Annual Report Examination Board CE/CEM/CME 2022-2023

Enschede, 4-12-2023

Composed by the secretary of the examination board of Civil Engineering/ Civil Engineering and Management/ Construction Management and Engineering

Preamble

This annual report covers the Academic Year 2022-2023 from 1 September 2022 to 31 August 2023.

The examination board of CE/CEM/CME has used the following principles as guidelines for its annual report:

- The examination board is a by law required organisational entity (WHW 7.12a) appointed by the dean (Guideline For Teaching And Examination Regulations for Bachelor's Programmes 5.1)
- The tasks of the examination board are defined by law (WHW 7.12b) and detailed in the '*Rules and Regulations examination board civil engineering*' of the *'Student Charter Civil Engineering'*.
- The examination board is required to write an annual report (WHW 7.12b-5).
- The examination board CE/CEM/CME defines the function of the annual report as a means in a Plan-Do-Check-Act-cycle. With this interpretation the examination board complies to the 'Quality Assurance Framework for Student Assessment UT, 12 Dec 2016' (Chapter 3.1 PDCA cycles for Quality Assurance Student Assessment) and the 'Assessment Policy ET, Jan 2023'.
- The annual report is based on factual and verifiable information, but not traceable to individuals.
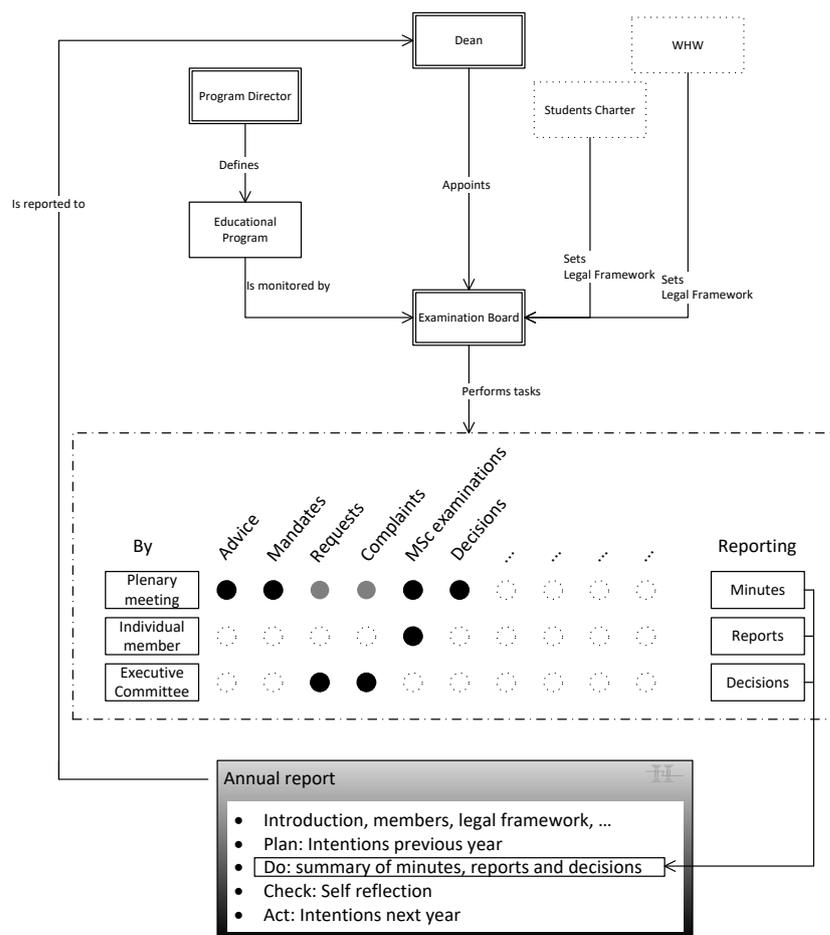

Figure 1 Conceptual model of examination board and the annual report

1 The examination board CE/CEM/CME

1.1   The members and those involved

The examination board is responsible for the educational programs Civil Engineering (CROHO-number 56952), Civil Engineering and Management (CROHO-number 60026) and Construction Management and Engineering (CROHO- number 60337).

