

Welcome to the Department of Biochemistry and Biophysics!

You are most welcome as a PhD student at the Department of Biochemistry and Biophysics (DBB) and to an exciting period in your life. The information you can get from the following pages will hopefully help you during your studies and although most of what you need to know can be found here, you should never hesitate to ask your supervisors, fellow PhD students or anybody at the Department for additional information and advice.

The Head of the Department and the Director of the PhD programs have the responsibility for you as a PhD student at DBB. These are also the ones you should turn to if you have problems with respect to your relation to your supervisor(s) or other colleagues at the Department.

First of all, the next 4 – 6 years will be a period of hard work, success, frustration, happiness, lack of time, international travels & contacts, always feeling that there is another paper to read, seminars, courses, all which are normal in the process of becoming a scientist and for that matter in the life as a scientist. Your work both as an instructor in the courses and in the research lab will be important contributions to the future reputation of the Department. As a PhD student you are a member of the Department who can influence the decisions taken by the Department Board and also of course take part in the social life.

To meet the requirement for the PhD degree you have to present a thesis and obtain 60 course credits (hp). The thesis is based on your research work as presented in at least four papers (or equivalent) in international scientific journals. A major part of the course requirement is an oral examination on general biochemistry, biophysics, bioinformatics or neurochemistry. This examination is to certify that you have a general knowledge to discuss your scientific area, e.g. Biochemistry. It is very easy to become a (narrow minded) specialist in the area of ones own thesis work, so you will have to make a point of not losing the knowledge that you have from previous studies at the Bachelor and Master levels. A good way to keep this general knowledge alive and to widen it, is to take part in the seminars given at the Department.

Good luck with your studies and research!

General information

There are different ways to stay updated about what is going on at the Department. First of all you should carefully read information on the web page and the notice boards at the Department, carefully read mails sent by the Head of the Department, the directors of studies, the people at the secretariat, Peter Nyberg (computers etc). There are also minutes from the Board meetings that provide information about what is going on at the Department. You will also find a lot of useful information at the "Internal pages" at our web site: <http://www.dbb.su.se>

Another important way to keep in touch and actively participate is to take part in the meetings arranged by the PhD student council at the Department.

There is also a newsletter, *Universitetsnytt*, distributed to everyone by and about Stockholm University. You can also find this and important information on the Stockholm University web site <http://www.su.se>

The Faculty of Science has also a web site (<https://www.science.su.se/>), where you among other things also can find information about PhD programs.

Universitets- och högskolerådet has also a Hand Book at <https://www.studera.nu/forskarutbildning>

The PhD programs at the Department of Biochemistry and Biophysics

Rules, Regulations and Instructions

Study plans

For every PhD program there is a General Study Plan, in which the overall rules and regulations for the specific PhD program are described. There is a Plan for each of the four programs at DBB; Biochemistry, Biophysics, Biochemistry with emphasis on Bioinformatics, and Neurochemistry with Molecular Neurobiology. You can find the updated versions of all three in Appendix A. There are only Swedish versions.

Instructions

The following instructions mainly concern the theoretical part of the PhD programs (60 credits) and are meant as a complement to the General Study Plans.

General

A. Items that in general are obligatory in the theoretical part of the requirements for the *PhD degree*.

1. Participation during the first year(s) of the PhD program in the set of PhD courses arranged by the Chemistry Section (**9.0 credits**).
2. Writing a research plan for the thesis project as it has been planned during the first year. The plan (10-15 pages) should include *Introduction* with background and aim of the project, *Results* during the first year (no experimental details), *Planned* future research work and a *Reference* list. The plan, which should be signed and approved by the supervisor, should be given to the Director of the PhD programs within a year from the start of the PhD program. The plan will give **7.5 credits** when approved by the Director of the PhD programs and when the 1st Check Point (see point 5 under "Rules" below) has been reported
3. Oral exam as specified below.
4. Check-points etc. according to the individual study plan.
5. Pre-dissertation seminar as specified below
6. Participation in seminars at the DBB, PhD student seminars, pre-dissertation seminars and dissertations at the Department as well as in seminars and other activities in your research group.

