

***Programme-specific part to the programme
section of the student charter including the
education and examination regulations for the
Master of Science programme of Health
Sciences***

(art. 7.13 and 7.59 WHW)

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Preamble

1. The rules and regulations in this programme-specific part apply to the full-time Master of Science programme of Health Sciences.
2. Together with the General Section (TNW/23.907) this programme-specific part constitutes the programme section of the Student Charter including the education and examination regulations of the Master of Science programme of Health Sciences of the Faculty Science & Technology.
3. The rules and regulations established by the Board of Examiners of the Master of Science programme of Health Sciences regarding its duties and responsibilities according to article 7.12b WHW have been included in the 'Board of Examiners' Rules of the Health Sciences master's programme.

Date: July 11, 2023
Reference: TNW23.914

Article 1 Definitions

Terms used in this regulation and common to the law on Higher Education and Research act (WHW) are defined according to the law.

Article 2 Admission Committee

1. The Dean of the TNW faculty shall install an admissions committee for the purpose of admitting students to the Master's programme who are not directly eligible for admission in accordance with Article 4.
2. The Executive Board has delegated the authority to admit or reject students to the committee referred to in Paragraph 1.
3. The Admissions Committee consists of:
 - a. Program Director
 - b. Student advisor or admissions officer

Article 3 Aims and attainments of the programme

Competence profile Health Sciences University of Twente

(based on academic criteria for bachelor and master curricula, Meijers 2003)

A health scientist of the University of Twente has a focus on making healthcare more effective and efficient. He/she does so by looking at processes, technology, and systems on the level of the patient and caretaker, healthcare organisation and the healthcare system. The processes and systems are analysed, (re)designed, implemented and evaluated. The health scientist possesses the ability to define the value of technology within the healthcare from a multi-disciplinary perspective and to advise relevant stakeholders.

The competences that a bachelor's and a master's student work on are similar. The objectives per competency are very similar, whereby the further concretisation and level indication is worked out within the learning objectives at module and subject level. The level difference is mainly determined by the content of the education, the complexity of the assignments (context) and the degree of independence with which the student works on issues. These concepts should be viewed in relation to each other. The independence of a bachelor's or master's student is always related to the degree of complexity of the task to be performed. The content and complexity of the tasks to be performed within the various levels are determined, evaluated and, where necessary, adjusted by the study programme and teachers.

Competence	Indicators
1. Research The student develops new knowledge and insights to improve the effectiveness and efficiency of healthcare in a purposeful manner and with use of appropriate methodology.	<ol style="list-style-type: none">1.1 The student is able to independently formulate health care-oriented problems and research questions and to draw up a research plan.1.2 The student is able to choose and apply concepts, models and theories within health technology assessment and one of the three specializations* of the Health Sciences Program1.3 The student is able to collect and analyze qualitative and/or quantitative data and to interpret the findings in relation to the research question/problem statement.1.4 The student is able to critically evaluate and report the findings and formulate recommendations for application or future research.
2. Advice The student is able to provide expert advice on organizational, policy, technological, and process related topics within the context of health care.	<ol style="list-style-type: none">2.1 The student can analyze situations and information using appropriate methodology, gather additional knowledge and make choices that lead to substantiated advice.2.2 The student is able to approach a question from practice from the various sub-disciplines* within the domain of Health Sciences.2.3 The student is able to interpret socio-economic, political, individual and cultural factors within the challenges addressed in health sciences.2.4 The student can formulate advice from different perspectives about the (added) value of a technology within healthcare.
3. Innovate The student is able to develop policy, products, services,	<ol style="list-style-type: none">3.1 The student is able to translate research results into practical applications within the clinical, organizational and policy context of healthcare and to promote their implementation.

