

Study Manual Afstudeerproject Bachelor KI

Period 2 & 3 year 2021/22 Sander van Splunter, Ciara Snijders, October 2021 Version [2021-10-12] This page lists the changes to the document, made after the initial version is published for period 5-6 in March 2021.

| Date | Change description |
|------------|---|
| 2021-03-09 | Version 1.0 - base commit |
| 2021-10-11 | Adaptation period 2/3 |
| 2021-10-12 | Adaptations made for requesting extensions (section 10.3) |
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1 Important information

Thesis Coordinator:

Sander van Splunter

BSc KI thesis email address:

thesis-BScKI@uva.nl

Please use this email address for any questions or queries relating to your thesis. We aim to respond to your email within 3 working days. Please include in the email your full name and your student ID.

BSc KI Study Counsellor:

Andrea Jessen <u>a.jessen@uva.nl</u> Further <u>contact information</u>

Important dates:

Thesis start date: Monday 1 November

Project Plan submission: Friday 19 November 23:59

Create thesis project DataNose: Friday 19 November 23:59

Midterm presentation: Week 50/21

Thesis end date (deadline): Friday 4 February 2022 16:59

Number of ECs:

18ECs

Language thesis:

English

Problem escalation:

If you experience any issues during your thesis, please contact us immediately using the below processes:

Project related issues \rightarrow 1) resolve with individual supervisor

2) if not resolvable with supervisor, escalate to:

thesis-BScKI@uva.nl

Supervisor related issues → escalate to thesis-BScKl@uva.nl

Personal circumstances → BSc KI Study Counsellor

Extension requests Request form

2 Introduction

The Bachelor's degree in Artificial Intelligence is concluded with a graduation project. This project will run during periods five and six of the third year of study and will yield 18 credits if it is successfully completed. During the graduation project, the student discusses previously acquired knowledge, insights and skills in an integrated project to be carried out independently. The end result should be in the form of a research report ("thesis") plus any attachments, such as code. The thesis is assessed on the quality of the insights gained in the study and the ability to interconnect them and to give shape to them in a project to be carried out independently.

The Graduation Project Bachelor Artificial Intelligence is a compulsory part of the Bachelor's degree program Artificial Intelligence. The organisation, supervision and assessment of this component differs from normal subjects. Instead of lectures, practicals or exams, students study independently, but under expert supervision, a topic within Artificial Intelligence and write a thesis on it.

The aim of the graduation project is that the student demonstrates that he is able to independently carry out a research project and thus gains (basic) research experience. The student is expected to spend an average of 40 hours a week on this project (480-500 hours in total).

3 Project Timeline

| Item | Explanation | When |
|----------------------------|---|-------------------------------------|
| Submitting Project choices | Each student selects a top five selection of the list of available projects and submits this via the online form. | Deadline: 27 October 11:59 AM |
| Student-project allocation | The projects are assigned by the Thesis Coordinator. When needed a second round is initiated for students that have not yet been assigned. This second round will be based on the projects remaining after the assignments of the first round. For external projects, a meeting with the project owner can be required, before your project | 28-29 October |

| | assignment is finalised. If applicable, the Thesis Coordinator will inform you. | | |
|--|--|---------|------------------------------------|
| | As soon as you have been assigned or external project, please contact your project owner to make a appointment to further discuss your project. | | |
| Orientation | The student discusses the project with the project owner. The student explores and gathers background information (literature) to familiarise with the research topic. The student creates a Project Plan, whilst informing the project owner. | | 29 October to 19 November |
| Project submission | Submit Project Plan in Canvas.Create thesis project DataNose | | Deadline: 19 November 23:59 |
| Execution phase, several plenary meetings. | For the next eleven weeks, the student researches the project, based on their Project Plan. The student and the project owner meet frequently to discuss the project. The advised frequency of meetings is once per week. In parallel to this a number of hoor- and werk-colleges are given to discuss academic research skills. Specific moments during this period: | | Week 45 to 5, see roster datanose. |
| | First of five plenary meetings | Week 44 | |
| | Submit: Project plan (on Canvas) Friday 19 November 23:59 | Week 45 | |
| | Academic English werkcollege 1 | Week 45 | |
| | Academic English Assignment 1, Thursday 18 November 23:59 | Week 46 | |
| | Academic English werkcollege 1 | Week 48 | |
| | Academic English Assignment 2, Wednesday 8 December 23:59 | Week 49 | |

| | Submit Midterm presentation, Monday 13 December 9:00AM | Week 50 | |
|------------|---|---------------|--------------|
| | Discuss Midterm presentation | Week 50/51 | |
| | Personal feedback, individual meeting | Week 50-51 | |
| | Thesis project symposium | Week 3/4 | |
| | Last date for extension requests | Week 3 | |
| | Submit: submit thesis <u>before</u> <u>Friday 4 February 2022 16:59</u> (via Datanose). | Week 5 | |
| | | | |
| Assessment | The assessment committee will have four weeks for assessing and grading the thesis. | | Week 6 t/m 9 |

4 Roles and Expectations

In this section the relevant roles and expectations for these roles are described.

