Bachelorproject Natuur- en Sterrenkunde

Report, Presentation and overall rules

Content

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1. Rules

Please read the following rules carefully, they can save you time and points!

Start of a Project

You need to look for a project at one of the institutes connected with the Physics & Astronomy department of the UvA or VU such as WZI, ITFA, API, Amolf, AMC, Nikhef or LaserLab. The sessions of the Orientation course provide relevant information about the possible projects within these departments. For projects within one of these departments it is not necessary to request approval for the project by the examination board. You do **have to get prior approval for the full set of completed courses**.

Other projects outside the UvA and VU are also possible, but there *must* always be at least two examiners of the UvA/VU Physics and Astronomy involved (Note: some AMC supervisors are FNWI examiner but not all. Ask your supervisor about this). **Request prior approval of your project by the Examination board** with an email including a short description of your project, the names of your supervisor and examiner (UvA/VU staff members) and planning. The best way to proceed is to: (i) find a project somewhere you would like to do, (ii) find a UvA/VU staff member that is willing to be examiner for this project and (iii) request approval by the exam committee. When in doubt please contact Stefan Witte and/or Oscar Versolato.
No matter where you do your project: always have your set of completed courses approved by the examination board! You can find more information at:
http://student.uva.nl/nsk/az/item/afstuderen-en-diploma-aanvragen.html

Starting requirements

You can start when you have obtained at least 132 EC of the BSc programme including all practical classes, projects and orientation. Beta-Gamma students should at least have obtained 72 EC from the Physics & Astronomy major. This requirement will be checked by the Education Office (ESC). Furthermore, you are deemed to have sufficient writing skills for writing your thesis. In case of doubt, seek help *now* by Iris Hettelingh and Taalwinkel.nl.
For further details and questions about rules and regulations: check the Education and Exam regulations.

Planning

You are responsible for making sure the project finishes on time **yourself**. Make watertight agreements with your supervisor(s) about:

- Planning: When will I start, how much time should I invest and when will I stop.
- supervision, contact moments, interim progress presentation, final presentation, submission date, marking period, period for final grading.
- Research objective of the project.
- Content of the report, language, format.

If the project runs late due to negligence of the student it will negatively impact your grade.

Completion
The bachelor project must be completed before you can start a master track. If you want to complete your bachelor's at the end of the academic year, the mark must be received by August 1st at the latest. The report also has to be graded 2nd examiner -> this takes time. You should therefore submit a present a version of your thesis to your supervisor by the 7th of July at the latest. In case of doubt or problems, contact the institute coordinator.

Final grade and time
Students and supervisors appear to have the tendency to continue the project until the final grade is around eight. Although the project is important, your life does not depend on it. It is important to make a clear time planning in advance of the project. The examiners are instructed to take the time it took to finish the project into account. This can influence your final grade negatively. Obviously, if delays occur due to circumstances for which you cannot be held responsible it will not influence the final grade.
Again: make clear agreements about expectations from both sides.

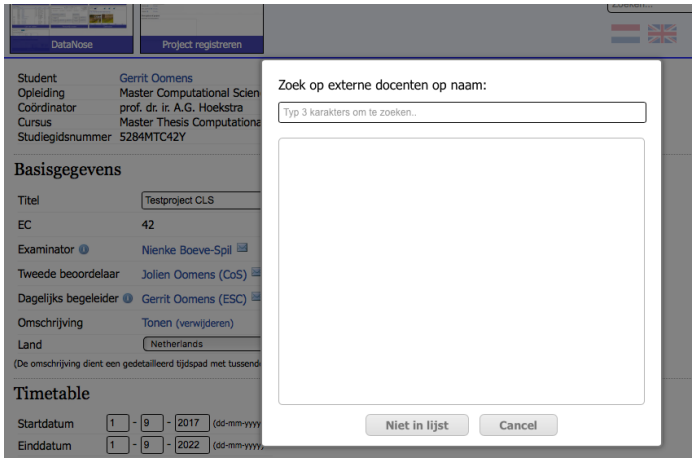
Your project on Datanose
If you are registered for the Bachelor's project you can review the details of the Bachelor Project on Datanose. All details of your project should be registered in datanose. It starts with registering your project using the following link: https://datanose.nl/#project
You can also reach this page from the `project registration' tile that is listed on your home page in datanose. You are requested to submit a title and brief description of the project as well as a starting and ending date. You should provide the name of your daily supervisor, supervisor (this has to be a senior researcher supervising and grading your project. **He/she cannot be a PhD candidate of postdoc!**) and an examiner (this has to be a permanent staff member of the UvA or VU).
For clarity these are the three fields and a description of the roles (with Dutch nomenclature added in brackets for even more clarity):

