COURSE AND EXAMINATION REGULATIONS

Valid from 1 September 2023

Master's programmes Biomedical Sciences, Population Health Management and Vitality and Ageing.

These Course and Examination Regulations (henceforth OER) have been drawn up in accordance with the Higher Education and Research Act [*Wet op het hoger onderwijs en wetenschappelijk onderzoek*, WHW] (henceforth the Act) and the following Leiden University regulations:

- the Leiden Register of Study Programmes Framework Document
- the Academic Calendar
- the Regulations for Student Registration, Tuition Fees and Examination Fees
- the Regulations for Admission to Master's Programmes
- the Online Proctoring Protocol

The model OER are laid down in Dutch and then translated into English. In the event that there are differences between the two versions, the Dutch version will prevail.

Pursuant to Article 7.14 of the Act, the Faculty Board regularly evaluates the OER and considers, for the purpose of monitoring and –if necessary- adjusting the study load, how much time it takes students to comply. In accordance with Article 9.18 of the Act, the Programme Committee is assigned the task of annually assessing the implementation of the OER.

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Chapter 1 General Provisions

Article 1.1 Scope of the regulations

These regulations apply to the teaching and examinations of the Master's programme(s) Biomedical Sciences, Population Health Management and Vitality and Ageing, henceforth referred to as the programme.

The programme is instituted in the Faculty of Medicine of Leiden University and Leiden University Medical Centre collectively, henceforth referred to as the Faculty, and is taught in Leiden and/or The Hague.

Article 1.2 Definitions

In these regulations the following definitions apply:

a.	Board of Admissions	The Board established by the Faculty Board that has the duty of determining, with the application of the entry requirements referred to in Article 7.30b, (1) and (3) of the Act and the University Regulations for Admission to Master's Programmes, which applicants can be admitted to this Master's programme;
b.	Board of Examiners	The Board of Examiners for the programme, established and appointed by the Faculty Board in accordance with Article 7.12a of the Act;
c.	Component	One of the courses or practical assignments of the programme, as referred to in Article 7.3 of the Act. The study load of each component is expressed in whole credits. Each component is concluded with an examination;
d.	Credit	The unit in EC that expresses the study load of a component as referred to in the Act. According to the ECTS, one credit equals 28 hours of study;
e.	Degree classification	Further degree classification by the Board of Examiners;
f.	Digital teaching environment	A digital environment, such as Brightspace, in which students can work together, communicate and learn;
g.	ECTS	European Credit (Transfer System);
h.	Education Administration Office	The office in the faculty where students can go for information and to register for courses (education information centre, service desk, Education Service Desk);
i.	Prospectus	The digital prospectus containing specific and binding information about the programme: https//studiegids.universiteitleiden.nl/. The Prospectus constitutes an integral part of these regulations, and is included as an appendix;

j.	Enrolment protocol	The enrolment protocol containing specific and binding information concerning enrolment in components, examinations, and final examinations, established by the Executive Board (https://inschrijfprotocol.universiteitleiden.nl/). The enrolment protocol constitutes an integral part of these regulations, and is included as an appendix;
k.	Examination (*tentamen*)	An inspection of the knowledge, understanding and skills of the student with respect to a particular component, and an assessment thereof (in accordance with Article 7.10 of the Act). The assessment can take place in written form, orally as well as digitally, or a combination of these methods. An examination may consist of several constituent examinations. Credits are only awarded for examinations passed. The inspection is conducted according to the method determined by the Board of the Examiners to assure the quality of examination and final examinations;
l.	Examiner	The person appointed by the Board of Examiners to conduct examinations, in accordance with Article 7.12c of the Act;
m.	Final examination (*examen*)	The examinations associated with the components belonging to the programme or the propaedeutic phase of the programme, including an investigation to be carried out by the Board of Examiners itself, as referred to in Article 7.10 (2) of the Act;
n.	First/second reader	The first or second examiner to read and assess the thesis/final paper/final report/final programme assignment. The first reader/reviewer is also the supervisor;
o.	Language of instruction	The language of a programme, in which lectures and tutorials are given and examinations and final examinations are held;
p.	Leiden Register of Study Programmes	Register of the programmes offered by Leiden University, maintained under the supervision of the Executive Board, as referred to in Article 7 of the Management and Administration Regulations;
q.	Level	The level of a component according to the abstract structure as defined in the Leiden Register of Study Programmes Framework Document[1];
r.	Nominal duration of study	The study load in years of study as established in the Central Register of Higher Education Programmes ;
s.	Portfolio	A monitoring and assessment file with which students (1) demonstrate that they have achieved a sufficient level of academic education to be awarded the degree, (2) record their

