prepare a research plan of approximately five to ten pages presenting the thesis project (current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it in a meeting with them.

(4) [1]At a later stage of studies in the doctoral programme, doctoral students shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee. [2]They may also hold a presentation in a research seminar instead of submitting a written report.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside their research activity, all doctoral students shall complete an individual training programme which is optimally focused on their individual skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Doctoral students shall obtain at least 30 credits from their participation in these courses and projects and from their plans and reports pursuant to Section 5.3 and 5.4 above. [5]These courses and projects are listed in Appendix 2 of this doctoral programme description. [6]Work that is performed outside of this doctoral programme shall be recognized if it is equivalent. [7]Requirements shall be reduced by five credits for every half-year if doctoral studies last fewer than three years. [8]The time of thesis submission shall be agreed with the mentoring committee.

(7) [1]The doctoral programme shall include appropriate measures for networking with areas of excellence, for promoting international work and study and for interdisciplinary events conducive to both the personal and professional lives of students. [2]Accordingly, doctoral students shall be the subject and form part of the activities defined in more detail in Appendix 2 of this doctoral programme description.

(8) [1]The content of the doctoral programme shall provide for the acquisition of professional and technical competence as well as the improvement of so-called "key competence". [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description. [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme's executive board.

(9) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

6.
Thesis format

1In accordance with Section 12 of the BayNAT doctoral degree regulations, the doctoral thesis shall represent the product of independent academic work performed by a doctoral student. 2Individual research papers that have been written by a doctoral student may also be combined into one thesis (i.e. a cumulative thesis).

Appendix 1: Eligibility test for fast-track admission to doctoral studies

1. Applicants may be admitted to the Ecology and Environmental Research doctoral programme following two semesters of master's studies. They may submit applications for this when:

   - A member of the doctoral programme who is entitled per Section 8.1 of the BayNAT doctoral degree regulations to administer examinations has agreed in writing to guide the doctoral studies, and
   - Applicants, at the time of application, have successfully passed at least one semester of a master's programme in a subject related to the Ecology and Environmental Research doctoral programme and have earned at least 27 credits in that master's programme

2. Applicants shall undergo an eligibility test.

3. Applications for admission to the eligibility test shall be submitted by the applicant and a person entitled to administer examinations within the meaning of Section 2 sentence 1 of the BayNAT doctoral degree regulations (normally the doctoral project's supervisor) to the executive board of the doctoral programme.

   The application shall include the following:

   - A cover letter explaining the applicant's motivation for admission via the fast-track option for the Ecology and Environmental Research doctoral programme.
   - Evidence of a completed university degree related to the Ecology and Environmental Research doctoral programme.
   - Evidence of at least 27 credits previously earned through a master's programme related to the Ecology and Environmental Research doctoral programme.
   - If available, evidence of special qualifications (e.g. professional training, awards, internships, scholarships, study or work abroad) if they are in a field related to the Ecology and Environmental Research doctoral programme.

4. An interview shall be held with each applicant for the eligibility test. It shall be held by a panel consisting of two members from the executive board and the member of the Ecology and Environmental Research doctoral programme who will be guiding the candidate's doctoral project. This interview shall last 30 to 60 minutes. During this interview, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission to the Ecology and Environmental Research doctoral programme. The criteria for this shall be outstanding, specialist knowledge of geosciences and the foundations of natural sciences in addition to an ability to comprehend and present complex, scientific contexts.

5. Minutes shall be taken of the proceedings of the eligibility test interview, recording the date, duration and location of the interview as well as the names of the applicant and examiners. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by the panel members.

6. The executive board shall base each decision on the documents submitted by the applicant and on the result of the interview held with the applicant. Its decision may be either "suitable" or "unsuitable".

7. For final admission to the Ecology and Environmental Research doctoral programme, evidence shall be provided of at least 60 credits' worth of work performed in a master's programme in a subject related to the Ecology and Environmental Research doctoral programme.

8. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Recommended content of the Ecology and Environmental Research doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The credits earned for activity in each course shall be determined individually for each doctoral student in line with the effort required, based on the general specifications provided by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). [3]Other work may be recognized in consultation with the executive board.

Assessment components	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Research plan	4 credits	4	4
Written report on work or presentation in research seminar	2 credits	4	6
Participation in research seminar	2 credits per semester	6	12
Courses, lectures, intensive courses and work placements pertaining to specific methods	1 credit per weekly contact hour	4	12
Attendance at summer schools and courses on methods	1 credit per course	0	4
Presentations at conferences	2 credits	0	6
Poster presentations at conferences	1 credit	0	6
Authoring of submitted manuscripts (as lead author)	4 credits per manuscript	0	8
Courses on soft skills	1 credit per weekly contact hour	2	6
Study abroad	5 credits per month	0	10
Participation in preparation and organization of field experiments	1 credit per week		3
Participation in teaching	1 credit per weekly contact hour	0	4

V. Polymer Science

1.
Organization

(1) [1]This doctoral programme shall be provided by the Bayreuth Institute of Macromolecular Research (BIMF) and Bayreuth Centre for Colloids and Interfaces (BZKG). [2]The members of this doctoral programme shall be academic staff who work in the field of polymer and colloid research at the University of Bayreuth and are entitled to administer examinations. [3]Academics in this field who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The executive board for this doctoral programme shall consist of five university lecturers who are entitled to administer examinations and their deputies, all elected pursuant to Section 8.3 hereof. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern studies and the degree earned through the “Polymer Science” doctoral programme, which, on completion, admits candidates to the degree of “Doktor/Doktorin der Naturwissenschaften” (Dr. rer. Nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral degree regulations”).

3.
Objective of the doctoral programme

[1]The objective of the Polymer Science doctoral programme shall be to provide young scientists an outstanding education that equips them to respond to the future requirements in the interdisciplinary fields of polymer and colloid research and to contribute creatively to the development of scientific concepts. [2]To this end, the doctoral programme shall provide a broad, interdisciplinary education through research and by fostering competence across different subject areas.

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the Polymer Science doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional on the performance of extra academic work to an extent and at a time specified by the executive board at the beginning of the doctoral programme; such work shall form part of the 30 credits of coursework.

(2) Admission based on the fast-track procedure set out in Section 4.2 of the BayNAT doctoral degree regulations shall be possible if applicants have previously earned a degree related to the Polymer Science doctoral programme, have studied at least one semester of a master's programme related to the Polymer Science doctoral programme at the time of applying and have earned at least 27 credits in this master's programme.

(3) In this case, applicants shall submit to an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral student shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations. [2]This committee shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. [3]At least two members shall belong to the Polymer Science doctoral programme. [4]At least one member shall also be university lecturer and two members shall be entitled to administer examinations for the purposes of the doctoral degree regulations.

(3) [1]When starting doctoral studies (i.e. within the first six months), doctoral students shall prepare a research plan of approximately five to ten pages presenting the thesis project (current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it in a meeting with them.

(4) At a later stage of their studies, doctoral students shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside their research activity, all doctoral students shall complete an individual training programme which is optimally focused on their individual skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Doctoral students shall obtain at least 30 credits from their participation in these courses and projects and from their plans and reports pursuant to Section 5.3 and 5.4 above. [5]These courses and projects are listed in Appendix 2 of this doctoral programme description. [6]Work that is performed outside of this doctoral programme shall be recognized if it is equivalent. [7]Requirements shall be reduced by five credits for every half-year if doctoral studies last fewer than three years. [8]The time of thesis submission shall be agreed with the mentoring committee.

(7) [1]The doctoral programme shall include appropriate measures for networking with areas of excellence, for promoting international work and study and for interdisciplinary events conducive to both the personal and professional lives of students. [2]Accordingly, doctoral students shall be the subject and form part of the activities defined in more detail in Appendix 2 of this doctoral programme description.

(8) [1]The content of the doctoral programme shall provide for the acquisition of professional and technical competence as well as the improvement of so-called “key competence”. [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description. [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme’s executive board.

(9) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

6.
Thesis format

1In accordance with Section 12 of the BayNAT doctoral degree regulations, the doctoral thesis shall represent the product of independent academic work performed by a doctoral student. 2Individual research papers that have been written by a doctoral student may also be combined into one thesis (i.e. a cumulative thesis). 3 Cumulative theses shall appear suitable if the doctoral student can submit at least three individual articles. 4Of these articles, at least half shall have been submitted to a peer-reviewed, academic journal and at least one shall have been published or accepted for publication. 5Summaries of conference contributions shall not count for this. 6Doctoral students shall be the lead author of at least one of these articles. 7The executive board shall take decisions on any exemptions regarding this.

Appendix 1: Eligibility test for fast-track admission to doctoral studies

1. Applicants may be admitted to the Polymer Science doctoral programme following two semesters of master's studies. They may submit applications for this when:

   - A member of the doctoral programme who is entitled per Section 8.1 of the BayNAT doctoral degree regulations to administer examinations has agreed in writing to guide the doctoral studies, and

   - Applicants, at the time of application, have successfully passed at least one semester of a master's programme in a subject related to the Polymer Science doctoral programme and have earned at least 27 credits in that master's programme

2. Applicants shall undergo an eligibility test.

3. Applications for admission to the eligibility test shall be submitted by the applicant and a person entitled to administer examinations within the meaning of Section 2 sentence 1 of the BayNAT doctoral degree regulations (normally the doctoral project's supervisor) to the executive board of the Polymer Science doctoral programme.