The different roles of the thesis are:

- You, the student
- Academic Supervisor
- Examiner
- Thesis Coordinator
- Study Counsellor

4.1 What is expected of the student?

- An active attitude, independence: the student is the process 'manager' of the project; it is not the task of the supervisor to chase the student, let alone help the student achieve a pass. So if you show no or too little initiative, you will get an unsatisfactory result.
- **Initiative**: the student makes regular appointments with the supervisor (at least once every two weeks); the student contributes to the progress.

- Active planning: the student works regularly and in a structured way on the project; the student adjusts the schedule of the project if necessary; the student ensures that she/he comes prepared to the appointments with the supervisor
- Communication talking to others: It helps to talk to others about your project, for example to explain where and why you are stuck. The other person may not understand much of it, but talking will help you understand areas that require more work/research. Fellow students are excellent for this, but family and friends are also good;
- Supervisor management: each supervisor has their strengths, but they often have multiple teaching tasks, research projects and other obligations. Be mindful and respectful of this;
- **Punctuality Start writing in time**: a thesis is rarely written in one go; it is a process of trial and error. It is advisable to start writing early, for example by keeping a log. It is tempting to think that you will remember all your hunches, but you will be grateful if this turns out to be different at the end of your project and you kept good notes.

4.2 What is expected of the Academic supervisor?

- **Guidance:** the supervisor has an overview of the subject of the project. Therefore, the supervisor is expected to guide the student through the topic. For example, if a student lingers too long in studying prior knowledge, the supervisor intervenes to get the student to go through the material more quickly;
- Coaching: initially the supervisor explains and tells the student what to do. At a later stage, more emphasis will be placed on answering questions from the student and thinking about the planning;
- **Management and adjusting:** a project often does not go as planned: adjusting a project is one of the tasks of the supervisor;
- Reading and giving feedback: the supervisor is expected to read concepts from the
 thesis and give feedback on them. Make agreements about this, because a supervisor
 cannot read and comment on all versions. A student may only hand in the thesis after
 the supervisor has agreed.
- Note that if the Daily and the Academic Supervisor are two different persons, then the
 Academic supervisor is expected to support in steering the academic focus of the project
 and thesis. The remaining responsibilities can be divided between the daily and
 academic supervisor as needed.

4.3 What is expected of the Examiner?

- The examiner is a staff member or postdoc at the Faculty of Science (FNWI).
- **Independent assessment**: The role of the examiner is to provide an independent assessment of the quality of the thesis. The examiners assessment is solely based on the submitted thesis.

- **Not involved with supervision:** The examiner is not involved with direct supervision of the student.
- On List of Examiners: The examiner is appointed by the Examination Committee and must be on the list of examiners.

4.4 What is expected of the Thesis Coordinator?

- Responsible for the **overall organisation** of the BSc KI thesis program
- Responsible for the acquisition and assignment of thesis projects
- Organises the plenary meetings
- Mediates with student and supervisors when needed
- Responsible for allowing and handling of **extensions** of deadlines
- Answering general questions about the thesis project
- Available to supervisors and examiner for feedback and support on supervision and evaluation

4.5 What is expected of the Study Counsellor?

- Answering questions on effective studying
- Helping you if you run into challenges due to personal circumstances
- Responsible for proposing the extension of deadlines based on personal circumstances to the Thesis Coordinator

5 How do I get a graduation project topic? (13 October-29 October)

Important links and dates:

Surfdrive with available project descriptions (available Thursday 14 October): https://surfdrive.surf.nl/files/index.php/s/WRNJfo0S5b44DKL

Submission form for Top 5 preferences (submit **before** 27 October 11:59 AM): https://forms.gle/9Bw3WqrRgpEtcA9C9

Project are assigned on Thursday 28th and Friday 29th October (published on Canvas)

You will be able to choose from a diverse selection of research topics every year hosted by Ivl and ILLC researchers, and sometimes external partners. This section describes how you can submit your preferences for projects and how these are allocated.

5.1 Project Descriptions of available thesis topics

The IvI and ILLC research groups submit projects and supervisors for the BSc KI thesis project. The descriptions of available projects are published on Thursday 14th October on the surfdrive-page. Please note that the list of available projects can be updated until the 27th of October.

The surfdrive has three subfolders:

- \\INF\ ignore, only relevant for BSc Informatica
- \INF-KI\ projects available to both BSc KI and BSc Informatica
- \KI\ project specifically targeted at BSc KI

Each folder will contain PDFs with projects.

Each available project has the following fields:

- Title
- Supervisor name
- Supervisor email address
- Project description
- Number of students who can participate in this project
- BSc program [KI,INF] that the project is suitable/available for

New projects can/will be added to the available projects page. When new projects are added, students are notified by Canvas announcements.

