

Handbook for PhD Students

Department of Geology and Geochemistry

Stockholm University

Welcome to the PhD program at the Department of Geology and Geochemistry!

This handbook is provided to give you a brief overview of some of the important information you will need to complete a PhD in the Department of Geology and Geochemistry. This handbook points out the regulations that are specific to this Department, but you should refer to the PhD student handbooks from the National University Administration and the Faculty of Science at Stockholm University for the most up-to-date information at the National and University level.

Swedish National Handbook: (<http://www.doktorandhandboken.nu/> - English version available by clicking on the top right side of the web site) SU Science Faculty

Handbook (in Swedish only):

(<http://www.science.su.se/pub/jsp/polopoly.jsp?d=3031&a=10705>)

The Department of Geology and Geochemistry has three different PhD degree programs: Marine Geoscience led by Professor Jan Backman, Geochemistry, led by Professor Patrick Crill and Geology, led by Professor Alasdair Skelton. The director of PhD studies is Dr. Eve Arnold. Contact information for each of these faculty members is found below.

Study Plans for the degree programs

Each of the three degree programs has a study plan consisting of the requirements for admission, the education plan for students and the course and thesis requirements for both the licentiat and PhD degrees. These various requirements are briefly included in the appropriate sections in the following text. A copy of the study plan is available for your review from either the Professor in charge of the degree program or the director of PhD studies, or at the following link: (<http://www.science.su.se/pub/jsp/polopoly.jsp?d=3031&a=10704>)

Application to the PhD program

Students with external salary financing may apply to the PhD program at any time during the academic year. Students seeking Departmental salary financing for their PhD studies should submit applications in response to an announcement advertising the availability of PhD positions in the Department. Positions are announced throughout the year, and announcements are posted on our website <http://www.geo.su.se/>.

The academic requirements for all students applying to the Department of Geology and Geochemistry is a Master's degree or a university education worth at least 240 ECTS, which includes a (3 year, 180 ECTS) undergraduate bachelor's degree and at least one year (60 ECTS) of post-graduate (Master's level) studies, or the equivalent from an international university. The most important selection criterion for students is that the student's credentials demonstrate that he or she has the capability of successfully completing a PhD degree. In addition to these basic

requirements, the following specific requirements are necessary for admission to the 3 different degree programs:

Marine Geoscience:

At least 90 ECTS points in geoscience

At least 60 ECTS must be advanced (Master's level) geoscience including a minimum 30 ECTS individual project in geoscience.

At least 30 ECTS in math, physics, chemistry or biology depending on the research topic planned for the student.

Students who have a degree in a closely related subject such as chemistry, mathematics or physics may also be accepted into this program.

Geology:

At least 90 ECTS in geoscience

At least 60 ECTS must be advanced (Master's level) geoscience including a minimum 30 ECTS individual project in geoscience.

At least 30 ECTS in math, physics, chemistry or biology depending on the research topic planned for the student.

Students who have a degree in a closely related subject such as chemistry, mathematics or physics may also be accepted into this program.

Geochemistry:

90 ECTS in natural science.

At least 60 ECTS in advanced (Master's level) geochemistry, biochemistry or other chemistry intensive courses, as well as a 30 ECTS individual research project.

At least 30 p in chemistry.

The department board may make exceptions to the above requirements for individual students.

Your individual study plan

In order to make an application to any of the degree programs in the Department, you must take contact with a researcher or lecturer who can serve as your main supervisor during your PhD studies. You must also select at least 1 co-supervisor for the research project at this time. Together with your main supervisor, you must write a description of the research project for your PhD studies that you will complete within 48 months of full time study. The individual study plan also includes a list of your planned courses and research activities, the estimated dates of your licenciatur and PhD exams as well as a salary financing plan. You should think of the individual study plan as a "contract" between yourself and your supervisor.

The complete list of required application materials are appended at the end of this document. It is recommended that you contact the professor in charge of the degree program before applying.