   The application shall include the following:

   - A cover letter explaining the applicant's motivation for admission via the fast-track option for the Polymer Science doctoral programme.

   - Evidence of a completed university degree related to the Polymer Science doctoral programme.

   - Evidence of at least 27 credits previously earned through a master's programme related to the Polymer Science doctoral programme.

   - If available, evidence of special qualifications (e.g. professional training, awards, internships, scholarships, study or work abroad) if they are in a field related to the Polymer Science doctoral programme.

4. The executive board shall decide on applicants' suitability for fast-track admission to the Polymer Science doctoral programme based on these documents. Applicants who rank among the top 30 percent of students in their year in their master's programme shall normally be deemed suitable for fast-track admission. The percentiles from the students' final grade for their bachelor's degree and from coursework in the first semester of their master's programme shall be weighted evenly for this. An interview shall be held with the other applicants for the eligibility test. It shall be held by a panel consisting of two members from the executive board and the member of the Polymer Science doctoral programme who will be guiding the candidate's doctoral project. During this interview lasting approximately 30 minutes, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission to the Polymer Science doctoral programme. The criteria for this shall be outstanding, specialist knowledge of the foundations of natural sciences in addition to an ability to comprehend and present complex, scientific contexts. Applicants shall be accepted for fast-track admission if the majority of the interview panel considers them suitable.

5. Minutes shall be taken of the proceedings of the eligibility test interview, recording the date, duration and location of the interview as well as the names of the applicant and examiners. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by the panel members.

6. The executive board shall base each decision on the documents submitted by the applicant and, if applicable, on the result of the interview held with the applicant. Its decision may be either "suitable" or "unsuitable".

7. For final admission to the Polymer Science doctoral programme, evidence shall be provided of at least 60 credits' worth of work performed in a master's programme in a subject related to the Polymer Science doctoral programme.

8. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Recommended content of the Polymer Science doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The credits earned for activity in each course shall be determined individually for each doctoral student in line with the effort required, based on the general specifications provided by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). [3]Other work may be recognized in consultation with the executive board.

Assessment components	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Research plan, yearly reports on work progress	2 credits per report	4	8
Research group seminar, literature seminar	2 credits per semester	6	12
Active participation in the doctoral symposium	2 credits per active participation	2	6
Attendance at summer schools/courses on methods	1 credit per course	0	4
(Poster) presentations at conferences	2 credits per conference	2	6
Advanced courses	related to students' own research	2	8
Active participation in teaching	1 credit per week	2	8
Authoring of submitted manuscripts (as lead author)	4 credits per manuscript	0	12
Training courses for teaching and learning in higher education	1 credit per course	0	2

VI. Space and Society

1.
Organization

(1) [1]This doctoral programme shall be provided by the Department of Geography at the University of Bayreuth. [2]The members of this doctoral programme shall be academic staff who work in the field of geography at the University of Bayreuth and are entitled to administer examinations. [3]Academics in this field who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT. [5]External members may be co-opted for the mentoring committee if requested by the executive board (pursuant to Section 6 of the BayNAT doctoral degree regulations).

(2) [1]The executive board for this doctoral programme shall consist of three university lecturers who are entitled to administer examinations and their deputies, all elected pursuant to Section 8.3 hereof. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern studies and the degree earned through the “Space and Society” doctoral programme, which, on completion, admits candidates to the degree of “Doktor/Doktorin der Naturwissenschaften” (Dr. rer. nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral degree regulations”).

3.
Objective and subject of the doctoral programme

(1) [1]The Space and Society doctoral programme shall prepare students of special aptitude for the subject to take on complex professional activities in research, knowledge transfer and knowledge management. [2]This programme shall be characterized by an early and intensive connection to research, promotion of academic excellence and an international and interdisciplinary perspective. [3]By broadly addressing relationships between humans and the environment in a topic-based manner, for example by questioning ecosystems in terms of physical geography or human behaviour in a social context through human geography, this interdisciplinary perspective shall be assured.

(2) [1]The subject of the doctoral programme shall be research questions and methods in physical and human geography combined with the key qualifications required in both academic and professional endeavours. [2]Wide offerings in research training and soft skills and advice from a mentoring committee shall ensure that all participants can complete a programme suited to their goals, needs and opportunities and successfully obtain their doctoral degree.

4.
Requirements for admission to the doctoral programme

(1) [1]The executive board, if requested in writing, shall take any decisions on recognition of the equivalence of qualifications for the subject (pursuant to Section 4.1.1 of the BayNAT doctoral degree regulations). [2]In addition, a member who is entitled to administer examinations shall agree in writing to guide the relevant applicant (see Section 4.1.3 of the BayNAT doctoral degree regulations).

(2) Admission to doctoral studies from master's studies (via the fast-track procedure pursuant to Section 4.2 of the BayNAT doctoral degree regulations) shall require evidence of above-average knowledge of the subject for the thesis written in the Space and Society doctoral programme; such evidence shall be provided by undergoing an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral student shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations. [2]This committee shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. [3]At least two members shall belong to the Space and Society doctoral programme. [4]At least one member shall also be university lecturer and two members shall be entitled to administer examinations for the purposes of the doctoral degree regulations.

(3) [1]When starting doctoral studies (i.e. within the first six months), doctoral students shall prepare a research plan of approximately five to ten pages presenting the thesis project (current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it in a meeting with them.

(4) At a later stage of studies in the doctoral programme, doctoral students shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside their research activity, all doctoral students shall complete an individual training programme which is optimally focused on their individual skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Doctoral students shall obtain at least 30 credits from their participation in these courses and projects and from their plans and reports pursuant to Section 5.3 and 5.4 above. [5]These courses and projects are listed in Appendix 2 of this doctoral programme description. [6]Work that is performed outside of this doctoral programme shall be recognized if it is equivalent. [7]Requirements shall be reduced by five credits for every half-year if doctoral studies last fewer than three years. [8]The time of thesis submission shall be agreed with the mentoring committee.

(7) [1]The doctoral programme shall include appropriate measures for networking with areas of excellence, for promoting international work and study and for interdisciplinary events conducive to both the personal and professional lives of students. [2]Accordingly, doctoral students shall be the subject and form part of the activities defined in more detail in Appendix

2 of this doctoral programme description.

(8) [1]The content of the doctoral programme shall provide for the acquisition of professional and technical competence as well as the improvement of so-called “key competence”. [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description. [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme’s executive board.

(9) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

6.
Thesis format

[1]In accordance with Section 12 of the BayNAT doctoral degree regulations, the doctoral thesis shall represent the product of independent academic work performed by a doctoral student. [2]The thesis shall normally consist of a comprehensive, independently conducted study presented as a monograph. [3]Individual research papers that have been written by a doctoral student may also be combined into one thesis (i.e. a cumulative thesis). [3] Cumulative shall appear suitable if the doctoral student can submit at least three individual articles. [4]Of these articles, at least two shall be published or accepted for publication in a peer-reviewed, academic journal at the time of submitting the thesis. [5]Summaries of conference contributions shall not count for this. [6]The executive board shall take decisions on any exemptions regarding this.

Appendix 1: Eligibility test for fast-track admission to doctoral studies

1. The executive board for the Space and Society doctoral programme shall establish applicants' suitability for fast-track admission to the programme (pursuant to Section 4.2 of the BayNAT doctoral degree regulations and Section 4.2 of this doctoral programme description) using the following criteria:

   - A review, for the purposes of Section 4.2 of this doctoral programme description, which duly considers whether applicants have the above-average knowledge of the foundations of physical and human geography that are relevant to their doctoral project.

   - A review, for the purposes of Section 4.2 of this doctoral programme description, which duly considers whether any deficiencies can be made up for with exceptionally useful skills or any prior work.

2. Applicants shall apply for recognition of satisfaction of the admission requirements and shall have this application sponsored by a relevant person who is entitled to administer examinations (per Section 2 sentence 1 of the BayNAT doctoral degree regulations). The application shall include the following (in accordance with Section 4.2 of the BayNAT doctoral degree regulations):

   - Evidence of a successfully completed university degree related to the Space and Society doctoral programme with above-average achievement

   - Evidence of the credits earned in the master's programme so far

   - Reasons for selecting the Space and Society doctoral programme

   - Documentation, if any, of professional or voluntary activity related to the Space and Society doctoral programme in terms of the subject matter dealt with

3. The executive board shall evaluate the documents submitted by each applicant, considering the requirements of the subject, and shall conduct the eligibility test for the subject where applicants are admitted to it. The test shall be held orally before a panel and shall last at least 30 minutes but no more than 60 minutes. During this oral test, applicants shall evidence the above-average record defined in Section 4.2 of this doctoral programme description in order to satisfy the requirements. Minutes shall be kept of the test proceedings. Applicants shall pass the eligibility test when the examiners unanimously find that the applicants' achievement meets the requirements of the Space and Society doctoral programme and provides grounds to expect that the applicants will complete the shortened doctoral programme successfully. The executive board shall base its decision on the documents submitted by applicants and the result of the test of aptitude for the subject. Its decision may be either "passed" or "failed". The executive board's chair shall notify applicants in writing of the decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

4. A record shall be kept of each executive board decision, containing: the applicant's name, the names of those present and the result, location and date of the decision. The record shall be signed by the chair.

