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Appendix for the Master's degree programme in Chemistry

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Appendix I. Learning outcomes of the degree programme (art. 3.1)

The objectives of the master's degree programme Chemistry are:

- to prepare students for an independent professional career; in this context this means being able to carry out fundamental or applied scientific research, as well as applying state of the art scientific knowledge in a wide variety of new practical situations,
- to make students develop skills, knowledge and insight in a specialization area of the field of study, with a focus on insight in and approach to scientific problems,
- to make students develop the ability to clearly and concisely communicate the acquired knowledge to others.

The objectives of the programme result in the following learning outcomes

A. General academic skills for the master's degree programme Chemistry

The graduate

A1. is able to keep up with and make use of professional literature in relevant subfields,
A2. is able to make themselves familiar with a subfield of the own discipline within a reasonable time span,
A3. is able to formulate a research plan based on a global problem description in a subfield of the own discipline,
A4. is able to analyze, interpret using state of the art information, and draw conclusions from research results,
A5. is able to operate effectively in a position in which knowledge and research skills within the field of the own discipline are required,
A6. is able to perform in a multidisciplinary team, transfer knowledge to others, give oral presentations, write a report or internationally accessible scientific article, and take part in a scientific discussion,
A7. is able to design, conduct and evaluate experiments and the necessary checks and balances independently,
A8. is able to relate their own results and conclusions to results already available in the literature,
A9. has sufficient understanding of the role of the own discipline in society to come to a well-considered choice and practice of profession,
A10. has an understanding of the role of their own discipline in a sustainable society.

B. Specific academic knowledge and skills for the master's degree programme Chemistry.

The graduate has advanced knowledge of aspects of pertinent fields of knowledge through a coherent* programme for example:

B1. Synthesis, characterization and properties of materials; the relation between chemical and physical properties of materials and the nature of the chemical bonding, and molecular structure.
B2. Reactions and interactions of molecules and the application of this insight in synthetic chemistry and catalysis as well as knowledge of sustainable chemistry.
B3. Behavior and design of biochemical systems and their functional properties. Synthesis in biology as well as protein engineering.

The graduate:

B4. is able to judge whether the properties of products prepared and possible side or waste products can result in undesired side effects in the short or long term,
B5. is able to work at an academic level on a research problem in an area of chemistry, which is not their own main field of study,
B6. (Science, business and policy track) is prepared for a professional career in management and policy.

*a coherent programme is defined as one which leads to specialisation in a pertinent field of chemistry in the opinion of the programme director.

Appendix II. Tracks/specializations (art. 3.6)

The degree programme has the following tracks:

- Erasmus Mundus programme TCCM track
- Science, Business and Policy track
- Research and Education track
- Research track

The following specializations can be followed in the research track and the research and education track: Chemical biology, Synthesis & Catalysis, Supramolecular Chemistry, Organometallic chemistry, Theoretical chemistry and computational modelling, Solid state materials and sustainable energy, Protein biochemistry, Polymer Chemistry.

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Appendix III. Content of the degree programme (art. 3.7.1)

Erasmus Mundus programme Theoretical Chemistry and Computational Modelling track (TCCM)

The programme must comply with the Erasmus Mundus TCCM regulations. The mobility rules of the Erasmus Mundus TCCM apply. The programme of those students whose home university is the University of Groningen consists at least of the following course units:

Course unit	Code	ECTS	Practical*	Entry requirements
Reaction Mechanisms	WMCH006-05	5		
Structure Determination with Spectroscopic Methods	WMCH008-05	5		
Molecular Quantum Mechanics	WMCH037-05	5		
Quantum Chemistry Methods I**	WMCH038-05	5		
Quantum Chemistry Methods II**	WMCH039-05	5		Molecular Quantum Mechanics
Programming in Chemistry	WMCH043-05	5		
Scientific Integrity	WMCH007-00	0		
Statistical Thermodynamics**	WMCH044-05	5		
Intensive Course TCCM***	WMCH026-30	30		
Research Project TCCM**	WMCH902-30	30	x	Reaction Mechanisms, Structure Determination with Spectroscopic Methods, Scientific Integrity
Colloquium	WMCH001-05	5		
Final Exam	WMCH002-05	5		Research Project TCCM
Electives**		15		

