

Information (leaflet) on the Bachelor's thesis*

GEO386, ESS386 and ESS388 each in the spring semester

This information sheet is based on the guidelines for studying Geography (GEO) and Earth System Sciences (ESS) (in particular for the compulsory modules in the 6th semester "Bachelor's thesis").

What is the aim of a Bachelor's thesis at the Department of Geography?

By writing a Bachelor's thesis, students demonstrate that they can independently narrow down and work on a given scientific question. Particular emphasis is placed on the adequate elaboration and discussion of the state of research as well as on a stringent argumentation. For this reason, our Bachelor's theses are designed as literature works. As an exception, a practical Bachelor's thesis with field or laboratory work can be carried out on the ESS degree programme (ESS388; sections of this information sheet relating to the practical Bachelor's thesis are highlighted *in italics*).

What requirements must be met in order to write a Bachelor's thesis?

The compulsory modules (with prefix GEO bzw. ESS) of the first three standard semesters of the Bachelor's degree programme must be passed.

Can I suggest my own topic for the Bachelor's thesis?

No, the tasks are assigned to you, but you can choose the subject area of the work from a selection of overarching topics (so-called main topics). In addition, the topic of the assignment can be adapted (within reasonable limits) in consultation with the supervisor.

During the practical work, which is open to ESS students, you can discuss your own topic suggestions with potential supervisors.

How many ECTS credits will I receive for my Bachelor's thesis?

At the MNF, Bachelor's theses are worth 12 ECTS credits. This corresponds to approx. 360 hours that you have to invest in your work.

An additional 3 ECTS credits are awarded for the additional work involved in collecting data for the practical work (ESS389). For technical reasons, no Bachelor's theses worth 15 ECTS credits can be awarded. The 3 ECTS credit points are entered with the same module grade after the Bachelor's thesis has been passed. Students only have to book module ESS388.

What are the learning objectives?

- You can work independently on a given scientific task.
- You can adequately research and discuss relevant scientific literature (state of research).
- You can plan and efficiently carry out scientific work.
- You are able to present scientific contexts and argue logically.
- You can plan, carry out and analyse scientific experiments/data collection.
- You can formulate the topics fluently and concisely.
- You can create graphically high-quality illustrations with correct content.
- You are able to cite scientific literature systematically, completely and correctly.

In which language can I write my Bachelor's thesis?

You can choose between German and English. When enrolling (see below) or meeting with the supervisor of the practical work, you indicate whether you want to write the work in German or English or whether you do not care in which language your work is written. As not all supervisors are fluent in German, this information is important for the allocation of work.

This leaflet was translated from the German "Merkblatt" using DeepL Pro.



How does a Bachelor's thesis work and how should I proceed?

The individual steps for GEO/ESS386 and ESS388 are listed in the following table. The exact dates can be found in the schedule valid for the respective year (https://www.geo.uzh.ch/de/studium/bachelor/bachelo-rarbeit.html).

	GEO/ESS386	ESS388
1	In October, you will be informed about the orga-	In October, you will be informed about the orga-
-	nisation and process of the work at an informa-	nisation and process of the work at an informa-
	tion event.	tion event.
2	The main topics of the departments will be pub-	During the autumn semester, you will indepen-
2	lished on the website in November. Binding en-	dently find a supervisor from the lecturers listed
	rolment via module booking (GEO386, ESS386	in module ESS388 and a topic for your Bachelor's
	or ESS388) and on Lean Gate (only for	thesis. Together with your supervisor, you will
	GEO/ESS386) is possible for two weeks.	work out the topic of your Bachelor's thesis. Some
	(https://lean-gate.geo.uzh.ch/prod/)	suggestions for Bachelor's theses are already
	(https://lean-gate.geo.uzh.ch/piou/)	published on the Internet. You should notify Mere-
		dith C. Schuman of the topic and the supervisor.
3	You register for three main tenics via Lean Cate	Please contact Meredith C. Schuman by e-mail,
З	You register for three main topics via Lean Gate	-
	and prioritise them. The three main topics must	stating your topic and your supervisor.
	be selected from at least two different depart-	
	ments. Your registration and allocation to a su-	
	perordinate topic and the corresponding de-	
	partment will be confirmed by e-mail.	
4	From the beginning of February, you will be as-	You create a short concept (approx. 2 A4 pages) in
	signed the specific task of your work via Lean	which you outline the current state of research in
	Gate. You will also find out who your supervisor	the field, describe your planned work, and define
	is. You can specify the task in consultation with	milestones and a rough timetable. Consult with
	your supervisor. Contact with the supervisor is	your supervisor. You may only begin your Ba-
	made by the students.	chelor's thesis (ESS 388) if this concept is accep-
		ted by your supervisor.
5	Your Bachelor's thesis must be uploaded and	Your Bachelor's thesis must be uploaded and
	submitted on Lean Gate under the heading "Ba-	submitted on Lean Gate under the heading "Ba-
	chelor's Thesis" no later than Friday, two weeks	chelor's Thesis" no later than Friday, two weeks
	before the end of the semester (see timetable).	before the end of the semester (see timetable).
6	The Bachelor's thesis will be corrected by your	The presentation of your Bachelor's thesis takes
	supervisor and the grade will be announced.	place after submission. The Bachelor's thesis will
		be corrected by your supervisor and the grade
		will be announced.