5. Rejected applicants may re-apply for the eligibility test. Any further repetition shall not be possible.

Appendix 2: Recommended content of the Space and Society doctoral programme

[1]This list has been composed as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The ECTS points earned for activity in each course shall be determined individually for each doctoral student in line with the effort required, based on the general specifications provided by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). [3]One credit point for these purposes shall equal a student workload of 30 hours of attendance and self-study. [4]Of the minimum 30 credits required for admission to the doctoral examination procedure, 20 shall have been earned for research training and 10 for key qualifications.

1. **Research training** (generic skills, approximately two thirds of the required points):

Assessment components	**Remarks**	**Minimum credits earned (per activity)**	**Maximum credits earned (per activity)**
Creation of the research proposal	Compulsory project – effort varies depending on starting situation/prior work	2	4
Staff/guest presentations held by the Department of Geography/colloquium on geography and spatial planning	Compulsory where offered, guest visits at other departments also possible	1	2
Courses on methods	at UBT as well as other institutions	1	3
Attendance of a summer school		1	4
(Poster) presentations at conferences		1	4
Participation in competitions	With an emphasis on research	1	3
Excursions/work placements	With links to research	2	10

2. **Key qualifications** (transferable skills, approximately one third of the required points):

Assessment components	**Remarks**	**Minimum credits earned (per activity)**	**Maximum credits earned (per activity)**
Teaching assistance	Cooperation overseeing work placements and tutorials, preparation of seminars and lectures etc.	1	4
Courses run by the Centre for Learning and Teaching in Higher Education at the University of Bayreuth (FBZHL)	In connection with participation in teaching, some offerings are useful outside of that too	1	2
Courses run by the Graduate School		1	4
External offerings	Conferences, seminars, workshops, courses on key qualifications	1	4
Cooperation in science management and marketing	Participation in research groups and organization of conferences and events, science journalism	1	4
Participation in competitions	With a connection to academia, emphasis on key qualifications	1	3
Work placements	With a connection to potential fields of work, emphasis on key qualifications	2	10

VII. Computational Mathematics in Science and Engineering (BayCompMath)

1.
Objective and subject of the doctoral programme

[1]This doctoral programme provided by the Faculty of Mathematics, Physics and Computer Science shall prepare students of special aptitude for the subject to research independently in the field of scientific computing in the broadest way possible. [2]Mathematics has for many decades continually gained in relevance when solving scientific and industrial issues. [3]Mathematics is today considered worldwide to be one of the leading, key technologies. [4]For this reason, increased numbers of experts are needed with deeper knowledge of mathematical modelling of scientific problems and critical evaluation of them as well as skills in mathematical, numeric and statistical analysis for concrete realization in algorithms. [5]Furthermore, knowledge of computer science, the second most important, interdisciplinary science of our time, is indispensable for the efficient implementation of these algorithms on modern computers and for the visualization of the computed solutions in a form comprehensible for users. [6]Scientific computing comprises the entire solution chain, from modelling through to mathematical, numeric and statistical analysis, implementation of algorithms on high-performance computers, simulation and optimization, visualization and model validation. [7]The optimization of non-linear processes in particular will be an emphasis of the Bayreuth doctoral programme. [8]This is because the mere numeric simulation of non-linear, dynamic processes is increasingly not enough today in light of a demand to systematically stabilize and mathematically optimize the external cause and manipulated variables of these processes. [9]On top of this, stochastic methods must be utilized for unsecure data. [10]There is significant potential for innovation in scientific, technical and industrial applications in the combination of these additional aspects. [11]The entire bandwidth of the above solution chain is generally unable to be covered by every thesis project. [12]For this reason, the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme shall explicitly provide an opportunity for students to focus on finer aspects of scientific computing. [13]Although scientific computing primarily has its foundations in the interdisciplinary disciplines of mathematics and computer science, it extends to all disciplines that can make use of mathematical methods. [14]If modelling, validation and realization of results are the primary focus of a subject, as opposed to the role that mathematics and computer science play in it, the doctoral thesis defense shall normally be conducted as in the faculty responsible for that subject. [15]In addition to independent research, the doctoral programme shall impart extended knowledge of mathematics, computer science and any other subjects that are the focus of the doctoral project. [16]It shall also convey key competence for students' professional life. [17]German and English shall be the teaching languages.

2.
Organization

(1) The members of this doctoral programme shall be academic staff at the Faculty of Mathematics, Physics and Computer Science who are entitled to administer examinations and are connected to the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme.

(2) [1]The members shall elect an executive board within the meaning of Section 8.3 hereof, consisting of three university lecturers entitled to administer examinations, of whom two shall belong to the field of mathematics, and deputies for them. [2]The executive board shall elect the chair.

(3) [1]Academics who are connected to the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme, hold a doctorate and conduct independent research activity shall be accepted on request. [2]Academics at other faculties who are active at the University of Bayreuth and hold a doctorate may also become members of the doctoral programme on request. [3]The executive board shall decide on applications; membership in the doctoral programme shall also entail membership of BayNAT.

(4) The executive board shall normally grant membership to academics who are from areas where the content of the doctoral programme is applied and who are entitled to administer examinations; this shall safeguard the interdisciplinary nature of the doctoral programme and, importantly, integrate doctoral projects that have a focus in an area outside of the Faculty of Mathematics, Physics and Computer Science yet have significant content that relates to the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme.

(5) Doctoral students in the programme shall elect from among themselves a spokesperson to represent their concerns before the executive board.

(6) [1]Every doctoral student shall have their studies overseen by a mentoring committee as specified by the relevant faculty for the doctoral studies. [2]This committee shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. At least two members shall belong to the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme. [3]At least one member shall also be university lecturer and two members shall be entitled to administer examinations for the purposes of the doctoral degree regulations.

3.
Scope

This addendum shall govern studies and the degree earned through the "Computational Mathematics in Science and Engineering (BayCompMath)" doctoral programme, which leads to the degree of "Doktor/Doktorin der Naturwissenschaften" based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the "BayNAT doctoral regulations").

4.
Requirements for admission to the doctoral programme

(1) [1]Admission to the doctoral programme shall require (a) a master's or "Diplom" degree in mathematics, computer science, physics or engineering, completed with an above-average result; (b) admission to a fast-track programme that is provided by a German university and related to the doctoral programme or (c) a comparable qualification. [2]Qualifications shall be recognized as equivalent for this when the knowledge and practical skills they evidence are equivalent in scope and content to one of the above programmes. [3]Where the available, written documents do not clearly demonstrate such equivalence, there shall be an oral examination to establish the knowledge and practical skills of which evidence must be provided. [4]This oral examination shall be of approximately 60 minutes' duration and evidence broad technical knowledge of mathematics and computer science. [5]The examiners shall be at least two members of the doctoral programme who are entitled to administer examinations. [6]The executive board may make admission to the doctoral programme conditional on demonstrably making up for lacking knowledge of mathematics, computer science and/or any other, relevant subject by successfully attending additional courses.

(2) For admission to the doctoral programme, applicants shall undergo an eligibility test to demonstrate sufficient knowledge of their thesis subject area; this test shall be governed by Appendix 1 of this doctoral programme description.

5.
Start and completion of doctoral studies

[1]Doctoral studies may be started at any time. [2]They shall conclude with the award of a doctoral degree.

6.
Doctoral programme structure

(1) [1]The requirements for admission to the doctoral programme shall be based on Section 4.2 of the BayNAT doctoral degree regulations. [2]Doctoral studies started from a master's programme via the fast-track option shall normally be designed to last eight semesters; doctoral studies starting after a master's or "Diplom" degree shall normally be designed to last six semesters. [3]When admitted via the first method, the programme shall be based on Section 6.1.1 to 6.1.3 below, with relevant work performed for the doctorate during the master's programme normally being able to be recognized and lead to a reduction in the duration of the doctoral studies. [4]When admitted via the second method, the doctoral studies shall be based on Section 6.1.2 and 6.1.3 below:

1. During the *starting stage* (lasting two semesters), students shall, in agreement with their mentoring committee, select 60 credits' worth of advanced and specialization modules from programmes of study in mathematics, master's programmes in computer science and/or courses in the other, relevant subject, if applicable. They shall be oriented to the field most relevant to the future doctoral project. Alternatively, teaching content suggested individually by the mentoring committee may be acquired through literature seminars. Students' knowledge attainment shall be reviewed by the mentoring committee at the end of the starting stage based on the number of credits earned. The mentoring committee shall hold a written vote for this. If the vote comes out positive, students shall continue to the preparation stage. If the vote returns negative, students shall not continue to the preparation stage; they may apply to have the coursework they have completed recognized based on the applicable degree and examination regulations for the relevant master's programme, provided the obtained competence is equivalent.

2. During the *preparation stage* (lasting two semesters), doctoral students shall, in agreement with their mentoring committee, select 30 credits' worth of further advanced and specialization modules from master's programmes in mathematics, from computer science and/or the other, relevant subject unless they can already evidence sufficient knowledge. Alternatively, teaching content suggested individually by the mentoring committee may also be acquired through literature seminars. In addition, doctoral students shall investigate the current state of research and prepare a research concept for their planned thesis. This research concept shall describe the

current state of research and include an overview of relevant literature, initial research questions, hypotheses, strategies, preliminary work and a provisional schedule. The mentoring committee shall evaluate this and hold a written vote on it. If the vote comes out positive, students shall continue to the work stage. If the vote comes out negative, students shall not continue to the work stage. Students starting from a master's programme may apply to have the coursework they have completed counted towards the relevant master's programme based on the applicable degree and examination regulations, provided the obtained competence is equivalent. Where additional credits still must be earned to complete the master's programme successfully, the relevant degree and examination regulations for the master's programme shall apply to the remaining coursework and projects. Doctoral students with a master's or "Diplom" degree not continuing from the preparation stage to the work stage shall receive a certificate for the advanced and specialization modules they have successfully attended.