Once you are accepted

The Department and your supervisors are here to help you complete your PhD studies, but ultimately your success in achieving a PhD degree is dependent upon your own efforts. Once you have been accepted to the Department, your supervisor is responsible for providing you with all the resources that you need for your studies. He

or she will see to it that you are assigned office space and provided with a computer and the appropriate lab facilities for your research. The Director of Graduate Studies keeps a copy of your study plan on file in the Department. The study plan should be reviewed and updated at least once a year, and any changes in your research or academic training should be submitted in writing to the Director of Graduate Studies.

The first step towards achieving your PhD is completing the Licentiat Degree. This degree requires the completion of 37.5 ECTS course points, a written licentiat thesis and a public presentation of the thesis that is evaluated by two reviewers. All students are required by the Department to take the Licentiat degree during their PhD training and it should be completed after about 2 years of full-time study. The complete regulations for the Licentiat degree are appended at the end of this document.

The second step is completing the PhD thesis itself. The PhD degree requires the completion of 60 ECTS course points, a written PhD thesis, and a public defense of the thesis between the student and the thesis opponent, and a passing grade from the thesis evaluation committee. The PhD thesis should be completed after 4 years of full time study.

Of course the two big steps listed above are comprised of several smaller steps that are detailed below.

Courses

PhD students must complete 60 ECTS points of course work, which includes the 37.5 ECTS points required for the Lic. degree, during their post-graduate education. This course work should be completed as early as possible during your studies, in order for your research to benefit from the course content. It is ultimately up to your supervisor to approve the course points for your PhD degree, so you should consult with your supervisor for course recommendations as well as approval for any courses you would like to take. You may take PhD courses from any university, professional society, NorFa, etc. as part of this requirement. The Department also allows up to 7.5 course points (3 for the licentiat exam) for non-classroom activities (see appended regulations below) and some course points for undergraduate courses (see appended regulations below) to be applied toward the PhD course requirements.

All PhD course points must be entered into the student's PhD LADOK record. LADOK is the national university registration system that is used to keep track of all university student records in Sweden. If you take a PhD course within this Department, your course points are automatically registered in LADOK once you have completed the course. If you take courses outside of this Department, you must provide the Director of Graduate Studies with documentation from the course instructor that indicates the course title, number of points, academic level of the course and signed certification that you have fulfilled all of the requirements for the course. If you are transferring courses from the undergraduate program, you must obtain a LADOK print out which lists the course, as well as a letter from your supervisor indicating how many points may be applied to the PhD record and submit this to the Director of Graduate Studies.

Supervision

The department is required to provide “appropriate supervision” for each PhD project. Supervision is a two way communication and both the supervisors and the student have responsibilities, listed below, in this interaction.

Supervisor’s responsibilities:

- Schedule student – supervisor meetings on a regular basis (on average, 1/month), in order provide direction during the scientific development of the PhD project.
- Ensure timely completion of all degree requirements by developing a work plan with specific goals (courses, literature reviews, field and laboratory work, manuscript preparation) to be completed each term.
- Provide appropriate financial and technical resources to complete the project as outlined in the student’s program of studies.
- Encourage the student to participate in departmental activities/tasks such as seminars, popular science and teaching.
- Ensure that the student presents their research at national and international conferences.
- Help the student develop a contact network with other researchers in the field for collaboration and future employment opportunities.
- Provide the student with training on all aspects of working as a researcher; proposal writing, preparing and reviewing manuscripts, planning and executing science research.
- Ensure that the student is not burdened with excessive non-thesis responsibilities and stays focused on the task at hand – completing a PhD.

Student’s responsibilities

- Be well prepared for student-supervisors meetings. Provide summaries of progress since the last meeting (data, abstracts, drafts of manuscripts, new literature, etc.). Consult with your supervisor about courses, research expenditures, and conference attendance. Update work plan and prepare a list of questions/problems that you need help solving.
- Complete the goals agreed upon in the time plan for each term. If there is a major setback, let your supervisor know as soon as possible.
- Participate in departmental activities/tasks such as seminars, popular science and teaching.
- Present research at national and international conferences.
- Discuss research with faculty members and other researchers in the field.
- Assist supervisor with proposal writing, preparing and reviewing manuscripts, and planning future science projects in order to learn how to work in the research world.
- The main objective is to complete a PhD – do not spend excessive time (>20%) working on other tasks. If students are required to spend too many hours doing other jobs, they should speak to their supervisor, the head of the department or the director of graduate studies.