[1] Leiden Register of Study Programmes Framework Document

		personal process of academic learning during the programme, and (3) receive appropriate supervision and study advice;
t.	Practical assignment	A practical assignment that contributes to an examination or final examination, as referred to in Article 7.13 (2) (d) of the Act, and takes one of the following forms: - writing a thesis/final paper/final report/final programme assignment, - writing a paper or creating an artistic work, - carrying out a research assignment, - participating in fieldwork or an excursion, - completing an internship, or - participating in another educational activity aimed at acquiring particular skills;
u.	Pre-master's programme	Opportunity to compensate for deficiencies in the context of a failure to meet the entry requirements as referred to in Article 7.30e of the Act;
v.	Programme	The programme to which the OER relates: a coherent set of components, aimed at achieving clearly defined objectives relating to the knowledge, understanding and skills that a graduate of the programme is expected to have acquired. Each programme is concluded with a final examination;
w.	Student	A person enrolled at Leiden University in order to follow the courses, and/or sit the examinations and final examinations of the programme;
x.	The Act	The Higher Education and Research Act [*Wet op het hoger onderwijs en wetenschappelijk onderzoek,* WHW];
y.	Working day	Monday to Friday, excluding public holidays and the compulsory closure days specified by the Executive Board;
z.	Student Council	Student participation council of the faculty of Medicine, as referred to in Article 9.37 of the Act;
aa.	Programme Committee	Committee concerned with the quality of the study programmes, the most important body of the University's quality assurance system. The PC advises the Programme / Faculty Board and assesses the programme through periodic evaluations. The committee is comprised of both teachers and students. Also known as *Opleidingscommissie*, or *OLC*.

All other terms have the meaning ascribed to them by the Act. Definitions specific to the programme are laid out in Appendix 1.

Article 1.3 **Codes of conduct**

1.3.1 The Leiden University Code of Conduct on Standards of Behaviour between Lecturers and Students is applicable.[2] The aim of this code is to create a framework for a good, safe and stimulating work and study environment within Leiden University, in which teachers and students respect each other and in which mutual acceptance and trust are important values.

1.3.2. The Code of Conduct on Remote Teaching applies[3]; this provides guidelines for teaching and learning in digital environments, remote environments or any form of teaching that is primarily dependent on IT services.

1.3.3 The Leiden University Regulations on ICT and Internet Use are also applicable.[4] These regulations define what is considered appropriate use of ICT and internet and how usage checks will be made. They also explain which conduct is not tolerated and the consequences that apply.

1.3.4 Furthermore, the Faculty codes of conduct apply to the programme, which can be found on the university website[5].

Chapter 2 Description of the Programme

Article 2.1 **Objectives of the programme**

The programme has the following objectives: all of which are laid out in Appendix 1.

Article 2.2 **Specialisations**

Both the Biomedical Sciences programme and the Population Health Management programme have specialisations, which are described in appendix parts A and B.

Article 2.3 **Learning outcomes**

Graduates of the programme have attained the following learning outcomes, listed according to the Dublin descriptors in the appendix.

Article 2.4 **Structure of the programme**

The programmes Biomedical Sciences and Population Health Management offer full-time tuition. The nominal duration for the full-time tuition is 2 years.

The nominal duration for the full-time programme of Vitality and Ageing is 1 year. The programme Vitality and Ageing also offers part-time tuition, which is offered as a (predominantly) daytime programme. The nominal duration of the part-time programme is 2 years.

[2] Leiden University Code of Conduct on Standards of Behaviour between Lecturers and Students
[3] Code of Conduct on Remote Teaching
[4] Leiden University Regulations on ICT and Internet Use
[5] University website with faculty codes (of conduct)

Article 2.5 **Study load**

The programme has a study load of 60 ECTS credits (Vitality and Ageing) and 120 ECTS credits (Biomedical Sciences and Population Health Management).

