

JOINT TEMPLATES FOR MATHEMATICS AND NATURAL-SCIENCE DEPARTMENTS – PROCEDURES FOR ADMISSION, FOLLOW-UP AND COMPLETION OF THE RESEARCH PROGRAMME

A STEP IN QUALITY ASSURANCE FOR PhD STUDIES

These procedures are in accordance with regulations for the PhD programme at the University of Bergen and the guidelines in force for research-programme candidates connected to the research environments under the Faculty of Mathematics and Natural Sciences.

Aim:

Ensure: 1) academic quality, 2) that the studies can be completed, 3) monitoring during studies, and 4) the highest possible equality of framework conditions regardless of the supervisory committee and research groups (or similar).

1. ADMISSION PROCEDURES

A. Appointment of a supervisory committee

A supervisory committee must be appointed. The committee have joint responsibility for the candidate and must include one principal supervisor, and co-supervisor(s). One of these has to be employed by UiB.

B. Admission to studies

This follows the standard procedure for the Faculty of Mathematics and Natural Sciences (MNF), but the scholar/applicant must also draw up a project description for the research project (the dissertation) in cooperation with the supervisory committee. The applicant must formulate the project description. The summary of the project description covers the formal requirement for the research plan (one page) of the application form. The project description is an attachment to the application.

Admission is based on the quality documented through attained grades in previous studies, or any research work. It is underlined that funding possibilities must never override the academic quality requirement, which is set at C or better for the special studies in the bachelor degree, master's subjects and the master's thesis. When in doubt consideration should first be given to employing the candidate as a project employee (scientific assistant/research assistant). Thereafter admission to the PhD studies may be applied for if research potential can be clearly documented.

When a complete application is submitted it should first be processed by the respective research group (or similar). The application is then sent from the supervisory committee to the studies consultant who evaluates the application according to formal requirements. If these are satisfied, the application is submitted to FU (the research programme committee) for processing. FU shall in particular evaluate:

- Specialization requirements and academic scope of the training component
- Academic level and the possibility of completion within a given time limit
- Whether the funding plan is realistic

- Whether the supervisory committee covers all the central aspects of the project paper
- The project description (cf. Item 1C)

The department decides whether it should allow the applicant to give an oral presentation of the project to the department's research programme committee (FU) in connection with processing of the PhD application.

If an applicant has his or her education from abroad, the faculty must evaluate the grounds for admission unless this has been done in connection with appointment to a scholarship position. For processing by the department's FU, a statement must have been submitted from the faculty about the applicant's previous education. This process should take place parallel to the candidate's and the supervisory committee's work on the application. Documentation of education from abroad should be sent via the study counsellor to the faculty for assessment.

For applicants who have a Norwegian education the application is decided at the department level. The department sends a letter of admission (<http://www.uib.no/mnfa/stab/Forskerutdanningsutvalg/Rutiner/opptaksbrev2005-engelsk.doc>) or a letter of rejection. For applicants who are admitted, a copy of the application, with copies of the contract of employment and letter of admission attached, will be sent by the department head to the faculty. Other attachments do not need be sent to the faculty.

For applicants with education from abroad the application with all the attachments, together with a recommendation of admission or rejection, should be sent to the faculty's research programme committee for final processing. The same template as for admission letters may be used so that the plan for the training component is evident from the department's forwarding letter.

Admission to the PhD programme must take place within three months after being hired for a scholarship position. The department is responsible for overseeing this for research fellows employed outside UiB, as these often do not have such a proviso for the appointment. It is also important that this group should be able to initiate the admission process as quickly as possible.

C. Project description

The project description should be brief and concise, normally from two to five pages, with a maximum of 10 pages for applied disciplines, and maximum five pages for theoretical disciplines where relevant (may have a limited number of figures), and contain the following elements:

- Academic background ("state-of-the-art"). This includes the candidate's knowledge status, as well as how the planned project would add new knowledge to the research field indicated.
- The academic thesis question, methodology and project objectives. Division into sub-parts with schedules. Explanation of what one expects to attain. Preferably testable hypotheses.
- Data basis, methods and statistics.
- The responsibilities and roles for each of the members of the supervisory committee must be stated.
- Overview of cooperating partners, periods abroad, participation in meetings etc.
- Central references.

- Publication plan.

The project description must be planned by the candidate in cooperation with the appointed supervisory committee and shall form the framework for a PhD project.

D. Filling in the Contract on admission to the organized research programme at UiB

After admission the PhD candidate, supervisors, the department and any cooperating partners must fill in the *Contract on admission to the organized research programme at the University of Bergen*.

