Education and Examination Regulations 2024-2025 for the Master of Science programme *Healthcare Policy, Innovation and Management* of the Faculty of Health, Medicine and Life Sciences, Maastricht University, in accordance with Article 7.13 of the Dutch Higher Education and Scientific Research Act (*Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek, WHW*)

These regulations have been adopted by the Dean of the Faculty of Health, Medicine and Life Sciences after advice of or consent from the Programme Committee (*Opleidingscommissie*) and after consent from or in consultation with the Faculty Council (*Faculteitsraad*) on 11 June 2024.

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SECTION 1 GENERAL PROVISIONS

Article 1.1 Applicability of the regulations

- These regulations apply to the education and assessments of the Master of Science programme in Healthcare Policy, Innovation and Management, hereafter referred to as 'the programme'. The programme is provided by the Faculty of Health, Medicine and Life Sciences of Maastricht University, hereafter referred to as 'the faculty'.
- 2. These regulations apply to all students who participate in the programme in the academic year 2024-2025 and replace, in principle, all other regulations.
- 3. The replacement of the former regulations by these new ones may not disadvantage students that started the programme when former regulations were applicable. In cases where the new regulations disadvantage students, the old regulations are applicable.
- 4. Contrary to the content of article 1.1 sub 2 and 3, the educational programme which was valid at the moment that the student started with the educational programme, including the exams, is still applied for the student.
- 5. These regulations also apply to students from other programmes, faculties or institutions of higher education, insofar as they follow components of the programme to which these EER apply.
- 6. For components of the programme that students follow at another degree programme, faculty or institution of higher education, the EER for the other programme, faculty or institution apply to the component in question.

Article 1.2 Definitions

In these regulations, the following terms and definitions apply:

- a. the Act: the Dutch Higher Education and Scientific Research Act (Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek);
- b. academic year: the period from 1 September of a calendar year up to and including 31 August of the following calendar year;
- c. student: a person who is registered at the university for education and/or participates in assessments of the programme;
- d. programme: the master's programme referred to in Article 1.1 of these regulations, consisting of a coherent whole of longitudinal learning tracks and other educational components;
- e. longitudinal learning track; longitudinal teaching programme consisting of authentic professional tasks and/or other teaching and learning activities. There are 4 tracks in the programme; Knowledge track Organization and Management, Knowledge track Economics and Governance, Skills track, Professional development track;
- f. authentic professional task: an educational assignment that represents the work graduates can encounter in the work field upon graduation;
- g. teaching and learning activities; activities, embedded in a longitudinal learning track, intended to help a student develop their competency in the roles described in the competency framework;
- h. competency framework: five roles that HPIM graduates fulfil in their professional functions after graduation (see appendix 1);
- i. role: a role that an HPIM graduate can serve: Expert, Investigator, Innovator, Collaborator, Professional;
- j. portfolio: programmatic assessment tool, serving as the basis for monitoring, guiding, and assessing a student's competence level;
- k. portfolio assessment: medium- or high-stakes assessment of a student's competence level;
- I. portfolio product: a product produced by one or more students, on which an expert, educator, or peer provides feedback, or on which students reflect themselves, using a feedback rubric;
- m. portfolio assessor: an HPIM staff member who is an examiner and is responsible for judging a student's competence level and achievement based on a review of the evidence (feedback, assessment data and all other relevant information) in the student's portfolio, during the medium- and high-stakes portfolio assessment;
- n. portfolio assessment committee: committee of portfolio assessors, responsible for making medium- or high-stakes decisions about students' competency level and progress;
- o. examination: the final high-stakes portfolio assessment for the master's programme, which refers to achieving a competent level in all competency roles;

- p. registration: the administrative recording of the passing results of the examination;
- q. remediation plan: a personalized plan of remedial activities with the aim to enable the student to pass the portfolio assessment;
- r. examiner: a portfolio assessor, a thesis supervisor, or a thesis assessor;
- s. coach: an HPIM staff member assigned to the student who is responsible for monitoring and guiding / coaching the student in their competence development, providing information about the curriculum and portfolio system, and providing an advice to the portfolio assessment committee;
- t. coach meeting: a meeting between the student and their coach, in which the student's progress, competency level, competency development, and curriculum path are discussed;
- u. expert: an educator or other person who provides guidance to a student. This can include lecturing, providing workshops, engaging in other teaching and learning activities, or providing feedback;
- educator: an HPIM staff member who provides guidance to students who perform an authentic professional task. This can include lecturing, providing workshops, providing other teaching and learning activities, or providing feedback;
- w. research project: scientific research project executed by the student during the placement that results in a thesis;
- x. thesis: a written assignment, in the form of a scientific article or report, reflecting a scientific research project executed during the programme;
- y. placement; a period in which a student performs their research project, at Maastricht University or another institution;
- z. period coordinator: an educator who is responsible for the content of the education for a particular period in the program;
- aa. student portal: online learning environment where students have access to educational materials, messages, and results;
- bb. ECTS: European Credit Transfer System credits, with one credit equaling 28 hours of study;
- cc. board of examiners: the board referred to in Article 7.12 of the Act;
- dd.board of admission: the board responsible for judging the admissibility of the candidate to one of the master's programmes;
- ee. rules and regulations: additional rules defined by the board of examiners associated with the Education and Examination Rules;
- ff. faculty board: the faculty board referred to in Article 9.12 of the Act;
- gg. UM: Maastricht University.

The other terms have the meaning given to them by the Act.

