



# **Board of Studies (CEG)**

## **Annual Report**

*MSc CIE & BSc CT 2021-2022*

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## Preface

This annual report of the Board of Studies BSc Civiele Techniek and MSc Civil Engineering provides an overview of its actions during the academic year 2021-2022. This review serves to inform people and bodies within the TU Delft concerned with the BSc and MSc program about the status of recent and ongoing items within the BoS. Also, this document gives new BoS members insight into recent and ongoing items and supports the progress of actions in the coming year.

## Composition of the Board

The BoS is a committee that in a constructive-critical manner works to ensure the highest quality of education in the programmes. The BoS interacts with teachers, students, Board of Examiners, Education & Student Affairs, and the Director of Studies. The BoS consists of 16 members, of which 8 staff members and 8 student members. In 2021-2022 the board consisted of:

Staff members	Students member
Dr. M. Hrachowitz (Chair)	Joost Dick (GE)
Dr.ir. R.E.F. Lindeboom	Ivo Liepa (SE)
Dr. F. Pisanò	Tim de Ridder
Dr.ir. F.P. van der Meer	Kiki Drenth (PS, BSc)
Dr. S.L.M Lhermitte	Sven van Os (GRS)
Dr.ir. M.J.M.M. Steenbergen	Helena Verloo (WM)
Dr. ir. A. Hegyi	Max Boer (Waterbouwdispuut)
Dr. ir J. Bosboom	Robbert Grobden
Jawed Dawar (Education. Support): <b>Secretary to the Board</b>	

The BoS has performed its lawful roles and responsibilities:

- Provide advice and approval on the establishment of the Teaching and Education Regulations (OER/TER)
- Assess the implementation of the OER/TER
- Provide advice – solicited and unsolicited – to the Dean, the Director of Education (DoE) and the Director of Studies (DoS) concerning the programme and all associated teaching-related affairs

The BoS started in September and had nine meetings in which a substantial number of requests for advice were discussed.

## Important Items 2021-2022

Prominent items relate to education quality, changes in the BSc and MSc programme, and the redesign of the MSc.

- 1. Education quality**
- 2. BSc programme**
- 3. MSc programme**
- 4. Programme redesign/implementation of new MSc CIE**
- 5. Discussions BoS CE**

## Elaboration on items

### 1. Education quality

Throughout the year the Board regularly discussed the quality of the education of both the Bachelor and Master programmes. The results from course evaluations are shared with the Board of Studies. The Board can and does advise the Director of Studies to take action if necessary.

The BSc and MSc thesis are being evaluated in the regular process and in the reflection of students on the bachelor thesis project.

### 2. BSc programme

Bachelor programme is running without any significant changes in the programme. No new changes are proposed for the coming academic year (2022-2023).

Reducing the required number of credits for the BSA from 45EC to 40EC would be beneficial for the first-year students, as it allows students to miss 4 courses instead of 3 courses including the possibility of missing a 5EC maths-course.

The following main points regarding the BSc programme were discussed:

- i. **The implications of the new Academic Calendar for Q4/Q5 courses in the BSc.**  
 The Executive Board of the TU Delft has decided upon an adjustment of the academic calendar, primarily to relieve the summer period with respect to workload for staff and BSA evaluations. The imposed adjustment has consequences for the educational periods Q4 and Q5 both with respect to teaching and assessment of courses offered in Q4. One of them is the enforced reduction of the time available for grading exams. It is notable to mention that the implication affects also the current academic year (2021-2022).  
 Given the information above, the assessment of two courses in Q4 will be modified to meet the requirements of the new academic calendar.
  - CTB1420-17 - Transport & Planning
  - CTB1002 - Linear Algebra
- ii. **Changes in the ILO's of CTB2410 (Waterbouwkunde).**  
 The ILO's of this course are not up to date anymore and they need to be updated according to the new technological developments and the developments in the field of Civil Engineering.
- iii. **Action plan for CTB3320 (Weg- en Railbouwkunde/ Wegen en Spoorwegen).**  
 To improve the quality of the course the action plan is presented to the BoS to improve the organisational aspect of this course. The ILO's and assessment will not be changed.
- iv. **Inventory potential BSc CT adaptation.**  
 The Board of Studies has some concerns about the compatibility of the Bachelor Civiele Techniek with the new Master Civil Engineering. Since the new master CIE is completely changed and a new Master Programme Environmental Engineering is developed, there should also be some adaptation to the Bachelor programme to ensure a successful influx of BSc CT to the new MSc CIE en MSc ENV.

The board has made an inventory of some possible changes to the BSc CT and discussed this document with the Director of Studies.

The inventory of the Board and the discussions with the Director of Studies is in Appendix 1.

### 3. MSc programme

For the current MSc programme there were no changes and issues brought to the BoS meeting, except the regular course evaluations.