* Practicals are defined as laboratory practicals
** Equivalent courses may be taken at the partner universities as part of the mobility programme.
*** taken in Toulouse and is part of the mobility programme

Science, Business and Policy track

Course unit	Code	ECTS	Practical	Entry requirements
Reaction Mechanisms	WMCH006-05	5		
Structure Determination with Spectroscopic Methods	WMCH008-05	5		
Scientific Integrity	WMCH007-00	0		
Colloquium	WMCH001-05	5		Research Project Chemistry
Final Exam	WMCH002-05	5		Research Project Chemistry
Research Project in Chemistry	WMCH904-30	30	x	Scientific Integrity
Introduction Science and Business	WMSE001-10	10		
Introduction Science and Policy	WMSE002-10	10		
Work Placement Business and Policy	WMSE902-40	40	x	Intr. to Science and Business, Intr. to Science and Policy
Electives in Chemistry		10		

Research and Education track
More information about this track with a clear plan can be found in the student portal.

Course unit	Code	ECTS	Practical	Entry requirements
Reaction Mechanisms	WMCH006-05	5		
Structure Determination with Spectroscopic Methods	WMCH008-05	5		
Scientific Integrity	WMCH007-00	0		
Colloquium	WMCH001-05	5		Master Research Project Chemistry
Final Exam	WMCH002-05	5		Master Research Project Chemistry
Master Research Project	WMCH901-40	40	x	Reaction Mechanisms, Structure Determination with Spectroscopic Methods, submitting study programme, Scientific Integrity
Specialization courses		20		
Electives		10		
LVHO courses if Educational Minor not completed:				
Neem regie	TEM0110-24	10		
Geef les	TEM0205-24	5		
Verken je schoolvak	TEM0315-24	15		
Vorm je visie	TEM0405-24	5		
Verdiep je schoolvak	TEM0515-24	15		
Onderzoek het leren	TEM0610-24	10		
LVHO courses if Educational Minor completed				
Vorm je visie	TEM0405-24	5		
Verdiep je schoolvak	TEM0515-24	15		
Onderzoek het leren	TEM0610-24	10		

Note: For the Research and Education track, the regulations of the “Lerarenopleiding” apply, as established in the TER of the “Lerarenopleiding”.

Research track

Course unit	Code	ECTS	Practical	Entry requirements
Reaction Mechanisms	WMCH006-05	5		
Structure Determination with Spectroscopic Methods	WMCH008-05	5		
Scientific Integrity	WMCH007-00	0		
Colloquium	WMCH001-05	5		Master Research Project Chemistry
Final Exam	WMCH002-05	5		Master Research Project Chemistry
Master Research Project	WMCH901-40	40	x	Reaction Mechanisms, Structure Determination with Spectroscopic Methods, submitting study programme, Scientific Integrity
Second research project*	WMCH903-20	20	x	Master Research Project Chemistry
Specialization courses		20		
Electives		20		

* The second research project should be performed in a different research group and topic in comparison to the master research project.

Students of the Research track are recommended to follow one of the specializations listed below. Students who wish to follow an open programme must adhere to the conditions described in appendix VIII.

Recommended specializations (see below for course codes, information and entry requirements)

Synthesis & Catalysis Chemical Catalysis Organic Synthesis: Methods and Strategy 1 *and either:* Advanced Biocatalysis Organometallic Chemistry *or* Stereochemistry Organic Synthesis: Methods and Strategy 2	**Protein Biochemistry** Advanced Biocatalysis Synthetic Biology and Systems Chemistry *And two of the following 5 courses:* Molecular Modeling and Analysis in Structural Biology Molecular Dynamics Advanced Genetic Engineering Next-generation Sequencing Methods and Data Analysis Protein and Enzyme Engineering
Chemical Biology Synthetic Biology & Systems Chemistry Advances in Chemical Biology Organic Synthesis: Methods and Strategy 1 *And one of the following 2 courses:* Advanced Biocatalysis Organic Synthesis: Methods and Strategy 2	**Supramolecular Chemistry** Supramolecular Chemistry Bioinspired Designer Materials Stereochemistry Organic Chemistry: Methods and Strategy 1