SECTION 2 ADMISSION

Article 2.1 Responsibilities

The Dean of the Faculty of Health, Medicine and Life Sciences has given the responsibilities of the admission to the board of admission to oversee the applications for the master's programme. The board of admission will make the final decisions of those applicants who will gain admittance into a master's programme, based upon the admission requirements.

Article 2.2 Admission requirements

- 1. Applicants awarded a relevant bachelor's or master's degree from a university are eligible for admission to the master's programme. A list of relevant programmes is published on the UM website.
- 2. Applicants awarded a relevant bachelor degree from a university of applied sciences (HBO in Dutch) and sufficient academic skills are eligible for admission to the master's programme. A list of relevant programmes as well as the additional requirements are published on the UM website.
- 3. In addition to the above (paragraphs 1 and 2) applicants who have demonstrated proficiency in the English language, either automatically or by showing language tests certificates (see the UM website) are eligible for admission to the master's programme.
- 4. For this master's programme the UM application deadlines apply. These deadlines are published on the UM website.

Article 2.3 Language requirements with non-Dutch diplomas

- 1. Holders of a non-Dutch diploma can only register if they have met the minimum English language requirement corresponding to IELTS (international English Language Testing System) with a score of at least 6,5.
- 2. The requirement referred to under (a) is met if the person concerned has obtained one of the following diplomas or certificates:
 - o a completed bachelor's or master's study programme where the language of instruction is English;
 - o an International or European Baccalaureate, a US high school diploma or UK GCE A-levels, or
 - Can demonstrate sufficient proficiency in English, for example through English taught courses, internships or work experience in an English environment, or
 - \circ $\,$ can submit one of the following language test certificates.
 - IELTS (6,5)
 - TOEFL Paper-based test (575)
 - TOEFL Internet test (90)
 - TOEIC listening and reading (720) and speaking and writing (310)
 - Cambridge [Advanced (CAE) Grade C, First Certificate in English (FCE) Grade A, First Certificate in English (FCE) Grade B or
 - similar accredited certification.

SECTION 3 CONTENT AND STRUCTURE OF THE PROGRAMME

Article 3.1 Aim of the programme

- 1. The study programme is intended to:
 - provide academic education as set out in the educational concept and profile of Maastricht University;
 - provide a broad-based learning experience within the scientific fields of the programme;
 - prepare the student for a professional career in the field of Healthcare Policy, Innovation and Management (see also Appendix 1).
- 2. The programme contains teaching and learning activities, as well as support and guidance, for the academic and intellectual development of students, above all in five roles (see also Appendix 1):
 - Expert;
 - Investigator;
 - Innovator;
 - Collaborator;
 - Professional.

3. The programme's educational activities are based on the principles of research integrity and the ensuing guidelines for good research practices as laid down in the Netherlands Code of Conduct for Research Integrity (see UM website).

Article 3.2 Form of the programme

- 1. The programme is offered on a full-time and part-time basis.
- 2. The programme commences once a year in September.
- 3. Learning tasks and their associated portfolio products can take multiple shapes, including written reports or documents, video presentations, debate sessions, posters, etc.

Article 3.3 Language of instruction

Throughout the programme and in all feedback and assessments the English language will be the standard.

Article 3.4 Communications and announcement of decisions

- 1. The faculty board, the board of examiners and the assessors may use the student portal and e-mail through the UM account for communications relating to the programme, feedback, and assessments.
- 2. The faculty board, the board of examiners and the assessors may use the student portal and e-mail through the UM account to announce decisions.
- 3. The student must regularly check their university e-mail address, the Faculty website and the digital learning environment. Information disseminated via e-mail, the digital learning environment or the website will be assumed to be known.

Article 3.5 Study Load

The programme has a study load of 60 ECTS.

Article 3.6 Content, structure and ECTS of the programme

The content, structure and ECTS of the programme are described in Appendix 2.

Article 3.7 Flexible programme and flexible masters

- A student registered for one of the faculty's programmes may, under certain conditions, formulate an educational programme of their own which is different from the educational programme stated in Appendix
 The composition of such a programme must be approved beforehand by the board of examiners.
- 2. The flexible programme must have a study load of 60 credits.
- 3. The board of examiners will decide whether to grant permission for the student's proposal within four weeks after it receives the proposal.
- 4. In granting the permission, the board of examiners will indicate which programme offered by the faculty will include the programme formulated by the student for purposes of the Education and Examination Regulations.

SECTION 4 EDUCATION

Article 4.1 composition and actual design

- 1. The programme components and programme study load are stated in Appendix 2.
- 2. The teaching and learning activities of the programme are stated in Appendix 2.
- 3. The educational programme includes 40 weeks per year.

Article 4.2 Attendance and best-efforts obligation

- 1. Each student is expected to actively participate in each teaching and learning activity they are attending.
- 2. In addition to the general requirement that the student actively participates in the activity, the student must participate in at least 75% of the mandatory teaching and learning activities unless there are different requirements defined in the period-specific assessment plan.
- 3. If the student has participated in less than 75% of the activities the period coordinator may give additional assignments to the student.

SECTION 5 ASSESSMENT

Article 5.1 General

1. Assessment in the programme is characterized by a programmatic assessment approach. The programme as a whole is marked as one educational unit, for which 60 ECTS are granted all at once at the end of the programme, if the student has demonstrated, at the level specified in the Rules and Regulations and the program's assessment plan, their competency in each of five the roles of the competency framework (see Appendix 1 and Appendix 2).