5.2 Top 5 projects choice submission

Read each project description carefully to see whether this project is a topic you wish to research.

Please take into account the following important considerations when selecting your top 5 projects:

- **Interest** → does the project interest you? Does it *motivate* you?
- **Fit** → does the project fit you? Do your strengths/expertise match?

Each student must submit a selection of their top-5 projects. This selection will be submitted to the <u>online form</u> (available Monday 18 October). The form contains a drop down menu of the titles of all thesis projects available. This form is updated every time new projects become available.

So be sure to also review new available projects.

Q: Can I change my top-5 (e.g. due to new available projects)?

A: Yes, just resubmit a new form as many times as you want. Your last submitted selection (before the deadline) is regarded as your final choice.

Q: Do I need to submit 5 project choices?

A: Yes, you must submit 5 project choices if not your form is incomplete.

Q: Are my less preferred projects (place 4 and 5) really relevant?

A: Yes, please see the below section 'project assignment'. We can not assure that you will be assigned one of your most preferred projects (place 1,2 and 3).

5.3 Project assignment

The Thesis Coordinator will assign the projects, based on factors including:

- on the preferences of the students,
- the supervision capacity available for each supervisor,
- the overall distribution of supervision load.

Please note that projects available to multiple BSc programmes might also need to be assigned to students from the Informatica or Informatiekunde programmes. The projects are assigned by the Thesis Coordinator. When needed a second round is initiated for students that have not yet been assigned. This second round will be based on the projects remaining after the assignments of the first round.

The project assignments will be published on Canvas.

As soon as you have been assigned an internal or external project, please contact your project owner to set up a meeting to further discuss your project.

For external projects, a meeting with the project owner can be required, before your project assignment is finalised. If applicable, the Thesis Coordinator will inform you.

5.4 Self-defined projects (internal and external)

Students can also propose their own project to be approved by the Thesis Coordinator. A student who wishes to propose a project themself must have a proposal fully approved by the Thesis Coordinator, including supervisor(s). If you propose a project, with an external company or institute not related to the FNWI, then **2** supervisors are needed, a supervisor within the external companies or institutes, and an academic supervisor (a staff member within the IvI or ILLC).

Please note, a high level of autonomy of the student is needed to successfully complete an external and/or self-defined project.

To submit your own project:

Find a supervisor, and submit your Project Plan before 15 October 23:59 2021 at:

https://surfdrive.surf.nl/files/index.php/s/mT8QF5pHdFMcQKs

More information can be found in this presentation.

Q: I have received approval for a submitted self-defined project, and now see an interesting project in the available topics list that I like more. Can I submit a top-5, and drop the self-defined project if I get my desired project from the available topic list?

A: No, if you have received approval for a self-defined and/or external project, you can not take part in the top-5 selection procedure.

6 I have a topic, now what? (29 October - 12 November)

First action:

Contact your thesis supervisor a.s.a.p. to make an appointment, once you have an assigned project.

- plan a with your supervisor meeting, ideally in the first week
- start with exploring the topic domain and related literature by yourself

Important links and dates:

2 November 15:00-17:00 First Lecture (Hoorcollege) - attend :-) before Friday 5 November 11:59 AM - deadline for switching groups Academic English 8 to 12 November - first Academic English workshop (werkcollege) - attend :-)

Before 12 November 23:59 - Submit Project Plan in Canvas. Before 12 November 23:59 - Create thesis project DataNose

6.1 Lectures

The lectures are given by the Thesis Coordinator. Your active input is required during these sessions. These lectures will cover different areas concerning your thesis.

Lecture 1:

- Explain the structure of the BSc KI graduation project
- Getting started with literature (putting your academic skill in this context)
- Resolving running issues

Lecture 2:

- Deepening research question
- Reflection on submitted Project Plan
- Resolving running issues

Lecture 3:

- Evaluation of research
- Reflection on evaluation of own project
- Resolving running issues

6.2 Academic English workshops

Academic English is organised in collaboration with teachers from the British Language Training Centre (BLTC). **Attendance and assignments are mandatory**. Learning on English Academic writing is one of the learning goals of the overall course. There are:

- 2 Academic English werkcolleges (wk 45,48),
- 1 individual feedback meeting, and
- 2 assignments.

As these workshops are external to us, the specific dates and times are still subject to change.

You are allocated to a group by DataNose.

If you would like to change groups you will have to find a student in the other group who is willing to switch with you. Note that switching can only be done in the first week

- 1) Find a student in your target group that is willing to switch with you.
- 2) Send an email before **Friday 5 November 11:59 AM** (after this date and time your request will not be processed and automatically denied)

To: thesis-BScKI@uva.nl

cc: the student who want to switch with you

Subject: [Academic English] - group change request

Body: include the names of both students. Include both student IDs and the

group that you both want to be in.