Polymer Chemistry Bioinspired Designer Materials Polymer Physics Polymer Products Physical Chemistry of Polymers: theory and practice	**Organometallic Chemistry** Organometallic Chemistry Advanced methods in Spectroscopy Chemical Catalysis Quantum Chemistry Methods I
Theoretical Chemistry and Modelling Molecular Quantum Mechanics Quantum Chemistry Methods I Programming in Chemistry *And one of the following 2 courses:* Quantum Chemistry Methods II Statistical Thermodynamics	**Solid State materials and Sustainable energy** Structure at Macro, Meso and Nanoscale Properties of Functional Materials Characterisation of Materials Sustainable Electric Energy Storage

Appendix IV. Electives (art. 3.8.1)

Students can request the board of examiners to be allowed to select a particular course outside the master in Chemistry programme.

Course unit	Code	ECTS	Entry requirements
Biomaterials 2	WMBE001-05	5	
Molecular Dynamics	WMBS003-05		
Molecular Modeling and Analysis in Structural Biology (MMB)	WMBS021-05	5	
Polymer Products	WMCE005-05	5	
Advanced Biocatalysis	WMCH033-05	5	
Molecular Quantum Mechanics	WMCH037-05	5	
Skills in Science Communication	WMEC006-05	5	
Protein and Enzyme Engineering	WMBS004-05	5	
Advanced Genetic Engineering	WMBS006-05	5	
Next-generation Sequencing Methods and Data Analysis	WMBS023-05	5	
Interfacial Engineering	WMCE003-05	5	
Processes and Products for a Sustainable Carbon Cycle	WMCE021-05	5	
Bioinspired Designer Materials	WMCH009-05	5	
Photovoltaics science and energy	WMCH011-05	5	not open to students who already passed the Solar Cells (WBCH018-05) course
Stereochemistry	WMCH013-05	5	

Organometallic Chemistry	WMCH018-05	5	
Programming in Chemistry	WMCH043-05	5	This course is limited to TCCM students and students in the theoretical chemistry specialization
Photochem. and Photoredox catalysis	WMCH032-05	5	
Advanced methods in Spectroscopy	WMCH042-05	5	
Structure at Macro, Meso, Nano Scale	WMPH020-05	5	
Design of Industrial Catalysts	WMCE009-05	5	
Product Focussed Process Design	WMCE011-05	5	
Advances in Chemical Biology	WMCH014-05	5	
Chemical Catalysis	WMCH015-05	5	
Organic Synthesis: Methods and Strategy 1	WMCH017-05	5	
Supramolecular Chemistry	WMCH020-05	5	
Synthetic Biology & Systems chemistry	WMCH021-05	5	
Sustainable Electric Energy Storage	WMCH029-05	5	
Quantum Chemistry Methods I	WMCH038-05	5	
Characterisation of Materials	WMPH021-05	5	
Statistical Thermodynamics	WMCH044-05	5	
Properties of Functional Materials	WMPH051-05	5	
Astrochemistry	WMAS018-05	5	
Organic Synthesis: Methods and Strategy 2	WMCH024-05	5	
Polymer Physics	WMCH025-05	5	
Physical Chemistry of Polymers: theory and practice	WMCH034-05	5	
Quantum Chemistry Methods II	WMCH039-05	5	Molecular Quantum Mechanics
Biophysical Imaging & Manipulation Techn.	WMPH047-05	5	

Appendix V. Entry requirements and compulsory order (art. 4.4)

Entry requirements are mentioned in tables appendices III and IV.

Appendix VI. Admission to the degree programme (art. 2.1A.1, 2.1A.2 + 2.1B.1)

Students that successfully completed the Pre-Master programme are automatically admitted to the Master degree programme.