Prof.dr.ing. K.T. Geurs	Transport Engineering and Management	Chair, 01-10-2020 – max. 01-10-2026
Prof.dr. K.M. Wijnberg	Water Engineering and Management	Vice-chair, 01-10-2020 – max. 01-10-2026
Dr.ir. B. Borsje	Water Engineering and Management	Member, 01-04-2022 - max 01-04-2028
Dr.ir. Léon Olde-Scholtenhuis	Construction Management and Engineering	Member, 01-01-2023 – max. 01-01-2029
Dr. K. Vink	Construction Management and Engineering	Secretary, 01-05-2022 – 28-02-2024
Ir. J.P. Boutkan	Municipality of Hengelo	External member, 13-01-2018 – max. 13-01-2024
Dr. M.S. Krol	Water Engineering and Management	Member, 01-10-2020 – max. 01-10-2026

The chair and the secretary form the executive board responsible for daily operation.

The members of the examination board cover the CE Bachelor and Masters CEM and CME.

Drs. E. Ruijgh is responsible for the minutes of the plenary meetings of the examination board.

1.2 Advisors of the examination board

Although the examination board has an independent position and its own responsibility in the educational programme, it is important that several professionals within the organisation have perusal in the discussions and decisions that are taken in the plenary meetings of the examination board. For this reason the following persons received the minutes of the plenary meetings:
- Programme Director CE/CEM/CME: dr.ir. D.C.M. Augustijn
- Programme Coordinator Bachelor CE/ Program Master Coordinator CEM/CME: Peter Jansen (from Feb 1, 2022)
- Student Advisors: ir. J. Roos-Krabbenbos, G. Medendorp

The Programme Coordinator is in general present in the plenary meetings.
Depending on the agenda of the examination board the Programme Director is present (on own initiative or invited).

For support on educational issues, one of the faculty educationalists can be invited.

1.3 Organisation of EER implementation

Relevant organisational structures for implementing the EER are:

1. Admittance approval CEM/CME is mandated to the secretary of the admittance committee. Whenever necessary the secretary of the admittance committee will consult the examination board. Admittance approval to start the Master programme via the pre-master programme is mandated to the secretary of the admittance committee on the basis of the pass/fail rules of the pre-master programme.
2. The Office of Educational Affairs checks the pass conditions for the BSc and MSc certificates whenever these comply to the pass/fail rules and/or jurisprudence of decisions by the examination board. In case of doubt the Office of Educational Affairs consults the executive board of the examination board.
3. The Office of Educational Affairs is mandated to approve the MSc-thesis committee when the committee complies to the rules as set by the examination board (graduation lecturer: at least associate professor; daily supervisor: at least PhD with qualifier). In all other situations the executive board of the examination board will be consulted.
4. The student-advisors are mandated to define students study programme in case of illness, activism and top sport. The student-advisors will report the number of involved students for the annual report of the examination board CE/CEM/CME.
5. The student-advisors handle the composition of the profiling track (minor) as long as these comply to the Students' Charter. In all other situations the executive board of the examination board will be consulted.
6. Examiners are mandated to set the pass/fail rules for their courses.
7. The pre-master coordinator is mandated to define the study programme in case of deficiency.

1.4 Mandates

The examination board has the right to delegate well-defined tasks to officials. The pre-master coordinator is mandated to define the study programme in case of deficiency. In 2022-2023 no mandates have been added. Either the student advisor or the Office of Educational Affairs will report the number of involved students for the annual report of the examination board CE/CEM/CME. The complete overview of the mandates is as follows:

1. The student advisor is mandated to handle exceptions to the demands for entering the profiling track (minor).
2. The Track coordinators are mandated to approve the study programme within their Master Track.
3. The student-advisor is mandated to approve a language course of more than 5 EC in the minor.

2 The activities of the examination board in 2022-2023

In this chapter we describe the core of the Plan-Do-Check-Act cycle of the examination board. We use the conceptual model of the preamble as a basis where:

- **Plan** stands for the intentions at the start of the year (2.1 Intentions)
- **Do** stands for:
  - results from the plenary meetings (2.2 Meetings by the examination board; 2.3 Decisions; 2.4 Advices)
  - activities by individual members of the examination board (2.5 MSc examination)
  - activities by the executive board (2.6 Requests; 2.7 Other activities)
  - activities by the programme as a whole (2.8 BSc and MSc graduations)
- **Check** stands for the self-reflection (2.9 Reflection)
- **Act** sets the intentions for the next year (2.10 Intentions)

2.1 Intentions
The annual report of 2022 (first two quartiles) did mention the following points of attention:

- Evaluation of the guidelines for plagiarism checks for BSc and MSc thesis projects (introduced academic year 2022-2023)
- Evaluation of the preparation MSc thesis rubric
- Evaluation of the MSc-thesis rubric introduced in the academic year 2021-2022

2.2 Meetings by the examination board
The examination board CE/CEM/CME had six plenary meetings in 2022-2023, roughly every six weeks during the academic year: 10-03-2022, 21-11-2022, 16-01-2023, 13-03-2023, 15-05-2023, 26-06-2023.