B. Items that can be included in the theoretical part of the requirements for the *PhD degree*.

1. PhD courses arranged by the Department or at other departments and universities.
2. Undergraduate courses at the advanced level. Courses taken before acceptance to the PhD program that are not included in the undergraduate degree or part of the requirements for acceptance to the PhD program, can be included and given credits in the PhD program at a maximum of 15 credits, after agreement with the supervisor and decided by the Director of the PhD programs.
3. Participation in international PhD courses arranged by e.g. EMBO, FEBS, etc. These courses are highly recommended. The number of credits given for these courses is determined by the Director of the PhD program.
4. Books etc. relevant to the thesis work can be used for exams after discussions with the supervisor and the Director of the PhD program, who also will decide on the number of credits given (Rule of thumb: 2 credits = 50-100 pages).

In general courses that do not include some kind of examination will not be awarded more than 5 credits. Credits given will be approved by the Director of the PhD program based on documents verifying that the course has been taken/passed, and registered in LADOK by the person responsible at the secretariat.

C. Pre-dissertation seminar as a requirement for the PhD degree

About *9 months* before the planned date of dissertation the PhD student shall inform the Director of the PhD programs about the planned dissertation date. The Director then, together with the supervisor, decides on a date for the pre-dissertation seminar. At this seminar the PhD student presents her/his thesis work. After the seminar the Director of the PhD programs decides, after discussions with the supervisor and the evaluators at the seminar, if the student can be recommended to defend her/his thesis as planned or not. If not, the PhD student is informed about what more is required, e.g. papers, courses or understanding of and proficiency in discussing research.

D. Items in the theoretical requirements for the *licenciante degree*

All items in **A** for the PhD degree are mandatory, although only the first part (15 credits) of the Oral exam in Biochemistry. In Neurochemistry, the oral exam is not mandatory for the licenciante degree, see the General Study Plans for details.

The PhD program in Biochemistry

The oral exam in *Biochemistry* consists of two parts: First, one on general Biochemistry, no text book is specified, but should preferably be one of the modern extensive text books available (**15 credits**), and a second one based on 5-10 papers in the most recent 12 issues of TIBS or other review collections (**7.5 credits**).

The PhD program in Neurochemistry with Molecular Neurobiology

All items in **A - C** are included, the oral exam (A2) should be on Neurochemistry with Molecular Neurobiology, the literature will be decided by the "ämnansvarig" for Neurochemistry with Molecular Neurobiology (**15 credits**), and a second one based on papers in review collections as also decided by the "ämnansvarig" (**7.5 credits**). In addition there are specific requirements for the courses to be included as specified in the General Study Plan for Neurochemistry with Molecular Neurobiology.

The PhD program in Biophysics

All items in **A - C** are included; the oral exam (A2) should be on literature decided by the "ämnansvarig" for Biophysics, and gives **15 credits**. In addition there are specific requirements for the courses to be included as specified in the General Study Plan for Biophysics.

The PhD program in Biochemistry with emphasis on Bioinformatics

All items in **A - C** are included, the oral exam (A2) should be on bioinformatics/ biocomputing, the literature will be decided by the "ämnansvarig" for Biochemistry with emphasis on Bioinformatics and gives **15 credits**. In addition there are specific requirements for the courses to be included as specified in the General Study Plan for Biochemistry/Bioinformatics.

Rules

Rules for the accomplishment and evaluation of the PhD programs at DBB

The program for a PhD student usually consists of the following events:

1. Before being accepted by the Department Board, the Director of the PhD programs has a meeting with the PhD student to be and the supervisor and preferably the assistant supervisor. The former should have sufficient scientific competence in the area of the thesis project to take full responsibility for supporting the progress and completion of the thesis project. The assistant supervisor should have some scientific competence in the area of the thesis project and should also serve as a general discussion partner. In addition, the Director of the PhD programs will assign an *Evaluator*, who will carry out the evaluations at the *1st* and *2nd* *Check Points* during the PhD program, as well as at the *Pre-dissertation seminar*. At the meeting the Director

of the PhD programs informs about the rights and responsibilities of a PhD student and also what it means being a PhD student at DBB. In addition the *Individual Study Plan* will be discussed and signed, by the student, and the supervisors. Information will also be given about the PhD program in general.