technologies and/or organizational models that improve people's health (or the organization of care).	<p>3.2 The student is able to actively contribute to the development and adoption of health technology in various phases.</p> <p>3.3 The student acknowledges the importance of other disciplines and can actively involve them in the innovation process.</p> <p>3.4 The student incorporates social, cultural, economic and environmental impacts from a local and a global perspective in all innovations**.</p>
<p>4. Leadership</p> <p>The student is capable to act and to involve others for the benefit of a common interest, by using his personal/professional qualities and by feeling responsibility.</p>	<p>4.1 The student is able to self direct and achieve goals by being aware of and using his or her own qualities and talents.</p> <p>4.2 The student is able to reflect on one's own role in the local community and (global)societyprofessional actions.</p> <p>4.3 The student is able to deal with the changeability of the research process through external circumstances or advancing insight and is able to steer the process on the basis of this.</p> <p>4.4 The student shows respect for diversity and interests in other perspectives..</p>
<p>5. Communicate</p> <p>The student has the ability to express needs, opinions, knowledge and information efficiently, clearly and adequately (appropriately) in dealing with others.</p>	<p>5.1 The student is able to correctly convey written information to others in English, appropriate to the context in which this takes place.</p> <p>5.2 The student is able to correctly convey oral information to others in English, appropriate to the context in which this takes place.</p> <p>5.3 The student listens to other and dares to express his/her own opinion and/or vision</p> <p>5.4 The student is able to identify, specify, and debate ethical and normative aspects that are related to technological developments within the field of health and is able to integrate these aspects in his work.</p> <p>5.5 The student is aware of his own non-verbal communication and can actively influence this.</p>
<p>6. Collaborating</p> <p>The student can work together with other individuals or groups on a common result, even though this is not for a direct personal benefit.</p>	<p>6.1 The student is aware of his relationship skills and can use them effectively in collaboration with others.</p> <p>6.2 The student understands and respects diverse cultural backgrounds in collaboration with others.</p> <p>6.3 The student is able to give and receive feedback, that contributes to the joint result.</p> <p>6.4 The student shows project management skills and is able to facilitate collaborative and participatory problem solving.</p>

Article 4 Admission to the study programme

1. Direct admission to the study programme is obtained by
 - a. a final certificate of the bachelor's degree programme in Health Sciences from the University of Twente or another university in the Netherlands
 - b. a certificate of admission to the study programme issued by the admissions board.
2. Admission to the programme subject to certain conditions can be obtained by:
 - a. a student who is in possession of a bachelor's degree from a Dutch university. Paragraphs 3 up to and including 5 of this article apply.
 - b. A student who holds a higher professional education diploma (hbo) from a programme relevant to the field of study. Paragraphs 3 up to and including 5 of this article apply in this case. Further provisions for these students are laid down in Article 6 of this programme-specific part.
 - c. A student who has obtained an international bachelor's degree. For conditions and procedures see website. In addition, sections 3 up to and including 5 of this article apply.
3. In assessing the application for admission to the Master's programme, the admissions committee may demand that certain courses are passed before a certificate of admission to the Master's programme will be issued.
4. When issuing a certificate of admission to the Master's programme, the Admissions Board may decide to exempt the student from the obligation to complete certain units of the Master's programme, with the exception of the final project.

5. When issuing a certificate of admission to the Master's programme, the Admissions Board may set conditions with regard to the specific content of the student's Master's programme and determine that the admission is only valid for a certain track.
6. The decisions of the Admissions Board referred to in paragraph 4 of this article require the approval of the Examination Board.
7. Students with a foreign education must be able to demonstrate sufficient English language proficiency, both oral and written. As an entry requirement they may be required to meet the standard score on a recognised test. This means a total score of 6.5 or higher on the IELTS test or a score of 90 or higher on the internet-based TOEFL test. Students with a Bachelor's degree from countries with only English as language of higher education are exempted from this language requirement.

Article 5 Language

1. The courses and the exams in the Master's programme are in English.
2. The master thesis will be written and defended in English. Students are free to make a translation or summary in Dutch once this is necessary for the dissemination of the research results, but the final grade will be based on the original version in English.