The agreement can be obtained from <http://www.uib.no/info/forskning/forskutd.html>

The department administration is responsible for setting a time limit for submitting a signed contract and reminding the candidate, if necessary. A copy of the signed contract must be submitted to the faculty, which is also a party to the agreement. A letter stating that the faculty has been informed about the signed contract must be sent to the candidate with a copy to the department.

E. Procedure for academic evaluation of candidates for scholarship positions

E1. The head of the department appoints an evaluation committee. The project head is normally a member of the committee. Composition of the committee should otherwise comply with UiB's regulations.

E2. The committee draws up a proposed recommendation in writing and ranks the qualified applicants.

E3. The committee shall always evaluate the applicants' qualifications pursuant to the description of the position and make an evaluation as to whether the candidate satisfies the quality requirements governing admission to the PhD studies.

E4. If the plan for the PhD studies, with a project description, does not accompany the application, the project head must draw up a separate schedule for case processing of the application for admission (cf. procedure for quality assurance of the PhD studies). The plan must be of such a nature that it may be approved by the research programme committee **within three months** after being employed as a research fellow. Bear in mind that the appointment is made with reservations concerning admission within this time limit.

E5. The recommendation is addressed to the department and sent to the head of office.

E6. The head of the department makes his/her decision.

E7. If questions are raised under Items 3 and 6 as to whether the candidate satisfies the admission requirements for the PhD study, the case is sent to the research programme committee for prompt evaluation prior to making the recommendation.

E8. Employment is effected by the faculty's employment board.

E9. In connection with the appointment, research fellows funded by the Norwegian Research Council or the EU must fill in respectively *Declaration of transfer of rights to results created by research projects wholly or in part funded by the Norwegian Research Council* or *Declaration of transfer of rights to results created by research projects wholly or in part*

funded by the EU. The contracts can be obtained from
<http://www.uib.no/info/forskning/forskutd.html>

2. PROCEDURES FOR FOLLOW-UP

The head of the department, the research programme committee and the supervisory committee are responsible for following up the research programme candidates.

A. Application for transfer to PhD

An application for transfer from the Dr. scient. to the PhD programme must be addressed to and processed by the department. A proposal for a revised training component/study plan must be sent to the department for approval. The department must answer the candidate and send a copy to the faculty. See also about transfer regulations at <http://www.uib.no/mnfa/research/forskerutdanning.php>

B. Annual report

The administration is responsible for ensuring that a report is submitted each year to the department by the candidate and the supervisory committee no later than 15 January. The report must include 1) status of the training component, 2) status of the dissertation, 3) any special problems, and 4) any compulsory work (cf. the attached form pages 10-13). The administration must prepare a summary of sections 1 and 2 of the report as a case attachment to FU. Each year FU shall assess the progress of all research programme candidates at the respective departments. This applies to both the research project and the training component. This annual report forms the basis for an employee interview with the head of the department (or the head of FU). The purpose of the interview is to gain an overview of the candidate's working conditions and framework conditions with a view to harmonization and equality. If problems or large deviations from the approved plan are found, they must be discussed by the department, candidate and supervisory committee. It is made clear that the candidate may freely raise any matter, including matters that may be difficult to discuss with the supervisory committee. Any information of a personal nature and cooperation difficulties must be considered confidential.

PhD candidates who do not submit progress plans after a second reminder will have their right to continue their studies terminated. The names of such candidates must be submitted to the faculty.

C. Changes to the contract, including the research project and training component

Substantial changes to the contract that have an impact on the completion of the research project or training component must lead to a revision of the research programme contract. Applications/revisions must be processed by FU at the department level. The department sends its answer to the candidate and sends a copy to the faculty.

D. Documentation of activities in the training component

Satisfactory reports from conferences, or similar, approved by the supervisory committee, are required as documentation. Programmes from conferences, documentation or confirmation of course participation and copies of papers or abstracts may be required for credit approval.

E. Bi-annual reports

Bi-annual reports (LAST deadline for changes): Six months prior to the planned defence the research programme candidate must apply for approval of the training component (=30 credits, the trial lecture will usually not yet have been completed) to the department's research programme committee. The application must include all necessary information about the activities that are included and documentation of the completed activities in the training

component. If some of the activities have not been carried out, the doctoral degree candidate must attach a plan for completion of the training component.

For the PhD programme, the training component must be in accordance with the requirements in Item 4.2.1 in the guidelines for the PhD programme at the Faculty of Mathematics and Natural Sciences (cf. page 9). The requirements in the Supplementary regulations for the Dr. scient. degree apply for Dr. scient. candidates. Guidelines and the supplementary regulations can be obtained from <http://www.uib.no/mnfa/research/forskerutdanning.php>.