2. The Board decides on the acceptance to the PhD program, and the Head of Department decides on both supervisor and assistant supervisor. Before the acceptance to the PhD program is in effect, the Head of the Department must have signed the individual study plan. This can be regarded as a “contract” between the PhD student, the supervisors and the Department.
3. During year 1 the PhD student should start taking the PhD courses organized by the Chemistry Section.
4. 1 year after being accepted to the PhD program, the student should submit a *Research plan* (10-15 pages) to the Director of the PhD programs, who will give feedback and decide if it is acceptable. The plan should contain an introduction accounting for the literature background of the thesis project, the aim of the project, results during the first year with a discussion (no experimental details), planned experiments and a reference list according to an accepted format.
The plan should be accepted and signed by the supervisor before it is submitted to the Director.
5. Directly after the Research plan has been accepted by the Director, the *supervisor* is responsible for arranging a suitable time for the *1st Check Point*. The evaluator should get a copy of the research plan well before the evaluation. The *evaluator* should hand in a report on the evaluation (a specific form is found [here](#)), signed by the supervisors, the PhD student and the Evaluator, to the person at Administration at DBB in charge of issues concerning the PhD students. Not until this has been done, can the credits for the Research Plan be registered in LADOK.

Note!! The following can only be done after the *1st Check Point* and thus the Research Plan has been passed!

6. At the *2nd Check Point* the PhD student gives a PhD student seminar, sometimes called the *half-time seminar*, arranged as for the *1st checkpoint* by the supervisor. This seminar should be about 40 minutes (+open discussion), directly after which the checkpoint meeting with the *Evaluator* should be held. A report should be issued as at the *1st checkpoint* (the same form). If the PhD student decides to take the licenciate degree, the licenciate seminar replaces the PhD student seminar. When the form has been submitted, **1 credit** will be registered.
7. Around half-way through the PhD program the *Oral exam* should be taken, either in *Biochemistry* (15 + 7.5 credits), *Biochemistry/Bioinformatics* (15 credits), *Neurochemistry* (15 + 7.5 credits) or in *Biophysics* (15 credits).

Note!! To go on all previous requirements must be met!

8. 5-6 months before the dissertation the PhD student gives the *Pre-dissertation seminar*.

The time schedule in the *Individual Study Plan* is based on the assumption that the PhD student has no teaching at undergraduate course or other duties for the Department during the PhD program. However, many PhD students are required to do teaching and for those the time schedule will be modified accordingly, i.e. prolonged based on the extent of teaching.

The 1st and 2nd Checkpoint

The purpose of these evaluations is to make sure that the PhD program is progressing well, both scientifically and “socially”, for the student, as well as for the supervisor. It is thus *not* an examination of the student!

The evaluations are chaired by the evaluator and it is recommended that the PhD student meets with only the evaluator for a short time before the meeting with the supervisor and the assistant supervisor.

Annual evaluations

Every year by the end of January the student and the supervisor should hand in the *Annual Evaluation* form, which can be found at our homepage ([here](#)), to the secretariat.

“Oral Exam”

The *Oral Exam* is one of the obligatory requirements for a PhD degree at DBB, and should be done around half-way through the PhD program. Book the exam date with the Director of PhD programs in Biochemistry (who is also “*ämnansvarig*” for Biochemistry) and “*ämnansvarig*” in Bioinformatics, Biophysics or Neurochemistry respectively. Do this in good time so that you can plan your study time (and you need study time!).

In *Biochemistry* the exam is divided in two parts taking place at two different times. The first covers “general biochemistry” (“A textbook”) and the second covering one year of TIBS, giving 15 and 7.5 credits respectively.

- ◆ At the first exam (“A textbook”) there are three examiners, and at the second (TIBS) two.
- ◆ The first part (“A textbook”) must be done before the second (TIBS).
- ◆ To help you in preparing for the first part there are instructions and some study questions available in Appendix B.