- 2. High-stakes assessment takes place at one moment in the programme, as described in article 5.5, and involves a judgment by the portfolio assessment committee of the competency level of a student on each role in the competency framework, on the basis of assessment of the indications of competency levels per portfolio product and the associated narrative feedback, as described in article 5.2, and the coach's final advice as described in article 5.4.
- 3. Medium-stakes assessment takes place at one moment in the programme, as described in article 5.5, and involves a judgement by the assessment committee of the competency level of a student each role in the competency framework, on the basis of assessment of the indications of competency levels per portfolio product and the associated narrative feedback, as described in article 5.2, and the coach's final advice as described in article 5.4.
- 4. Low-stakes feedback takes place continuously throughout the programme, as described in article 5.2, and involves feedback from an educator or expert.
- 5. The decision to grant the 60 ECTS to a student at the end of the programme is made by the assessment committee in the high-stakes assessment.
- 6. The assessment plan describes the assessment procedures and processes, and the achievements the student must make in order to progress in, and graduate from, the programme. The assessment plan is made available to students through the Student Portal at the start of the programme at the latest.

Article 5.2 Feedback on learning tasks and other educational activities

- 1. Low-stakes feedback takes place throughout the programme, in the form of evaluation of performance in each portfolio product. Students will receive an evaluation of their performance and narrative feedback on each competency related to a specific portfolio product. The evaluation of the performance and the feedback are recorded in the student's portfolio.
- 2. Evaluation of performance and the associated narrative feedback will be linked to rubrics that describe criteria and standards at different levels of performance, for each of the competencies related to an assessment product. For this purpose, a competency rubric is used that describes three competency levels: insufficient, proficient, excellent.

Article 5.3 Portfolio

- 1. Each portfolio product, as well as the evaluation of performance and narrative feedback regarding the competencies associated with said product, is recorded in the student's portfolio.
- 2. It is the responsibility of the student that the portfolio contains all received assessments of performance and narrative feedback pertaining to portfolio products, peer-assessments, reflections, recommendations, and all other information regarding the student's competence level and competency development prior to the progress meeting with their coach, and the submission deadline for portfolio assessment.

Article 5.4 Coach meetings

- 1. During each of the professional development weeks in the programme, a meeting takes place between the student and their coach, in which the student's progress, competency level, and curriculum path are discussed.
- 2. Prior to the medium-stakes assessment, the coach provides an advice regarding the student's progress and competence development in relation to the HPIM competency framework and assessment criteria to the assessment committee, based on the prior coach meetings with the student.
- 3. Prior to the high-stakes assessment, the coach provides an advice regarding the student's progress and competence development in relation to the HPIM competency framework and assessment criteria to the assessment committee, based on the prior coach meetings with the student.

Article 5.5 Assessment procedure

- 1. Medium-stakes assessment determines a student's eligibility to access the placement.
- 2. For the medium-stakes assessment moment:
 - a. Two members of the assessment committee, the portfolio assessors, review the student's competence level in the competency framework, on the basis of assessment of the indications of competency levels per portfolio product and the associated narrative feedback, as described in article

5.2, and the coach's final advice as described in article 5.4. To obtain eligibility to access to the placement, the student needs to demonstrate the ability to complete moderately complex tasks while being guided and supported by educators, at the proficiency level specified in the Rules and Regulations and Assessment plan for all roles in the competency framework. In case the assessment by the two portfolio assessors of the student's competency diverts, the student's portfolio is discussed by the full portfolio assessment committee, after which a final medium-stakes assessment is provided by the committee. In case the committee members are not in agreement, a majority vote determines whether the student is granted access to the placement.

- b. Students are eligible for the medium stakes assessment if they have obtained at least 13 datapoints per role in the competency framework, have demonstrated participation in a minimum of three elective skills trainings, and meet the programme's attendance and best-effort obligation.
- 3. High-stakes assessment takes place at the end of the programme, to grant or deny graduation.
- 4. For the high-stakes assessment moment:
 - a. All members of the assessment committee assess the student's portfolio. To graduate, the members of the assessment committee need to agree unanimously that the student has demonstrated the ability to independently complete moderately complex tasks, at the proficiency level specified in the Rules and Regulations and assessment plan for all competencies. "Independently" does not refer to completing a task without support from others, but to using available resources and support proactively and appropriately.
 - b. Students are eligible for the high-stakes assessment moment if they have obtained a minimum of 26 datapoints per role in the competency framework, have completed the master thesis, have demonstrated participation in a minimum of 8 elective skills trainings, and meet the programme's attendance and best-effort obligation. The master thesis should be assessed at least at the level 'proficient' on the HPIM competence rubric for all applicable roles.
 - c. Upon positive assessment by the committee, students obtain a registration for completion of the programme.
- 5. In case there is a negative assessment in the medium-stakes assessment, the student formulates a remediation plan in which they specify which additional elective learning tasks will be undertaken to achieve the required competence level within the same academic year. The portfolio assessment committee needs to approve the remediation plan. Students can reapply for the medium-stakes assessment moment within the deadline described in the Assessment plan. The assessment committee has the possibility to provide a non-binding advice to a student to discontinue the programme.
- 6. In case there is a negative assessment in the high-stakes assessment, the student formulates a remediation plan in which they specify which teaching and learning activities will be undertaken in the subsequent academic year, to achieve the required competence level. The assessment committee needs to approve the remediation plan. Students can reapply for the high-stakes assessment moment upon completion of the activities in their remediation plan. The assessment committee will re-assess the student's portfolio within the deadline described in the Rules and Regulations.