3. During the *work stage* (lasting four semesters), students shall make their research concept a reality. The academic work that students perform for their research project shall form the core component of their doctoral education. The results shall be documented in the form of a doctoral thesis. Key findings that have already been published shall usually also be integrated into the thesis so that one complete work can document the independent, academic contribution made by each doctoral student.

(2) 1Doctoral students shall attend courses for their doctoral programme alongside their research activity (see Appendix 2 of this doctoral programme description). 2These courses shall promote networking with areas of excellence and an interdisciplinary, international perspective and contribute to students' personal development. 3Courses, conferences and any study abroad shall be chosen in agreement with the mentoring committee

(3) 1The courses selected from the doctoral programme for recognition of achievement shall be documented in a goals agreement made between doctoral students and their mentoring committee at the beginning of the doctoral programme's work stage. 2Changes arising as studies progress and addition of detail shall be made in agreement with the mentoring committee.

(4) The mentoring committee may request that doctoral students submit yearly reports on the progress of their research work.

7.
Content of the doctoral programme/credits

(1) [1]The doctoral programme's content shall include the acquisition of technical competence and general, key qualifications. [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description.

(2) [1]Learning achievement through study and examinations shall be documented through credits. [2]Credits shall be earned based on the European Credit Point Transfer System (ECTS). [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme's executive board.

(3) [1]90 credits shall normally be required for entry into the doctoral programme's work stage. [2]In exceptional cases, the mentoring committee may request that the executive board issue an exemption. [3]Students shall additionally submit a research concept that has received favourable assessment from their mentoring committee. [4]Furthermore, they shall submit a written supervision agreement from a supervisor for their subject area. [5]Evidence of the minimum 90 credits shall normally be provided with a qualifying master's degree when admitted to the programme after completing master's or "Diplom" studies.

(4) [1]Learning achievement at foreign universities or educational institutions shall normally be recognized by the executive board if it is equivalent. [2]Equivalence agreements passed by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) and the German Rectors' Conference (HRK) shall be observed. [3]Where no such equivalence agreements are available, the executive board may obtain an expert opinion from the KMK's Central Office for Foreign Education (ZAB). [4]Should prior study and examinations not be recognized, affected applicants may request a review of this decision by the president's office. [5]The president's office shall advise the entity authorized under Section 7.3 sentence 2 above to take the decision on how to proceed with the request.

Appendix 1: Eligibility test for admission to doctoral studies

1. The doctoral programme's executive board shall establish applicants' suitability for admission to the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme using the following criteria:

   - A review, for the purposes of Section 4.2 of this doctoral programme description, which duly considers whether applicants have above-average knowledge of the foundations of mathematics, computer science and, if applicable, another subject relevant to the planned thesis.

   - A review, for the purposes of Section 4.2 hereof, which duly considers whether there exist exceptionally useful skills or other prior achievements.

2. Applicants shall apply to the executive board of the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme for recognition of satisfaction of the admission requirements and together with a relevant person who is entitled to administer examinations. The application shall include the following:

   - Evidence of a university degree related to the doctoral programme, successfully completed with above-average achievement.

   - If applicable, evidence of ECTS credits previously earned in a master's programme.

   - Reasons for selecting the doctoral programme.

   - If available, evidence of special qualifications if they are in a field related to the doctoral programme.

3. The doctoral programme's executive board shall evaluate the documents submitted by each applicant and, if necessary, shall arrange the eligibility test for the subject. The test shall be held as an interview before a panel and shall last at least 30 minutes but no more than 60 minutes. This interview shall be conducted by two members of the doctoral programme and the member of the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme who is to guide the doctoral project. During the interview, applicants shall demonstrate that they are suited to doctoral studies through the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme. Minutes shall be kept of the test proceedings. Applicants shall pass the eligibility test when the examiners unanimously find that the applicants' achievement meets the requirements of the doctoral programme. The executive board shall base each decision on the documents submitted by the applicant and on the result of the subject-specific eligibility test. Its decision may be either "passed" or "failed". The decision shall be communicated to applicants in writing. Decisions to reject applicants shall be justified and include information on the available legal remedies.

4. A record shall be kept of each executive board decision, containing: the applicant's name, the names of those present and the result, location and date of the decision. The record shall be signed by the chair.

5. Rejected applicants may re-apply for the eligibility test. Any further repetition shall not be possible.

Appendix 2: Additional qualifications on offer for the Computational Mathematics in Science and Engineering (BayCompMath) doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The aspects of research, self-study and teaching shall be appropriately considered for this. [3]Other work may be recognized in consultation with the executive board.

Assessment components	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Help with research proposals and similar	2 credits	0	8
Active participation in research seminars	2 credits per seminar	2	4
Courses related to students' own research	1 credit per weekly contact hour	0	20
Interdisciplinary courses	1 credit per weekly contact hour	0	20
Presentations at international conferences, courses and workshops	4 credits	0	8
Poster presentations at conferences, courses and workshops	2 credits	0	4
Presentations at national conferences, courses and workshops	2 credits	0	8
Peer-reviewed publications	4 credits (as sole author) 2 credits (as co-author)	0	8
Courses on soft skills	1 credit per weekly contact hour	0	6
Study abroad longer than four weeks	1 credit per week	0	6
Participation in teaching	2 credits per weekly contact hour	0	12

VIII. Analysis, Algebra and Geometry (BayTheoMath)

1.
Objective and subject of the doctoral programme

[1]This doctoral programme provided by the Faculty of Mathematics, Physics and Computer Science shall prepare students of special aptitude for the subject to research independently in the field of theoretical mathematics and analysis, algebra, number theory and geometry in particular. [2]Analysis, algebra, number theory and geometry are central areas of theoretical mathematics. [3]Mathematics has made spectacular progress in all these areas over the last 20 years, despite being one of the oldest sciences there is. [4]Simultaneously, foundational areas of mathematics have opened up entirely new and surprising possibilities for usage, for example in cryptography. [5]It goes without saying that differential equations are of great relevance to the natural sciences. [6]The fields named here are not isolated from each other either, with there being many, diverse relationships between them. [7]This can be seen, for example, in the many methods from analysis and algebra that are applied in geometry. [8]Many of the most important findings of recent years became possible precisely because of interdisciplinary, mathematical methods. [9]Our intention is for this to also be reflected in the doctoral programme: students in this programme shall of course research their own subject area and, on top of that, gain an overview of the latest findings and methods in closely related subject areas – so that they can also be applied in the students' thesis project if necessary.

2.
Organization

(1) The members of this doctoral programme shall be academic staff at the Faculty of Mathematics, Physics and Computer Science who are entitled to administer examinations and are connected to the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme.

(2) [1]The members shall elect an executive board within the meaning of Section 8.3 hereof, consisting of three university lecturers who are entitled to administer examinations and belong to the field of mathematics and deputies for them. [2]The executive board shall elect the chair.

(3) [1]Academics who are connected to the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme, hold a doctorate and conduct independent research activity shall be accepted on request. [2]The executive board shall decide on applications; membership in the doctoral programme shall also entail membership of BayNAT.

(4) Doctoral students in the programme shall elect from among themselves a spokesperson to represent their concerns before the executive board.

(5) [1]Every doctoral student shall be supervised by a mentoring committee. [2]This group shall consist of the guiding member of the doctoral programme, who shall be entitled to administer examinations, and two further members. [3]At least two members shall belong to the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme. [4]At least one member shall also be university lecturer and two members shall be entitled to administer examinations for the purposes of the doctoral degree regulations.

3.
Scope

This addendum shall govern studies and the degree earned through the “Analysis, Algebra and Geometry (BayTheoMath)” doctoral programme, which leads to the degree of “Doktor/Doktorin der Naturwissenschaften” based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral degree regulations”).

4.
Requirements for admission to the doctoral programme

(1) [1]Admission to the doctoral programme shall require (a) a master’s or “Diplom” degree in mathematics, completed with an above-average result; (b) admission to a fast-track programme that is provided by a German university and related to the doctoral programme or (c) a comparable qualification. [2]Qualifications shall be recognized as equivalent for this when the knowledge and practical skills they evidence are equivalent in scope and content to one of the above programmes. [3]Where the available, written documents do not clearly demonstrate such equivalence, there shall be an oral examination to establish the knowledge and practical skills of which evidence must be provided. [4]This oral examination shall be of approximately 60 minutes’ duration and evidence broad technical knowledge of mathematics. [5]The examiners shall be at least two members of the doctoral programme who are entitled to administer examinations. [6]The executive board may make admission to the doctoral programme conditional on demonstrably making up for lacking knowledge of mathematics and/or, if applicable, the other relevant subject by successfully attending additional courses.

(2) For admission to the doctoral programme, applicants shall undergo an eligibility test to demonstrate sufficient knowledge of their thesis subject area; this test shall be governed by Appendix 1 of this doctoral programme description.

5.
Start and completion of doctoral studies

[1]Doctoral studies may be started at any time. [2]They shall conclude with the award of a doctoral degree.