In addition to your supervisor, you may also seek advice and assistance from other researchers both within and external to the Department. The professor in charge

of your degree program should be kept apprised of your progress, as well as informed of any major difficulties with your research work. The Director of Graduate Studies is also available to assist you with any problems or questions you may encounter. Students have the right to change supervisors at any time during their PhD studies. If you are having difficulty, find someone on the faculty who can help you to solve the problem as soon as possible. Note that the Department does not tolerate discrimination, harassment, or other forms of disrespectful and demeaning behavior towards groups or individuals. If you experience any form of this type of behavior, tell somebody and ask them to help you. Do not suffer in silence – we will strive to solve the problem in a way that respects your wishes with regards to how the problem is investigated and eliminated.

Departmental Annual Review

According to University regulation, the Department is responsible for reviewing the progress of each student on an annual basis. This control is conducted in the late autumn or early spring by the student and main supervisor completing a report on the student's progress, and returning it to the Professor in charge of the degree program. The review is a simple assessment of courses completed, field and laboratory work progress, and number of manuscripts prepared. The annual review also includes an assessment of hours spent doing "non-thesis" work – managing equipment, performing analyses, clerical work, etc. The Professor of the PhD degree program will call a meeting with the PhD student, supervisor and co-supervisors, and Director of PhD studies for the purpose of reviewing and updating the individual study plan. Copies of the annual review and updated study plan will be forwarded to all participants.

If serious deficiencies are discovered during this review, a plan for getting the student back on course (redirection of the project, additional co-supervisors, change of main supervisor, etc) will be devised to ensure the student's eventual success. The group will meet again at least once each term to evaluate progress, and again recommend corrective action if required. If after one year there is no significant progress (specifically, the student has not made satisfactory progress on their program of studies, and there is little likelihood for a successful completion of the PhD degree), the Department Board may be asked to withdraw departmental resources from the student (supervision, office/lab space, financing).

Note: If the department board decides to withdraw resources, the student may appeal this decision. Furthermore, the student will remain officially registered (unless the student decides to withdraw from the PhD program), and may continue to work on the thesis independent of the department.

Financing

All students accepted into the PhD program must have a full salary financing plan for the duration of their studies (48 months full time study). If you receive Departmental financing, you will likely begin with "utbildningsbidrag" (an education grant) for the first 24 months of full time study. This education grant supplies salary, but has essentially no social benefits for health care, parental leave, etc. Note that if

you become ill and are out on sick leave, parental leave, military service, or similar circumstances, you will still be paid your education grant during this period, and can request an extension of the study grant at the end of your studies for the time you were out of work. After at most 24 months of full time study, you will be promoted to “doktorandtjänst” with a higher salary and full social benefits. You will receive salary support on doktorandtjänst for an additional 24 months of full time study. At the end of 48 months of full time study, the Department’s salary obligation towards your PhD research is finished, and you will receive no further research salary from the Department. At this point, your academic status does not change; you may still continue with your PhD studies for an addition 48 months (national regulations now require that you complete your PhD studies within 8 years of beginning the program), but you will have to find an another salary source. Note that you are not eligible for unemployment compensation if you are registered in a PhD program.

Some students may be hired directly to a ‘doktorandtjänst’ from the beginning of their studies if their supervisor has secured external financing for PhD salary support. The duration of the financing is still 48 months of full time study.