Article 5.6 Placement and Thesis

- 1. The board of examiners lays in consultation with the management of the programme down the requirements with regards to the nature and content of the placement in separate rules. These rules are published on the Student Portal and are considered to be part of the Rules and Regulations.
- 2. A placement coordinator is assigned to the master. The placement coordinator is responsible for granting a proposal admissible.
- The Board of Examiners appoints an examiner as thesis supervisor/1st examiner for the placement and thesis and a thesis assessor / 2nd examiner for the thesis. The thesis supervisor/1st examiner has expertise on the thesis topic.
- 4. The placement coordinator supports the appointment of the thesis supervisor/1st examiner for the placement and thesis and the thesis assessor / 2nd examiner of the thesis.
- 5. The student may undertake a placement supervised by the faculty only once during the master's programme.
- 6. Theses written by two or more students are not allowed.

Article 5.7 Determination and announcement of assessment results

- 1. The board of examiners determines the standards for assessing each examination component. The standards are included in the Rules and Regulations.
- 2. The expert or educator provides feedback within 15 working days of the date on which the portfolio product was handed in.
- 3. The portfolio assessment committee announces the result of the portfolio assessment within 15 working days of the submission deadline of the portfolio.

Article 5.8 Period of validity

- 1. In principle, portfolio products and portfolio assessment results are valid for an unlimited period.
- 2. Notwithstanding this, the board of examiners may require additional or replacement portfolio products or assessment in case the portfolio product or assessment moment was more than five years ago.

Article 5.9 Retention period for assessments

- 1. The learning tasks, feedback, and other portfolio documents will be retained in paper or digital form for two years after the examination result is determined.
- 2. The final theses and evaluation of these will be kept for at least seven years after the evaluation.

Article 5.10 Exemption

- 1. The board of examiners may, at a student's request, grant the student an exemption from taking an authentic profession task including one or more of the associated assessments if the student demonstrates in writing to the board of examiners' satisfaction that the student has previously:
 - either passed an exam for a university programme which was similar in terms of content and level or
 - gained sufficient knowledge and skills relevant to the exam concerned, either through work or professional experience.
- 2. An exemption may only pertain to an entire authentic professional task and not a component thereof.
- 3. A student can be granted exemption from no more than two authentic professional tasks in the programme,
- 4. The placement and master's thesis are excluded from this exemption option.
- 5. In order to qualify for an exemption, a student has to submit a written request to the board of examiners within a minimum of 6 weeks prior to the start of the relevant authentic professional task.
- 6. The board of examiners will not grant any exemption based on exams passed by a student outside the programme during the period in which the student was barred by the board of examiners from participating in the programme because of fraud.

Article 5.11 Fraud

- 1. 'Fraud', including 'plagiarism', means actions or omissions by a student which make it impossible in whole or in part to properly evaluate the student's knowledge, understanding and skills.
- 2. 'Plagiarism' means the presentation of ideas or words from one's own or someone else's sources without proper acknowledgment of the sources.
- 3. If the board of examiners determines that a student has engaged in fraud with respect to an assessment or assessment component, the board of examiners can take appropriate measures.
- 4. In serious cases of fraud, the board of examiners can propose to UM's Executive Board that the student(s) concerned be permanently deregistered from the programme.
- 5. In the uniform regulations of the FHML/UM for Fraud and Irregularities is specified which sanctions the board of examiners can apply.

Article 5.12 Unsuitability (*Iudicium Abeundi*)

1. In exceptional circumstances and after carefully weighing the interests at stake, the board of examiners may, stating reasons, ask the dean to request that the Executive Board terminate or deny a student's registration for a programme if, through their conduct or statements, the student shows that they is unsuitable to practice one or more professions for which the programme is training the student or

is unsuitable for the practical preparation for the profession.

2. If the faculty dean is asked by the Executive Board for a recommendation on a proposed termination or denial of registration based on the reasons stated in paragraph 1, the dean will in turn ask for a recommendation from the board of examiners. The recommendation to the dean will be supported by reasons.

SECTION 6 EXAMINATION

Article 6.1 Examination

- 1. The board of examiners determines the result and date of the examination and issues the certificate as referred to in Article 6.3 as soon as the student has satisfied the requirements for the examination programme.
- Prior to determining the result of the examination, the board of examiners may conduct their own investigation of the student's competence if and insofar as the results of the relevant tests give reason to do this.
- 3. To pass the examination, the student must have completed all programme components and show the level of competence described in article 5.6.4
- 4. To pass the examination and receive the certificate, the student must also have been registered for the programme during the period that the assessments were taken.
- 5. A certificate may only be issued after it has been shown that the student has satisfied all the obligations, including paying the tuition fees.
- 6. The last day of the month in which the student satisfied all the examination obligations will be considered the examination date (graduation date).
- Students who have passed the examination and who are entitled to the issuance of a certificate may, stating reasons, ask the board of examiners not to do this yet.
 This request must be submitted at least one month before the final assignment is turned in or the final

exam is taken.

The board of examiners in any event grants the request:

- if the student is selected by the faculty for a double degree, an extracurricular placement or an extracurricular exchange, or
- if the student has held/will hold a board position for which a financial support from the 'Profileringsfonds' will be granted for at least nine months, or a Student Introduction Committee ('INKOM') board position.

The board of examiners may also grant the request if refusal would result in an exceptional case of extreme unfairness because of the fact that the student concerned could not have taken the automatic graduation into account when he or she was planning their study.

Article 6.2 Degree

Students who have passed the examination will be awarded the degree 'Master of Science'.