1. Application Procedure for selective master degree programmes

All candidates have to register in Studielink and upload the following documents before 1 May (start 1 September):

- Copy of ID card or passport
- Proof of English language proficiency
- Curriculum Vitae
- Official transcript of records
- Diploma of relevant Bachelor's degree programme (if not possible, provide reason)
- List of subjects/courses yet to be followed including course descriptions
- For non-UG students: clear description of content/learning objectives of all required courses
- List of extracurricular activities
- Complete Checklist

After candidates have completed their registration in Studielink, applications will be processed in the following way:

For holders of a Dutch BSc diploma:

- Admission Support FSE compiles the individual selection file
- Admission Support FSE submits the individual selection file to the Admissions Board of the individual programme

For holders of a non-Dutch BSc diploma:

1. Admissions Office compiles the individual selection file
2. Admissions Office validates individual Bachelor's degree diploma
3. Admissions Office submits the individual selection file to the SSE
4. SSE submits the individual selection file to Admissions Board of the individual programme

2. Selection procedure

In order to select the appropriately suited and motivated students, the Admission Board requires a complete selection file from all candidates. The Admission Board of the individual programmes will review all individual applicants based on their selection file. All candidates that have an appropriate background will be considered admissible and further considered for the selection procedure described below.

At least two members of the Admissions Board score the selection criteria. If the scores on the academic performance, extracurricular activities and/or the motivation deviate 1 point or more, all

members of the admissions board will review the application, after which they score a second time. This outcome constitutes the final score. Candidates with a total score of 5 or greater will be admitted to the programme.

2.1. Admissibility

The appropriateness of the background level will be assessed by the Board of Admissions and must be of sufficient basis for participation in the MSc Chemistry programme. The Board of Admissions considers.

- **Relevance and affiliation/fit** of the bachelor programme followed to the master programme (list of subjects/courses followed and grades obtained; brief description of the content of key subjects/courses demonstrating the knowledge and skill(s) acquired by the student[1]).

[1] *Key subjects/courses, the nature of the knowledge and relevant skill(s) are defined by the Programme director in consultation with the Programme committee, and are approved by the Programme Board.*

- **Dutch BSc Chemistry degree**
  Applicants are automatically considered 'admissible' if they hold a BSc Chemistry degree from the University of Groningen, if they have followed successfully the UG chemistry pre-Master programme, if they hold a BSc degree in chemistry from the University of Leiden, University of Utrecht, University of Amsterdam, the Free University Amsterdam (VU), or the Radboud University - Nijmegen.
- **University of Groningen BSc LST degree**
  Applicants with a BSc LST degree from the University of Groningen are admissible to the MSc Chemistry, when they have completed the below mentioned courses (all required):
  - Electrochemical Technology (WBCE021 -05)
  - Synthesis 2 lab course (WBCH008-05)
  - Physical Chemistry 2 (WBCH015-05)
  - Soft Molecular Materials (WBCH017 -05)
  - Research Practical (WBCH070-05)
  - (Bio)Catalysis (WBCH019-05)
  - Physical Organic and photochemistry (WBCH027-05)
  - Bachelor Research Project Chemistry (WBCH901-15)
- **Students with a BSc degree not in the first two categories will be considered on a case by case basis** including a verification of transcript and course content description, with a minimum requirement for a core programme (with learning outcomes equivalent to the following courses in the BSc Chemistry programme of the UG (6 out of the following 7 courses are required) Students that do not fulfill these requirements might be offered a pre-master programme instead (see Appendix VII)
  - Organic Chemistry 1
  - Organic Chemistry 2
  - Physical Chemistry
  - Physical Chemistry 2
  - Spectroscopy
  - Inorganic Chemistry
  - Biochemistry

  - and proven practical skills and research experience (obtained via a basic research project).

Practical implementation of the admissibility check

The check for MSc Chemistry admissibility is performed by two BoA members per submission round. In case of doubt, the BoA chair reviews the file, and makes a decision, for which advice from the Programme Director may be obtained.

2.2. Selection

1. Weighted average of grades ≥7
Dutch degrees: When the weighted average of grades amount to 7 or higher, a fixed amount of 4 points is awarded.
Non-Dutch degrees: Students have to provide their weighted average grade and information about the grading system at their host institution. The Board of Admissions reserves the right to assess this information on a case-by-base basis, and reach a conclusion about the value of the weighted grade, and will award 4 points if the provided information proves a similar grade level. The Board of Admissions may seek advice from international colleagues.

