

ANNUAL REPORT BOARD OF STUDIES BACHELOR AND MASTER APPLIED EARTH SCIENCES 2023-2024

Faculty of Civil Engineering and Geosciences
TU Delft

Introduction

This annual report of the Board of Studies Applied Earth Sciences provides an overview of the actions of the Board during the academic year 2023-2024. This review serves to inform people and bodies within Delft University of Technology about the status of recent and ongoing items within the Board of Studies of the Bachelor and Master programmes in Applied Earth Sciences. This document also provides new members of the Applied Earth Sciences programmes insights into recent and ongoing items and supports the progress of actions in the coming year.

The Board of Studies Applied Earth Sciences is a committee that works actively, and in a constructive-critical manner, to ensure the highest quality of education in the Bachelor and Master programmes of Applied Earth Sciences. The Board of Studies is a formal committee under the Dutch law (*see Annex 1: Formal tasks of the Board*). The Board interacts regularly with Education & Student Affairs, the Programme Coordinator and Director of Studies.

Members Board of Studies Applied Earth Sciences

The Board of Studies consists of ten members: five staff members and five student members. The following members were involved in the academic year 2023-2024:

Staff members:

Dr. Ir. Anne-Catherine Dieudonné (Chair)
Dr. Guillaume Rongier
Dr. Alireza Amiri-Simkooei (from November until December 2023)
Dr. Kees Weemstra (until November 2023)
Dr. Stephan de Roode (until November 2023)
Dr. Ir. Bert Wouters (from February 2024)
Dr. Marc Schleiss (from November 2023)
Dr. Feven Desta (from December 2023)

Student members:

Keith Polak (Mijnbouwkundige Vereeniging)
Karian Bruyndonckx
Ayush Jha
Lonneke Bierens
Nhan Nguyen (from November 2023)

The Board of Studies was supported by the Secretary to the Board, Nazli Can (Programme Coordinator Applied Earth Sciences). Dr. Ir. Sandra Verhagen is the Director of Studies.

Important items 2023-2024

In 2023-2024, the Board had twelve meetings regarding the following subjects:

1. Bachelor Applied Earth Sciences redesign
2. Rubric Bachelor thesis
3. Subcommittee Applied Earth Sciences /Civil Engineering/Environmental Engineering
4. Feedback subcommittee and Educational Management Team (EMT) on teaching teams
5. Entry requirement Master Thesis Preparation
6. Changes in courses
7. Open letter concerns feedback Applied Earth Sciences programmes and sounding board
8. Course evaluations Bachelor and Master
9. TER and annex Bachelor and Master Applied Earth Sciences

1. Bachelor Applied Earth Sciences redesign

The Board of Studies Applied Earth Sciences has been asked by the Director of Studies, Sandra Verhagen, to give advice on the redesign of the Bachelor Applied Earth Sciences on the following subjects: the scope, the narrative, and the intended learning outcomes. The redesign was a recurring agenda topic during the Board of Studies meetings.

2. Rubric Bachelor thesis

The Board of Studies gave feedback on the current rubric grading sheet. Board of Studies member Marc Schleiss has taken the lead in improving the grading sheet. This will be a recurring agenda point in 2024-2025.

3. Subcommittee Applied Earth Sciences /Civil Engineering/Environmental Engineering

The subcommittee is a committee with representatives of the 3 Board of Studies of the Master programmes: the Board of Studies Master Civil Engineering, the Board of Studies Master Environmental Engineering, and the Board of Studies Master Applied Earth Sciences. Guillaume Rongier was the staff representative from Applied Earth Sciences and Lonneke Bierens was the student representative in this committee. The subcommittee met once on the 25th of April 2024.

The subcommittee discussed the following items:

- Evaluation of MUDE and the Cross Overs
 - MUDE stands for Modelling, Uncertainty and Data for Engineers. It's a module shared by students in three programs within the Civil Engineering and Geosciences Faculty (Civil Engineering, Environmental Engineering, Applied Earth Sciences).
 - Cross Overs are offered in the 6th quarter of the Master of Science (MSc) programmes of Civil Engineering, Environmental Engineering and Applied Earth Sciences. Cross-over modules are 10 credit modules. Together with the module manager of MUDE and the Cross-Over coordinator, insights and suggestions were shared. Revision of the MUDE for next year will focus on improving how students work in groups; the uneven distribution of students in the different Cross Overs should be monitored in the coming year.
- A common, larger concern is the lack of flexibility in the programmes. It is clear that these are full-time programmes. However, the structure with large modules makes it very rigid. Students cannot slow down if their personal circumstances require it. The subcommittee decided not to give advice on this issue now, but to use the mid-term review (November 2024) of the programmes to highlight this concern.