The oral exam in *Biophysics* and *Bioinformatics* will be on literature decided by the “*ämnansvarig*”, and will give 15 credits. The oral exam in *Neurochemistry with Molecular Neurobiology* is also as for Biochemistry in two parts on literature decided by the “*ämnansvarig*” (15 credits + 7.5 credits).

- ◆ At the exams in Bioinformatics, Biophysics and Neurochemistry there will be two examiners.

Requirement for the thesis

The thesis should be based on a minimum of 2 published papers, together with 1 submitted and 1 manuscript. With this minimum the PhD student should be first author on at least the 2 papers published (shared first authorship is acceptable).

Time schedule from pre-dissertation to dissertation

The following schedule is meant to be of assistance, to the PhD student **and** the supervisor, when a dissertation is planned, so that no obstacles or delays occur.

Note that some of the deadlines are *not* negotiable!

1. Pre-dissertation seminar

- ◆ Should be given 5-6 months before the planned dissertation date. Time for this seminar should be booked well in advance with the Director of the PhD programs. The supervisor and the PhD student should be at the location of the seminar well in advance to make sure that the seminar can start on time.
- ◆ After the seminar there will be an evaluation of the PhD student in which the *supervisor* and the appointed evaluators participate. At this meeting the supervisor must present the planned date for the dissertation, and a suggestion for opponent and examination committee, including a stand-by. Usually the Director of the PhD programs will be the member from DBB. Preferably the opponent should already have agreed on the date planned. The PhD student should at the time of the Pre-dissertation seminar already have made a (preliminary) booking of the Dissertation date and time. How this is done is described at <https://www.su.se/english/research/phd-studies/dissertation-defence> (Contact disputationer@su.se). Dissertations are not allowed June 16 –August 15, although the Vice-Chancellor can give permission to have it in this period. Note also that dissertations soon after August 15 are difficult because of the time-line described below.
- ◆ **Note!** There should not have been any collaboration between the supervisors/PhD student and the opponent/examination committee during a period of 6 years before dissertation. A former PhD student of the supervisor (or supervisor of the supervisor) can neither be opponent nor member of the examination committee.
- ◆ The *supervisor* should inform the opponent about the procedure at the dissertation. The outline that is given below at *Dissertation* can be used as a base.
- ◆ The *supervisor* should make travel and hotel arrangements for the opponent (and the member(s) of the examination committee if required).
- ◆ The *supervisor* should ask the opponent if he/she would like to give a DBB seminar.
- ◆ The *supervisor* shall inform the PhD student about the decision, i.e. whether or not the student is ready to move ahead with the thesis and dissertation. The *PhD student* shall

ask the secretariat to book the Magneli Hall or some similar room. The dissertation should begin at 10 am or at 2 pm. Note that some periods are very popular for dissertations. There can only be one dissertation in Chemistry at a given time, but one in the morning and one in the afternoon the same day, is OK.

- ◆ The *student* should also get the ISBN number for his/her thesis from the University Library (see <https://www.su.se/english/research/phd-studies/dissertation-defence>). Here you also find information about the printing time-line for your thesis and how to get a cost estimate from the printer. The *student* should **not** be made responsible for contacts with the opponent or the examination committee!!!! In fact such contacts should be kept at a minimum before the dissertation, it is for example not advisable that the student participates in a dinner with the opponent the day before the dissertation.

2. 10 weeks before D-day (at least)

- ◆ The *supervisor* emails names and the addresses (including email) of the opponent and examination committee members, who all should have agreed on the date, to the Head of DBB and the Director of PhD studies. There should also be a short (two lines) description of the scientific expertise, and address of each of the persons. All should be “docents” or at a comparable scientific level. A [specific Dissertation form](#) should be used. The proposal will be submitted to the Faculty of Science for approval by the Head of DBB or the Director of Ph D studies.

3. 9 weeks before D-day

- ◆ If you have not already done so, contact the University Library (<https://www.su.se/english/research/phd-studies/dissertation-defence>) to get a time schedule for the printing of the thesis in time for “*spikning*”. Read this time schedule very carefully as it contains information about all the steps of the printing process and registration in DIVA.