If you can not attend an Academic English meeting, e.g. due to sickness, send an email before the meeting to your Academic English teacher, with a cc to thesis-BScKl@uva.nl. Contact a fellow student from your group afterwards to keep informed on the content, and additional information on the assignment.

Q: Is it possible to get an exemption for Academic English?

A: No, all students will have to follow Academic English, without exception.

6.3 Submitting the Project Plan

Before 12 November 23:59 - Submit Project Plan in Canvas.

The Project Plan is a clear elaboration of the graduation assignment and describes the plan of action for the entire graduation project. The Project Plan covers an average of two to four A4 pages and consists of the following sections:

- 1. **Literature review**. Explain the state of the art regarding the research topic.
- 2. **Research question**. State the problem that the proposed research focuses on. This problem should follow the literature review.
- 3. Method and approach. Describe how the research will be done. What approach will be taken? 'Doing the research' often entails programming software, but there are other tasks. Maybe experiments need to be conducted. Maybe evaluation studies need to be done. Maybe more literature needs to be processed. Give a precise overview of all that is involved.
- 4. **Evaluation**. Describe how the results of the research will be evaluated. In a way this can be regarded as part of the method/approach, but it is important and therefore requires independent attention. Ask the question of how proof can be realised such that the results obtained are viable.
- 5. **Plan**. Explicate the order in which the activities following from the above will be carried out in time. As well as how much time (effort in terms of hours or days) will be allocated to each task. A Gantt-chart is a very typical way to articulate the plan. Further issues include the following: Are there multiple ways in which the activities can be organised? What are the landmarks (aka. milestones, a Pert-chart is often insightful), what decision options do these have, and on what criteria will that be evaluated? Is there a critical path? Can it become a problem? How can it be circumvented (is there a contingency plan)?
- 6. **Report and presentations**. An important output of a research project concerns the publication of the results. Allocate time in your plan to write this publication (the thesis or maybe a paper). There will also be presentations and preparing them also takes time, and hence should be part of the plan.

Please remember to include your name, title of the project and the name of your project supervisor(s). The Project Plan must be submitted via Canvas. It must be approved in advance by the project supervisor(s) (both in the case of an external project).

Q: I have a self-proposed project for which I submitted a project plan before the start of the period. Do I need to submit, and, if so, do I need to make a new plan?

A: You do need to submit your Project Plan. The tip is to modify your project plan based on what you have learned in the last 1 ½ month, and then submit. If your Project Plan has no relevant changes, you can resubmit your old plan.

6.4 Creating your thesis project in DataNose

Before Friday 12 November 23:59 - Create thesis project DataNose

Url to create project: https://datanose.nl/#yourprojects

The creation of the thesis project is a necessary step to administrate all projects. The creation only takes 2-3 minutes of your time. Wait with this step until you have a solid Project Plan, but make sure to create the thesis project in DataNose before **12 November 23:59**.

Procedure:

Log into DataNose, and go to https://datanose.nl/#yourprojects
At the bottom of the page there is an option to create a new project.

Select "Afstudeerproject BSc KI" and press "Next"

The form is comprised of the following sections:

- 1.1 **Working title:** this is the title of your thesis please note that this is not your final title, the final title will be the one on your final submitted thesis.
- 1.2 **EC**: this will be a drop down menu you will only be able to select 18EC
- 1.4 **Examiner**: Insert 'Sander van Splunter's' name this will be changed at a later date.
- 1.5 **Supervisor**: this is where you will insert your assessor's name this will (usually) be your UvA supervisor
- 1.7 **Daily Supervisor**: Insert the name of your daily supervisor whether they are internal or external to UvA (the names in 1.5 and 1.7 can be the same)
- 1.10 **Is this an internal (UvA) or external project?**: Select 'internal' here even if your project is done at an external organisation.
- 1.12 **Institute and department/research group**: Insert the name of the research group of your UvA supervisor. The regular UvA institutes are: IvI and ILLC.
- 1.15 **Will part of the project take place abroad?**: Select yes or no depending on the location of your thesis.

Go to the next page:

- 1.3 **Start date**: please insert '2021 11 01' (note the YYYY, MM, DD structure)
- 1.4 **Planned end date**: please insert '2022 02 04' (again, note the YYYY, MM, DD structure)

Submit the project.

After your project page has been reviewed and approved by the Thesis Coordinator, you can find your thesis project page on https://datanose.nl/#yourprojects
On your thesis project page you will be able to:

- submit the final version of your thesis (due Friday 4 February)

- review the deadline for submission in case of a deadline extension (see Section 10.3 about Extension)

7 During the research (12 November - 17 January)

Plan your Midterm presentation discussion - select timeslot in excel doc:

https://amsuni-my.sharepoint.com/:x:/g/personal/s_vansplunter_uva_nl/EW_qGzAbLEtPovomKQQCxk8BJQRq6_HzRCTu13Ag80HumQ?e=H3KV5F

(deadline for planning discussion is Monday 13 December 9:00) (optional)

Submit Midterm presentation, Monday 13 December 9:00 (mandatory)

Discuss your planned midterm presentation 13-23 December (optional)

This section describes the relevant steps information once your research project is moving forward.