The following issues were brought to the Board of Studies:

**i. Soft cut (Zachte Knip) BSc-MSc (April)**

The Board was consulted on the extension of the 'soft cut' between BSc and MSc for 2022-2023, i.e. a student may miss up to 10 EC of the BSc programme, when starting the MSc-programme. Bachelor and pre master students who have a deficit of up to 10 EC in their examination programme on 31 August 2022 may enrol in master courses for the 2022-2023 academic year and participate in exams for master courses.

Faculties may set certain additional requirements, including courses as entry requirements for each master's programme. Students also must have fulfilled these course-related requirements by 31 August 2022.

The faculty requirement is that students must have completed their BSc Thesis project. That is the only requirement for the CEG programmes (including CME and TIL). Students can have a deficit of 10 EC in their examination programme, but must have completed their bachelor thesis project.

**ii. Upgrading the English proficiency level for foreign students.**

In order to be admitted to an MSc degree programme at TU Delft, an international applicant must have a certain level of proficiency in the English language. This level can be demonstrated by means of various types of tests and assessments.

In response, international officers in various faculties have called for the university-wide English language requirement for the MSc to be raised. The Good Start (Goede Start) working group has also recommended an increase in the English language requirement in order to enable students to keep up with the degree programme. The issue has been discussed within ESA admissions and with the heads of E&SA.

The desired increase will result in the following proposed minimum requirements:

- IELTS with an overall score of at least 7.0 and a minimum subscore of 6.5 for all components;
- TOEFL with an overall score of at least 100 and a minimum subscore of 22 for all components;
- Cambridge Assessment English: First (FCE) - Grade A (scale 185 and above) Advanced (CAE) - Grade C (scale 185 and above).

**iii. Assessment policy CEG.**

The MSc programs of the faculty of CEG are designed with a specific identity to meet the evolving requirements of future engineers. The educational vision describes how educational programs are structurally and conceptually coherent.

Assessing is about the learning process and, it is not a goal in itself. Assessment is part of the active and engaged learning process. Therefore, we make a distinction between 'assessing for learning' (formative) and 'assessing of learning' (summative).

Board had many discussion on the some elements of the Assessment Policy and formulated concrete questions on some other elements. The main questions were:

1. How will it be implemented in practice?
2. Will there be a training programme for the staff?
3. What are the consequences for the workload of the staff?
4. What are the foreseen support facilities (tools, support staff)?
5. What are the consequences for the workload of students?

The policy advisors were also invited to the Board meeting to clarify the assessment policy and to answer the Board questions. the questions were answered satisfactorily, but the board had made clear that BoS has still some concerns about the implementation of the Assessment Policy.

#### 4. Programme redesign/implementation of new MSc CIE

The Board has worked intensively on the redesign project and the implementation of the new MSc. Several meetings were used to discuss several issues. The Board has been consulted for the following items:

- i. The Structure of the new MSc:**  
The Board of Studies has discussed the proposed new structure of the CE MSc programme. Overall the BoS appreciates the efforts taken to develop a consistent and coherent programme structure. In general, the BoS is also positive about the clear formulation of the Intended Learning Outcomes and the way they are addressed throughout the programme. The BoS in particular appreciates the systematic structuring of the programme from the Faculty base (MUDE) over the Programme base to the individual tracks and cross-overs/electives.
- ii. The Assessment in the new MSc**  
The Board of Studies has discussed the proposed assessment procedures of the new CE MSc programme. Overall the BoS is positive about the design and coherence of the assessment procedures. The BoS think that the described assessment in general align well with the respective ILO. This will ensure that students can successfully complete the programme while achieving the individual specific ILO.  
The Board had however some observations. But the questions were answered satisfactory which lead to a positive advice from the Board.
- iii. The Content of the new MSc**  
The Board of Studies has discussed the proposed content of the new CE MSc programme. Overall the BoS is positive about the formulation of the Intended Learning Outcomes (ILO). The BoS is also convinced that in general the content is well aligned with the ILO, thereby allowing students to eventually achieve the ILO. In particular the integrated nature of the Faculty (MUDE) and Programme bases as well as the multi-disciplinary notion of the cross-overs and electives will be beneficial for the students.
- iv. Transitional rulings**  
Academic year 2021-2022 is the last year that the master programme Civil Engineering (CIE) started in its current form. In September 2022, the faculty of CEG will start with a redesigned master programme of CIE. This means that all courses in the current CIE programme will be phased out. All MSc CIE courses have been divided into designated 1st and 2nd year courses. Courses that will be offered for the last time in the first year in 2021-2022 are designated 1st year courses. Courses offered for the last time in the second year in 2022-2023 are designated 2nd year courses. Students within the current programme will have to make use of transitional rulings if they don't pass a course that is no longer offered.

The Director of Studies requests approval of the Board of Studies on the principles of the transitional rulings and the appointed equivalencies for all CIE tracks (See attachments of this request). The annex of the TER of academic year 2022-2023 needs to be adjusted to include the transitional rules and the equivalency matrix.

