# Annual Report Academic year 2020-2021 Programme Committee CSE/ChE

#### Members

The Programme Committee consists of four teachers and four student members (see table 1). The student members are chosen through an election which is held during the TOSTIS activity organized by the study association C.T.S.G. Alembic. Teacher members are appointed in consideration with the other members and the programme director

Name Prof.dr.ir. W.M. de Vos (chair) Prof.dr.ir. M. Huijben	Function or Group Membrane Science and Technology Inorganic Materials Science	Date of taking office   November 2017
Prof.dr.ir. M. Huijben		
	5	September 2014
Dr. J.A. Faria Albanese	Catalytic Processes and Materials	September 2019
Prof.dr.ir. J. Huskens	Molecular Nanofabrication	February 2020
I. Glišić	Student B-CSE	September 2020
L. Pieters	Student B-CSE	September 2019
R. Kersten	Student M-ChE	September 2019
B.M. Jager	Student M-ChE	September 2020
prof.dr.ir. J.E. ten Elshof	Programme Director	Not applicable
A.S. Elbersen – Grote	Study Advisor and Programme Coordinator (ChE)	Not applicable
dr.ir. L.E. Krab-Hüsken	Programme Coordinator (CSE)	Not applicable
drs. H.J. van den Hengel	Coordinator Quality Assurance	Until June 3 <sup>rd</sup> 2021.
J. Greven	Coordinator Quality Assurance	From June 3 <sup>rd</sup> 2021.
J.E. Sweers	Commissioner of Educational Affairs Study Association C.T.S.G. Alembic	Not applicable
	Prof.dr.ir. J. Huskens I. Glišić L. Pieters R. Kersten B.M. Jager prof.dr.ir. J.E. ten Elshof A.S. Elbersen – Grote dr.ir. L.E. Krab-Hüsken drs. H.J. van den Hengel J. Greven	MaterialsProf.dr.ir. J. HuskensMolecular NanofabricationI. GlišićStudent B-CSEL. PietersStudent B-CSER. KerstenStudent M-ChEB.M. JagerStudent M-ChEprof.dr.ir. J.E. tenProgramme DirectorElshofStudy Advisor and ProgrammeA.S. Elbersen – GroteStudy Advisor and Programmedr.ir. L.E. Krab-HüskenProgramme Coordinator (CSE)drs. H.J. van denCoordinator Quality AssuranceHengelJ. GrevenCoordinator Quality AssuranceJ.E. SweersCommissioner of Educational Affairs Study Association

### Table 1: Educational Committee members

### Meetings

On the following dates, a meeting took place:

- 1<sup>st</sup> of October 2020
- 26<sup>th</sup> of November 2020
- 21<sup>st</sup> of January 2021
- 18th of March 2021

- 3<sup>rd</sup> of June 2021 - 1<sup>st</sup> of July 2021

- 22<sup>nd</sup> of May 2021

On the next pages, a summary of each of these meetings can be found.

	Meeting 1 <sup>st</sup> of October, 2020
Educational evaluation	The graduation ceremony for bachelor students was well-received. Bachelor assignments generally took a longer time this year due to Corona. A brainstorm session about quality agreements will be held, with members of each OLC of the university.
Discussions regarding curricula	-
General education	I. Glišić and M. Huijben want to introduce the possibility for students to earn ECs by taking either Dutch or English language courses.
Other business	J.B. Roman and P.S. Duenas Robles are replaced by B.M. Jager and I. Glišić as student members in the OLC, J.J.H. Bruggeman is replaced by J.E. Sweers as commissioner of educational affairs of C.T.S.G. Alembic.

	Meeting 26 <sup>th</sup> of November, 2020
Educational evaluation	Third year bachelor students are performing comparably to earlier years, despite the Corona situation. Only one "normal" quality agreement meeting was held, due to a low interest of students, so feedback was poor in the last semester of 2019-2020. Module 7 received the highest score in the last two years, students are satisfied with the change and the way how lecturers handle feedback. Also, module 8a was well-received.
Discussions regarding curricula	-
General education	Around 40% of all lectures will be on campus, exams will be on campus as much as possible.
Other business	ECs for languages was disapproved by the exam committee, discussion was taken to the faculty board.

	Meeting 21 <sup>st</sup> of January, 2021
Educational evaluation	The advanced colloids and interfaces course is well received. The AMM-Molecular and biomolecular chemistry & technology course was well graded. The AAM Characterization course was not so well graded. W.M. de Vos sees improvement overall and explains that it should be monitored further with special attention to the distribution of the course load over the three parts. Advanced Catalysis was graded with a six and constructive comments were given on the structure and planning of the course. The teachers addressed those in their response. The participation in the Pizza Evaluation can be improved. Still some points came up and it was suggested by L. Pieters that by providing the information earlier (~ module 8) would help to resolve this issue.
Discussions regarding curricula	The new provisional format of M4 on Equilibria & Electrochemistry was proposed. The electrochemistry course has no longer a traditional structure as it will consist of a theoretical course and a conceptual modelling based practical course. It is expected that this will improve academic thinking. The number of electives in module 11 was increased, which it was well received by the OLC students.
General education	Advice on implementing challenge-based learning (CBL) in the modules and courses of the CSE MSc programme was asked by J.E. ten Elshof. The OLC sees the value of the CBL, but quality of the assignments needs to be controlled. This control is ideally executed by the board of examiners before the assignment starts.