Article 6.3 Certificate and statements

- As proof that the examination was passed, the board of examiners issues a certificate, after it has been stated by or on behalf of UM's Executive Board that the procedural requirements for receiving the certificate have been met. The certificate is based on the model that UM's Executive Board has adopted. One certificate will be issued per programme, even if the student completes several specialisations or tracks.
- 2. The certificate that the examination has been passed also indicates:
 - a. the name of the institution;
 - b. the name of the programme;
 - c. the examination components;
 - d. the degree awarded;
 - e. the date on which the programme was most recently accredited or was subjected to the new programme test;

- 3. Students who are entitled to the issuance of a certificate may, stating reasons, ask the board of examiners not to do this yet (pursuant to Article 6.1 sub 7).
- 4. The certificate is signed by the chair of the board of examiners or an appointed substitute and the faculty dean or an appointed substitute.
- 5. The certificate is awarded in public, unless the board of examiners decides otherwise in exceptional cases.
- 6. The board of examiners includes a diploma supplement as referred to in Article 7.11(4) of the Act with the certificate. This diploma supplement is based on the model adopted by UM's Executive Board, which is in compliance with the agreed European standard format.
- 7. The board of examiners may award the '*cum laude*' designation in accordance with the provisions in the Rules and Regulations.
- 8. A student who has passed the medium-stakes assessment moment and who cannot be issued a certificate will upon request, receive a statement issued by the board of examiners that indicates their level of competence.

Article 6.4 Right of appeal

Within six weeks after the decision by the examiner and the board of examiners is announced, the student may appeal this decision to UM's Complaint Service Point.

The appeal must be signed, must include a date and the name and address of the party lodging the appeal, must indicate the grounds for the appeal and, if possible, must include a copy of the decision being appealed.

SECTION 7 STUDY GUIDANCE

Article 7.1 Study progress administration

The faculty records the students' individual study results and makes them available for the student through the student portal.

Article 7.2 Study guidance

The faculty will provide for the introduction and study guidance for students registered for the programme.

SECTION 8 TRANSITIONAL AND FINAL PROVISIONS

Article 8.1 Amendments

- 1. Amendments to these regulations may be adopted in a separate decision by the faculty board, after a recommendation from the programme committee and after consent from or consultation with the faculty council.
- 2. An amendment in these regulations will not pertain to the current academic year, unless the interests of the students will not reasonably be harmed as a result.
- 3. In addition, amendments may not affect, to the students' detriment, a decision regarding a student which has been taken by the board of examiners pursuant to these regulations.

Article 8.2 Notice

The faculty board ensures that proper notice is given of these regulations, the Rules and Regulations adopted by the board of examiners, and any changes to these documents, by, for example, placing such notice on the faculty website and in the student portal.

Article 8.3 Evaluation

The Faculty Board will ensure that the education of the programme is regularly evaluated, assessing at least – for the purpose of monitoring and if necessary adapting the student workload – the amount of time students need to complete their duties as set out therein.

Article 8.4 Unforeseen cases/safety net scheme

- 1. In cases not covered or not clearly covered by these regulations, decisions are taken by or on behalf of the faculty board, after it has consulted with the board of examiners.
- 2. In individual cases in which application of the Education and Examination Regulations, would lead to manifestly unreasonable results, the board of examiners can deviate from the stated regulations in the student's favour.

Article 8.5 Effective date

This Regulation will come into force on the 1st of September 2024 and will apply to the academic year 2024/2025.

Appendix 1: Aim and intended outcomes of the programme

HPIM is a multidisciplinary and internationally oriented Master of Science (MSc) programme in the field of healthcare policy, innovation, and management, which offers competency-based, personalised education to a diverse, international student population. **The programme's mission is to prepare students to become critical thinkers, who can analyse the complex problems facing modern health systems from different theoretical perspectives, design innovative solutions, and lead the necessary transformations towards a sustainable future. HPIM graduates are the healthcare managers, policymakers, consultants, researchers, and staff advisors of the future. Upon graduation, they are ready to (re)enter the labour market with the expertise as well as the investigative, innovative, collaborative, and professional competencies needed to propel their career in the health domain.**

The need for innovative professionals is related to several developments. Ongoing demographic shifts, the continuous emergence of new medical technologies, and related developments have fuelled a sustained growth of healthcare expenditures. In response, most countries now allocate a substantial part of their national income to healthcare. Worldwide, healthcare has become one of the biggest employment sectors. Consumer demands and expectations are rising, whereas resources to meet these demands are becoming scarcer. Workforce shortages form a particular challenge, spanning a spectrum of roles (i.e. from physicians and nurses to allied health professionals and support staff) and increasingly impacting the ability to provide timely and comprehensive care to an expanding patient population.

These developments increasingly confront current and future healthcare managers, policymakers, consultants, researchers, and staff advisors with fundamental questions, such as:

- How can we ensure equitable access to high quality health care?
- How can we improve the performance of health systems?
- How can we deliver efficient yet person-centeredness in care?
- How can we recruit and retain a sufficient number of competent professionals?
- How can we shape healthcare delivery in a sustainable and future-proof way?

Meeting these challenges requires revised, improved, new and thus innovative ways of organizing, planning, delivering, managing, governing, and evaluating healthcare. The need for innovation is key to all these issues and is recognised by international organisations such as the European Commission, World Health Organization, and OECD. HPIM has adopted the broad definition of innovation according to the OECD (2005): "an innovation is the implementation of a new or significantly improved product (good or service), process or method".