The executive board of the examination board met whenever there was an urgent need. These meetings are not formally documented.

2.3 Decisions
15 formal decisions were made during the plenary meetings of the examination board. The majority of the decisions, 8, concerned requests of individual students.

Individual requests are in general handled by the executive board unless the complexity or implications require a broader scope. Requests which arrive about a week before the plenary meeting are added to the agenda too, regardless of the nature of the request. The aim was, if possible, to create a general rule in order to streamline the decision process.

Table 1 Decision by the examination board in 2022-2023

Count	Nature of the decision
2	General managerial
0	Mandate
4	In relation to the examination in general
2	In relation to the educational programme
8	Requests of individual students
15	

2.4 Advices

In 2022-2023 three pieces of advice were given to the Programme Director:

- Regarding the MSc thesis rubric:
    - Simplify the spreadsheet
    - Explain expectations to teachers and external supervisors
    - Make the evaluations of student independence and supervisor role explicit
    - Discuss the rubric during an education day in May/June 2023
- Discuss parts of the feedback of the MSc thesis during an education day in May/June 2023.
- Provide a guideline to the track coordinators that students can partake in a maximum of 30 EC courses at a different institute (15 EC free electives and 15 EC profile electives).

One advice was given regarding the EER and requirements for a scientific journal paper instead of a MSc thesis as graduation product, namely that supplementary information might be requested in addition to the paper.

2.5 MSc final assignment examination

The quality of the MSc final assignment examination is assessed by members of the examination board by following the whole MSc examination as an observer. The observer reads the MSc-thesis in advance and is present during the public (presentation and defence) as well as the non-public part (where the exam committee comes to their final judgment). The selection of a MSc assignment examination is not strictly random, but largely dominated by the available time slots in the agenda of the observer. The observer is allowed to ask questions as a member of the public. In the non-public part of the procedure the observer is not supposed to influence the process of determining the final result and arguments supporting this result. The observer writes a report using a pre-defined format. This report is discussed in the plenary meeting of the examination board and shared with the first responsible examiner. In principle each member of the examination board will attend two MSc examinations per year.

In 2022-2023 five members of the examination board attended eight MSc final assignment examinations. The results of the observations are discussed in the examination board

meetings and shared with the graduation lecturer. The results are to be discussed during the first meeting of AY23/24.

2.6 Requests
In 2022-2023 the examination board sent 59 emails to 39 unique students.

Table 2 Development of the Email correspondence 2016-2022

Year	Emails	Unique students	Employees
2022-2023	58	39	-
2022 (first 2 quartiles)	41	26	1
2021	52	42	-
2020	51	43	3
2019	128	96	4
2018	119	95	2
2017	147	115	-
2016	164	118	1

In almost all cases an email was a response to a request of a student. Of the 39 unique students a minority of the students (17) received two or more emails from the examination board (table 3).

Table 3 Number of Emails per individual student in 2022

Number of Emails to an individual student	Number of students	Number of Emails
1	29	29
2	6	12
3	2	6
5	1	5
7	1	7
Total:	39	59

The majority of these requests were handled by the secretary of the examination board in cooperation with the chair. For those requests where there was no obvious decision possible consultation and information was sought dependent on the nature of the request.

All requests were handled via email. Although there is no formal response time for requests the aim is to avoid long response times and exceeding students deadline (table 4). One email was responded to after 50 days, 1 after 53 days, 1 after 54 days, and 1 after 64 days. The delays were either due to holidays or due to additional required discussion, of which the students were informed.

Table 4 Email response percentage for the yeas 2018 to 2022. Note that prior to 2022, annual reports did not correspond to the academic year.

Days	2022-2023	2022	2021	2020	2019	2018
7	35%	48%	30%	36%	19%	58%
14	50%	65%	58%	55%	55%	82%
21	65%	88%	78%	66%	60%	83%
48	93%	100%	98%	91%	91%	90%

The workflow is organised in such a way that requests and decisions are traceable. A basic overview of all requests is available at any time:

- The email request is archived (via an extra copy to the Office of Educational Affairs and in the archive of the examination board mailbox).
- Decisions are sent to the requester, cc to the UT email archive (the Office of Educational Affairs and JOIN student dossier).
- At any moment an overview of handled requests is available in an Excel worksheet (student information, date received, date answered, reference, subject).