What support can I receive during my Bachelor's thesis?

- After collecting the assignment, you have the opportunity to discuss the topic of the assignment and your work disposition with the supervisor. A maximum of 1 hour is available for the discussion(s). This can be divided into several appointments (e.g. discussion of the disposition / focussing on content / discussion of a writing sample). It is up to the student to request a meeting at the appropriate time.
- Once the thesis has been submitted on time, it will be graded. After the grade has been announced (see timetable), you have the opportunity to obtain feedback from your supervisor.



Which citation style should be used and what about gender-equitable language?

- It is recommended to determine the form of the sources and references with the supervisor (we recommend the "Harvard style"),
- see https://www.geo.uzh.ch/microsite/olwa/olwa/de/html/unit4_kap44.html).
- It should be mentioned in particular that attention is paid to correct, careful and gender-equitable language[†]. Abbreviations such as Student:innen, StudentInnen, Student/innen or Student*innen are not permitted in the title of the paper, but are permitted in the text, <u>see https://www.gleichstellung.uzh.ch/de/agl_beratung/sprachleitfaden.html</u>).

What are the formal requirements for the Bachelor's thesis?

- The thesis comprises a maximum of 70,000 characters (excluding spaces). Appendices and footnotes are included in the running text. This also includes the abstract of a maximum of 400 words each, which must be written in German and English. Figures and the following lists are not included: Contents, Figures and Tables, Literature, Appendix.

Can text be copied?

- Text should never be copied without reflection and must always be accompanied by references. Direct quotations must be placed in inverted commas and labelled with the source.
- Proof of plagiarism leads to failure of the Bachelor's thesis module and to disciplinary proceedings.

Can artificial intelligence (AI) be used as a writing aid?

Artificial intelligence (AI) is playing an increasingly important role in both science and society. It is therefore important to learn how to use this tool responsibly. AI can have a supportive effect (e.g. for improving the linguistic quality of a text or for translations), but it also harbours dangers, so it must not replace critical and reflective thinking. ChatGPT, for example, has the following biases according to its own information[‡]:

"ChatGPT can exhibit various 'biases' that come from the training data. Since it is trained on huge amounts of text from the Internet, it reflects biases related to race, gender, religion and political views. There are the following main types of biases:

- Demographic biases: prejudices relating to gender, ethnicity or religion.
- Cultural and geographical biases: Western-centred perspectives dominate.
- Confirmation bias: The model often confirms biased premises.
- Over-representation of mainstream views: Popular opinions dominate over fringe views.
- Gender bias: Gender stereotypes are reproduced.
- Hallucination bias: False or invented information appears plausible.
- Bias in content filters: Strict moderation of certain topics.

OpenAl uses measures such as reinforcement learning from human feedback (RLHF) to reduce biases, but they remain a challenge."

The following three conditions must be met for the use of AI in the Bachelor's thesis[§] :

1. All is used to support the work, but it does not do the work. For example, for abridgements, translations and the linguistic checking of texts.

[†] This is more of an issue in German than in English.

[±] GPT-4 (2024): Prompt: "List the "biases" of ChatGPT on 20 lines".