Students may have the opportunity to perform some extra non-thesis work for the Department or an individual researcher, such as teaching, managing some laboratory facilities or assisting with a research project which is not directly part of their PhD research. Students are not obligated to perform such work, but it can be beneficial to have some additional experience to enhance your employment opportunities in the future. A student is limited to a maximum of 20% time (1 day a week; for a total of 2.4 months a year) to perform such duties, and is free to choose a lesser assignment (10%, 4%, etc) if desired. Likewise, you may decide to take on a 20% teaching assignment for only 1 year of your 4 years of study. Note that some teaching experience and pedagogy training are important skills to have on your curriculum vitae if you plan to continue in academia. If you have utbildningsbidrag, and you decide to take on such a task, you will be compensated **either** with extra salary during the time you do the work **or** you may choose to defer the salary and receive it after your 48 months of PhD financing has run out. You must specify how you would like to be compensated by the department before the work begins. You should receive a contract from the director of PhD studies which details the amount of time and the types of activities you will perform prior to beginning a teaching exercise. Note that you must have pedagogy training in order to participate in lab/classroom instruction. This training is provided by the pedagogy unit at Stockholm University (<http://www.upc.su.se/pub/jsp/polopoly.jsp?d=5246>). If you have doktorandtjänst, your position is automatically extended for the amount of time that you work. If you plan to do this extra non-thesis work during your time as a PhD student, you must indicate this on your individual study plan.

Extension of your position can also be offered for participation in various University and Department committees and boards. The amount of time you are allowed for various positions is governed by the University Rector's rule on this issue. This ruling and other regulations pertinent to PhD students can be found in the university rule book (in Swedish) at: <http://www.regelboken.su.se/regelboken>

Many students have the idea that they get “extra time” for their PhD studies by accepting these jobs. This is not true. What you do get is some experience and training

in laboratory, management or teaching skills, which can make your curriculum vitae more attractive to future employers. A student who performs the maximum extra work (20%) can receive salary support for up to 5 years (48 months of support for your PhD studies and 12 months of support for doing something else). You clearly can not be working on your PhD research while you are teaching a class or performing analyses for another researcher. The amount of support you receive from the Department for your own PhD research will not exceed 48 months, so plan accordingly. This issue is often a strong source of confusion and frustration for PhD students; you are encouraged to discuss this with the Director of Graduate Studies when you are considering such a job assignment.

In addition to salary financing, you will need money for attending conferences and courses, analytical and field costs, etc. Your supervisor should be able to supply you with some funding for these needs, but PhD students are also eligible to apply for many different types of research stipends to cover these costs. The Department will generally inform all PhD students of the most common stipends when they are announced, but you can also search Stockholm University's database for stipends at: www.sb.su.se/stipendier

Students on doktorandtjänst are included in a collective bargaining agreement with the University. This means that your minimum salary level, numbers of vacation days, health care etc. are fixed by union negotiation. You can see the latest agreement at: <http://www.su.se/pub/jsp/polopoly.jsp?d=412&a=2136> , and receive a copy of the university employees handbook at: <http://www.su.se/pub/jsp/polopoly.jsp?d=267>.

PhD students on doktorandtjänst receive a specified amount of vacation time each year. You are encouraged to take out your full vacation time each year, preferably during periods when the University is not in session. You must fill in a form to inform the department of your vacation, maternity or military service leaves prior to your departure. If you have utbildningsbidrag, you should inform your supervisor of your vacation plans; you have no formal obligation to inform the department.

Standards for salary promotions based on % of PhD program completed

In addition to the promotion from utbildningsbidrag to doktorandtjänst, students receive salary increases based on their actual research progress in their PhD studies. There are three salary levels: <50%, 50 – 80% and >80% completed, which the Department has defined as follows.

All students admitted after spring 2002 must take the licentiat degree between 2 and 3 years after their admission to the PhD program. Students will be promoted to 50% completion level once the licentiat exam has been taken.

For students admitted prior to this date, the 50% completion level will be considered attained by those students with at least 37.5 ECTS course points, and the equivalent of one research manuscript.

The 80% completion level requires that the PhD student will defend their thesis with 1 year or less. All 60 ECTS course points must be completed.