7.1 Midterm presentations

The midterm presentation will be organised via a digital form - you will need to upload a video of your presentation (You do have the option of presenting live and will be subject to the same constraints).

The goal of the midterm presentation is two-fold:

- 1. For *you* to reflect on the current progress.
- 2. For the *Thesis Coordinator* to get an impression of how the projects are going

The creation and uploading of the presentation is **mandatory**.

The discussion of your presentation is **optional** but is recommended.

Both parts are discussed below in detail.

7.1.1 Creation and uploading of presentation

Focus on (partial) results, and the planning of the remaining period. Show that you understand and have a realistic perspective on the goals to be obtained, and that your project will get there!

Answer the following questions in your presentation:

- 1) What is your current research question (and subquestions)?
- 2) How are you going to answer your research question?

- a) Briefly explain your experiment
- 3) What are your current results, and which results do you expect in the upcoming month?
- 4) What is your plan for the remaining period?

The presentation is restricted to 5 minutes (Hard restriction - your video will be stopped at 5 minutes)

The presentation does not need to have a high production quality, and is not graded. It is only to serve for reflection and to enable a discussion.

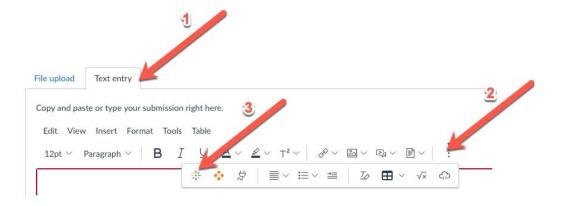
Formats:

The following formats are allowed:

- Create the video using the UvA Kaltura platform (info at: https://video.uva.nl/)
- .ppsx
- .mp4

Ad Kaltura: To submit a Kaltura video in Canvas Assignment follow the following steps:

- 1) Instead of File upload, choose Text Entry
- 2) Select the three dots
- 3) select the most left button (Kaltura) to access your media



Steps for submitting a Kaltura video on the assignment submission page

Ad PPSX and MP4:

Powerpoint has an easy-to-use built-in record function that you can use to record your presentation. To keep the file size manageable only use a voice over and don't enable your webcam.

Here are some tutorials that guide you through setting up a ppt presentation: <u>Tutorial - recording in PowerPoint</u>

<u>Tutorial - turn your presentation into a video</u>

If you want to present over a PDF presentation in a Linux environment, then SimpleScreenRecorder can be an alternative.

These can be submitted as File upload

7.1.2 The midterm presentation meeting

In week 50/51 there is the option to plan a meeting to discuss your midterm presentation with the Thesis Coordinator, for this you can also invite your supervisor.

It is recommended to plan this meeting as you will be able to:

- get feedback on your progress,
- get a different viewpoint on your project,
- verify if you are still on track.

The attendance of your supervisor(s) is optional, but can help with reflecting on your current status.

To plan the meeting, check the availability of your supervisor and fill in your details for a timeslot on:

Inplannen bespreken midterm presentaties December 2021

Note, that each day is a separate *sheet* in the XLSX file (selectable at the bottom). Please fill in your details on 1 single spot only.

Make sure that you also share your presentation with your supervisor.

The structure of the meeting is as follows:

The meetings are structured per hour (e.g. 9:00-10:00), with default 3x15 minute presentations. If you present within this hour, students are expected to join for the whole hour, and join in with the discussion on the other presentations.

The presence of supervisors is optional, and they are welcome to join (also for 1 presentation).

1. Initial 5 minutes:

The student presents its work. This can be done live, or the student shows the video.

Please note that the choice for presenting live is also restricted to 5 minutes. The student is responsible for adhering to this time-constraint.

Next 8 minutes:

Discussion on the work.

3. Last 2 minutes:

Transition time for next meeting.

Be sure to be on time, as the time schedule is strict. (Also the reason that your video is max 5:00 minutes).

7.2 Adjustments to research during the thesis project

The supervisor of a project generally has a global plan in mind, usually in the form of an end goal. It must be noted that in practice, a project rarely follows the plan in the expected manner. For example, it may turn out that the student has already completed all goals within a month, so the plan must evolve and be expanded. It may also turn out that the plan of the supervisor works out differently than expected. Or that much more prior knowledge is needed than initially thought, so that the set goal is not achieved. It is not a problem if a project does not go as planned - it is actually quite normal, and is frequently seen in research. A project that does not meet its original goals can still be a good project and certainly does not mean it has failed.