6.
Doctoral programme structure

(1) [1]The requirements for admission to the doctoral programme shall be based on Section 4.1 and 4.2 of the BayNAT doctoral degree regulations. [2]Doctoral studies started from a master's programme via the fast-track option shall normally be designed to last eight semesters; doctoral studies starting after a master's or "Diplom" degree shall normally be designed to last six semesters. [3]When admitted via the first method, the programme shall be based on Section 6.1.1 to 6.1.3 below, with relevant work performed for the doctorate during the master's programme normally being able to be recognized and lead to a reduction in the duration of the doctoral studies. [4]When admitted via the second method, the doctoral studies shall be based on Section 6.1.2 and 6.1.3 below:

1. During the *starting stage* (lasting two semesters), students shall, in agreement with their mentoring committee, select 60 credits' worth of courses from advanced and specialization modules in programmes of study in mathematics and master's programmes in the other, relevant subject. They shall be oriented to the field most relevant to the future doctoral project. Alternatively, teaching content suggested individually by the mentoring committee may be acquired through literature seminars. Students' knowledge attainment shall be reviewed by the mentoring committee at the end of the starting stage based on the number of credits earned. The mentoring committee shall hold a written vote for this. If the vote comes out positive, students shall continue to the preparation stage. If the vote returns negative, students shall not continue to the preparation stage; they may apply to have the coursework they have completed recognized based on the applicable degree and examination regulations for the relevant master's programme, provided the obtained competence is equivalent.

2. During the *preparation stage* (lasting two semesters), doctoral students shall, in agreement with their mentoring committee, select 30 credits' worth of further advanced and specialization modules from master's programmes in mathematics and/or the other, relevant subject unless they can already evidence sufficient knowledge. Alternatively, teaching content suggested individually by the mentoring committee may also be acquired through literature seminars. In addition, doctoral students shall investigate the current state of research and prepare a research concept for their planned thesis. This research concept shall describe the current state of research and include an overview of relevant literature, initial research questions,

hypotheses, strategies, preliminary work and a provisional schedule. The mentoring committee shall evaluate this and hold a written vote on it. If the vote comes out positive, students shall continue to the work stage. If the vote comes out negative, students shall not continue to the work stage. Students starting from a master's programme may apply to have the coursework they have completed recognized based on the applicable degree and examination regulations for the relevant master's programme, provided the obtained competence is equivalent. Where additional credits still must be earned to complete the master's programme successfully, the relevant degree and examination regulations for the master's programme shall apply to the remaining coursework and projects. Doctoral students with a master's or "Diplom" degree not continuing from the preparation stage to the work stage shall receive a certificate for the advanced and specialization modules they have successfully attended.

3. During the *work stage* (lasting four semesters), students shall make their research concept a reality. The academic work that students perform for their research project shall form the core component of their doctoral education. The results shall be documented in the form of a doctoral thesis. Key findings that have already been published shall usually also be integrated into the thesis so that one complete work can document the independent, academic contribution made by each doctoral student.

(2) [1]Doctoral students shall attend courses for their doctoral programme alongside their research activity (see Appendix 2 of this doctoral programme description). [2]These courses shall promote networking with areas of excellence and international perspectives and contribute to students' personal development. [3]Courses, conferences and any study abroad shall be chosen in agreement with the mentoring committee.

(3) [1]The courses selected from the doctoral programme for recognition of achievement shall be documented in a goals agreement made between doctoral students and their mentoring committee at the beginning of the doctoral programme's work stage. [2]Changes arising as studies progress and addition of detail shall be made in agreement with the mentoring committee.

(4) The mentoring committee may request that doctoral students submit yearly reports on the progress of their research work.

7.
Content of the doctoral programme/credits

(1) [1]The doctoral programme's content shall include the acquisition of technical competence and general, key qualifications. [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description.

(2) [1]Learning achievement through study and examinations shall be documented through credits. Credits shall be earned based on the European Credit Point Transfer System (ECTS). [2]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme's executive board.

(3) [1]90 credits shall normally be required for entry into the doctoral programme's work stage. [2]In exceptional cases, the mentoring committee may request that the executive board issue an exemption. [3]Students shall additionally submit a research concept that has received favourable assessment from their mentoring committee. [4]Furthermore, they shall submit a written supervision agreement from a supervisor for their subject area. [5]Evidence of the minimum 90 credits shall normally be provided with a qualifying master's degree when admitted to the programme after completing master's or "Diplom" studies.

(4) [1]Learning achievement at foreign universities or educational institutions shall normally be recognized by the executive board if it is equivalent. [2]Equivalence agreements passed by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) and the German Rectors' Conference (HRK) shall be observed. [3]Where no such equivalence agreements are available; the executive board may obtain an expert opinion from the KMK's Central Office for Foreign Education (ZAB). [4]Should prior study and examinations not be recognized, affected applicants may request a review of this decision by the president's office. [5]The president's office shall advise the entity authorized under Section 7.3 sentence 2 above to take the decision on how to proceed with the request.

Appendix 1: Eligibility test for admission to doctoral studies

1. The doctoral programme's executive board shall establish applicants' suitability for admission to the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme by reviewing whether applicants have above-average knowledge of the foundations of mathematics.

2. Applicants shall apply to the executive board of the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme for recognition of satisfaction of the admission requirements together with a relevant person who is entitled to administer examinations. The application shall include the following:

   - Evidence of a university degree related to the doctoral programme, successfully completed with above-average achievement.
   - If applicable, evidence of ECTS credits previously earned in a master's programme.
   - Reasons for selecting the doctoral programme.

3. The doctoral programme's executive board shall evaluate the documents submitted by each applicant and, if necessary, shall conduct the eligibility test for the subject. The test shall be held as an interview before a panel and shall last at least
   30 minutes but no more than 60 minutes. This interview shall be conducted by two members of the doctoral programme and the member of the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme who is to guide the doctoral project. During the interview, applicants shall demonstrate that they are suited to doctoral studies through the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme. Minutes shall be kept of the test proceedings. Applicants shall pass the eligibility test when the examiners unanimously find that the applicants' achievement meets the requirements of the doctoral programme. The executive board shall base each decision on the documents submitted by the applicant and on the result of the subject-specific eligibility test. Its decision may be either "passed" or "failed". The decision shall be communicated to applicants in writing. Decisions to reject applicants shall be justified and include information on the available legal remedies.

4. A record shall be kept of each executive board decision, containing: the applicant's name, the names of those present and the result, location and date of the decision. The record shall be signed by the chair.

5. Rejected applicants may re-apply for the eligibility test. Any further repetition shall not be possible.

Appendix 2: Additional qualifications on offer for the Analysis, Algebra and Geometry (BayTheoMath) doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The aspects of research, self-study and teaching shall be appropriately considered for this. [3]Other work may be recognized in consultation with the executive board.

Assessment components	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Help with research proposals and similar	2 credits	0	8
Active participation in research seminars	2 credits per seminar	2	4
Courses related to students' own research	1 credit per weekly contact hour	0	20
Interdisciplinary courses	1 credit per weekly contact hour	0	20
Presentations at international conferences, courses and workshops	4 credits points	0	8
Poster presentations at conferences, courses and workshops	2 credits	0	4
Presentations at national conferences, courses and workshops	2 credits	0	8
Peer-reviewed publications	4 credits (as sole author) 2 credits (as co-author)	0	8
Courses on soft skills	1 credit per weekly contact hour	0	6
Study abroad longer than four weeks	1 credit per week	0	6
Participation in teaching	2 credits per weekly contact hour	0	12

IX. Soft Matter Physics, Non-Linear Dynamics and Solid-State Physics

1.
Organization

(1) [1]This doctoral programme shall be provided by the Faculty of Mathematics, Physics and Computer Science. [2]The members of this doctoral programme shall be academics who are active at the University of Bayreuth in the research fields of soft matter physics, non-linear dynamics and solid-state physics and who are entitled to administer examinations. [3]Academics in this field who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive committee shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The doctoral programme's executive board with deputies shall be elected pursuant to Section 8.3 of these regulations. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern the additional qualifications beyond the main research work associated with admission to the degree of "Doktor/Doktorin der Naturwissenschaften" (Dr. rer. nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the "BayNAT doctoral degree regulations").

3.
Objective of the doctoral programme

[1]The doctoral programme's objective shall be to provide young scientists additional qualifications extending beyond their research work so that they might respond to the future requirements of the interdisciplinary field of physics and contribute creatively to the development and transfer of scientific concepts. [2]To this end, the doctoral programme shall provide a broad, interdisciplinary, additional qualification through research and by fostering competence across different subject areas.

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional.

(2) Admission via the fast-track procedure shall be possible pursuant to Section 4.2 of the BayNAT doctoral degree regulations.

(3) In this case, applicants shall submit to an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) Every doctoral student shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations.

(3) Within six months of joining the doctoral programme, doctoral students shall prepare an overview of their thesis project.

(4) [1]At a later stage of their studies, doctoral students shall prepare an annual, interim report on the progress of their work. [2]They may also hold a presentation in a research seminar instead of submitting a written report.

(5) The academic work that students perform for their research project shall form the core component of their doctoral studies.

(6) [1]Alongside their research activity, all doctoral students shall acquire additional, individual qualifications which are optimally focused on their skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students' qualification to research independently and communicate academically and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Participants of the doctoral programme shall earn at least 30 credits from the courses listed in Appendix 2 of this doctoral programme description. [5]Learning achievement from outside of this doctoral programme may be recognized if proposed by the mentoring committee.