In all cases, the student's supervisor must certify on the student's annual review that they are ready for promotion to the next level. In addition, the students will receive a form (bilaga till anställningsbeslut för doktorand) to complete when the

Department completes their doktorandtjänst salary contract for the upcoming year. Here you can indicate that you have achieved the next salary level. Note that if you and your supervisor can certify that you will attain the requirements for the 80% salary level within 6 months of the beginning of the new contract, you may indicate that you are eligible for the 80% level on the upcoming contract.

Registration

Once every term (twice a year), you will receive a form (Doktorands aktivitet och försörjning) to fill in from the Director of Graduate Studies. There are two pieces of information that you must complete. Your activity is the percentage of your time that you are working on your own PhD studies. This will be 100% minus the percent of time that you are working on any non-thesis extra work, sick leave, parental leave, etc. The second piece of information is how you are financed. Here you will indicate what percent of your salary comes from utbildningsbidrag, doktorandtjänst, assistanttjänst (e.g. teaching) etc. The salary information must sum to 100%. This form must be returned to the Director of Graduate Studies; otherwise your LADOK records will indicate that you are not registered as a PhD student for the term.

Completing your degrees

Licentiat

The detailed licentiat degree regulations are set by the Department, and are as follows:

**Regulations for Licentiat Exam
Adopted 25 September 2002
Department of Geology and Geochemistry
Stockholm University**

Regulations:

1. Student must have at least 37.5 ECTS points of PhD courses, a Licentiat thesis (consisting of publication quality research), and a public presentation of the research, to take out this exam. The maximum number of course points permitted for presentations at meetings, attendance at seminars and participation in international field programs is restricted to 3 points for the Licentiat exam.
2. The student's main supervisor must inform the Professor of the degree program (Geology, Geochemistry or Marine Geoscience) as to the planned date of the Licentiat presentation and the identity of two potential thesis reviewers (1 internal to the Department and 1 external to the Department). The Professor will send a memo to the department board, announcing the Licentiat presentation and identifying the reviewing committee, to be entered into the Departmental record. The reviewers must have PhD or equivalent (industry, government or research) competence.
3. The student is responsible for informing the Director of Graduate Studies about the date and time of the Licentiat presentation as soon as possible. The Director of

Graduate Studies will review the student's course record and send the supervisor a copy of the course record, requesting that the supervisor formally accept these courses for the licentiat exam.

4. The two reviewers must receive a copy of the Licentiat thesis 1 month in advance of the planned presentation. The student's supervisor is responsible for sending out the thesis to the reviewers. If the reviewers determine that the thesis is not suitable for presentation, they should inform the supervisor prior to the publication of the Licentiat thesis, which occurs 2 weeks prior to the Licentiat presentation.
5. Thirty bound copies of the thesis must be available 2 weeks before the presentation, and 10 of these copies must be turned in to the Director of Graduate Studies at this time. These copies will be distributed to the library, departmental archives and be available for distribution to those interested prior to and during the licentiat presentation. The announcement (title, abstract, date, time and location) of the licentiat presentation must also be posted at this time.
6. The professor of the degree program chairs the licentiat presentation. The student presentation is typically 20 –30 minutes long, followed by questions from the two reviewers. The presentation and subsequent questioning together typically last approximately 1 hour, and the chairperson must stop the exam at the 2 hours time maximum if it proceeds this long. The two reviewers notify the Director of Graduate Studies, in writing, of the result of the exam (pass or fail).

Good to know (information for the students/supervisors):

1. There is no prescribed length for the licentiat thesis (this determined by the main and co-supervisors), but it typically consists of a ~10 – 15 page introduction/overview, followed by 1 or 2 manuscripts. The Licentiat thesis may be either a monograph or a compilation of journal-style manuscript(s) and may be written in Swedish or English. The abstract must be written in both Swedish and English.
2. The student presentation is typically ~20-30 minutes long.
3. The external thesis reviewer does not need to be external from the University.
4. The copy distributed to the reviewers 1 month in advance does not need to be bound, but must be a complete and legible copy of the thesis, requiring only final formatting before reproduction. A bound copy of the thesis should be sent to the reviewers once it is available.
5. The student is responsible for:
 - Reproducing and binding the thesis (1. Student contacts Otto Hermelin, who will assist with the production of the cover page. 2. Student prepares 30 copies of the

thesis. 3. Student contacts Dan Zetterberg? who will help you to bind the prepared copies).