One of the supervisor's tasks is to keep an eye on the project goals and to adjust and/or adjust them if necessary. Adjusting a project is not uncommon for a teacher or researcher, but less common for a student. If you have any doubts about this (and this happens regularly), discuss this with your supervisor.

8 Finishing steps for the graduation projects (18 January - 4 February)

In the last two weeks students are expected to finish their experiments and their thesis. Within these last weeks there is a P2P-presentation, and the submission of the final version of the thesis.

8.1 P2P-presentations

In these P2P presentation sessions students will be presenting their thesis project results to each other. The goal of these presentations is to receive feedback on the current results, storyline, potential future research/applications.

The presentations are not graded, so they need to be functional: use the presentation techniques that fit you (from creating a PPT, to sharing your screen to display the direct results of your experiments.

These sessions are planned in 2-hour blocks. If you are presenting during this block you are expected to join for the complete 2 hours and join in with the discussions on other presentations during your block.

Supervisors are notified of the schedule, and are welcome to join (also for single presentations).

Note that the feedback received during these sessions is *optional* to include in your thesis. Discuss/propose potential changes, and discuss with your supervisor whether these need to be added in your thesis.

9 The Thesis structure/layout

This section discusses the structure and layout requirement on a BSc KI thesis. The first section discusses the general layout and thesis specific requirements, the second section discusses the template file on the first three pages.

9.1 Thesis Layout

The thesis must contain the following elements:

- Front page (see section below)
- Back-front-page (see section below)
- Title page (see section below)
 - o title.
 - o name of student.
 - name of supervising teacher
 - submission date
- Abstract
- Table of contents
- Introduction
- middle section
- Discussion
- Reference list

The front page, back-front and title page must be created using the provided LaTex template, discussed in the next section.

The use of LaTeX is mandatory.

The format is single column, and single line spacing

The thesis is compulsory in **English**.

The length of the thesis must be between **20-35 pages** max (excluding appendices). The thesis must be complete but short and concise. The use of figures to clarify the text is strongly recommended.

Make sure that your bibliography is:

- Compliant with Harvard style referencing (see PracticumAV)

- Has entries with complete information (check your bibtex file!)

The thesis must be **submitted via Datanose** no later than the last week of the project, but in any case only after approval of your daily supervisor. Make sure your thesis looks neat.

9.2 Compulsory Frontpages

On *Canvas* → *Modules* you can find the obligatory frontpages:

These are the following pages:

- page I: front-page containing an image
- page II: back-front-page clarifying the source/copyright owner of the front image
- page III: title-page containing the formal information about your thesis

In the .tex-file the comment field highlighted with *%CHANGE* identify which fields can be changed. The zip-file contains a default image for the front-page, which needs to be replaced with an image relevant to your thesis.

Q1: Can I use my own outlining for the remainder of the thesis?

A1: The first 3 pages are strictly regulated (front, backfront, and titlepage), and need to be included as is defined. For the remainder of the thesis, you will need to adhere to the general guidelines, described in the section above (English, single column etc).

Worst-case solution: compile the first three pages separately to a PDF, and then combine this PDF with your own PDF.

Q2: I do not want to include a picture on the front, I don't think this is appropriate for my thesis **A2:** The motivation for including the picture is based on the UvA library creating a small thumbnail of your first page when displaying your thesis.

Examples of theses with images in the thesis database are: [thesis1], [thesis2]

If you still object to the inclusion of an image on your frontpage, then it is also allowed to use a 'white image', effectively resulting in a white page with only the title and author on the front page.

Q3: My title is too long/too big to fit correctly on the front-page (first page), am I allowed to change sizes on the first page?

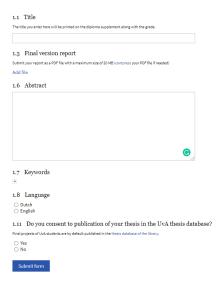
A3: The text size was chosen based on the readability of the thumbnail on the UvA library thesis database. If the title does not fit, first try to change the margins of the front-page. If that does not help, you can change the text-size. An alternative option is to set a lower text size for the subtitle (when applicable). You are allowed to change the line-spacing, if this is causing issues with longer titles.

10 Thesis submission procedure

10.1 Submitting your thesis on DataNose

To submit your thesis you will need to open your DatNose project page.

On your project page you will find an 'Actions' menu on the right hand side of the webpage Here you will have the option to submit your thesis. The following form will appear:



The sections you will need to complete are as follow:

- 1.1 **Title:** this is your final title.
- 1.3 **Final version report:** you will be asked to select a PDF file from your system please make sure you name your document clearly.
- 1.6 **Abstract:** Insert a copy of the abstract from your thesis.
- 1.7 **Keywords:** A pop up will appear asking you to type in any word that relates to your thesis. You can add multiple words if you wish by clicking on the '+' button
- 1.8 Language: Choose between 'Dutch' and 'English'.
- 1.11 **Do you consent to publication of your thesis in the UvA thesis database?:** Choose 'Yes' if you give consent for your thesis to be published to the UvA thesis database else select 'No'.