4. 9 weeks before D-day

- ◆ The *student* gives the pdf of the “almost final version” of the thesis to the person at the DBB Administration in charge PhD student issues. This version should also always be given to Director of the PhD programs. The student should include a separate list of the papers on which the thesis is based and for each of them indicate in what way he/she has contributed to the publication. The list should be signed by both the PhD student and the supervisor. There is a form ([contributions to publications in PhD thesis](#)) to be used.
- ◆ This “almost final version” pdf is sent out by the Administration to the opponent and the examination committee for ‘pre-inspection’, and they should have two weeks (which should not be in the middle of July) during which they have the option to make comments to the contact person (usually the chair of the dissertation, **NOT** the supervisor), appointed by the faculty of Science. If serious issues arise, the student will be notified. Note that the opponent and the examination committee **must** have been approved by the Faculty of Science before the thesis can be sent.

5. 4-6 weeks before D-day

- ◆ The *PhD student* gives the final version of the thesis to the printer, via the University Library. This may *not* be done before the contact person for the dissertation (usually the chair/DBB committee member appointed for the event) has given the permission. Also the Director of the PhD programs should have approved the over-all design of the thesis, *including the cover*. Usually the printer wants to produce a first version earlier and you should always make sure that you know the deadline for handing over the final version to the printer.

6. 3 weeks before D-day

- ◆ “*Spikdag*”, the day that the *PhD student* has to “*spika*” the thesis electronically in the DIVA database. You will find information about this at this [web page](#). You will also find information about the “*spikblad*” there.

This is a very important date and cannot be changed, except under very specific circumstances! Permission has to be given by the Vice-Chancellor!

- ◆ Around 25 copies (ask at the secretariat) should be given to the secretariat, as the Department will send copies to the opponent and the members of the examination committee. At the secretariat, the *PhD student* gets the list with addresses for the Departments in Sweden where to send the printed thesis. The *PhD student* should hand in 3 copies to “*Studentavdelningen*” and 3 to the University Library.
- ◆ The *PhD student* should distribute copies of the thesis to the supervisors and teachers at DBB. In addition one copy of the thesis should be “nailed” on the birch board in the pantry floor 4 and one on the oak board in the main entrance of the Arrhenius Laboratory. The *PhD student* may also want to distribute some copies to colleagues and friends at the department and elsewhere. It is also recommended that there are some copies available at the dissertation.

7. 2 weeks before D-day

- ◆ The Director of the PhD programs will send an email to the opponent informing about the procedure. It will then be taken for granted that the supervisor already has informed the opponent and also that all travel arrangements have been made.

8. The day before D-day

- ◆ The *supervisor* should contact the examination committee to make sure that they “haven’t forgotten”!
- ◆ The *supervisor* must make sure that whatever the opponent needs for her/his presentation is functioning in the hall where the dissertation will take place.
- ◆ The *PhD student /supervisor* should make sure that everything is in order in the hall, e.g. the projector, pointer, drinking water.

- ◆ If you have questions don't hesitate to ask the Director of the PhD programs, but do it early!!!

The thesis

The most common and preferred format of the thesis is what is called "*sammanläggningsavhandling*" in Swedish. This consists of an introduction of the area of the thesis and summary of the thesis work as presented in the papers (this should not exceed 50 pages!!). There should also be a reference list and a Swedish summary. The latter should also be given to the person managing the DBB homepage. The thesis should be written in English. A summary of the papers can also be included in this part, but should be kept short, as the information is available in the papers. Alternatively you can include your work as presented in the papers in this part of the thesis, like a review in which you also refer to your own papers. With this organization, there should not be specific summaries of the papers.

The contents of the thesis can be summarized as follows:

1. List of papers on which the thesis is based, usually given in roman numbers.
2. Introduction to the area, including your own work.
3. Summary in Swedish (The Department will assist if necessary)
4. Acknowledgement.
5. References.
6. Your papers.

Remember that you must be very careful to give references to data and information you use. You are **not** allowed to copy sentences or pictures from the literature, **not** even from your own papers. If you need to cite, this should be clearly shown and reference to the source must be given. Note that in most cases a permission to include already published papers must be obtained from the publisher. There are normally standard procedures for this, often posted at the journal's website. *Do not* use Wikipedia or similar non-peer-reviewed web sources!