Layout and documentation requirements:

- General: The number of credits, the year and semester must be entered for all activities. If documentation has previously been submitted to the department, it is not necessary to submit it again. For activities where a grade is awarded, only activities with a C or better can be approved in the training component.
- Particular provisions for the various activities:
 - Subjects: Subject code and title. Special syllabuses: Title. Documentation of subjects/special syllabuses passed at UiB must be obtained by the administration when preparing the case for the department's research programme committee. For subjects/special syllabuses passed at other institutions the candidate must provide grade transcripts.
 - Research courses: Title, duration and venue. Documentation: see under "Documentation of activities in the training component".
 - Conferences: The title, venue and date of the conference as well as the presentation form must be stated. Documentation: see under "Documentation of activities in the training component".
 - Seminar on a self-selected topic: Title, venue and date must be stated. Documentation that the seminar has been approved in accordance with the guidelines for the research programme at the Faculty of Mathematics and Natural Sciences must be attached.
 - Popular science articles/popular scientific work: Reference to the articles must be stated. Documentation confirming the scope, time and venue for other popular scientific activities must be attached.

Only for Dr. scient.:

- Fieldwork/participation in expeditions: Venue, duration and the nature of the work must be stated. Documentation of participation, for example from the head of the expedition, must be attached.
- Visits at external institutions: The location and duration must be stated. Documentation from the institution must be attached.
- Scientific articles: References to the articles must be given.

The department's research programme committee shall process the application and send a reply to the candidate. The faculty must receive a copy of the reply letter (also an electronic copy) and documentation. The faculty and the specialist supervisor must receive a copy of the reply letter.

Excerpt from the guidelines for the PhD programme at the Faculty of Mathematics and Natural Sciences

D.2 The training component

D.2.1 Content

The training component shall comprise 30 credits and include the following:

Part 1: Formal part

Subjects at the 200 level or higher, researcher courses and/or special syllabuses must comprise 25-27 credits (depending on the number of credits in Part 2), including training in science theory and ethics. Candidates who have studied science theory/ethics in previous education do not need to take this again for their PhD programme. The training component must nevertheless include a total of 30 credits.

National and international researcher courses lasting five full working days are awarded two credits. Requirements for documentation of the scope and content of the course are the shared responsibility of the candidate and the course organiser. No reports or examinations beyond what might be included in the course are required.

Part 2: Outreach

Three to five credits are awarded for presentation. All the components of this section must normally be completed after the application for admission to the PhD programme has been submitted or appointment to a scholarship position has been effected. Activities that might be included are:

- *Knowledge presentation courses*
- *Participation at international conferences with presentation of results from the candidate's research results. Two credits are awarded per conference. Maximum one conference.*
- *Popular-science contributions in the candidate's field. Up to two credits per contribution. Maximum two credits.*
- *Seminar/lecture on self-selected topic. One credit. Duration of one-hour lecture. Maximum one credit. The seminar/lecture must be open to everyone and be announced two weeks in advance. The topic must be proposed by the student and the supervisor and approved by the department. The department convenes a committee with two members to evaluate the seminar/lecture. The committee must send the outcome of the evaluation to the department.*

Scientific articles that are not part of the dissertation are not awarded credits in the training component.

The content of the training component must be such that together with work on the dissertation and previous training it gives the necessary academic scope and in-depth studies that are embedded in the objectives for the research programme.

Each department may within the stipulated framework draw up regulations for how the training component is to be carried out. The regulations must be approved by the faculty.

3. PROCEDURES FOR COMPLETION

A. Approval of the training component

- At least six months prior to the planned defence the research-programme candidate must apply for approval of the training component. The department sends a response to the candidate with copies (electronic and paper) to the faculty. Documentation of the content must be attached to the paper copy. A copy without attachments must be sent to the specialist supervisor.
- Any documentation to be sent later must be sent when submitting the dissertation.

