ATTACHMENT A: Diploma work on Bachelor and Master levels:

Preparing, performing, presenting

This is an attachment to a contract for Diploma Work at the Physics Department of Lund University

Diploma works are in the last parts of your academic education and are meant to display your academic skills, independence and maturity. These are the key issues to consider:

- Performing a diploma work is a process. Think early of what you would like to do - already at the start of your academic studies- and be eager to develop the necessary skills: the scientific understanding, your ability to analyze and interpret results, and to communicate these to others.

- Formally, learning skills and goals are described and regulated in the course plan and other documents. It is therefore important that everyone involved in any diploma work activity is updated on this plan.

- Diploma works rest upon what you have gained from your earlier education, from school and university, namely your scientific (mathematical, numerical, scientific, analytical, etc.) and reporting (writing, presenting) skills.

- As a student approaching the final stage of your education, independence is important: You contact on your own the department or company where you would like to perform your diploma work (preferably more than one, to have a choice among several options); personal contacts can be recommended. Diploma work openings can be found e.g. on the homepages of Fysicum and its divisions, at MAX-lab, at other departments of science, at LTH and at many companies. Proposals of your own might also be realistic. If you chose to do your Diploma work outside of Fysicum, the diploma-work committee will first have to approve the topic as a genuine topic in Physics. In that case you should also find a formal supervisor at the Physics Department. The Physics Library is a valuable reference and resource for the student regarding issues such as literature search and academic conduct, which includes matters such as plagiarism and citation issues. Contact the librarians for further information.

- Diploma works are courses and, as for all courses, there are rules that must be followed:

  1) Only student within the program can be admitted to Diploma thesis work. The possible grading outcomes for the Diploma work is: i) Pass with Honors, ii) Pass, iii) Fail, (corresponding to grades A-F on the European grading scale)

  2) You must be present at the introduction meeting and already be admitted to the course. After this meeting you will be registered for the current semester. If your work spans more than one semester, you register on your own initiative (note: missing doing so can delay the obtainment of your diploma) at the beginning of each of them. In the case of project extension, or delay, the exam can be given at the next available finish/exam period, as shown in the scheme below (the start/finish/exam dates are shown as vertical arrows).
3) When attending the introductory meeting, your contract form should be ready and signed by you and your supervisor. The form regulates the duties and the rights of anyone involved and hand it in to the course leader. If the supervisor’s job position is at the postdoctoral level, an additional signature should be present from a senior scientist at the same division of the supervisor. The subject of your diploma work should be concrete and well defined, and an approximate time/date for a half-time meeting should be proposed which is ideally suitable for all parts involved (however, ultimately the exact date/time will be defined by the examiner or course leader). A precise date for the half-time meeting should be finalized within a week from the introduction meeting.

4) While performing your work, you must keep a “progress diary”. Integrating well in your working group is important. It is highly recommended to start writing your thesis report early (one reason is that there should be a popular introduction to the subject, and writing this part usually requires some time). Have clearly in mind the readership you are writing for.

5) All parts/people involved (student, supervisor, course leader, etc.) should be aware and agree that the thesis work (including writing the report) can be accomplished within the allotted credit frame, provided the work is well prepared from the start and seriously performed. If the task is changed or increased underway it should be immediately communicated to the course leader. The half time meeting is intended to confirm that the work is proceeding properly. At this time (and/or at later times at discretion of the course leader and/or the examiners) the student may be asked to show the progress diary (≤5 pages) and the start of the thesis report. For 60-point courses or 30-point courses at half-speed, the half-time meeting involves the presentation of the “progress diary” and the incomplete report (in this way, a partial number of credits will be officially attributed to the student for record purposes). Writing the report, ask yourself whom you are writing for. It is required to make a popular introduction as a survey of the field including potential technological applications, ethical issues, and cultural and social implications.

6) The report, normally written in English, should have a scientific format (with the course goals explicitly addressed), always with an abstract in English. For the convenience of the reader there should be a table of contents and a list of abbreviations and acronyms. It is also common use to include Acknowledgements. An initial chapter should be devoted to an introduction and survey of the field (Title: Introduction). Aim and limitations of the work should be stated in the report Introduction. The report should also have one chapter expressly devoted to the Results (title: Results) and one containing an outlook (Title: Outlook). A short concluding separate document, entitled “Self-reflection” is also requested, devoted to the question “What did I learn?” (In writing this section, the student will refer to the guidelines contained in the document “Learning goals”, which will be made accessible online). This
should be followed by a reference bibliography. Other reference information, that is not essential for reading, such as computer codes or detailed/lengthy algebraic derivations, should be relegated to Appendices. Apart from these standard contents, the report should be written to serve the purpose of the individual research subject. If the outcome of the work has been published or will be the source of future publications, this should be explicitly stated in the report. Together with the report, a popular abstract must also be prepared. The popular abstract is a separate part (one A4 page preferably with a picture) of the reporting procedure, to be formatted along the guidelines given in