It is a good idea to have a look in some recent PhD thesis from DBB.

The dissertation

The dissertation is the "grand finale" of the PhD program at which the PhD student gets a chance to show that he/she has become a young scientist. The dissertation, normally in English, runs according to the following schedule:

- The chairperson of the dissertation opens the dissertation.
- The PhD student gets a chance to announce (important) errata. A printed list of errata should also be available if the errata are many and/or complex.
- The opponent gives a ~20 min introduction to the thesis work

- The PhD student gives a ≤ 20 min summary of the most important conclusions from the thesis work. PLEASE do practise so that you don't exceed 20 min!!!
- Discussion of the thesis work lead by the opponent
- Questions by the examination committee
- Questions from the audience
- Chairperson closes the dissertation
- The examination committee together with the supervisor and the opponent discuss the thesis and the defense of the thesis, in closed chambers. The examination committee decides on whether the student should pass or not. The opponent and the supervisor may *not* be present when the decision is taken.
- The chairperson of the examination committee announces the decision.

The licenciate degree

The theoretical requirement for a licenciate degree in Biochemistry, Bioinformatics or Biophysics is 45 credits and this includes the *Oral exam* (15 credits) and the *Chemistry Section courses* (9.0 credits). For Neurochemistry, the theoretical requirement for a licenciate degree is 30 credits and includes the *Chemistry Section courses* (9.0 credits). See the individual General Study Plans for details.

The thesis should be based on at least one published paper, in addition preferably one submitted. The thesis should be presented/defended at a seminar that has to be announced ≥ 3 weeks in advance. At this time a Summary of the thesis should be uploaded in the DiVA database. The thesis should of course be printed at this time, the format should be an A4 printout with a cover with the title of the thesis, the name of the student, the English SU logo and DBB as shown in the template that can be found at the Department website.

Three copies should be given to secretariat, and one to each of the opponent and the examiner. One copy should be sent to each of the other Chemistry departments at Stockholm University, together with the announcement of the seminar.

The PhD student is responsible for booking preferably the Magnéli Hall or if not available a suitable seminar room, through the Secretariat.

At least 4 weeks before the seminar the Head of DBB decides on opponent and examiner.

At the seminar the student gives a 45-60 min presentation of the thesis, which is followed by a discussion initiated by the opponent.

Good Luck!!!

Finances & social security

Scholarships and “doktorandanställning”

As PhD student you can be financed during your PhD studies by “doktorandanställning” and in very specific exceptions, by scholarships. The total time that a “doktorandanställning” can be held is 48 100% months. PhD students that are engaged as “assistent” at undergraduate courses or in other departmental activities, will get prolongation correspondingly.

Scholarships

Scholarships must be from an external source and have to be paid directly to the student. However they should at least be at a level corresponding the salary for “doktorandanställning” after tax.

“Doktorandanställning”

“Doktorandanställning” is a regular employment with all the rights of such and it is also taxable. The salary is negotiated between the trade unions and Stockholm University, usually once a year, and is in principal the same for all PhD students at Stockholm University, although individual variations may occur due to special circumstances. There are three salary levels depending on what stage in the PhD program the student has reached. The initial salary is changed to the next level when 50% of the requirements for the PhD degree have been reached and again when 80% are reached. The Head of the Department decides which level the student has reached.

Salary for teaching and other employments

The teaching or other tasks you do within the “doktorandanställning” is included in the salary and will not be shown as a specific item in your monthly salary report.

In some cases the supervisor has funds to support a position for some time after the 48 100% months. The student does however not have the right to require such a position.

Travel fellowships and other fellowships

Each year during the spring internal stipends at Stockholm University are available for application. The announcement is usually distributed to all PhD students at the Department and also posted. The fellowships most frequently awarded students at DBB, are from foundations like K & A Wallenberg, KB Augustinsson and JF Liljewalch Jr. The deadline for application for the former is usually during late fall and for the latter two during early spring. Each of these can cover a substantial part of the cost for participation in a congress etc.