Daily supervisor (Dagelijks begeleider): Can be anybody that helps you during the project. This person can be a staff member, a PhD candidate, a postdoc or even a 6 VWO student if that is what you need to get your project finished. He/she does not have any formal role other than helping you with the project.

Supervisor (Supervisor): Is the staff member that is formally responsible for grading the project. He/she will help you in case of need. He/she can also be your daily supervisor. But this is the person that will determine whether you have done a good job over the course of the project and grade your thesis and presentation.

Examiner (Examinator): a second staff member that has to be present at your presentation and judges your thesis, independently from the supervisor. This person is not involved in the day to day business of your project but has to independently check the grade given by your supervisor. In case of need, he/she can also help if problems arise in the communication with your (daily) supervisor(s). This person has to be an UvA/VU staff member. You have to find this person yourself, but in almost all cases your supervisor will/can give a suggestion when asked.

If this is the first time the supervisor offers a project, he will not be in the list and can be added by making use of the 'not in list' option:



Follow the instructions and finish your registration.

At the end of the project you are also obliged to submit the final version of the thesis on the same page. **NOTE: you can only upload your document once!** It is mandatory that the version you upload has been approved by your supervisor. Based on the submitted thesis an examiner will perform an independent assessment. Therefore, if you submit the wrong version you will likely run into problems.
As soon as you submit your thesis on datanose, the supervisor will receive an email in which he/she is asked to grade your BSc project. When this is completed the examiner will be informed. When he/she has approved the thesis (and does not arrive at a completely different assessment), your supervisor can digitally sign the final grading form.

Grading
The final mark is made up of own work (work attitude, demonstrated understanding, achieved results, professionalism), quality of reporting (language, layout, care) and quality of the presentation (see below). Each of these components is weighed in the ratio 60%/30%/10%. For each of these three parts a minimum grade of 5.5 is required to pass for the project. A more detailed description of the components of the assessment can be found on the BB page. Minimum requirements for the report and presentation are detailed below.

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2. The report

The report should be submitted as assignment on blackboard (under 'Verslagen') where it will be tested for plagiarism. The report should also be published at http://www.science.uva.nl/onderwijs/thesis/, along with a popular summary of the report. In this section, the format and procedure are discussed.

General

- Language: preferably English.
- Try to use LaTeX, if you prefer another editor you will have to make sure that the thesis has a good structure and professional layout yourself.
- Size: about 15-20 pages, in consultation with the supervisor. In consultation with the supervisor it is also possible to structure the report as a scientific publication.
- Look back at what you've learned in previous projects!
- Provide clear figures with clearly numbered captions and source material if you have not produced it yourselve.