The multidisciplinary nature and competency-based education approach of the HPIM programme prepares students for a range of possible functions in different health sectors, systems, and settings. Within those diverse contexts, HPIM graduates are well-prepared for a successful career in health care, with a strong, theoretical basis in key disciplines related to healthcare policy, innovation, and management, as well as relevant competencies in research, innovation, leadership, communication, and collaboration, amongst others.

Competency framework

The HPIM mission statement embraces a competency-based education (CBE) approach for future HPIM professionals. CBE is based on the principle that predetermined competencies guide teaching, learning and assessment, to ensure that graduates demonstrate proficiency in essential competency domains or roles. The aim is to transform learners into future professionals who are committed to excellence and have the competencies to engage in life-long learning. In CBE, learners play a central role, participating actively in both learning and assessment, with a vital role for frequent and meaningful performance feedback.^{1,2}

The HPIM programme is based on a Competency Framework consisting of two levels: (1) a set of broad competency roles (or 'domains'); and (2) the specific competencies needed to master those roles.

¹ Frank JR, Snell L, Englander R, et al. Implementing competency-based medical education: moving forward. *Medical Teacher*, 2017;39:568-73.

² Frank JR, Snell LS, Cate OT, et al. Competency-based medical education: theory to practice. *Medical Teacher*, 2010;*32*:638-45.

Competency roles (Level 1)

The HPIM Competency Framework distinguishes five roles that HPIM graduates fulfil in their professional functions after graduation (see Figure 1). There are four roles in the outer leaves of the framework, which are partly interrelated: Expert, Investigator, Innovator, and Collaborator. The fifth role is that of HPIM Professional, which forms the heart of the competency framework. This fifth role emphasizes several key professional values that guide the HPIM graduate in all their roles and activities.

Figure 1 illustrates the HPIM competency roles, emphasizing both their distinct and intertwined nature. HPIM graduates need to master each of the roles in the HPIM Competency Framework to effectively operate as 'critical thinkers, who can analyse the complex problems facing modern health systems from different theoretical perspectives, design innovative solutions, and lead the necessary transformations towards a sustainable future', as specified in the programme's mission statement.



Figure 1: HPIM Competency Framework

The roles included in the Competency Framework for HPIM can be described as follows:

The *Expert* is able to appraise, interpret and reflect on fundamental theories and concepts in healthcare economics, governance, organisation, and management, and leverage these theories and concepts to analyse complex problems in the health domain and address them through innovation.

The *Investigator* has an inquisitive nature and is able to formulate, study and answer relevant research questions related to innovation in the health domain. This includes research design and execution, as well as communication of findings to diverse stakeholders using tailored methods.

The *Innovator* is sensitive to (emerging) trends in the health domain and broader society, and uses creative approaches and tools to improve, renew or transform the status quo in the health domain, in a socially responsible and inclusive manner.

The **Collaborator** is an empathic, interpersonal, open, and professional communicator, who is experienced in working in diverse teams with mixed professional, cultural and disciplinary backgrounds. This includes having a professional, learning attitude in engaging with feedback and in collaboration.

The *HPIM Professional* is a reflective and self-directed individual, with a positive attitude towards lifelong learning. They are socially responsible professionals, who operate in the wider world of health and wellbeing with respect, integrity, resilience, and a commitment to inclusion.

Competencies per role (Level 2)

To adequately fulfil the five roles distinguished in the HPIM Competency Framework, students need to develop specific competencies. These competencies, distinguished by role, guide all teaching and learning, and assessment activities in the programme, to ensure that HPIM graduates demonstrate proficiency in each competency role.

To emphasize the equal importance of each of the five competency roles for HPIM graduates entering the health domain, each role consists of three competencies. The competencies integrate the knowledge, skills and attitudes needed to fulfil specific tasks, to emphasise our holistic perspective on learning and teaching in the complex reality of health innovation. The main disciplines included in HPIM are explicitly noted in the Expert competencies, to emphasise the programme's multidisciplinary nature.

<u>Expert</u>

By the end of the master HPIM, students demonstrate the ability to:

- 1. Leverage fundamental theories and concepts related to health(care) economics, governance, organization, and management to assess, understand, and address complex problems in the health domain.
- 2. Identify similarities and differences between fundamental theories and concepts related to health(care) economics, governance, organization, and management, and determine their relevance to specific problems in the health domain.
- 3. Critically appraise literature and evidence regarding (innovation in) the health domain as related to health(care) economics, governance, organization, and management.

Investigator

By the end of the master HPIM, students demonstrate the ability to:

- 1. Formulate relevant research questions related to innovation in the health domain from the perspectives of health(care) economics, governance, organization, and/or management.
- 2. Design and execute rigorous and ethically responsible research projects to answer relevant research questions.
- 3. Communicate research results to diverse stakeholders, using various approaches.

<u>Innovator</u>

By the end of the master HPIM, students demonstrate the ability to:

- 1. Sense (emerging) trends within the health domain and society, and act upon these trends with societal responsibility.
- 2. Make and evaluate informed decisions within a landscape of diverse stakeholders and under uncertain conditions.
- 3. Improve, renew, or transform of the status quo in the health domain, in co-design with (potential) end-user(s).

Collaborator

By the end of the master HPIM, students demonstrate the ability to:

- 1. Communicate in an empathic, interpersonal, open, and professional manner.
- 2. Collaborate in teams and project workgroups that are diverse in terms of, amongst others, demographic, cultural, and disciplinary backgrounds.
- 3. Receive and provide feedback from and to others and reflect on the team's performance and their own responsibility in collaborative work.