Article 2.6 **Start of the programme; uniform structure of the academic year**

The programme starts on 1 September and on 1 February of each year. In terms of regular courses, the programme is based on the university semester system and comprises 42 teaching weeks. The programme is flexible and is based on the schedule of the academic year, provided by the LUMC.

Article 2.7 **Final examinations of the programme**

The programme is concluded with a master's final examination.

Article 2.8 **Language of instruction**

2.8.1 Subject to the Code of Conduct on the Language of Instruction and Examination,[6] the language(s) in which the instruction is given is English and the language in which the examinations and final examinations are held is English. Except for the Biomedical Sciences specialisations Health and Education, in which the instruction and examination language is Dutch. See appendix A for details. Students are expected to have an adequate command of the language(s) of instruction and examination in the programme, in accordance with the requirements stated in Article 5.2.3. As appropriate, the Faculty publishes OER in English for English-taught programmes.

2.8.2 Contrary to Article 2.8.1, in individual cases the Board of Examiners can permit the student to write the final thesis in another language, in accordance with the Guideline on Language Policy.[7]

Article 2.9 **Quality**

The programme is accredited by NVAO[8] and meets the national and international quality requirements for degree programmes. The programme's teaching also meets the quality standards for teaching set out in the Leiden Register of Study Programmes Framework Document.

Chapter 3 **Curriculum**

Article 3.0 **Exceptions due to *force majeure* situations**

3.0.1 If it is not possible, in the event of a crisis as defined in Article 1 of the Leiden University Regulations on Crisis Management Coordination, or other *force majeure* circumstances, such as

[6] Code of Conduct on Language of Instruction
[7] Guideline on Language Policy
[8] The Accreditation Organisation of the Netherlands and Flanders.

coronavirus measures, to provide or take part in components as set out in the OER or the Prospectus, changes will be announced by the authorised body in due time via Brightspace.

Article 3.1 **Compulsory components**

3.1.1 The programme includes compulsory components worth a total study load as specified in the appendix. These compulsory components include the set components from which students are obliged to choose.

3.1.2 The Prospectus further specifies the actual structure of the programme, the study load, level,[9] content, method of examination, and structure of the components of the curriculum.

Article 3.2 **Optional components**

3.2.1 In addition to the components referred in 3.1.1, the student selects components worth a total study load as specified in the appendix.

3.2.2 The Board of Examiners must approve the student's selection of components.

3.2.3 In addition to the components taught at this university, and subject to the approval of the Board of Examiners, students may also select components offered by other Dutch or foreign universities, or components offered by another legal entity offering accredited undergraduate higher education programmes.

3.2.4 Students who are enrolled in the programme may assemble their own curriculum of components that are taught by an institution, as long as these are concluded with a final examination. They will require the permission of the most appropriate Board of Examiners. When granting such permission, the Board of Examiners also indicates to which University programme the curriculum is considered to belong.[10] If necessary, the Executive Board designates a Board of Examiners to take this decision.

Article 3.3 **Practical assignments**

3.3.1 For each component, the Prospectus specifies which practical assignments are included, the nature and scope of the student's workload for these practical assignments and whether participation in these is a condition of admission to (other parts of) the examination. The Board of Examiners may exempt students from a practical assignment, in which case the Board can choose to apply alternative conditions.

3.3.2 The Prospectus specifies the scope and study load of the thesis/final paper/final report/final programme assignment, including the requirements that the final thesis/final paper/final report/final programme assignment must meet.

[9] In accordance with the 'abstract structure', as described in the Framework Document of the Leiden University Register of Study Programmes.
[10] In accordance with Article 7.3h of the WHW ('free curriculum in higher education').

Article 3.4 Sitting examinations and taking part in components

3.4.1 Taking part in components

3.4.1.1 Students must register for the component according to the applicable enrolment protocol.[11]Registration is possible up to fourteen calendar days before the start of the component, as stipulated in the Prospectus. This means that the student registers for a component in MyStudymap, ticking the activities the student wants to take part in (lecture, tutorial, practical exercise and examination).