4. Feedback subcommittee and Educational Management Team on teaching teams

The subcommittee Applied Earth Sciences/Civil Engineering/ Environmental Engineering had expressed their concern about the large teaching teams of the new master programmes through a letter to the Educational Management Team (EMT). The EMT replied to the subcommittee's concerns in a letter. The Board of Studies Applied Earth Sciences was asked for advice on this matter. The Director of Studies Sandra Verhagen and Guillaume Rongier, member of the subcommittee, proposed to monitor the concerns regarding the large teaching teams by making it a vocal point during the *voorblokken* and *nablokken*. The Board of Studies Applied Earth Sciences recognises that it was the first year for the new master programme of Applied Earth Sciences and it could take some time to adapt to the new teaching teams. After three years, there will be an official evaluation of the new master programmes and modules.

5. Entry requirement Master Thesis Preparation (AESM6000)

In the old programme, the entry requirement for the master thesis was 65 EC's. The module Master Thesis Preparation is a new module in the Master Applied Earth Sciences programme. Before students start their Master thesis, they need to do the preparation (5 EC's) in Q2 or later. Since the requirement is hard to check (not all grades are entered in Osiris by Q2) and since the entry requirement of 70 EC's might delay the study progress, the Board of Studies Applied Earth Sciences supported the request to lower the entry requirement to 60 EC's.

6. Changes in courses and new courses

The Board of Studies supported the request to change the assessment in A and B modules in the master programme, for better alignment.

The Board was also asked for advice on changes in some Bachelor courses and a new elective in the third year of the Bachelor programme (AESB3344).

7. Open letter concerns students Bachelor and Master Applied Earth Sciences

A group of students from the Bachelor and Master programmes published a letter criticizing the lack of sustainability of the programme, contrary to what is advertised on the website. There were also concerns about working with the Oil and gas industry. The Board of Studies mentioned that the Bachelor redesign is underway and will change the alignment of the programme to the current needs of society. Following the concerns, a sounding board including students who represent different sides of the discussion was established.

8. Course evaluations bachelor and master

The Board of Studies discussed the notes of the *voor-* and *nablokken* meetings, to monitor the quality of courses and modules.

9. TER and annex Bachelor and Master Applied Earth Sciences

For each TU Delft programme, the dean must establish for each new academic year the teaching and examination regulations (hereinafter: OER/TER). The OER/TER contains the applicable procedures and rights and obligations regarding education and examinations. Section 7.13 of the WHW (Dutch Law on Education) describes the minimum components that must be included.

Part of the TER is a programme-specific Annex. The main purpose of the Annex is to establish the curriculum for the upcoming cohort of students. There is also an article called *Transitional Rules*, which lists the courses

that will no longer be available in the coming academic year and the courses that students from previous years can take as replacements.

The Board of Studies Applied Earth Sciences was asked if they had suggestions on the proposed TER and annex Applied Earth Sciences 2024-2025 and if they approve the TER and annex Master Applied Earth Sciences. The Board gave their input on the proposed TER and annex.

Attention points 2024-2025:

- Bachelor redesign
- Evaluation courses
- Review Master programme

Annex 1: Formal Tasks of the Board

The tasks of the Board of Studies are described in the Higher Education and Research Act (WHW, Article 9.18). These tasks are:

1. To exercise its right of approval of the Teaching and Examination Regulations (TER) of each of the three Master programmes of the faculty insofar as these regulations concern: (a) the way in which the teaching in the programme is evaluated, (b) the contents of the programme, (c) the final attainment levels of the programme, (d) the organization of practical exercises, insofar as necessary, (e) the study load of the programme and of its components, (f) the assessment of whether the programme exceeds a size of 60 EC, and (g) the way students are selected for the tracks of the programme, insofar as the programme has tracks.
2. To advise on the TER concerning all remaining aspects.
3. To annually assess how the TER has been implemented.
4. To advise the Programme Directors of the three Master programmes and the Dean on all matters that concern the teaching in the three Master programmes.