Article 6 The Health Sciences program

1. The Health Sciences program is a one year program and consists of one semester of educational courses and one semester of performing a research project. The research project leads to writing and presenting a thesis and is therefore also called 'Master Thesis'. Content descriptions of the courses can be found in OSIRIS (educational catalogue of the University of Twente)
2. The Health Sciences master consists of 60 EC. In the first quarter all students will follow the same program. During the first quarter the student chooses one of the three tracks to follow in the second quarter. The three tracks are:
 - Personalized Monitoring & Coaching
 - Optimization of Healthcare Processes
 - Innovation in Public Health
3. The choice for one of the tracks requires the student to follow all subjects of that track. It is not permitted to choose a mix of subjects from each track. Subjects from a different track can only be chosen as an additional subject within the individual study programme.
4. The program provides, if necessary based on the results of the first exam, a second opportunity to take part in the exam for those students who have not finished the exam with a positive result. In case of a positive result after participating in an exam, it is not allowed to participate in the exam again.

Article 7 Health Sciences curriculum

The programmes below apply in academic year 2022-2023.

Q1	Track	Q2	Q3 & Q4
Health Economic Modelling (5EC) Stakeholder preference elicitation and decision support (5EC) Data Science (5EC)	Personalized Monitoring & Coaching	eHealth Development: A Holistic approach (5 EC)	Master Thesis (30 EC)
		Ehealth Technology(5 EC)	
		Monitoring & Persuasive Coaching (5 EC)	
	Optimization of Healthcare processes	Optimizing Healthcare Processes (5 EC)	Master Thesis (30 EC)
		Finance & Healthcare Purchasing (5 EC)	
		Quality Management in Healthcare (5 EC)	
	Innovation in Public Health	Public Health Innovations (5 EC)	Master Thesis (30 EC)
		PH: Dynamics in policy, law & regulation (5 EC)	
		Citizen Science (5 EC)	

Article 8 Master Thesis

1. The student has to make up a study plan, together with the student's first supervisor. The student and the first supervisor agree on the guidance provided and make a planning for the thesis project.
2. The student can only start with the thesis project once the project has been approved of by the assignment committee. Only when the assignment is uploaded in Mobility Online is the assignment officially approved.
3. By means of approval based on the Approval form Master Assignment, the Examination Board GZW-HS:
 - a. approves of the composition of the Graduation Committee responsible for the supervision and the assessment of the thesis project;
 - b. appoints the members of the Graduation Committee as temporary examiners for the master thesis (article 13.3 of the 'Regels Examencommissie GZW-HS GZW-Health Sciences').
4. The regular time for completing the master thesis is 840 hrs (30 EC), which is 20 weeks for a full-time student. Deviant time schedules for part-time students are only permitted when they have been agreed upon beforehand by the student and the student's first supervisor and are part of the information on the form Approval form Master Assignment.
5. Should the student not succeed in completing the master thesis within the abovementioned period of time, the Graduation Committee can grant extra time to the student to do so. The extra time to be granted is bound by the limit of 50% (10 weeks) of the regular duration of the thesis for a full-time student.
6. Only in exceptional cases is it possible to obtain a postponement in addition to the extra time. If it is not possible for the student to complete the thesis within 20 weeks plus 10 weeks extra time, the student must submit a request to the Examination Board GZW-HS for extra time. The Graduation Committee must also agree to this request..
7. The master thesis must be written in English and the thesis must be presented in English at the colloquium.
8. In order to get a pass to proceed to defence (green-light) the student needs to have finished (passed) all other educational exams of the master's programme.
9. In order to receive the diploma, the student has to submit the master thesis to the University (UT Student Theses Repository). The thesis can be uploaded on: <http://essay.utwente.nl/upload>
10. If the student has not yet completed the master thesis after the extra time has expired or no pass to proceed (green-light) to defense of the thesis has been given by the first and second supervisor of the master thesis project, the Graduation committee can terminate the master thesis project. Prior to this decision the Graduation committee will hear the student, the supervisors and the programme director.