To submit your thesis please select the blue button at the bottom of the form 'Submit form'.

10.2 Deadline reminder

You will receive an email from DataNose reminding you that your deadline is approaching.

Please note: It is your responsibility to submit before your deadline - do not wait for the email reminder. Please make sure you are aware of and make a note of your deadline in your personale calendar.

10.3 Extensions

This section discusses extensions for the final submission deadline of the BSc thesis. Please note that extensions are granted in the increments of weeks (1 or more weeks - an extension of 1 day is not possible).

Extensions are only granted, when thesis progress of the student is severely hindered due to:

- A) Personal circumstances
- B) Research related issues outside the influence of the student

10.3.1 Process of requesting an extension

If you require an extension for your thesis you are now required to complete a These Extension Form. You can find the Extension form using this link.

To complete the form you will need to choose from a list the reason for the need for an extension as well as a proposed new end date. This will then be sent to the BSc KI Thesis Coordinator who will approve or reject the extension based on the information provided as well as accept or propose a new end date. The form may also be sent to the study advisor if required (based on which reason is selected).

The form must be submitted as soon as the relevant issue arises, not at a later date. The deadline for the Thesis Extension Form is:

Friday 21 January 2022 23:59

After this date, only urgent requests for highly exceptional cases are considered, not submitted later than Wednesday 2 February.

If your extension has been approved, your end date will be updated on your DataNose project page.

10.3.2 Consequences on grading of having an extension

For students with an extension, the grading procedure is expected to take longer. As the grading will take place during crossing different teaching periods.

11 Assessment

11.1 Deadlines

The deadlines for the graduation project are hard.

If the deadline for the thesis is exceeded, the project is assessed as unsatisfactory and the graduation project must be redone the following year.

11.2 Assessment criteria

The student is only assessed on the final submitted thesis.

The other assignments must be completed to receive final grade for their thesis.

In the table below are the criteria and weighting of the different criteria on which the thesis is assessed.

| Criteria | Weight | | |
|-----------------------------|--------|--|--|
| Content (70% of the grade) | | | |
| Theoretical foundation | 15% | | |
| Research question | 10% | | |
| Research method | 10% | | |
| Results and evaluation | 15% | | |
| Conclusion and discussion | 10% | | |
| Original contribution | 10% | | |
| Form and media thesis (30%) | | | |
| Readability | 10% | | |
| Composition and structure | 10% | | |
| Use of media | 10% | | |

11.2.1 Clarification of the criteria

Theoretical foundation (15%)

Did the student acquire and report the knowledge needed to correctly position and carry out the research?

Research question (10%)

Does the problem relate to the subject of Artificial Intelligence? Is the hypothesis clearly formulated and theoretically sound? Is the problem decomposed into researchable units? Is the research question clear and concrete?

Research method (10%)

Is the approach taken to the research appropriate and well described?

Results and evaluation (15%)

Are the results well analysed, evaluated and presented?

Conclusion and discussion (10%)

Are the main results and approach taken well summarised, critically reflected upon, and discussed in a broader context? Are open issues and future work well covered?

Original contribution (10%)

To what extent did the student make an original contribution to the scientific community?

Readability (10%)

To what extent is the thesis well written and easy to read (for peers and knowledge workers in the area)? Is the academic writing style formal, concise and precise? Is the use of the language correct? Does the thesis list the correct administrative details?

Composition and structure (10%)

Is the overall layout appropriate and appealing? Does the thesis have all the basic parts correctly included: abstract, introduction, theoretical context, method, results, conclusion, discussion and future work, and literature references.

Use of media (10%)

Is there proper use of figures and graphs?

11.2.2 Final Grade Benchmark

The criteria aim to assess the scientific quality of a graduation thesis and result in a specific grade. The final thesis grade should reflect the extent to which the thesis is based on scientific facts 1 and principles, and contributes to science. The following overall benchmark applies in the respect:

- 10. Extraordinary performance, a clear scientific breakthrough, the result has publication potential.
- 9. Very good performance, the results are beyond expectations, particularly there is a scientific breakthrough that was not anticipated at the start of the project.
- 8. Good performance, the work is better than average, either because of the quality or the quantity of the work.
- 7. Average performance (default), the project has been carried out as expected.

6. Sufficient, but the project did not progress as well as expected, the overall performance is somehow sub-optimal.

<5. Insufficient.

Grades of 6.5, 7.5, 8.5 and 9.5 may also be given to interpolate this scale.

11.3 Plagiarism check

All theses are checked for plagiarism. Cases of suspected plagiarism are submitted to the Examination Board, who impose the sanctions. The rules regarding plagiarism are discussed in the first year during the tutoring or the Practicum Academic Skills (PAV) or Academic Skills Informatics (AVI) course. For more information, see the "Fraud and plagiarism regulations for UvA students" and the plagiarism statement signed by all students with the tutor / PAV / AVI.

