

Research Team “Climate Dynamics and Modeling” at the University of Vienna

The official formalities for writing an MSc thesis at the Department of Meteorology and Geophysics are described in the IMG Master guidelines that can be found on the departmental website. This document is an addition that specifies how we work with MSc students during their time in our team. Students should also take note of a third document that describes our team values and culture. This document is available on the landing page of our team website.

The MSc thesis is an important part of the study program that allows students to collect hands-on research experience over an extended period. We are grateful for the opportunity to work with students and see them grow during this time. We do not advise topics that are not connected to our research in one way or another, as we believe this would hinder a successful research experience.

1. Before the start of the thesis

We respond in a timely manner when students contact us about an MSc thesis (<1 week) and suggest at least one topic. In our reply, we also refer students to this document and the document about our team values and culture. We ask students to read both documents carefully and expect students working with us to agree to their content. Once a student has decided to write their thesis in our team, the student and the advisor agree on a date of the kick-off meeting.

2. Rules

- There are typically two advisors per thesis: Aiko as the main advisor and one additional co-advisor. Aiko can also be the sole advisor. Note that the university rules for advisors apply; these are described in the IMG guidelines.
- Both advisors receive 0.25 SWS for the Specialization Phase (or Aiko 0.5 SWS if he is alone).
- The co-advisor should only advise one thesis at a time.
- There is no cause-and-effect relation between thesis length and grade.

3. Responsibilities of the advisor and the students

Advisor (and co-advisor):

- Ensures that the student has access to the IMG server system and VSC (if applicable)
- Adds the student to the communication channels of the team (in particular Mattermost, GitLab, and Google calendar) and introduces the student to the team
- Provides one-time feedback on the draft of the MSc seminar presentation
- Provides one-time feedback on the draft of the MSc research expose
- Provides feedback on the draft of the MSc thesis before final submission

- Grades the thesis and the MSc research expose
- Organizes the final feedback meeting
- Allocates time to help and meet with the student

Student:

- Is self-directed and eager to learn
- Takes ownership of their MSc thesis
- Seeks help and advice in a proactive manner
- Is in charge of running the regular 1:1 meetings with the advisor (this includes, for example, preparing the agenda and the material that the student wants to discuss)
- Presents their work once in the MSc seminar
- The draft of the presentation needs to be sent to the advisor for feedback at least 1 week before the date of the presentation
- The draft of the research expose needs to be sent to the advisor for feedback at least 2 weeks before the date of the submission
- Approximately three months after the start of the MSc thesis phase/at about 50% of the project time, the student presents the current status of the project to the advisor during one of the 2-weekly meetings (this is the mid-term review described in the IMG guidelines)
- The thesis draft needs to be sent to the advisor at least 4 weeks before the planned date of the submission
- Completes the thesis within the agreed timeline
- Tries to participate in the weekly team meetings and other team activities (such as the team retreat or social activities)

4. Kick-off meeting

The kick-off meeting signals the start of the MSc thesis. The typical duration is 30 minutes. The following should be accomplished in the meeting:

- The student and the advisor together define the scope and research question of the thesis in a clear and accessible manner and in written form
- Tell the student what our expectations are regarding the thesis length (work weeks + pages), evaluation criteria (as described in the IMG guidelines), data analysis
- Suggest 3-5 relevant publications for the student to start
- Schedule recurring regular (every 2 weeks) meetings with Aiko and the co-advisor (already during the Specialization Phase)
- Communicate that we invite MSc students to be “full” members of the team as soon as they start the Specialization Phase, which means participation in the weekly team meetings, the TECHNO meeting, and the group retreat
- Clarify our team values and culture - for this, the student is expected to read the lab book: communication within the group via mattermost, use of GitLab, start a project, GitLab issues, code documentation
- Clarify that it is the student’s responsibility to keep track of the 2-weekly meetings and agreed tasks, suggest that this can be done through, e.g., a wiki entry in their project or a separate GitLab issue
- Direct the student to the relevant literature

- Ensure that the student has access to the IMG servers and VSC (if applicable)
- Agree on the dates of the presentation in the MSc seminar, the submission of the research expose and the submission of the MSc thesis
- Ensure that all questions from the student are addressed

5. Grading

- The advisor grades the thesis based on the evaluation criteria given in the official IMG guidelines.

6. Final feedback meeting

The student and the advisor hold a final meeting after the thesis has been graded. In the meeting, we provide feedback to the student on the thesis as well as the student's performance. We also seek feedback from the student to help us identify strengths and weaknesses in our advising. To this end, we provide the student with feedback questions before the meeting. The meeting typically lasts 30 minutes and is organized by the advisor.