Article 9 Quality assurance

The quality of education is systematically monitored according to the Plan-Do-Check-Act (PDCA) cycle. The quality assurance system is described in the GZW-HS Quality Assurance Manual and consists of two parts:

1. The organisation of the faculty with all actors that play a role in the management, organisation, development and execution of the study programme. Through a clear division of tasks and responsibilities and mutual coordination, the actors jointly ensure a high-quality study programme.
2. The evaluation system that monitors the quality of the study programme and provides the actors with information on the quality and is therefore aimed at educational development and continuous quality improvement. In addition, the evaluation system also provides information for external accountability about the study programme to bodies within the university (such as the Faculty Council, Dean, University Council and Executive Board) and outside the university (Ministry, Education Inspectorate, review committees and accreditation bodies).

A complaints procedure for students is part of quality assurance.

Article 10 Transitional arrangement

1. If the study programme included in article 7 of this programme-specific part is amended, or if one of the articles in the general section or in this programme-specific part is amended, the programme director will stipulate and publish transitional regulations, in accordance with Article 8.4 of the general Master EER

TNW.

Article 11 Safety

There are safety requirements for working in a laboratory¹, hospital or other health institutions. Students are obliged to inform themselves of these rules and adhere to them.

Article 12 Sequence of units of study

1. In order to start with the Master thesis, the student is required to have acquired 20 EC of the Master programme.
2. In order to pass for the Master thesis defense, the student needs to have completed all other educational exams of the Master program (see also article 8)

Article 13 Principles of combining the Health Sciences programme with a second master programme

1. Article 2.1, paragraphs 6 and 7 from the general Master EER TNW are applicable.
2. Students have to make a planning for their two master programmes and discuss this with the study adviser.
3. The master programme Health Sciences consists of 6 obligated courses of 5EC each and a Master project of 30EC.
4. Based on previous acquired knowledge & skills exemptions for courses can be granted by the Examination Board (article 2.3 of the general Master EER TNW). Exemptions can be granted to a maximum of 10EC. Requests for more exemptions than 10EC can be granted by exemption for a specific course but not for the amount of EC's to be acquired.
5. The thesis needs to meet the requirements as set within the Health Sciences Master programme. Specific requirements regarding the master project in case of combined master project are:
 - The research proposal may be combined but must contain at least two different research questions. Of which at least one research question is specifically related to Health Sciences.
 - The examination committee of the Health Sciences thesis is appointed by the examination committee. Only one member of the examination committee can be a member of the examination committee for both programmes (if applicable).
 - The colloquium can be combined under the condition that both research questions are addressed. The grading of the colloquium will be separate.

Article 14 Flexible programme

Notwithstanding the provisions in article 7 of this programme-specific part the student can submit a request to the Board of Examiners to follow a flexible programme as referred to in art. 7.3d of the WHW. The Board of Examiners will assess whether the flexible programme, fits the domain of the master's programme, is coherent, and of a sufficient level in light of the aims and attainments of the programme.

Article 15 Student counseling

1. The study advisor advises and guides individual students regarding all aspects of their studies and academic progress.
2. The study advisor informs and advises the staff of the programme regarding educational policies in relation to individual students.
3. The study advisor will provide solicited and unsolicited advice to the Board of Examiners regarding decisions that affect individual students. The study advisor and Board of Examiners will ensure that information about the student is kept confidential.
4. In addition to article 7.1 of the general Master EER TNW; the Dean of the faculty has mandated this to the program management of Health Sciences. In line with article 7.1 of the general Master EER TNW the student always needs to contact the study counsellor to start a request for study adjustments.

¹ See the 'Health & Safety and Environmental Regulations' ('Arbo- en Milieureglement') on <http://www.tnw.utwente.nl/intra/diensten/amh/> and the TNW laboratory practice group information on http://www.tnw.utwente.nl/onderwijs_overig/practica/.

Article 16 Amendment

In the event of amendments to this programme-specific part, the provisions of Articles 8.3 and 8.4 of the General Section shall apply.

Article 17 Commencement

These Regulations come into force on the 1st of September 2023 and replace the Regulations of 1st of September 2022.

Adopted by the Faculty Board of the Faculty of Science & Technology, after having obtained the advice of the Faculty Council and the Programme Committee and after having obtained the consent of the Programme Committee with article 3, 7 10 and 11.