11.4 Assessment steps

11.4.1 When

The thesis assessment is targeted to be completed within 20 working days. Please be aware that due to other responsibilities of evaluators, it is not always possible to grade within this period.

When submitting the thesis **on** the regular deadline, the grading will be finished and registered before the start of the next academic year. The grading will be available in SIS in time to complete your BSc diploma request before the start of a potential follow up Master in the next academic year.

In the fall period, the main time period in which theses are evaluated / signed are:

- Week 6 - 9 in February

In the summer period, the two main time periods in which theses are evaluated / signed are:

- The first four weeks of July (direct after regular deadline)
- The last two weeks before the start of the new academic year (23 August to 3 September)

When submitting the thesis **after** the regular deadline, please see section 9.3.2 on Deadline Extension on the implications for the grading timeline.

11.4.2 Procedure

Once your thesis is submitted in Datanose, the evaluation procedure can start. Your thesis is evaluated by two assessors:

- The Academic Supervisor

- An independent Examiner

It is assumed that the project has been appointed to an examiner from the <u>Examiners List</u>. Once the thesis is submitted, the following items become available for the assessors:

- The PDF of the thesis
- A plagiarism report
- An assessment page

They both perform an independent/blind evaluation (not knowing the results of the other evaluator), and submit their evaluation in DataNose.

If the final grades of the Academic Supervisor and the Examiner do not differ more than 1.0 point, then the grading is approved by the Thesis Coordinator, and the average of the two is taken as the final grade for the thesis.

If the final grades of the Academic Supervisor and the Examiner differ more than 1.0 point, then the assessors will be asked to contact each other to discuss, and explore whether they can come to an agreement on grading with a difference less than 1.0 point.

If the two assessors can not come to such an agreement, a third assessment by a separate Examiner is made. The grading of the three assessors is approved by the Thesis Coordinator and the average of all three assessments is taken as final grade.

After the determination of the final grade, the Examiner needs to sign the final grade in order to submit the grading to SIS.

11.4.3 Delays in evaluations

A delay in evaluation is possible when:

- Assessment phase:
 - One of the assessors is not available during the first four weeks after submitting the thesis.
 - Both assessors have submitted their initial grading, but differ more than 1.0 point, and need to discuss, but one of the assessors is not available.
- Signing phase
 - If the Examiner is not available after the Thesis coordinator has approved the grading.

In the fall period these delays are resolved at the end of week 9.

In the summer period these delays are resolved in the last two weeks before the start of the new academic year, coordinated by the Thesis Coordinator.

11.4.4 What happens if my thesis is graded as insufficient?

If your thesis is graded with a mark below 5.5, then the BSc thesis project has failed. By default you will have to start a new BSc KI graduation project in the next possible period (period 2-3 or period 5-6 (can be in the following academic year). Other options will be evaluated by the Thesis Coordinator before this decision is finalised

12 After the graduation project

12.1 Handover

Discuss with your supervisor how your work should be transferred: thesis, software and data.

12.2 Diploma request

Please view:

https://student.uva.nl/ki/content/az/afstuderen-en-diploma-aanvragen/afstuderen-en-diploma-aan

12.3 Warning: beware of the offer of free publication thesis

After graduation (or PhD), many students receive mail from publishers offering to publish their thesis (or dissertation) for free. Usually these are subsidiaries of VDM Publishing, such as Lambert Academic Publishing. The Library advises not to enter into agreements with this, because you will lose copyright. This means that you can then no longer publish (parts of) the work elsewhere.

13 Appendix

13.1 Admission to thesis project

For the standard admission procedure, see:

https://student.uva.nl/ki/shared/studentensites/fnwi/iw-gedeelde-content/nl/az/vakaanmelding/vakaanmelding.html

For students with a major in Kunstmatige Intelligentie (from Beta Gamma and Future Planet Studies): Datanose is not able to automatically check whether you meet the admission requirements. Your admission request will be checked manually, and you will be admitted in January.

If you do not meet the entrance requirements (see studyguide), but expect to meet these before the start of period 5 / 6, please enroll using:

https://datanose.nl/#specialenrol

If you do not expect to meet the entrance requirements, you can find a presentation with further information at: https://surfdrive.surf.nl/files/index.php/s/lv9RxZcTwZvnxXR

Students can also opt for external projects, offered by companies or institutes not related to the FNWI. For an external project *two* supervisors are needed, a supervisor within the external companies or institutes, and an academic supervisor (a staff member within the IvI or ILLC). Please note, a high level of autonomy of the student is needed to successfully complete an external project.

To submit your own project:

Find a supervisor, and submit your Project Plan before 1st March 23:59 / 1 October at: https://surfdrive.surf.nl/files/index.php/s/mT8QF5pHdFMcQKs
More information can be found in this.presentation.