(7) Work performed at other universities or research institutions shall be recognized where it is

equivalent. The executive board shall determine equivalence if proposed by the relevant mentoring committee.

Appendix 1: Eligibility test for fast-track admission to doctoral studies

1. An interview of approximately 30 minutes shall be held with all applicants to establish their eligibility and satisfaction of the requirements pursuant to Section 4.2 of the BayNAT doctoral degree regulations. It shall be held by two members of the executive board. During this interview, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission. The criteria for this shall be outstanding, specialist knowledge in addition to an ability to comprehend and present complex, scientific contexts.

2. Applicants shall be accepted for fast-track admission if both members of the executive board consider them suitable. Each decision shall be based on the documents submitted by the applicant and on the result of the interview held with the applicant.

3. Minutes shall be taken of the proceedings of the eligibility test interview, recording the date, duration and location of the interview as well as the names of the applicant and both executive board members. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by both executive board members.

4. For final admission to the doctoral programme, evidence shall be provided of at least 60 credits' worth of work performed in a master's programme in a subject related to the Soft Matter Physics, Non-Linear Dynamics and Solid-State Physics doctoral programme.

5. The committee executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Recommended content of the Soft Matter Physics, Non-Linear Dynamics and Solid-State Physics doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The aspects of research, self-study and teaching shall be appropriately considered for this. [3]Other work may be recognized in consultation with the executive board.

Assessment components	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Overview of thesis project	2 credits	2	2
Report on work progress per Section 5	2 credits	2	6
Active participation in research seminars	2 credits per seminar	2	12
Courses related to students' own research	1 credit per weekly contact hour	0	20
Interdisciplinary courses	1 credit per weekly contact hour	0	20
Presentations at international conferences, courses and workshops	4 credits	0	8
Poster presentations at conferences, courses and workshops	2 credits	0	8
Presentations at national conferences, courses and workshops	2 credits	0	8
Peer-reviewed publications	4 credits (as lead author) 2 credits (as co-author)	0	8
Courses on soft skills	1 credit per weekly contact hour	0	6
Study abroad longer than four weeks	1 credit per week	0	8
Participation in the preparation and organization of experiments at major research facilities (synchrotrons, neutron sources etc.)	2 credits per week	0	6

Participation in teaching	1 credit per weekly contact hour	0	12

X. Photophysics of Synthetic and Biological Multichromophoric Systems

1.
Organization

(1) [1]The members of this doctoral programme shall be members of Faculties I and II at the University of Bayreuth who have applied for DFG research training group 1640. [2]Academics who work in the photophysics of synthetic and biological multichromophoric systems, hold a doctorate and conduct independent research activity may also apply to become members. [3]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The doctoral programme's executive committee shall be elected with deputies pursuant to the BayNAT regulations. [2]The executive board may assign tasks to its chair.

(3) Doctoral students in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern the additional qualifications beyond the main research work associated with admission to the degree of "Doktor/Doktorin der Naturwissenschaften" (Dr. rer. nat.) through the Photophysics of Synthetic and Biological Multichromophoric Systems doctoral programme based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the "BayNAT doctoral degree regulations").

3.
Objective of the doctoral programme

[1]The doctoral programme's objective shall be to provide young scientists additional qualifications extending beyond their research work so that they might respond to the special requirements characterizing the interdisciplinary field of the photophysics of multichromophoric systems. [2] Doctoral students of this programme shall be specially qualified for work on questions pertaining to photophysics and for examining multichromophoric systems. [3]They shall contribute creatively to the development and transfer of scientific concepts. [4]To this end, the doctoral programme shall provide a broad, interdisciplinary, additional qualification through research and by fostering competence across different subject areas.

4.
Admission to the doctoral programme

(1) [1]The provisions of the BayNAT doctoral degree regulations shall govern admission to the doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in the BayNAT doctoral degree regulations, admission may in certain cases be made conditional.

(2) Fast-track admission shall be possible pursuant to the BayNAT doctoral degree regulations.

(3) In this case, applicants shall submit to an eligibility test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may start at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral student shall be supervised by a mentoring committee within the meaning of the BayNAT doctoral degree regulations. [2]The mentoring committee shall normally be composed of the members of the doctoral programme within the meaning of Section 1.1 of this doctoral degree description. [3]Individual exemptions from this rule may be granted by the executive board on request.

(3) The academic work that students perform for their research project shall form the core component of their doctoral studies.

(4) [1]Alongside their research activity, all doctoral students shall acquire additional, individual qualifications which are optimally focused on their skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral students' qualification to research independently and communicate academically and enable them to take on roles of responsibility in research, education, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Participants of the doctoral programme shall earn at least 30 credits from the courses listed in Appendix 2. [5]In separate, exceptional cases, which shall each be specially justified, learning achievement from outside of this doctoral programme may be recognized by the doctoral programme's executive board if proposed by the mentoring committee.

6.
Transitional arrangements

(1) Applicants who have already commenced doctoral studies may apply for admission to this doctoral programme.

(2) [1]Decisions on admission shall be taken based on the reasons provided in a written application to the management committee; no special form shall be required for this. [2]Applications shall include a brief overview of the content of the research project and a short report on its progress.

(3) If applicants are admitted, the management committee shall initiate the composition of a mentor group within the meaning of the BayNAT doctoral degree regulations in agreement with the supervisor.

Appendix 1: Test of aptitude for fast-track admission to doctoral studies

1. An interview of approximately 30 minutes shall be held with all applicants to establish their aptitude and satisfaction of the requirements pursuant to the BayNAT doctoral degree regulations. It shall be held by two members of the executive board. During this interview, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission. The criteria for this shall be outstanding, specialist knowledge in addition to an ability to comprehend and present complex, scientific contexts. Applicants may submit documents to the executive board in advance of their interview to prove their aptitude.

2. Applicants shall be accepted for fast-track admission if both members of the executive board consider them suitable. Each decision shall be based on the documents submitted by the applicant and on the result of the interview held with the applicant.

3. Minutes shall be taken of the proceedings of the aptitude test interview, recording the date, duration and location of the interview as well as the names of the applicant and both management committee executive board members. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by both executive board members.

4. For final admission to the doctoral programme, evidence shall be provided of at least 60 credits' worth of work from a master's programme in a subject related to the Photophysics of Synthetic and Biological Multichromophoric Systems doctoral programme.

5. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Content of the Photophysics of Synthetic and Biological Multichromophoric Systems doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with them. mentoring committee. [2]The aspects of research, self-study and teaching shall be appropriately considered for this. [3]Other academic work shall be recognized based on Section 5.4 of this doctoral programme description.

Course/project	**Weight**	**Minimum credits earned**	**Maximum credits earned**
Workshop module on the topic of multichromophoric systems	3 credits	0	6
Courses related to the topic of multichromophoric systems	4 credits per lecture	0	No limit
Courses on soft skills, e.g. from the Elite Network of Bavaria programme or other funding programmes	3 credits per course	0	6
Conference module	6 credits	0	6
Peer-reviewed publications, as lead author, related to the subject of the doctoral programme	4 credits	0	12
Peer-reviewed publications, as co-author, related to the subject of the doctoral programme	2 credits	0	4
Study abroad longer than four weeks	1 credit point per week	0	8
Presentation of student's research findings at an external (non-UBT) conference, e.g. a poster presentation	2 credits	2	8
Participation in teaching, e.g. overseeing tutorials or work placements	1 credit point per weekly contact hour	0	6
Presentation of student's findings at an internal seminar	2 credits per presentation	4	8
Attendance of specially identified presentations related to the topic of multichromophoric systems	1 credit point per presentation	0	4

XI. Computing Science (BayCompScience)

1.
Objective and subject of the doctoral programme

[1]This doctoral programme, provided by the Faculty of Mathematics, Physics and Computer Science, shall prepare exceptionally qualified academics for independent research in computing science. [2]This doctoral programme shall cover fundamental, theoretical concerns as well as application-oriented, practical issues in computing science. [3]This shall include, in particular, questions related to mathematics and natural sciences that can be worked on in cooperation with other subjects represented at the BayNAT Graduate School. [4]The doctoral programme shall convey advanced knowledge of computing science in addition to independent research. [5]It shall also convey key competence for students' professional life. [6]German and English shall be the teaching languages.

2.
Organization

(1) The members of this doctoral programme shall be academic staff at the Faculty of Mathematics, Physics and Computer Science who are eligible to administer examinations and academics at the Department of Computer Science.

(2) [1]The members shall elect an executive board within the meaning of Section 8.3 hereof, consisting of three teaching staff eligible to administer examinations, of whom two shall belong to the Department of Computer Science, as well as deputies for them. [2]The executive board shall elect the chair. [3]The executive board may assign tasks to its chair.

(3) [1]Academics who are connected to the Computing Science (BayCompScience) doctoral programme, hold a doctorate and conduct independent research activity shall be accepted into the doctoral programme on request. [2]The management committee shall decide on applications; membership in the doctoral programme shall also entail membership of BayNAT.

(4) The executive board shall normally grant membership to academics who are from areas where the content of the doctoral programme is applied and who are eligible to administer examinations; this shall safeguard the interdisciplinary nature of the doctoral programme and, importantly, integrate doctoral projects that have a focus in an area outside of computing science yet have significant content that relates to the Computing Science (BayCompScience) doctoral programme.