Students have four opportunities to pass a course: two in the year a course is offered, two in the year after a course has been discontinued. For the courses that were taught for the last time in 2021-2022, lecturers need to provide students with two opportunities to pass the course in 2022-2023. They will need to make materials available to students to help them prepare for the exams. If students fail to pass the course in 2022-2023 they will have to do designated equivalent courses in 2023-2024. Dirk Martin contacted the track coordinators and put together a list of equivalent courses. These lists are included in the programme-specific Annexes to the TER 2022-2023. The Board of Studies AES approved of the proposed transitional measures.

v. **The Annex**

During the meetings in May and June the Board discussed the Annex of both Bachelor Civiele Techniek as well as the new Master Civil Engineering.

The Annex of the BSc CT has no significant changes and was approved by the Board of Studies.

The Annex of the new Master Civil Engineering was totally revised because of the redesign project of the MSc CIE. The following items of the Annex were already discussed and approved by the Board:

- The Content of the new MSc CIE
- The Structure of the new MSc CIE
- The Assessment of the new MSc CIE
- The transitional rulings

The board has approved the Annex of the new MSc CIE.

vi. **The TER**

During the meetings in May and June the Board discussed the TER of both Bachelor Civiele Techniek as well as the new Master Civil Engineering. There were some minor changes in the TER for example the registration period is extended to 14 days.

The Board has approved the TER for both the BSc CT as well as the MSc CIE.



## Appendix 1: Inventory potential BSc CT adaptation

The upcoming start of the new, redesigned Master programmes in the Faculty will lead to considerable changes in the study trajectories of our students. A critical moment for students is the transition between Bachelor and Master programmes. A well-coordinated link between the Bachelor and Master programmes in the Faculty is therefore of utmost importance for a smooth and efficient study progress of our students.

The Board of Studies (BoS) has therefore started to discuss, identify and flag potential problems that may arise in the BSc programme as result of the MSc redesign.

To initiate a discussion at Faculty level about potentially necessary adaptations of the BSc programme in the near future the BoS herewith wants to share some observations regarding the matter with the Director of Studies (DoS). The BoS would highly appreciate to receive reactions to the concerns expressed below and the questions arising, including broad estimates of time-frames over which potential adaptations to the BSc programme may feasibly be introduced.

1) Ideally, all BSc students should be introduced, at least shortly, to all tracks offered in the MSc to facilitate their choice. This introduction does not need to be a full course, but can also be a part of a course.

In the current situation, students have the option to choose courses that connect to most new CE tracks during the 3<sup>rd</sup> year BSc CE program. However, the link to the new Environmental Engineering programme remains rather limited.

The BoS believes that a fundamental choice has to be made:

- a) either adjust the BSc CT so that it introduces all tracks of MSc ENV and MSc CIE, which can probably only be accommodated by also adapting the 2<sup>nd</sup> year BSc curriculum, or
- b) introduce a separate BSc for MSc ENV.

2) The BSc courses that line up for MSc tracks are generally the 3<sup>rd</sup> year electives. Until now, students could opt to take these courses in their MSc as well, but this will no longer be the case with the introduction of the new MSc programs. As the number of credits allocated to 3<sup>rd</sup> year electives is limited, students cannot get a flavour of all potential follow-up tracks in this part of the curriculum. If some electives become obligatory to be admitted to certain MSc tracks, this will be even more restricting (no option to change your mind in the MSc)

3) Currently, there are 14 elective courses of which students have to choose 3. With  $\pm 200$  3<sup>rd</sup> year BSc students, each course should on average attract 40-45 students.

However, not all courses are popular and some have fairly low student numbers. In addition, the range of subjects appears more historical than a well-thought through set of courses connected to follow-up content in the MSc.

The BoS believes that this is an opportunity: these courses can be critically evaluated, in particular with respect to their links to the tracks of the new MSc. Based on this evaluation, some courses may be replaced by new courses that have a stronger link to (new) MSc tracks.

4) All MSc students will start the new MSc with the Faculty Core module (MUDE).

It is unclear to the BoS if it has been assessed how well the BSc program prepares for the MUDE, or – vice versa – if there is much overlap and repetition between the content of the MUDE and BSc courses (for example programming / numerical modelling covered in the Bouwplaats).

The BoS believes that a systematic and detailed cross-check on overlap but also on omissions is needed so that staff teaching BSc and MSc is (at least) aware of these potential problems and (even better) can fix these issues where possible a.s.a.p

As the BSc programs will clearly be affected by the changes in the MSc programmes, the BoS believes that a broad discussion with staff and students on the impacts of the redesign on the BSc programs and the need to adapt should not be postponed for much longer.

The BoS would therefore appreciate if the DoS in coordination with the Faculty MT informed BoS on the position of the Faculty on the above points and provided broad timelines for action.