[§] Abridged and translated according to Department of Psychology (2023): Guidelines for Course Work at the Department of Psychology at the University of Zurich, 26 October 2023; URL https://www.psychologie.uzh.ch/de/studium/bscmsc/studium/KI.html.



- 2. Texts (or code) generated with AI must be labelled. Artificially generated texts must be cited in the same way as those from scientific publications. If AI is used to edit text, this must be declared in the appendix of the disclosure form.
- 3. For a responsible use of AI, the texts generated by it must be carefully verified. Errors are the responsibility of the author of the BSc thesis (unlike an error taken from a scientific source).

At the end of the thesis, a written, signed declaration must be included in which you confirm that you have written the thesis independently using only the means specified in the thesis. This declaration is added digitally to the Bachelor's thesis document as the last page.

"Personal declaration: I hereby declare that I have written this thesis independently, that I have not previously used it or parts of it for other qualification theses and that I have labelled the passages taken verbatim or in terms of content from the sources used as such. I also confirm that I have not used any AI for this thesis except for the passages declared in the appendix (form for the disclosure of AI used, see below)". "Personal declaration: I hereby declare that the material contained in this thesis is my own original work. Any quotation or paraphrase in this thesis from the published or unpublished work of another individual or institution has been duly acknowledged. I have not submitted this thesis, or any part of it, previously to any institution for assessment purposes. Furthermore, I confirm not to have used any AI tool for this work other the ones stated in the appendix (disclosure form for the use of AI)."

Form for the disclosure of AI used (to be integrated into the appendix of the paper)

- □ "I have read the information sheet on the Bachelor's thesis"
- □ No, I did not use AI for this work. If no, the other points do not need to be listed.
- □ Yes, I have used AI for this work, namely: [specify name of AI, e.g. ChatGPT-4, Deepl, Claude etc.]. I have used KI for the following purposes:
- 1) I used the following prompts to edit text passages (grammar check, abbreviations, translations, improvements to formulations):
 - [List the prompts that were entered and indicate whether the text generated by the AI was further modified. Also indicate the number of sentences that were edited].
- I used the following prompts to generate ideas and texts:
 [List the prompts that were entered and indicate whether the text generated by the AI was further modified. Also indicate the number of sentences that were edited].

With my signature I confirm that the above information is true.

Date:

Signature:

How is the BSc thesis submitted?

- The Bachelor's thesis is submitted digitally on Lean Gate. It is submitted as a PDF document.
- The official title page is automatically created by Lean Gate during the submission process and added to the document as the first page.

What criteria are used to assess the Bachelor's thesis?

Content and argumentation (weighting 2/3 for GEO/ESS386, 1/2 for ESS388)

- Research question: Specification of the task and formulation of concrete questions and the resulting conception of the work
- Connection to scientific debates: localisation of the question in a corresponding scientific debate
- Presentation of the current state of knowledge, facts are correct in terms of content



- Methodological approach: Consistency and independence of the methodological approach, critical reflection and discussion of the material, logical argumentation
- *Results/synthesis*: processing complex facts and arguments in a synthesis in which the questions are answered and conclusions are drawn

Form (weighting 1/3 for GEO/ESS386, 1/4 for ESS388)

- Structure of the work: Clear structure without repetitions, in which all elements (e.g. introduction, main part, conclusion) are present
- Language: consistency and precision of written expression
- Use of literature: correct use and citation of suitable literature that has been introduced in relevant places
- Illustrations: Illustrations according to the rules of graphics and cartography

Mode of operation (weighting 1/4 for ESS388)

- Development of a scientific concept
- Data collection and analysis
- Independence and initiative
- Time management

The counsellors use the following grading system for grading: <u>https://www.geo.uzh.ch/dam/jcr:4f9b60d0-6832-47b9-a690-fca0a562f4fe/BScArbeit_Kriterien_DE_EN_2023.pdf</u>

What happens if my Bachelor's thesis is assessed as unsatisfactory?

- A failed Bachelor's thesis can be repeated once: Either in the following spring semester by booking the module GEO 386, ESS 386 or ESS388 "Bachelor thesis" again or, after consultation with a faculty member, at any time during the summer semester break and the autumn semester.
- The period of time between the assignment of the topic for the second Bachelor's thesis and its submission must not exceed 14 weeks.
- The department in which the second Bachelor's thesis is written may or may not be identical to the department in which the failed Bachelor's thesis was written.