(5) Doctoral students in the programme shall elect from among themselves a spokesperson to represent their concerns before the executive board.

(6) [1]Every doctoral candidate shall be supervised by a mentoring committee. [2]This group shall consist of the guiding member of the doctoral programme, who shall be eligible to administer examinations, and two further mentoring committee members. [3]At least two mentors shall belong to the Computing Science (BayCompScience) doctoral programme. [4]At least one mentor shall also be part of the university's teaching staff and two mentors shall be eligible to administer examinations for the purposes of the BayNAT doctoral degree regulations.

3.
Scope

This addendum shall govern doctoral studies in the Computing Science (BayCompScience) doctoral programme leading to the award of the degree of "Doktor/Doktorin der Naturwissenschaften" based on the regulations of the Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the "BayNAT doctoral degree regulations").

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the Computing Science (BayCompScience) doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional on the performance of extra academic work to an extent and at a time specified by the executive board at the beginning of the doctoral programme; such work shall form part of the maximum 30 credits of coursework.

(2) [1]Admission based on the fast-track procedure set out in Section 4.2 of the BayNAT doctoral degree regulations shall be possible if candidates have previously earned a degree related to the Computing Science (BayCompScience) doctoral programme with results far above average and have earned at least 27 credits in a master's programme related to the Computing Science (BayCompScience) doctoral programme at the time of applying. [2]In this case, candidates shall submit to an aptitude test governed by Appendix 1 of this doctoral programme description.

5.
Commencement and completion of doctoral studies

[1]Doctoral studies may be commenced at any time. [2]They shall conclude with the award of a doctoral degree.

6.
Doctoral programme structure

(1) Doctoral studies shall normally be designed to last six semesters.

(2) Every doctoral candidate shall be supervised by a mentoring committee within the meaning of Section 2.6 of this doctoral programme description.

(3) [1]When commencing doctoral studies (i.e. within the first six months), doctoral candidates shall prepare a research plan of maximum five pages presenting the thesis project (including the current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it with them.

(4) At a later stage of their work for the doctorate, doctoral candidates shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside the research activity, each doctoral candidate shall obtain additional qualifications that support doctoral candidates in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [2]The study and projects that come into consideration for this, and how it is recognized, are listed in Appendix 2 of this doctoral programme description. [3]Doctoral candidates shall normally obtain at least 30 credits pursuant to Appendix 2 of this doctoral programme description; mentoring committees may request exemptions from the executive board in exceptional cases if work falls short of this requirement. [4]Work that is performed outside of this doctoral programme shall be counted if it is equivalent. [5]The requirements per sentence 3 shall be reduced by five credits for every half-year if doctoral studies last fewer than three years.

(7) The time of thesis submission shall be agreed with the mentoring committee.

(8) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

7.
Transitional arrangements

(1) Applicants who have already commenced doctoral studies at the University of Bayreuth before this doctoral programme takes effect may apply for admission to the doctoral programme.

(2) [1]Decisions on admission shall be taken based on the reasons provided in a written application to the executive board. [2]Applications shall include a brief overview of the content of the doctoral project and a short report on its progress.

(3) [1]When applicants are accepted, the management committee shall arrange the composition of a mentoring committee. [2]Their mentoring committee shall, in tandem with each applicant, define a study plan for the remaining term of doctoral studies and, if applicable, shall determine the coursework and projects that must still be undertaken.

Appendix 1: Test of aptitude for fast-track admission to doctoral studies

1. Applicants may be admitted to the Computing Science (BayCompScience) doctoral programme following two semesters of master's studies. They may submit applications for this when:

   - A member of the Computing Science (BayCompScience) doctoral programme who is eligible per Section 8.1 of the BayNAT doctoral degree regulations to administer examinations has agreed in writing to guide the doctoral studies, and
   - Applicants, at the time of application, have successfully earned at least 27 credits in a master's programme in a subject related to the Computing Science (BayCompScience) doctoral programme

2. Applicants shall undergo an aptitude test.

3. Applications for admission to the aptitude test shall be submitted by the applicant and a person eligible to administer examinations within the meaning of Section 2 sentence 1 of the BayNAT doctoral degree regulations (normally the doctoral project's supervisor) to the executive board of the Computing Science (BayCompScience) doctoral programme.

   The application shall include the following:

   - A cover letter explaining the applicant's motivation for admission via the fast-track option for the Computing Science (BayCompScience) doctoral programme.
   - Evidence of university study related to the Computing Science (BayCompScience) doctoral programme, completed with results far above average.
   - Evidence of at least 27 credits previously earned through a master's programme related to the Computing Science (BayCompScience) doctoral programme.
   - If available, evidence of special qualifications (e.g. professional training, awards, internships, scholarships, study or work abroad) if they are in a field related to the Computing Science (BayCompScience) doctoral programme.

4. The management committee shall decide whether the documents submitted by applicants meet the formal requirements under Section 3 of this addendum. Should this be the case, an aptitude test interview shall be held with the applicants. It shall be held by a panel consisting of two members from the executive board and the member of the Computing Science (BayCompScience) doctoral programme who will be guiding the candidate's doctoral project. During this interview, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission to the Computing Science (BayCompScience) doctoral programme. Applicants shall be accepted for fast-track admission if the majority of the interview panel considers them suitable.

5. Minutes shall be taken of the proceedings of the aptitude test interview, recording the date, duration and location of the interview as well as the names of the applicant and panel members. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by the panel members.

6. The executive board shall base each decision on the documents submitted by the applicant and on the result of the interview held with the applicant. Its decision may be either "suitable" or "unsuitable". The aptitude test may be repeated once.

7. For final admission to the Computing Science (BayCompScience) doctoral programme, evidence shall be provided of at least 60 credits' worth of work performed in a master's programme in a subject related to the Computing Science (BayCompScience) doctoral programme.

8. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Additional qualifications on offer for the Computing Science (BayCompScience) doctoral programme

[1]The study and projects listed here have been arranged as a guideline for doctoral candidates to select appropriate courses in consultation with their mentoring committee. [2]The aspects of research, self-study and teaching shall be appropriately considered for this. [3]Other work may be recognized in consultation with the executive board.

Course/project	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Research plan, yearly reports on work progress	2 credits	4	8
Passive participation in doctoral colloquium or research group seminars	1 credit per semester	4	6
Active participation (presentation) at doctoral colloquium	2 credits per presentation	2	6
Advanced courses related to students' own research	Pursuant to module handbook	0	16
Passive participation in international conferences, courses and workshops	2 credits	0	6
Presentations at international conferences and workshops	4 credits	0	12
Poster presentations at international conferences and workshops	3 credits	0	9
Passive participation in national conferences, courses and workshops	1 credit	0	3
(Poster) presentations at national conferences, courses and workshops	2 credits	0	6
Peer-reviewed publications	4 credits (as sole author) 2 credits (as co-author)	0	12
Courses on soft skills	Pursuant to module handbook	0	6
Study abroad longer than four weeks	1 credit point per week	0	6
Participation in teaching	2 credits per weekly contact hour	0	12

XII. Deep Earth Volatile Cycles

1.
Organization

(1) [1]This doctoral programme shall be provided by the Bavarian Research Institute of Experimental Geochemistry and Geophysics at the University of Bayreuth in cooperation with the Department of Earth Science at Tohoku University in Japan. [2]The members of this doctoral programme shall be academic staff who work in the field of experimental geosciences at the University of Bayreuth and are eligible to administer examinations. [3]Academics in this and related fields who hold a doctorate and conduct research activity independently may apply to become a member. [4]The executive board shall decide who are accepted as members; membership in the doctoral programme shall also entail membership of BayNAT.

(2) [1]The executive board for this doctoral programme shall consist of three teaching staff who are eligible to administer examinations and their deputies, all elected pursuant to Section 8.3 hereof. [2]The executive board may assign tasks to its chair.

(3) Doctoral candidates in the programme shall elect a spokesperson to represent their concerns before the executive board.

2.
Scope

This addendum shall govern studies and the degree earned through the “Deep Earth Volatile Cycles” doctoral programme, which, on completion, admits candidates to the degree of “Doktor/Doktorin der Naturwissenschaften” (Dr. rer. nat.) based on the Regulations for the Award of Doctoral Degrees at Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) at the University of Bayreuth, as amended (the “BayNAT doctoral regulations”).

3.
Objective of the doctoral programme

[1]The objective of the Deep Earth Volatile Cycles doctoral programme shall be to provide young academics an outstanding education that equips them to respond to the future requirements of geosciences and to contribute creatively to the development of scientific concepts. [2]To this end, the doctoral programme shall provide a broad, interdisciplinary education with a research emphasis on the behaviour of volatile elements (H, C, N, S, halogens, noble gases) in the earth's interior, complemented by promotion of competence across different subjects.

4.
Admission to the doctoral programme

(1) [1]Section 4 of the BayNAT doctoral degree regulations shall govern admission to the Deep Earth Volatile Cycles doctoral programme. [2]Where the subject of applicants' previous study is not sufficiently related to this doctoral programme per the definition in Section 4.1.1 of the BayNAT doctoral degree regulations, admission may in certain cases be made conditional on the performance of extra academic work to an extent and at a time specified by the executive board at the beginning of the doctoral programme; such work shall form part of the 30 credits of coursework.