PhD student support at the Department

After agreement with the Director of PhD programs, the Department will pay for textbooks that the PhD student buys to study for the "oral exam" and other oral exams as part of the PhD programs at DBB. Expenses should be claimed after purchase, ask at the secretariat.

General issues

There are a number of other issues that are of interest with respect to your time as a PhD student at the Department, many of them concerning social benefits, insurance etc. You can always ask at the secretariat for help, but also (preferably first) consult the web sites of:

The Faculty of Science: <http://www.science.su.se>

The [Human Resources Office](#) at Stockholm University:

The Student union at Stockholm University: <https://sus.su.se/>

Teaching and other tasks at the Department

During the time as PhD student period you will most likely teach as an instructor ("assistent") at undergraduate courses at the basic level or at advanced level courses. The length of teaching depends on which course you are involved in. As an example $\leq 20\%$ of a full time position corresponds to 350 h/year. Although most teaching positions are 20%, they can vary between 20-10%. Depending on the number of instructors available at the Department you can be asked to teach just after being accepted as a PhD student. If there is an excess of graduate students (who also would like to teach), those having been registered as PhD students the longest time will be asked first, although academic competence will be considered as well as proficiency in Swedish. In addition, development of practicals, administrative or computer tasks might be required instead of or in addition to teaching.

You should regard the teaching as a great opportunity to practice your teaching skills, to get a chance to find out if you really understand the methods you use and to learn new ones, but also to find out how much of the basic knowledge you remember/have forgotten. Furthermore, being an instructor is a good way to develop and practice your leadership skills.

For more information concerning teaching duties contact the Director of undergraduate studies at the Department. Planning of the teaching schedule normally starts in April for the academic year to come. You will have a chance to comment on the schedule before it is finalized. It should be remembered that you have agreed to serve as instructor or do other jobs when you signed the *Individual Study Plan*. However, efforts will be made not to place your teaching periods when they would conflict with e.g. conferences, if possible. In the normal case there will be no teaching or other duties during the last 7 months of your PhD studies.

Responsibilities as "assistent"

To be able to give the students efficient practical training you must be well prepared both practically *and* theoretically. Read all the necessary information and theory in advance before the course starts. You are responsible for the practical training of the students. Plan the lab work and make sure that equipment and chemicals are available for each practical. Equipment required for the lab work that is shared by other members at the Department has

to be booked in advance. In some experiments you have to use equipment from a research group within the Department. You must ask in advance to make sure that the equipment is available.

You are responsible for the safety of the students (and yourself). Lab reports handed in by the students have to be corrected. This means that you really have to scrutinize the report, comment on things that are incorrect or unclear, incorrect language, sloppy figures etc. Don't give up and accept a lab report that you don't believe meets the standards you set. Make sure that your students have understood the practical.

If you have reasons to suspect a student of plagiarism or any other form of dishonest behavior, do not act yourself, but contact the Director of studies for the course you are teaching.

Hints

Teaching is a full time job, meaning that you hardly can continue your own research work, definitely not at full speed. Have a break, you deserve it! Study the experiments of the course that you will be in charge of in advance and ask if you have questions. Important information can always be obtained from a "senior" instructor. The best way to learn the job is to work on the course with an experienced instructor before you start your own first instructor period, and DBB will try to organize this as far as possible. A smile and some coffee can always help students to survive a very long day of lab work. Remember what you demanded from your own lab instructor as an undergraduate student. Reading the course evaluations can help you become a better instructor.

As a lab instructor you are an important part of the "face" of the Department. Your success as a lab instructor on the basic course and the advanced courses means that more students will become interested in biochemistry, biophysics, bioinformatics and neurochemistry, the research areas of our Department. It is usually the instructor, not the professor, the student primarily will ask about continuing studies at our Department or how to become a PhD student. Look at your task as an instructor as something positive and educational.

Finally, *Teaching Chemistry* is included in the set of PhD courses given by the Chemistry Section and that all PhD students have to take. In addition the University organizes an introductory course on pedagogics. More information about that course and other can be found at the home page of [CeUL](#) where courses and workshops are given.

GOOD LUCK and HAVE FUN!!