B. Submitting the dissertation and appointing an evaluation committee

- **At least ten weeks before** the planned defence: The candidate sends an **application to submit the dissertation** to the department (see guidelines for PhD Item G and section 6 of the regulations). Those who will be defending for the Dr. scient. degree must also state whether they wish to give a trial lecture pursuant to the Dr. scient. or PhD regulations – see Item D. Five copies of the dissertation must accompany the application.
- The supervisory committee, possibly in conjunction with the head of the research group, sends a **written proposal for an evaluation committee** to the department. The supervisory committee must also submit a statement on the doctoral candidate's input in joint work – in the language used in the dissertation, normally English, and a statement as to whether the dissertation has been recommended for submission or not (to be kept secret from the evaluation committee).
- **Composition of the evaluation committee:** The evaluation committee must comprise at least three members; one in-house member (head of the committee) and two external members (outside UIB), including two equal-position opponents (see section 9 of the regulations). One of the external members may preferably be from abroad. The doctoral candidate's gender must be represented in the committee. All members must have a doctoral degree or similar competence. This must be documented if it is not evident from the title of the person in question. For members whose primary occupation is not research, it is a requirement that on-going scientific activity must be documented.
- **Competence:** The department must obtain a **competence declaration** (http://www.uib.no/mnfa/skjema/PhD_administrasjon/Habilitet_korrigert_juni06.doc) from the proposed committee members. Opponents may normally not have planned publication cooperation or publications during the last five years or other cooperation with the candidate or supervisory committee to be accepted as competent. The committee leader may normally not have planned publication cooperation or publications during the last five years or other cooperation with the candidate to be accepted as competent. (cf. section 6-10 of the Public Administration Act, <http://www.lovdato.no/all/nl-19670210-000.html> and <http://www.ub.uio.no/ujur/ulovdata/lov-19670210-000-eng.pdf>)
- After processing by the department's FU, the proposal for appointment of the committee using the form "Information relating to the committee for evaluating a doctoral dissertation" (http://www.uib.no/mnfa/skjema/PhD_administrasjon/KOMITESKJEMA%20NYTT%20H-06.doc)

must be sent to the faculty. This must have the following attachments: (a) Competence declaration from the proposed members, (b) application from the doctoral candidate to submit the dissertation for evaluation, (c) separate statements from the specialist supervisor about the doctoral candidate's efforts in joint work and (d) a statement as to whether the dissertation is recommended for submission, (e) four copies of the dissertation and (f) any attached documentation of the training component (see A).

- The faculty processes the proposal for the evaluation committee, informs the department and the doctoral candidate about the outcome and sends an appointment letter, dissertation and necessary information to the committee members, including copies of the regulations and the Guide for evaluating Norwegian doctoral dissertations ([http://www.uib.no/ur/aktuelle dokumenter/drgrori.html](http://www.uib.no/ur/aktuelle_dokumenter/drgrori.html)).

C. The work of the evaluation committee

- The dissertation must be evaluated in the form in which it is submitted, and must be approved or not approved (see section 10 of the regulations). Within five weeks, and at the **latest three weeks before the defence**, the committee shall send its recommendation, with any individual supplemental statements, to the faculty with copies to the department. The recommendation may be unanimous or split. The faculty sends a copy of the recommendation to the doctoral candidate who is given a time limit of 14 days to submit written remarks on the recommendation. See the PhD/Dr. scient. regulations for procedures relating to recommendations when one or more committee members find the dissertation unworthy of the doctoral degree.
- The head of the committee is responsible for quickly establishing contact with the external members and informing them what their duties imply and about the Norwegian scheme for evaluating doctoral dissertations. The head must also ensure that the external members understand that she or he is their contact person. The head is also responsible for acquiring the signatures of all three members on the recommendation. The recommendation with the original signatures must be submitted no later than when the defence is to be made.

D. Trial lecture on a stipulated topic

- **Doctoral candidates for the PhD degree:**
 - *After the dissertation has been submitted but before the defence* the doctoral candidate must give a trial lecture on a given topic (see guidelines for PhD Item I and section 11.1 of the regulations). The Faculty recommends that the trial lecture is held latest 3 weeks before the planned defence. The department or a person authorized by the department appoints a special **trial lecture committee** (which should have the same head as the dissertation's evaluation committee). The committee for the trial lecture must consist of at least three members, but *all of these* may be in-house. All members must have a doctoral degree or equivalent competence.
 - The committee sends the title of the trial lecture in writing to the department (the research programme committee) **15 workdays** before the trial lecture date. The department must immediately forward the title and information about the composition of the committee to the faculty on a special form [http://www.uib.no/mnfa/skjema/PhD administrasjon/proveforelesningsskjema.doc](http://www.uib.no/mnfa/skjema/PhD_administrasjon/proveforelesningsskjema.doc) (the original must be sent to the faculty, the copy must be kept at the department

until the report is made) with the signature of the head of the committee on the original. **Ten workdays before** the trial lecture the department announces the topic of the trial lecture to the doctoral candidate.