Professional

By the end of the master HPIM, students demonstrate the ability to:

1. Engage in lifelong learning, by reflecting on their own competencies as expert, investigator, innovator, and collaborator.

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- 2. Act as global citizens, who recognize and understand the wider world of health and wellbeing, and operate in this context with respect, integrity, resilience, and in an inclusive manner.
- 3. Lead themselves, that is, self-direct their personal development based on a commitment to professional excellence.

Appendix 2: The content, structure and ECTS of the programme

With the HPIM Competency Framework as starting point, the HPIM curriculum is designed as a competencybased education (CBE) programme. The programme encompasses one year of full-time or two years of parttime education with a total study load of 60 ECTS. Authentic Professional Tasks form the backbone of the curriculum, linking the HPIM Competency Framework to teaching and learning, and assessment activities.

Authentic Professional Tasks

Authentic professional tasks (APTs) are complex, real-world tasks, which connect the knowledge, skills and attitudes students build during HPIM to their value in practice. They are illustrative of the kind of tasks HPIM graduates will fulfil once they enter the professional field and fit well with the competency-based and integrative nature of the HPIM curriculum. During the master, students fulfil a total of seven APTs to develop their competencies as Expert, Investigator, Innovator, Collaborator, and Professional (see Figure 2).

The APTs were developed using the principles of the Four-Component Instructional Design (4C/ID) model by Van Merriënboer.³ One of the core principles within this model is scaffolding, which implies that students should be presented with increasingly complex tasks as they progress through the curriculum, while the support they receive in completing these tasks diminishes as they progress through the curriculum. To ensure that students are not overwhelmed by the complexity of an APT, each APT consists of multiple, variable learning tasks, which target (combinations of) the different roles included in the HPIM competency framework. Within each APT, these tasks are also scaffolded. Thus, both within each individual APT as well as across the curriculum, students increasingly work in a self-directed manner as they master the HPIM roles and associated competencies. Moreover, the APTs facilitate personalised and contextualised learning, for example by allowing students to choose their own real-world problems, topics, and settings.

Six of the seven APTs included in HPIM are grouped into two thematic clusters. APTs 1, 3 and 5 focus on the meso (i.e. organizational) level of health care and are embedded in the Knowledge track 'Organization and Management of Health Services' (see also Part 2 of this Nominal Plan). These APTs are interlinked in terms of the theories and concepts used to understand healthcare organizations and build up in terms of complexity. APTs 2, 4 and 6 focus on the macro (i.e. system) level of health care and are embedded in the Knowledge track 'Economics and Governance of Health and Care'. Here as well, the APTs build on a common body of knowledge in health economics, policy, and governance, and offer increasing complexity over time. APT 1 through 6 all constitute group assignments. The final APT (APT7) concerns the HPIM Research Project, which is an individual assignment, on which students report in an individual master thesis. All APTs are described in more detail in Part 2 of this Nominal Plan.

Teaching and learning activities

Teaching and learning activities (TLAs) provide students with support, information, supervision, and guidance during the process of completing their APTs. TLAs are offered by teaching staff (e.g. instructions, feedback, discussions, knowledge clips, lectures, and coaching), by experts from practice (e.g. visiting lectures, meet-the-expert panels, and expert interviews), by peers (e.g. peer feedback), by external tools (e.g. theoretical resources, case descriptions, manuals, portfolio), and by students themselves (e.g. self-reflection, portfolio building, self-study).

All TLAs offered within the curriculum are clustered into four longitudinal learning tracks: two Knowledge tracks, one Skills track and one Professional Development track (see Figure 2). These tracks are described in more detail in the program's Nominal Plan.

³ Merriënboer JJG. The Four-Component Instructional Design Model: an overview of its main design principles. <u>https://www.4cid.org/wp-content/uploads/2021/04/vanmerrienboer-4cid-overview-of-main-design-principles-2021.pdf</u>



Figure 2: Longitudinal learning tracks in HPIM

TLAs are based on the PBL/CCCS learning pillars, meaning that there is an emphasis on collaborative, contextual, constructive, collaborative, and self-directed learning. Across the curriculum, students learn to work in various groups and teams – including peer groups (5 students), learning teams (10 students), and APT teams (5 students). Students stay with the same peer group during the entire curriculum but the composition of the learning teams and APT teams varies between tasks and over time. APTs as well as the learning tasks within APTs are based on 'real-world' activities and cases, thus appealing to students' future roles in the health domain as Expert, Investigator, Innovator, Collaborator and Professional. HPIM students are expected to lead (i.e. self-direct) their personal competency development, supported by a digital portfolio system, coaching and peer support within the Professional Development Track.

Part-time and contract students participate in the APTs – including the learning and APT teams – together with full-time students, albeit in separate peer groups. During their first year, part-time students complete the three meso-level APTs in the Knowledge track Organization and Management of Health Services (APT 1, 3 and 5). In their second year, part-time students complete the macro-level APTs in the Knowledge track Economics and Governance of Health and Care (APT 2, 4 and 6). For the Skills track, part-time students participate in the mandatory skills trainings related to the APTs per year, while electives are spread out evenly over the two-year study period. Regarding the Professional Development track, part-time students are expected to be fully present during the mandatory introduction week. The remaining PD activities are again spread out over the two-year study period.