- Booking the room for the presentation. Send an e-mail request to: lokaler@natgeo.su.se
- Posting the announcements in the Geology and Geochemistry Department, as well as the institution where they performed the work, if outside of the Department.
 - Taking out the completed exam after the presentation. (See the university regulations at <http://www.su.se/content/1/c4/02/99/Forskarblankett.pdf> for the current procedures).

PhD Degree Procedures

The procedures for defending PhD degree are dictated by Department, University and National regulations. You should begin organizing your thesis defense well in advance (the term before!) of your planned thesis defense date, as there are many formal regulations and deadlines that you must comply with. Visit the University's Disputation Website <http://www.su.se/forskning/disputationer> for the latest information on where to get help for the various tasks that must be performed.

Notifying the University of a pending thesis defense

When you are approaching the completion of your thesis, you and your main and co-supervisors as well as the Professor in charge of your PhD degree program should meet and determine if the thesis is ready for defense; the Professor in charge of your PhD degree program must agree that your PhD research is sufficient for the defense to go forward. At the same time, your supervisor and professor in charge of the degree program should discuss possible candidates for the opponent and examining committee and set a date for the thesis defense.

Once the opponent and examining committee have been selected, and your supervisor has contacted them about their willingness to participate and availability on the planned defense date, your supervisor together with the head of the PhD degree program must notify the Department Board stating that you are prepared to defend your thesis, and formally request that the defense chairperson, opponent and examining committee be approved for your defense. There is a special form for that can be obtained from the Director of PhD studies. The Department Board will decide on this matter, and if approved, the suggestion will be forwarded to the Faculty of Science for formal approval. The Faculty then sends a written decision back to the Department, and the planning for the defense may proceed.

At this time the student must also call Mikael Stenberg in the University Student Office (16 20 34) and notify him of the defense date and time. The student must also book Nordenskiöldsalen (or another room) for the defense by sending an e-mail request for the booking to: lokaler@natgeo.su.se.

The thesis defense must take place during the academic school year. The President of the University (Rektor) may make exceptions to this in extraordinary circumstances.

Persons participating in the thesis defense

Defense chairperson. This is generally the professor in charge of the PhD degree program, but may be another Department faculty member. The defense chairperson opens and closes the defense, ensures that all regulations are followed during the defense, and sees to it that the necessary paperwork is filled in following the defense.

Thesis opponent. This is a researcher who can critically evaluate your PhD research, and who will engage you in a challenging discussion of your thesis work during the defense. The opponent must have Docent or higher academic standing (or equivalent competence if from outside the Swedish system), and must not have any conflict of interest (co-publication, research grants, etc.) with you or your supervisors.

Examining committee. This board is comprised of either 3 or 5 persons who will ask you questions and then vote on the result of the PhD exam (pass or fail). All members of this board must also be free of any conflicts of interest with you or your supervisors. An examining committee comprised of 3 members can only have one member from the PhD student's department; a five member committee may have two representatives from the student's department. Your supervisor may not be a member of your examining committee. At least one examining committee member must be from a different faculty or university. One person, generally the representative from the student's department, is indicated as the examining committee co-coordinator.

Deadlines

At least seven weeks before your defense, the Faculty must approve your thesis defense chairperson, opponent and examining committee. This requires that the Department of Geology and Geochemistry board has already approved these members. Therefore, it is critical that you check the Department Board meeting schedule and submit your request to the Department board in good time. Note there is no penalty for doing this early – the deadlines listed here are the last chance – give yourself an extra week at least in case something goes wrong!