2. Motivation
The applicant is awarded 2 points for each excellent answer, 1 point for each satisfying answer, or 0 points if the answer is not sufficient.
In case a specific motivation is not covered in the predefined list, the BoA members will together discuss the scoring of this answer, and note it in the scoring sheet.

3. Extracurricular activities
Points can be awarded for activities that showcase exceptional involvement, to a maximum of 5 points.
In case a specific activity is not covered in the predefined list, the BoA members will together discuss the scoring of this answer, and note it in the scoring sheet.

Practical implementation of the selection process

1. Two BoA members check the average weighted grades ≥ 7 of the updated grades list, and note this in the Mastersheet.

2. Two BoA members together score all three questions for each applicant. When an answer is not listed, or there is a disagreement on the scoring between the two BoA members, the file is flagged and discussed at the next BoA meeting.

3. Two BoA members assess the extracurricular activities with an exhaustive list of pre-defined activities. When an activity is not on the list, or there is a disagreement on the scoring between the two BoA members, the file is flagged and discussed at the next BoA meeting. The total scores are noted in the Master sheet,

3. Timeline for the application and selection procedure

The application process for the programme starting on September 1st will commence on October 1st of the preceding year and conclude on May 1st of the same academic year. During October, comprehensive details regarding the application process will be made available on the Admission and Application website specific to the respective Master's degree programme.

After registration in Studielink, all candidates will receive an email with an overview of the application procedure, the deadlines and instructions on how to proceed.
After candidates have successfully submitted all necessary documents the School of Science and Engineering (for holders of a Dutch BSc diploma,) or the Admissions Office (for holders of a non-Dutch BSc diploma) will send the candidate a confirmation of receipt.
The Board of Admissions will assess and score the applications out of a total of 15 points over the three selection criteria: (i) average weighted grade, (ii) motivation, and (iii) extracurricular activities.

(i) An average weighted grade for bachelor courses of 7 or greater will earn 4 pts
(ii) The motivation table is comprised of 3 questions each of which can earn 2 pts
(iii) Extracurricular activities, contingent on sufficient evidence provided, attract either 0.5 or 1 pt each to a maximum of 5 pts

A minimum score of 5 points is needed for direct admission to the MSc Chemistry.
Admission is always conditional on obtaining a BSc degree or completing the pre-master programme before the MSc Chemistry start date.
The motivation table comprises of three questions:

Question	**Consider including the following aspects**
1. What specific aspects of the Master's programme in Chemistry at the University of Groningen motivated you to apply?	Specific courses and specialisations, research activities/groups, your experience during your BSc degree
2. How has your previous education prepared you for our research-focused Master's degree in Chemistry? Be sure to include how research projects or other relevant experiences contribute to your motivation.	Practical courses, research projects, educational activities tailored towards your preferred track
3. Why do you want to obtain a Master's degree in Chemistry? For example, list any concrete plans you have for after graduation.	Concrete ideas about next position (industry, academia, field), or efforts to arrive at a concrete plan

The Board of Admissions will offer places to candidates who score a total of 5 points of more. Candidates who are not selected can lodge a written appeal against this decision within six weeks of the date of sending, with the Board of Appeal for Examinations, P.O. Box 72, 9700 AB Groningen, the Netherlands.
The admission to the programme is only valid for the academic year following the application date. Students who are offered a place for an academic year have to accept or decline the place before August 31 preceding that academic year. Students who accept the offer need to be enrolled before September 1 of that academic year.

Appendix VII. Pre-master programmes and Fast-Track programmes (Art. 2.3)

1. FSE offers a pre-defined Pre-Master's programme of *45 EC* for access to the MSc Chemistry and individually determined Pre-Master's programmes. The overview below shows:
   - which NVAO-accredited HBO diploma grants access to the MSc Chemistry upon completion of the Pre-Master's programme
   - The content and student workload for these fixed programmes.

   a. Bachelor Chemistry (croho/rio-code 34396)