Teaching methods

The HPIM programme utilizes a modern version of Maastricht University's well-known Problem Based Learning teaching approach. That is, Authentic Professional Tasks form the backbone of the programme. These APTs are complex problems that resemble the problems and assignments students will face once they graduate from the programme (i.e. are authentic). Furthermore, these tasks are embedded in various settings and contexts. Students work on these tasks individually as well as in diverse teams. Within each APT, students are presented with the knowledge and skills they need to complete the task(s) they are working on. Similarly, they are required to develop the appropriate attitudes during these tasks. The main teaching methods of the programme are briefly described below. These teaching methods are supported by various (electronic) educational tools including, but not limited to, Maastricht University's Learning Management System (Canvas) and portfolio system (PebblePad).

Expert sessions

Expert sessions are sessions in which students interact with experts in order to acquire the knowledge necessary to complete their tasks. Experts can either be academic content experts or experts from practice. Examples of such sessions include (online) lectures, guest lectures, working lectures, Q&A sessions, expert interviews, and

panel discussions. Regardless of their format, the main goal of these sessions is the acquisition of knowledge relevant to the APT at hand.

<u>Teamwork</u>

Teamwork spans all activities that students undertake with a group of peers within the programme. During the programme, students are members of three main teams: the peer group, a learning team, and an APT team. Figure 3 illustrates the relations between these teams, using an example of 1 peer group within 1 period.

The peer group is a team of 5 students that focuses on each other's professional development (visualized as peer group A in Figure 3). Students within a peer group are supervised by a coach (see the section on Professional Development track for more details) and the peer group stays together for the duration of the entire programme, which ensures that students develop the trust and safety required to be open and honest about each other's professional development. Collaborating closely with a group of peers over an extended period of time (i.e. an entire academic year), furthermore mirrors real-world teamwork scenario's and, as such, helps them to prepare for their future career by stimulating reflection and resilience in teamwork.

A learning team consists of two peer groups (i.e. 10 students in total) and is the team in which students discuss and process the knowledge related to a specific APT, similar to a tutorial group meeting in the former HPIM curriculum. Each APT, different peer groups are combined into a learning team. This is visualized in Figure 3 as a combination of peer group A and B in APT1, which has contact days on Tuesdays during period 1, and peer group A and C in APT2, which has contact days on Fridays in period 1. Constructing learning teams composed of different combinations of peer groups in every APT, ensures that students are exposed to diverse backgrounds and perspectives throughout the programme, and able to build relationships with a wider range of peers. The supervision of the learning team meetings is done by the coach of one of the two peer groups from which the learning team is composed (for example the coach of peer group A in APT 1 and the coach of peer group B in APT2), and the supervision diminishes over the course of the programme (i.e. 4 meetings are supervised in period 1, 2 meetings in period 2, and 1 meeting in period 4) in line with the scaffolding principle (see the section on Knowledge tracks for more detail).

An APT project team consists of 5 students, randomly drawn from a learning team. An APT project team is the team within which students work to complete the complex task(s) of the APT and produce the associated outputs, similar to the training projects in the former HPIM curriculum. In each of the first six APTs, peer groups are in a new learning team, from which two APT project teams will be drawn. This allows students to work with teammates with various backgrounds and perspectives (as each APT project team is new), while preventing students from avoiding the 'difficult conversations' within a team (as part of the APT project team are members of the peer group, with whom they will have to continue collaborating throughout the academic year). APT project teams are supervised by the expert staff members that oversee the APT.



Figure 3: Illustration of relation between peer groups, learning teams, and APT teams in Period 1 (APT1 and 2). Circles represent studetns

Skills training

Skills training refers to all sessions in which students work on tangible skills, including training sessions as well as the individual or team-based preparation or practice associated with those sessions. The programme contains mandatory skills training, elective skills training, and research skills training. See the description of the Skills track in part 2 of this nominal plan for more details.

Coaching

At the start of the HPIM programme, all students are assigned a coach (i.e. a staff member involved in the HPIM master). The role of the coach is to guide students in their professional development. Students meet with their individual coach five times throughout the programme to discuss their development on all five of the HPIM roles. The student's portfolio forms the basis for these sessions.

Self-directed learning

Self-directed learning encompasses all the activities that students undertake on their own in order to acquire relevant knowledge, practice required skills, or develop the necessary professional attitudes. Examples include reading literature or watching online lectures, preparation and practicing of skills, self-reflection and portfolio building, data collection, and writing.

Appendix 3. Language of instruction

For an English only programme:

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All teaching and learning activities, as well as all forms of assessment within the HPIM programme, are conducted in English. The choice for the language of instruction and examination within the programme is in line with the UM Code of Conduct on language in accordance with the Dutch Higher Education and Research Act (WHW) art. 7.2 and is related to the nature of the HPIM programme and the profile of HPIM graduates. The content of the programme has a clear international orientation, as the general theories and frameworks that students explore in the different courses can be applied to many settings nationally and internationally, as is expressed during the placements. In other words, students are expected to be able to appraise and apply evidence from any context to complex problems in any context, particularly within high-income countries and health systems. The academic communities in healthcare management, health policy, health economics, and related disciplines are highly internationally oriented. That is, it is common in these fields, which form the basis of the curriculum's content, to advance knowledge through studying similar problems in various empirical settings (e.g. countries). In line with this international academic practice, students utilize research articles about international cases during each of the APTs. Lastly, the design, teaching approach and multidisciplinary focus of the HPIM programme are unique among health administration programmes world-wide. As a result, HPIM graduates are in high demand in the national (i.e. Dutch) as well as international (within and outside the EU) labour market. Therefore, English is the most adequate instructional language for the HPIM programme.