	The discussion on the chairperson of a MSc committee was finished since the
	board of examiners has decided on the matter that it is not possible to select assistant professors to chair such a committee. It is possible to come back to this
	issue in a couple years and evaluate if the situation has changed.
Other	The OLC advises positively on the proposed lowering of the BSA from 45EC to
business	40EC for upcoming year.
	The current educational processes during the lockdown were discussed and the
	OLC was briefed on the international mobility in the 2 <sup>nd</sup> semester.

## Meeting 18<sup>th</sup> of March, 2021

Educational evaluation	M4 was well received. M8b was well received although only 6 students followed the courses. The overall grade of M1 is good. M5 was badly graded, although only 20% response rate was obtained. It was suggested that this might be due to the restrictions and the dropped binding study advice, but it was advised to have a look at the module. There is not yet a clear prospective. The panel meeting together with the feedback of lecturers on the master CPE gave a good impression of the track. The proposed improvements by J.A. Faria Albanese would improve the course advanced catalysis in the track.
Discussions regarding curricula	-
General	The ACRE exam took all day resulting in several issues. The discussion will be
education	brought to the exam committee to discuss the matter and see if an exemption on the EER was made.
Other business	The quality agreement budget of €28.000,- (for later years €57.000,-) for student wellbeing is discussed. Several ideas were proposed. In the end it was decided that the students would come up with more concrete ideas.

Meeting 22 <sup>nd</sup> of April, 2021		
Educational evaluation	Participation in evaluation surveys is low. Students should be stimulated to fill in the surveys by direct communication and need to realize the benefits for their education. The overall evaluation of module 2 could be improved. The workshop about teamwork was considered useful and students were, as the year before, allowed to take their exam in Dutch, which was considered unfair to internationals. The overall evaluation of module 6 was very positive.	
Discussions regarding curricula		
General education	Teachers sometimes do not adhere to the EER. The program director will discuss this with the lecturers and explain that students can contact the program staff or examination board for large issues.	
Other business	The EER for the bachelor and the master were discussed and proposed changes were handled accordingly. In the future, style and spelling mistakes should be mailed and not discussed.	

Meeting 3 <sup>rd</sup> of June, 2021		
Educational evaluation	AMM-Organic Materials Science had a new teacher, there was no test exam and the exam was different than expected because of it. The program staff will discuss this with the teacher. Overlap between Electrochemistry Fundamentals & Technology and the course in M4 is present for current first-year students and thus the master course will no longer exist in the current form. Multi-Component Mass Transport did not get negative feedback but did score relatively low, a student mentions that this could be due to expectations of the course.	

Discussions regarding curricula	It was decided to split the module 2 study unit PT + Thermodynamics (9,5 EC), in PT (5 EC) and Thermo (4,5 EC) as there is no clear connection between the two courses.
General education	The OLC feels that the quality of TA's at practicals can be improved, new teaching assistants should be obliged to do the experiments at least once before giving the practical assignment.
Other business	J. Greven will replace H.J. van den Hengel and will be invited from now on to the OLC meetings. Proposals of the student for spending the student wellbeing budget are discussed and the OLC agrees with the doubling of the proposed budgets to improve the quality of the activities. The response rate for the web-survey's compared to pre-covid times seems normal for master courses, for the bachelor courses, the response rate is lower than normal.

	Meeting 1 <sup>st</sup> of July, 2021
Educational evaluation	An evaluation of the Inorganic Material Science course showed a score of 7.2. Teachers will address issues raised to improve the course by the time it is given again. The rubric for grading the master project should be made clearer as there may be discrepancies in grades due to the personal circumstances of the student. Additionally, a formal midterm meeting should be scheduled for both the master and the bachelor project to discuss the quality of the students' work before the master defence or the final submission.
Discussions regarding curricula	The possibility of a switch from Matlab to Python in the curriculum was addressed and determined to be a non-urgent matter; however, it would be good to revisit this point in the future.
General education	The level of English obtained by international students taking the Twente Pathway programme and the level of first year students enrolled was discussed; if there is an evaluation of the Twente Pathway programme, this should be sent to the OLC. The meaning of "internationalisation" was generally speculated to involve the two-way integration of international student and Dutch student culture. The OLC's role in internationalisation needs further discussion in upcoming meetings. The quality of evaluation should be upheld and regularly revisited by the OLC in order to ensure that surveys are truly representative of the course.
Other business	J.A. Faria Albanese will take over as chairman as of October. The spending of the Quality Agreement Budget was revisited; it is important for the OLC to have a strategy on how to spend the money. Small educational programs and teachers may be compensated less in the upcoming year due to expensive educational programs or skill labs. The ideal scenario for the following school year has classes starting on 1 <sup>st</sup> September 2021 with no or minimal corona measures in place.