At least 7 weeks before the defense, the opponent must receive a copy of your thesis (note that it does not have to be “published” at this point, but it must be complete, with only minor formatting changes to be made). After one week, the student's supervisor will ask the opponent if the thesis is acceptable for defense. If the opponent agrees the thesis is defensible, the process goes forward.

Six weeks before your defense, the examining committee must receive a copy of your thesis (note that it does not have to be “published” at this point, but it must be complete, with only minor formatting changes to be made). About 2 weeks after receiving this thesis (before the thesis is sent to the publisher), the examining committee co-coordinator will query the committee members as to whether or not the thesis is acceptable for defense.

Four weeks before the defense the thesis should go to the publisher.

Three weeks before your defense, the defense must be “spiked”. This is done electronically as described in the University's dissertation website. The thesis and “spikblad” (PhD defense advertisement) must be available in final published format in sufficient quantity for distribution to the opponent, examining committee, interested

individuals, University libraries within Sweden, University archives, etc. and announcements of the thesis defense must be publicly posted.

The thesis

A PhD thesis is not a life's work; it is a document that demonstrates that a PhD student is capable of carrying out independent research. The thesis may be written in either Swedish or English, and may be either a monograph or a collection of publication quality manuscripts and a summary overview of your research. It is up to your supervisors and the Professor of your PhD degree program to determine when the work is sufficient for a complete PhD thesis, and the thesis format and estimated number of manuscripts should follow that indicated in your individual study plan. There is no set length or number of manuscripts, but generally the thesis will contain from 3 to 5 research papers plus the summary. There is no requirement that any of the papers are already published in the open peer reviewed literature prior to the defense, but they must be of equivalent quality. You should circulate the papers for critical review by all of your supervisors as well as other collaborators and researchers during the period you are writing them.

The thesis must be published in a specified format. Contact Docent Otto Hermelin who will provide you with the appropriate advice for formatting and printing the thesis manuscript. Since the final thesis must be submitted in electronic format to the publications department, and since not all software programs work with the publisher's software, you will make a great deal of extra work for yourself if you do not consult with Otto first.

The Thesis Defense

The thesis defense is the final examination for all PhD students. This defense is open to the public and governed by National and University Regulations. The Chairperson will open the defense, introducing the PhD student, the student's main and co-supervisors, the title of the thesis, the opponent and examining committee members. The Chairperson will also give the schedule for the defense (as follows).

The PhD student will speak first, giving a 20 –30 minute presentation of their research and pointing out any errors in the published thesis. The floor is then given to the opponent, who will generally give a short overview of the broader research field relevant to the student's thesis work, followed by an in depth critical discussion of the thesis with the PhD student. The opponent's discussion generally takes about 1 hour, but this time is not fixed. When the opponent is satisfied, the floor is given to the examining committee who will ask additional questions. Finally, the floor is open to the attending public to ask questions.

The defense chairperson must close the exam after 3 hours have passed, but the defense commonly takes less time (about 2 hours). When the defense is closed, the defense chairperson will complete and sign a faculty document stating that the thesis defense has properly taken place, and hand it over to the examining committee co-coordinator. The examining committee will then retire to a meeting room to vote on the student's PhD exam (pass or fail). The student's supervisors and the opponent may participate in this meeting for the discussions prior to the vote, but they must leave the room before the examining committee votes. The examining committee will report

their decision on the faculty document, sign it and return it to the defense chairperson who will send it to the faculty office.

Other Information

Address:

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Visit: Svante Arrhenius Väg 8C
Frescati

Contacts

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Professor Alasdair Skelton, Geology

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Recruitment of PhD students - procedures

Application to the PhD program is only possible in response to open advertisements for PhD research positions in the Department. There can be two exceptions: Students who will carry out their research studies with an employer outside of the Department and students who have already started their PhD education at another University and wish to transfer to the Department. Situations with similar circumstances can also be considered.

A Departmental supervisor with three years of externally financed PhD salary can request permission from the Board to recruit a PhD student to the Department at any time. The Department will finance the 4th year in the case that the supervisor cannot secure further financing.