(2) Admission based on the fast-track procedure set out in Section 4.2 of the BayNAT doctoral degree regulations shall be possible if applicants have previously earned a degree in a subject related to the Deep Earth Volatile Cycles doctoral programme, have studied at least one semester of a master's programme related to the Deep Earth Volatile Cycles doctoral programme at the time of applying and have earned at least 27 credits in this master's programme.

(3) In this case, applicants shall submit to an aptitude test governed by Appendix 1 of this doctoral programme description.

5.
Doctoral programme structure

(1) Doctoral studies may commence at any time and shall normally be designed to last six semesters.

(2) [1]Every doctoral candidate shall be supervised by a mentoring committee within the meaning of Section 6 of the BayNAT doctoral degree regulations. [2]This group shall consist of the guiding member of the doctoral programme, who shall be eligible to administer examinations, and two further members. [3]At least two members shall belong to the Deep Earth Volatile Cycles doctoral programme at the University of Bayreuth. [4]One further member shall be a member of the Department of Earth Sciences at Tohoku University in Japan. [5]At least one member shall also be part of the university's teaching staff and two members shall be eligible to administer examinations for the purposes of the doctoral degree regulations.

(3) [1]When commencing doctoral studies (i.e. within the first six months), doctoral candidates shall prepare a research plan of approximately five to ten pages presenting the thesis project (current state of research, starting research question, hypotheses, strategies, preliminary work, provisional schedule and references to relevant literature). [2]The students' mentoring committee shall evaluate the research plan and discuss it in a meeting with them.

(4) [1]At a later stage of studies in the doctoral programme, doctoral candidates shall prepare an annual, interim report on the progress of their work and discuss it with their mentoring committee. [2]They may also hold a presentation in a research seminar instead of submitting a written report.

(5) The academic work that students perform for their research project shall form the core component of their doctoral education.

(6) [1]Alongside their research activity, all doctoral candidates shall complete an individual training programme which is optimally focused on their individual skills and needs and the requirements of the doctoral research project. [2]The intention of this programme shall be to support doctoral candidates in their independent research and academic communication and enable them to take on roles of responsibility in education, research, industry and society. [3]The combination of courses and projects that best suit this intention shall be selected in consultation with the mentoring committee. [4]Doctoral candidates shall obtain at least 30 credits from their participation in these courses and projects and from their plans and reports pursuant to Section 5.3 and 5.4 above. [5]These courses and projects are listed in Appendix 2 of this doctoral programme description. [6]Work that is performed outside of this doctoral programme shall be recognized if it is equivalent. [7]Requirements shall be reduced by five credits for every half-year if doctoral studies last fewer than three years. The time of thesis submission shall be agreed with the mentoring committee.

(7) [1]To foster breadth and international education, all doctoral candidates shall complete a research trip to the Department of Earth Sciences at Tohoku University in Japan lasting no less than six months in total. [2]In exceptional cases justified by the subject, this research trip may also be wholly or partly to another institution outside of Germany.

(8) [1]The content of the doctoral programme shall provide for the acquisition of professional and technical competence as well as the improvement of so-called “key competence”. [2]Mentoring committees shall take care to arrange a balanced mix from the learning offerings named in Appendix 2 of this doctoral programme description. [3]If proposed by the relevant mentoring committee, work shall be graded and confirmed by the doctoral programme’s executive board.

(9) [1]Work performed at other universities or research institutions shall be recognized where it is equivalent. [2]The executive board shall determine equivalence if proposed by the relevant mentoring committee.

6.
Thesis format

[1]In accordance with Section 12 of the BayNAT doctoral degree regulations, the doctoral thesis shall represent the product of independent academic work performed by a doctoral student. [2]Individual research papers that have been written by a doctoral student may also be combined into one thesis (i.e. a thesis by published works). [3]The thesis shall be written in English.

Appendix 1: Test of eligibility for fast-track admission to doctoral studies

1. Applicants may be admitted to the Deep Earth Volatile Cycles doctoral programme following two semesters of master's studies. They may submit applications for this when:

   - A member of the doctoral programme who is eligible per Section 8.1 of the BayNAT doctoral degree regulations to administer examinations has agreed in writing to guide the doctoral studies, and

   - Applicants, at the time of application, have successfully passed at least one semester of a master's programme in a subject related to the Deep Earth Volatile Cycles doctoral programme and have earned at least 27 credits in that master's programme

2. Applicants shall undergo an eligibility test.

3. Applications for admission to the eligibility test shall be submitted by the applicant and a person eligible to administer examinations within the meaning of Section 2 sentence 1 of the BayNAT doctoral degree regulations (normally the doctoral project's supervisor) to the executive board of the Deep Earth Volatile Cycles doctoral programme.

   The application shall include the following:

   - A cover letter explaining the applicant's motivation for admission via the fast-track option for the Deep Earth Volatile Cycles doctoral programme.

   - Evidence of completed university study related to the Deep Earth Volatile Cycles doctoral programme.

   - Evidence of at least 27 credits previously earned through a master's programme related to the Deep Earth Volatile Cycles doctoral programme.

   - If available, evidence of special qualifications (e.g. professional training, awards, internships, scholarships, study or work abroad) if they are in a field related to the Deep Earth Volatile Cycles doctoral programme.

4. An interview shall be held with each applicant for the eligibility test. It shall be held by a panel consisting of two members from the executive board and the member of the Deep Earth Volatile Cycles doctoral programme who will be guiding the candidate's doctoral project. This interview shall last 30 to 60 minutes. During this interview, applicants shall be required to confirm the impression that their area of speciality is suitable for fast-track admission to the Deep Earth Volatile Cycles doctoral programme. The criteria for this shall be outstanding, specialist knowledge of geosciences and the foundations of natural sciences in addition to an ability to comprehend and present complex, scientific contexts. Applicants shall be accepted for fast-track admission if the majority of the interview panel considers them suitable.

5. Minutes shall be taken of the proceedings of the eligibility test interview, recording the date, duration and location of the interview as well as the names of the applicant and panel members. These minutes shall identify the topics covered in the interview and the reasoning behind the examiners' judgement. Reasons and topics may be listed as keywords. The minutes shall be signed by the panel members.

6. The executive board shall base each decision on the documents submitted by the applicant and on the result of the interview held with the applicant. Its decision may be either "suitable" or "unsuitable".

7. For final acceptance into the Deep Earth Volatile Cycles doctoral programme, evidence shall be provided of at least 60 credits' worth of work performed in a master's programme in a subject related to the Deep Earth Volatile Cycles doctoral programme.

8. The executive board's chair shall notify applicants in writing of the executive board's decision. Decisions to reject applicants shall be justified and include information on the available legal remedies.

Appendix 2: Recommend content of the Deep Earth Volatile Cycles doctoral programme

The study and projects listed here have been arranged as a guideline for doctoral students to select appropriate courses in consultation with their mentoring committee. [2]The credits earned for activity in each course shall be determined individually for each doctoral student in line with the effort required, based on the general specifications provided by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). [3]Other work may be recognized in consultation with the executive board.

Course/project	**Remarks**	**Minimum credits earned**	**Maximum credits earned**
Research plan	4 credits	4	4
Written report on work or presentation in research seminar	2 credits	4	6
Participation in research seminar	1 credit per semester	3	6
Courses, lectures, intensive courses and work placements pertaining to specific methods	1 credit point per weekly contact hour	4	12
Joint seminars for the doctoral programme, active participation with own presentation	2 credits	0	6
Presentations at international conferences	2 credits	0	6
Presentations at national conferences, poster presentations at conferences	1 credit	0	6
Authoring of submitted manuscripts (as lead author)	4 credit points per manuscript	0	8
Courses on soft skills	1 credit point per weekly contact hour	2	6
Field trips to geological terrains	1 credit point per day	2	6
Study abroad, longer than one month, at Tohoku University or another foreign research institution	1 credit point per month	6	12
Participation in the preparation and organization of experiments at major research facilities (synchrotrons, neutron sources etc.)	1 credit point per visit	1	4
Participation in teaching	1 credit point per weekly contact hour	0	4

UNIVERSITY ANNOUNCEMENT

Regarding the display of the Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) Regulations.

The Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) Regulations, passed by the senate of the University of Bayreuth on 13 June 2018, are to be put on display so that they may be announced to the university.

A copy of the Bayreuth Graduate School of Mathematical and Natural Sciences (BayNAT) Regulations shall be on display as of 25 June 2018 by the entrance to the office of the head of Unit I at the University of Bayreuth, Universitätsstrasse 30, ZUV building, room 1.15, available to read during office hours (Monday to Thursday 9:00 a.m. to 11:00 a.m. and 1:00 p.m. to 3:00 p.m.).

This display copy shall be announced by bulletin on the noticeboards in the following buildings:

Central University Administration (ZUV)
Department of Sport Science
Business, Economics and Law (foyer)
Earth Sciences
Mainstrasse 5
Natural Sciences I
Natural Sciences II
Natural Sciences III
Applied Natural Sciences
Applied Computer Science
Institute of Experimental Geochemistry and Geophysics
University library
Hugo-Rüdel-Strasse 8 and 10
Humanities I
Humanities II
Dr.-Hans-Frisch-Strasse 1 and 3
Ludwig-Thoma-Strasse 36b
Geschwister-Scholl-Platz
Prieserstrasse 2
Parsifalstrasse 25

Bayreuth, 25 June 2018 [university seal] UNIVERSITY OF BAYREUTH
THE PRESIDENT

[signature]

Professor Stefan Leible