Semester	Course Title	Course Code	ECTS
1a	Organic Chemistry 2	WBCH005-05	5
1a	Maths for Chemistry and Engineering	WBCH048-05	5
1b	Physical Chemistry 2	WBCH015-05	5
1b	Carbohydrates *or* Macromolecular Chemistry	WBCH010-05 or WBCH023-05	5
2a	Biochemistry	WBCH064-05	5
2a	Physical Organic chemistry and Photochemistry	WBCH027-05	5
2b	Spectroscopy	WBCH044-05	5
2b	Inorganic Chemistry	WBCH039-05	5
2b	Quantum Chemistry	WBCH029-05	5
Total			45

   - Starting date(s) 1 September

2. For HBO programmes not listed above and for students with a BSc degree that are not directly admissible to the MSc, the Board of Admissions decides:
   a. The content and the student workload of a tailormade Pre-Master's programme.
      or
   b. Admission is not accepted.

3. For selective masters, pre-master's students are selected on the basis of the following selection criteria and selection procedure:

Application Procedure for Pre-Master's programme

All candidates have to register in Studielink and upload the following documents before 1 May (start 1 September):

- Copy of ID card or passport
- Curriculum Vitae
- Official transcript of records
- Diploma or statement of graduation of relevant NVAO-accredited HBO programme (if not obtained yet, expected graduation date)
- List of subjects/courses yet to be followed including course descriptions
- For non-UG students: clear description of content/learning objectives of all required courses
- List of extracurricular activities
- Complete Checklist

After candidates have completed their registration in Studielink, applications will be processed in the following way:

- Admission Support FSE compiles the individual selection file
- Admission Support FSE submits the individual selection file to the Admissions Board of the individual programme

Selection procedure

In order to select the appropriately suited and motivated students, the Admission Board requires a complete selection file from all candidates. The Admission Board of the individual programmes will review all individual applicants based on their selection file. All candidates that have an appropriate background will be considered admissible and further considered for the selection procedure described below.

At least two members of the Admissions Board score the selection criteria. If the scores on the academic performance,support letter and/or the motivation deviate 1 point or more, all members of the admissions board will review the application, after which they score a second time. This outcome constitutes the final score. Candidates with a total score of 3.5 or greater will be admitted to the programme.

Admissibility

The appropriateness of the background level will be assessed by the Board of Admissions and must be of sufficient basis for participation in the MSc Chemistry programme. The Board of Admissions considers.

- **Relevance and affiliation/fit** of the bachelor programme followed to the master programme (list of subjects/courses followed and grades obtained; brief description of the content of key subjects/courses demonstrating the knowledge and skill(s) acquired by the student[1]).

[1] *Key subjects/courses, the nature of the knowledge and relevant skill(s) are defined by the Programme director in consultation with the Programme committee, and are approved by the Programme Board.*

- **NVAO-accredited HBO diploma of the croho/rio code 34396**
  Applicants are automatically considered 'admissible' for the pre-master.
- **Students with another NVAO-accredited HBO diploma or a BSc degree that does not allow direct admission to the MSc chemistry will be considered on a case by case basis** including a verification of transcript and course content description, with a minimum requirement for a core programme containing (4 out of the following 5 topics are required)
  - Organic Chemistry 1
  - Physical Chemistry
  - Spectroscopy
  - Inorganic Chemistry
  - Biochemistry

Practical implementation of the admissibility check

The check for the Pre-Master programme admissibility is performed by two BoA members per submission round. In case of doubt, the BoA chair reviews the file, and makes a decision, for which advice from the Programme Director may be obtained.

Selection

Selection overall score should be at least 3.5 points.

1. Weighted average of grades ≥7 overall
When the weighted average of grades amount to 7 or higher overall a fixed amount of 3 points is awarded. When the average grade is between 6.5-7 a fixed amount of 2 points is awarded.

If you have an average grade lower than 7 for overall average, you may supply a support letter from the degree awarding HBO programme. Points can be awarded for support letters that showcase exceptional fit of the applicant with the MSc Chemistry programme at the University of Groningen, to a combined maximum of 3 points for criteria 1 and 2.

2. Motivation by the applicant

The applicant is awarded 1 point for each satisfying answer, or 0 points if the answer is not sufficient with a maximum of 3 points. In case a specific motivation is not covered in the predefined list, the BoA members will together discuss the scoring of this answer, and note it in the scoring sheet.