- Avoid accidental plagiarism and other forms of fraud. Check whether all relevant sources have been mentioned Look at www.student.uva.nl / nsk under Regulations for university regulations on plagiarism.
- Hand in the final report printed and bound as well as digitally with your supervisor. In addition, you insert a digital version and the popular summary with a good-looking picture on www.science.uva.nl/onderwijs/thesis/

The detailed content of the report should be as follows:

The title page

Contains at least:

- Title and subtitle of the project
- Name and student number of the author
- Text: Report Bachelor Project Physics and Astronomy , size 15/18 EC , conducted between dd - mm – yyyy and dd - mm – yyyy
- Name of Institute where the project was implemented
- Names of the faculties and universities (e.g. FEW/VU & FNWI/UvA written out in full)
- The date of submission
- Supervisor(s): (name)
- Second examiner: (name)
- The university logo

The layout of the above is up to you, additional figures are allowed. If you need examples: have a look at www.science.uva.nl/onderwijs/thesis/.

Summaries

The report has two summaries on the second or third page:

- A scientific summary in English.
- A popular scientific summary in Dutch on a level understandable to 6 VWO

The English summary will also be used on www.science.uva.nl/onderwijs/thesis/.

Table of contents

Chapter and paragraph format with page numbers.

Introduction

contains at least

- Motivation for the research conducted.
- Introduction to the theoretical background.
- Scientific questions.
- Approach.
- Possibly an outlook of what could be done next.

Description of your work and results

For describing equipment or reference to other descriptions you should apply selective depth beyond superficial and sloppy completeness, in consultation with your supervisor. From the thesis it should become clear which parts are your original contribution. The second examiner should be able to understand which part of your thesis consists of your contribution.

Discussion
Place results in context: describe how your results compare with earlier results. For experiments or observations: compare with theory. Indicate how reliable your results / theory are and discuss possible next steps.

Conclusions
Summarize your results and give recommendations for further work.

Acknowledgements
Possibly a brief word of thanks to your supervisors / technicians who helped over the course of your project.

References
Articles: authors, title, journal, year, volume, pages
Books: authors, title , editor, publisher, place, year
Limit references to web pages to a minimum! These are not peer-reviewed publications and correctness of the information presented is not guaranteed (wikipedia in particular).

Appendices
Are allowed to present material that would disrupt the normal flow of the main text.

Popular scientific summary
As you probably already know, people find our field difficult and it is difficult to explain what you 're doing. **As a final exercise in the bachelor you will therefore have to submit a popular scientific summary.** This is published on the Progress in Science page, see http://www.science.uva.nl/onderwijs/thesis/ when you submit your thesis.
Make sure you have all texts and images available before you start the submission.
The thesis is NOT directly open to the public. An email to your supervisor will be sent who will have to confirm correctness of your submission. He can also indicate whether the thesis should be public or not. If he says no, the thesis will not be made public.

In contrast, the summary together with any images submitted in that section WILL be made public once the supervisor has approved them. Discuss in advance with your supervisor what is and what is not going to put in the (public) summary.
You can obtain your grade only if the summary is posted.

Tempo and writersblock
Writing a report of 15-20 pages will easily cost two weeks, if the preparation is well done. It is therefore important to start on time. You can start with the creation of the global structure, title page, introduction and research question already in the first week. Keep on writing texts afterwards as soon as possible. If you have difficulty writing (too much self-criticism? how do I start?) you can buy a self-help book about report writing or seek help from your supervisor/coordinator or www.taalwinkel.nl.

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3. Presentation

The presentation is often held on special lecture sessions organized by the institute so that multiple presentations can be compared by the supervisors. The institute coordinator will organize these sessions (late June /early July) and will generally be present. Usually he/she or

your supervisor will coordinate the discussions. Furthermore, your second examiner should be present.
Your presentation should take around 20 minutes, followed by 10 minutes of questions and feedback.
You should prepare your presentation in advance of the session (by transferring it to the presentation PC for example). You will find useful tips on http://www.taalwinkel.nl.

You will be assessed on

- structure of the talk
- content
- extent to which knowledge is transferred
- posture, tone of voice, choice of wording,
- sheets,
- use of time,
- professionalism in attitude and appearance

The latter means in practice that despite the difficulty of your subject you do not present yourself as a nerd but as inspired and convincing scientist. So, make sure you have practiced and that all techniques work.