- The department is responsible for arranging the trial lecture and announcing it.
- After the trial lecture has been held the result of the trial lecture (pass/fail) is reported to the faculty on the original form signed by the members of the committee (cf. the item above).
- A trial lecture must be held and passed before the defence can be held. If the trial lecture is failed, see the http://www.uib.no/mnfa/research/forskerutdanning/reglementer/MN-retningslinjerPhD_2006/MN-retningslinjerPhD_revmar06.pdf
- **Doctoral candidates for the Dr. scient. degree:**
 - The doctoral candidates may *choose* to give the trial lecture according to the PhD regulations or the Dr. scient. regulations. The choice must be stated in the application to submit the dissertation for evaluation.
 - Pursuant to the Dr. scient. regulations the trial lecture must be given on the stated topic in connection with the defence (normally the day before or the same day). The evaluation committee for the dissertation proposes a title for the lecture and evaluates it.
 - The head of the committee must send the title of the trial lecture in writing to the faculty **15 workdays** before the date of the trial lecture. **Ten workdays** before the trial lecture the head of the committee announces the topic for the trial lecture to the doctoral candidate.
 - The faculty announces the venue and time for the trial lecture when announcing the defence.
 - The department is responsible for arranging the trial lecture.
 - A report must be made to the faculty on the result of the defence unless the trial lecture is evaluated as failed. A separate report must then be sent for the trial lecture.
 - A trial lecture that is passed must have been held before the defence can be held. See the Dr. scient. regulations concerning a failed trial lecture (<http://www.uib.no/reglement/DEL2/K-2/2-2-1.html>).

E. Printing of the dissertation, press release, summary

- **Minimum three weeks before the defence**
 - A press release in *Norwegian* must be written by the doctoral candidate pursuant to the provided template (http://www.uib.no/info/dr_grad/) and (<http://www.uib.no/form/mediesider/doktorpm.html>) and must be sent as an e-mail attachment to the faculty together stating his or her preference as to whether the press release is to be published beyond BT (*Bergens Tidende*, a large Norwegian daily) (see section 6.6 of the regulations). The faculty forwards this to the Publicity Department.
 - A summary in English must be written by the doctoral candidate and must be sent as an e-mail attachment to the faculty together with information as to where he or she prefers that it be published beyond Forskning.no. The faculty forwards this to

the Publicity Department. The summary must be written with a view to making the dissertation and its results known for research communities in Norway and abroad.

- Photographs are arranged between the doctoral candidate and the photo section of the Publicity Department.
- The date for the defence must be reported by the head of the committee to the faculty, which is responsible for finding the chairperson for the defence.
- **Minimum two weeks before the defence**
 - The dissertation must be made available to the public. See section 6.4 of the PhD regulation concerning deferred publication.
 - The candidate makes contact with the printing office Allkopi to order the printing of the dissertation (minimum 14 copies). Allkopi sends electronically a PDF-version of the dissertation to the department as a proof. The printing office sends 9 bound copies to the library (only some may be sent at this time and the remainder after the defence has been completed). Payment of printing costs is decided by the department/the supervisory committee. One copy of the dissertation *without its plastic cover* must be sent to the faculty for filing (if this has not been done already). The candidate should also be encouraged to send the dissertation to be published in the BORA-system.
 - A dissertation must be evaluated exactly as it has been handed in. Formal corrections not affecting the scientific content of the dissertation can be made before the final printing or publication in BORA. Any list of formal corrections shall always follow the dissertation, but it will not be available to the evaluation committee while the dissertation is under evaluation. Any list of formal corrections made in the dissertation must be sent to the faculty, which forwards it to the evaluation committee after the evaluation report is ready. The list may be adjusted after the defence. If a submitted manuscript has been accepted for publication after the dissertation has been handed in, it is not possible to swap the two in the final version, but the accepted paper can be enclosed provided no copyright concerns applies.
 - The time and venue for the defence must be reported by the head of the committee to the faculty, which is responsible for announcing the defence.

F. The defence

- As early as possible after the date and time has been set, the department must find a venue for the defence. Remember that a defence is never held in July.
- The department is responsible for practical matters and practical information relating to reimbursement for the attendance of the appointed opponents (travel, accommodation ...) at the defence and for assisting the opponents in filling in their travel expenses etc.
- The department is responsible for arrangements at the site of the defence (flowers, green baize tablecloth etc.).
- The department's representative on the committee (the head of the committee) instructs the other members about the framework for a defence at UiB. It is expected that the opponents give an academic quality assessment of the dissertation and a more thorough examination of the dissertation or parts of it. The opponents have equal positions and shall agree on the division of work during the

defence (see guidelines to Item I, and section 11.2 of the regulations). Copies of the dissertation must be placed in the auditorium during the defence.

- See the circular for the procedure for the defence itself ([URL](#)).
- After the defence the evaluation committee reports the result of the defence to the faculty which forwards the necessary information to the university board for conferment of the doctoral title on the doctoral candidate.