3. Extracurricular

Extracurricular activities, contingent on sufficient evidence provided, attract either 0.5 or 1 pt each to a maximum of 3 pts.

Under exceptional circumstances, or unclear/incomplete applications, the BoA has the option to request additional information.

Question	**Consider including the following aspects**
1. What specific aspects of the Master's programme in Chemistry at the University of Groningen motivated you to apply for the Pre-Master?	Specific courses and specialisations, research activities/groups, your experience during your BSc degree
2. How has your previous education prepared you for our research-focused Master's degree in Chemistry? Be sure to include how research projects or other relevant experiences contribute to your motivation.	Practical courses, research projects, educational activities tailored towards your preferred track
3. After your HBO degree, why do you want to continue studying for a Master's degree in Chemistry? For example, list any concrete plans you have for after obtaining your MSc studies.	Concrete ideas about next position (industry, academia, field), or efforts to arrive at a concrete plan

Practical implementation of the selection process

1. Two BoA members check the average weighted grades, and note this in the Mastersheet.

2 Two BoA members assess the support letter of HBO describing the suitability of the candidate, and score this on the basis of predefined criteria. When there is a disagreement on the scoring between the two BoA members, the file is flagged and discussed at the next BoA meeting. The total scores are noted in the Master sheet,

3. Two BoA members together score all three questions for each applicant. When an answer is not listed, or there is a disagreement on the scoring between the two BoA members, the file is flagged and discussed at the next BoA meeting.

Timeline for the application and selection procedure

The application process for the Pre-Master programme starting on September 1st will commence on October 1st of the preceding year and conclude on May 1st of the same academic year. During October, comprehensive details regarding the application process will be made available on the Admission and Application website specific to the respective Pre-Master's programme.

After registration in Studielink, and filing an admission request with the Board of Admission, the School of Science and Engineering (for holders of a Dutch BSc diploma,) will send the candidate a confirmation of receipt.

The Board of Admissions will assess and score the applications out of a total of 9 points over the three selection criteria: (i) average weighted grade, (ii) motivation and (iii) extracurricular.

(i) An average weighted grade for bachelor courses of 7 or greater will earn 3 pts.
(ii) The motivation table is comprised of 3 questions each of which can earn 1 pt
(iii) Extracurricular activities with a maximum of 3 points

A minimal score of 3.5 points is needed for direct admission to the Pre-Master programme. Admission is always conditional on obtaining a NVAO accredited HBO diploma.

B. Fast-Track programmes

The MSc degree programme does not offer Fast-Track programmes.

Appendix VIII. Transitional provisions (art. 7.1)

Basiscursus lerarenopleiding (TEM0105)	Neem Regie (TEM0110-24) i	Curriculum change lerarenopleiding
Masterstage 1 (TEM0205)	Neem Regie (TEM0110-24) wpl	Curriculum change lerarenopleiding
Vakdidactiek 1 (TEM0505)	Geef les (TEM0205-24) + Verken je schoolvak (TEM0315-24) i	Curriculum change lerarenopleiding
Masterstage 2 (TEM0315)	Verken je schoolvak (TEM0315-24) wpl	Curriculum change lerarenopleiding
Physical Methods for Chemical Analysis (WMCH012-05)	Advanced methods in Spectroscopy (WMCH042-05)	Name change to better reflect the content of the course
Topics in Chemistry with Phyton (WMCH028-05)	Programming in Chemistry (WMCH043-05)	Name change
Statistical Mechanics (WMPH029-05)	Statistical Thermodynamics (WMCH044-05)	Name change

i = internal, wpl = werkplek

Appendix IX. Additional Requirements Open degree Programmes (art. 3. 9.2)

Students intending to pursue an open programme must submit their programme for approval, ensuring it demonstrates coherence and sufficiently covers the Learning Outcomes of the Masters Chemistry programme.

Students who wish to follow an open programme must contact the Programme Director within the first 6 months of their MSc registration, to prepare an application for their programme which has to be submitted for approval to the Board of Examiners.

The Board of Examiners will approve the open degree programme if the proposed programme:

- adequately covers the Learning Outcomes of the Master Chemistry
- demonstrates clear overall coherence