http://www.lu.se/upload/LUPDF/natvet/student/pop_sammanf.doc

7) The number of pages of the report is NOT a quality marker: Aim at a maximum of 25 pages for a bachelor report and a maximum of 40 (50) pages for a Master of 30 (60) credits, respectively.

8) On the report cover page there should be the Title of the work, the author’s name, the supervisor’s name, the semester when the work was finished, the Lund University logo supplemented with the Physics Department logo. Please leave the reverse cover blank for the notes of the examiners.

9) Examiner, co-examiner and student opponent (if appointed) should have the written report and the popular abstract (approved by the supervisor to be in a format/quality level suitable for assessment), in a scientific format, no later than two weeks before the examination seminar. The report should then be in a good scientific and linguistic state but can be further corrected and completed due to remarks coming up during the examination seminar.

10) About linguistic issues: Reports are written in English. The student is the one person primarily responsible for writing a report in good language quality (in less measure, the responsibility also pertains to the supervisor). The examiner makes an assessment/evaluation of the linguistic state of the report, and may suggest or require improvements (before or after the exam). However, providing a systematic correction and improvement of the linguistic state of the thesis is not part of the examiner duties. At the same time, the assessment of the language of the thesis can enter the final evaluation/grading of the project. If, during the reading of the thesis, the examiner(s) encounters spelling errors, typos, etc. that could have been easily avoided by using computer spelling/checking tools, the reading of the thesis will be immediately suspended and the thesis will be sent back to the student. The latter will then have at most 24 hours to amend all errors of this kind, and send back the thesis to the examiner(s). Fellow students may act as opponents but this does not reduce the duties of the examiner.

11) Before sending the report to the examiner(s), it is the responsibility of the student to submit the report to URKUND (http://www.urkund.se/se/documents/urkunds_plagiathandbok.pdf), an online tool useful for plagiarism control and to recognize the validity of professional papers. After the Urkund test, the paper can be finally submitted to the examiner(s), with a signed statement by the supervisor that the paper has passed the URKUND evaluation. Detailed instructions on how to use URKUND can be obtained from the Physics Library.

12) Besides the report, a short (one A4 page) popular abstract for the general public should be ready at the seminar, approved by the supervisor. It must be in Swedish for native speakers, otherwise in English, in the format specified at http://www.naturvetenskap.lu.se/o.o.i.s/2335. The purpose of this abstract is to inform the general public of the physics contents of the thesis and to make the student acquainted with the technique of scientific divulgation.
13) The examination is in the form of a seminar. All Master and Bachelor seminars for a given semester course will be delivered within a two-three day seminar activity at the end of the semester, in a form of a Diploma-work mini-workshop. The seminar program will be announced at the department/division level. Preferably the seminars will be open to general public. Popular abstracts can be included in the seminar invitation. The dates of the mini-workshop will be established within few weeks after the introduction meeting. The supervisor, examiner and at least one teacher (lecturer or professor) from the Department of Physics should be present at the presentation of the thesis and participate in the evaluation of it.

14) The diploma work is fully completed after a corrected report has been handed in and approved by the supervisor and the examiner. Such approval concerns scientific contents, language and the popular abstract (the latter should appear as a separate document). Finally, all this should be uploaded on the LUP Student Papers according to the modalities communicated in the contract form. Approved report and popular abstract are to be uploaded by the student on LUP Student Papers (for instructions google on that; your Stil-account must be active) before getting the mark in LADOK\(^1\), readable by the student. Contact the Physics Library for support on issues regarding LUP Student Papers. After all this, the mark is to be uploaded in by Mikael Antic.

To summarize, the tasks involved in completing your diploma work are: completing an accepted thesis report, giving a seminar, uploading the popular abstract and the report, completing and uploading the “progress diary” and filling in an evaluation form. For more information for Bachelor and Master Courses, please consult [http://www.naturvetenskap.lu.se:80/o.o.i.s/2335](http://www.naturvetenskap.lu.se:80/o.o.i.s/2335)

Good luck with your diploma work!

Claudio Verdozzi, course leader

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\(^1\) Control that your LADOK status is properly updated.