Departmental financing of PhD students is a multi step process. The Department Board will determine when and how many PhD positions will be advertised each year, based on the Department's projected economy. Individuals or groups with research financing for suitable PhD thesis topics will be notified by the board as to when and where to submit brief descriptions of proposed PhD research topics for consideration and ranking. The professors in charge of the three PhD degree programs will propose a comprehensive proposal ranking to the Board. The Department Board makes the final selection of the projects to be supported.

Both externally and departmentally financed PhD positions must be openly advertised in compliance with Stockholm University's recruiting regulations, which can be obtained from the Head Administrator. The advertisement must be approved by the Board before being publicly released.

Once the deadline for PhD students to apply to the position(s) has passed, the University registrar forwards the applications to the Department. The applications are reviewed by the Director of PhD Studies for compliance with admission requirements, and then reviewed and ranked by the project supervisor(s) and the professor in charge of the degree program. The Department will provide financing for interviews of the top candidates if required. The ranking will be based upon the student's educational and working background, letters of reference and their potential ability to successfully complete the specified research project. The top student will complete a full application to the PhD program together with the supervisors, and the application will be submitted to the Board for admission into the PhD program. The Board's decision is final.

An external (museum, college or industry) supervisor must guarantee 4 years of salary financing in order to register a PhD student in the Department. The external supervisor should contact the Department Chair to discuss the suitability of admitting the PhD student into the Department. There must be at least one Departmental co-supervisor who can make a meaningful contribution to the thesis research assigned to

the external PhD student. External employers recruit students according to their own regulations, but must submit a complete application to the PhD program to the Department Board for admission to the program. The Board's decision is final.

PhD Application materials

A complete application for acceptance to the PhD program will include:

- Individual study plan (Department form) including the following attachments:
 - a) salary financing plan
 - b) time plan for courses and research activities
 - c) research project description: project title, main goals, background, scientific hypotheses to be tested, description of how the work will be carried out, availability of resources, and references
- Two personal letters of reference.
- A resume including, name, address, telephone number, email address, education (degrees), work experience, abstracts/publications, and description of any research skills or experience.
- Transcript of all university courses and degrees.
- Application for utbildningsbidrag (university form) (only if applying for Department salary financing).

Regulations for non-classroom activities towards course points
Adopted 15 January 2002
Department of Geology and Geochemistry
Stockholm University

University regulations allow Ph.D. students to obtain course points for non-classroom activities at the discretion of the main supervisor. In order to provide some consistency in how these activities are documented, the Department of Geology and Geochemistry has adopted the following regulations:

1. Ph.D. students may receive 1.5 ECTS points for documented attendance at 20 university seminars. Each student is restricted to a maximum of 3 points (40 seminars) in their course record for this activity.
2. Ph.D. students may receive 1.5 ECTS points for a poster or talk they present at a national or international meeting. Each student is restricted to a maximum of 1.5 point in his or her course record for this activity.
3. Ph.D. students may receive points for participation in national or international field programs, where the students interact with other scientists in a scholarly manner during and after the field campaign. Each student is restricted to a maximum of 3.0 ECTS points in their course record for this activity.

Ph.D. students may not receive course points for literature reviews.

Thus, Ph.D. students may not take more than 7.5 ECTS course points (students are restricted to 3 points towards the licentiat degree) total for these "non-classroom" activities, and all points must be approved by the student's main supervisor.

**Regulations for undergraduate course points transferred to PhD course records
Adopted 21 September 2000
Department of Geology and Geochemistry
Stockholm University**

No more than a total of 15 ECTS points of undergraduate courses are recommended to be applied to the PhD requirements.

Undergraduate courses in excess of 180 ECTS points taken while the student was an undergraduate can be transferred to the PhD requirements for recommended 50% of the course points if the main supervisor approves the transfer.

Undergraduate courses taken while the student is a PhD student can be transferred to the PhD record, and the student's main supervisor determines the percentage of points that can be transferred.