

Board of Studies Geomatics

Annual report 2023–2024

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1. Position of the BoS within the A+BE Faculty

This report covers the period 2023-09-01@2024-07-01, which is the first full academic year of the Board of Studies (BoS) for the program MSc Geomatics at TU Delft.

Before 2023-01-01, we were part of the general BoS of the Faculty of A+BE.

2. Members of the BoS for the academic year 2023-2024

Students

Dimitrios Mantas	2nd-year student	chair
Hyeji Joh	1st-year student	
Oliver Post	2nd-year student	
Zhuoyue Wang	1st-year student	

Staff

Hugo Ledoux	Urbanism	chair
Clara García-Sánchez	Urbanism	
Martijn Meijers	AE+T	
Azarakhsh Rafiee	AE+T	

Secretary

Martine de Jong-Lansbergen

Listeners

Mirjam Albertz-Paalvast	A+BE educational advisor
Bastiaan van Loenen	Director of Programme

3. Overview of advice and improvements

The Board of Studies (BoS) has actively been engaged in enhancing the programme's content over the past year. Below is a summary of the key discussions and actions taken during this period.

3.1. Enhancement to the C++ proficiency

The proficiency level of C++ has been a continuous challenge for both students and staff due to the absence of a dedicated course on C++ (currently, GEO1000 primarily focuses on teaching Python).

To address this, several steps were taken:

- A comprehensive survey was conducted to gauge students' self-assessed proficiency in C++ and gather their suggestions for improvement. The key recommendations included strengthening the C++ component within GEO1000 and swapping the course schedules of GEO1004 and GEO1016.
- It was also proposed to rename GEO1000 to “*Programming for Geomatics*” to reflect a curriculum focusing on more than just Python. This allows to have C++ (approximately five weeks) followed by three weeks of Python.

Notice that the suggestion to teach *only* C++ in GEO1000 was not favoured since Python is still considered very useful for geomatics applications.

Consequently, the BoS has recommended to:

- Swap the quarters for GEO1004 and GEO1016 in 2024–2025, this is because the level of C++ used in GEO1016 is less complex than that in GEO1004 and thus students will have an easier introduction to C++. Both teachers involved in the courses agreed and this has been implemented already.
- For the year 2025–2026, it was recommended to modify GEO1000 so that C++ is more predominant and Python less prominent (e.g. in a 5week/3week setup). The details will be discussed and decided by the teacher of GEO1000 and the staff of Geomatics.

3.2. More course evaluations

Because the administration of the faculty formally evaluates a given course only every 4 years, the BoS decided to implement an internal *student-run* evaluation for all courses each year.

This evaluation is concise, with only 4-5 key questions.

The BoS will forward the results to each staff, who will respond, and both of those will be published on BrightSpace.

3.3. Integration of geogeeks content into the curriculum

During the 2023–2024 academic year, the content of `geogeek` (<https://tudelft3d.github.io/geogeeks/>) was initially delivered over the first two days of Q2. The BoS ran a student survey and the feedback indicated that although the content was valuable, the intensive delivery over two days was overwhelming and counterproductive as students might not retain the information.

To address this, starting from the 2024–2025 academic year, the geogeeks content will be integrated into the mandatory courses. Each course will cover 2–3 topics during lab sessions, ensuring a more manageable and contextually relevant introduction of the material.

3.4. Better integration with the AUBS programme

In an effort to foster better synergy with the AUBS programme, the BoS has recommended to the faculty that the proposed new elective course *Applied Spatial Analytics for Sustainable Urban Development* (ARXXXX), scheduled for Q4, be approved.

This course will be open to both AUBS and Geomatics students.

3.5. Help with the evaluation of the MSc Geomatics programme

The official evaluation of the MSc Geomatics took place on 14 May 2024, and the students and staff of the BoS actively participated in reviewing the submitted report and during the evaluation day itself. The evaluation of the programme was very positive, and several recommendations were made by the committee to improve the programme. The BoS will look at those recommendations during the academic year and will make recommendations about them to the Programme Director and the ABE faculty.

3.6. Miscellaneous

1. Based on student feedback, we restructured the schedule after Q2, making week #9 dedicated to resits and week #10 for exams.
2. The fact that the GeoLab was shared with other groups/studios created some problems in Geomatics courses (noise interfering with instructions) and for Geomatics students wanting to work and concentrate there. The BoS, with the help of the Director of Programme, lobbied to have its own room with the doors that could be closed. Since 1 September 2024 it is now a reality, the GeoLab is now at BG.Oost.630!