Before the Covid-19 pandemic the majority of the emails were, related to the binding recommendation continuation of study (BSA), sent during the summer holidays.

Table 5 Email correspondence per quartile for the years 2019 to 2023. Note that the quartiles changed to the 2022-2023 Academic Year, making quartile 4 the summer holiday quarter instead of quarter 2 during previous years.

Quartile	2022-2023	2022	2021	2020	2019[1]
1	19	9	10	14	12
2	9	41	20	14	14
3	14	(19)	10	16	83
4	16	(9)	12	7	19
Total	58	50	52	51	128

There were 3 cases of fraud or plagiarism reported (table 6). After hearing the student and inspection of the written material the examination board found in 3 of these cases fraud or plagiarism proven (table 7).
One decision was challenged via Board of Appeal for Examinations in 2023.

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[1] Not published in the annual report of 2019, but could be constructed by use of the source data of 2019.

Table 6 Email correspondences 2022-2023 by subject.

Description	Frequency
Exemptions and recognition of Earlier Gathered Competences	
Exemption allowed	3
Exemption rejected	1
Exemption rejected, rejection of Earlier Gathered Competences	2
Exemption partially granted	1
Examinations, extra resit and requests for extension of expiration date of results	
Resit for Module study unit allowed	10
Extension of expiration date of Module study unit	4
Adjustment of examination allowed	5
Examination of equivalent course at different programme rejected	1
Variations in educational programme	
Free elective MSc	1
Individual study programme BSc	5
Individual Minor BSc	3
Individual study programme MSc	1
Exemptions to admittance	
Exemption to entrance requirements allowed	6
Exemption to entrance requirements rejected	1
Fraud and Plagiarism	
Fraud or plagiarism proven	3
Complaints	
Requests for mediation	2
Complaints	5
Various	
Not indexed	5
Total	**59**

Table 7 Proven cases of fraud or plagiarism since 2016. Note that prior to 2022, annual reports did not correspond to the academic year.

Year	Proven cases of fraud or plagiarism
2016	9
2017	0
2018	3
2019	4
2020	0
2021	8
2022	6
2022-2023	3

2.7 Other activities

The chair of the examination board is member of the UT Platform Chairs Examination Boards. The Platform has bimonthly meetings. In the platform, amongst others, recommendations for the use of ChatGPT and other AI tools have been given.

2.8 BSc and MSc graduations

Table 8 The number of graduations per educational program in the year 2022-2023, and previous years from 2016. Note that prior to 2022, annual reports did not correspond to the academic year.

Educational Program	Total graduations								of whom with Cum Laude							
Year	2022-2023	2022	2021	2020	2019	2018	2017	2016	2022-2023	2022	2021	2020	2019	2018	2017	2016
Bachelor Civil Engineering	60	46	57	57	55	50	55	53	4	4	3	2	3	3	3	0
Master CEM	61	38	46	62	51	45	46	65	6	4	5	3	6	3	5	8
Master CME	18	8	18	30	20	21	27	17	0	1	1	2	3	0	1	1

2.9 Reflection

This report reflects on the academic year 2022-2023 and the preceding months of January-August 2022. In the academic year 2022-2023, COVID19 pandemic had no longer impacts on the Civil Engineering educational programmes in regards to the results, fraud and plagiarism. A main discussion related to fraud was about the growing availability and use of Artificial Intelligence applications such as ChatGPT. The general UT policy is to embracing this technology, but misuse or incorrect referencing can be considered fraud. The current UT student is not allowed to use applications other than the ones permitted by the examiner prior to the start of the study unit and/or test. However, detection of the use of AI applications is not straightforward. In the academic year 2022-2023, no fraud cases on the use of AI applications have been reported.

2.10   Intentions for the academic year 2023-2024

The intentions for 2023-2024 are:
- Evaluation of the guidelines for plagiarism checks for BSc and MSc thesis projects (introduced academic year 2022-2023)
- Evaluation of the preparation MSc thesis rubric
- Evaluation of the MSc-thesis rubric introduced in the academic year 2021-2022
- Monitoring of fraud related to the use of AI applications