3.4.1.2 In the case of a component with restrictions on the number of participants, participation takes place in order of enrolment. For students enrolled in the programme, timely enrolment guarantees placement in the components that form part of the mandatory curriculum of the programme.

3.4.1.3 Contrary to Article 3.4.1.1, a different enrolment period may apply for certain components, if approved by the Faculty Board. The relevant components and the corresponding enrolment term can be found in the Prospectus.

3.4.1.4 Students who have not enrolled on time can report to the Education Administration Office of the faculty of which the study programme is part. The relevant enrolment protocol lists the circumstances on the basis of which students may be enrolled contrary to Article 3.4.1.1.

3.4.2 Sitting examinations and constituent examinations

3.4.2.1 At the same time as registering for the component, students register for the corresponding examination. Registration for the examination takes place in accordance with the provisions of Article 3.4.1.1.

3.4.2.2 Students who do not register for the component may register only for the examination or constituent examination. To be allowed to sit the examination or constituent examination, a confirmation of registration for the examination is required.

3.4.2.3 In order to sit the examination, students must confirm their participation. They can only sit an examination once confirmation of participation has been given.

3.4.2.4 Students will receive a notification in due time asking them to confirm or cancel their participation. Confirmation of participation in an examination is possible up to ten calendar days before the examination takes place.

3.4.2.5 Students who have not enrolled on time according to the applicable enrolment protocol may report to the Education Administration Office of the faculty of which the programme forms part. There is an additional provision for enrolment in Biomedical Sciences' FOS courses, which is specified in appendix part A.

[11] Course and examination enrolment – Leiden University

3.4.2.6 A different term applies for the situation as referred to in Article 4.6.2; in this case, students can register up to five calendar days before the examination takes place.

Article 3.5 Distribution of study materials

3.5.1 Students are not permitted to take photographs or make audio or video recordings of lectures or education-related meetings, including the feedback sessions after examinations (including examination assignments and model answers), without the explicit prior permission of the relevant lecturer. Should such permission be granted, students are only legally permitted to use the photograph or recording for their own use; all forms of distribution or publication of the photograph or recording are prohibited. A student has no independent control over these materials, unless the University has explicitly granted this to the student.

3.5.2 Students are prohibited from all forms of distribution or publication of study materials. The materials are for students' own use only.

3.5.3 Students are prohibited from infringing the intellectual property rights of the University, third parties or the person with whom licensing agreements were made.

Chapter 4 Examinations, Final Examinations and Further Education

Article 4.0 Exceptions due to coronavirus measures

4.0.1 If it is not possible, in the event of a crisis as defined in Article 1 of the Leiden University Regulations on Crisis Management Coordination, or other *force majeure* circumstances, such as corona measures, to offer examinations and final examinations in the form and at the point in time set out in the OER or the Prospectus, changes will be announced by the authorised body in due time via Brightspace.

Article 4.1 Frequency of examinations

4.1.1 Examinations are held twice during the academic year for each component offered in that academic year. The Board of Examiners determines the manner of resit for practical assignments.

4.1.2 The Faculty Board is responsible for the practical organisation of the examinations and final examinations and ensures, if necessary by means of invigilation, that the examinations and examinations proceed properly. If online proctoring is used, this is done according to the Online Proctoring Protocol.

4.1.3 For Population Health Management and Vitality and Ageing: non-applicable. Other programmes: If a component includes a practical assignment, students may only sit the examination as referred to in 4.1.1 if they have passed the practical assignment, unless the Board of Examiners decides otherwise.

4.1.4 If the grade for a component results from several constituent examinations, it is possible to vary from the number of examinations and resits as referred to in 4.1.1, on the understanding that students are given the opportunity to resit and pass the component by taking an

examination that is representative of the component. If applicable, this is specified in the Prospectus.

4.1.5 In accordance with Article 7.13 (2) (h) of the Act, the Prospectus specifies the dates of the examinations.

4.1.6 The Board of Examiners may set certain rules for taking the resit. These rules are specified in the Rules and Regulations of the Board of Examiners.

4.1.7 At a student's request the Board of Examiners may in exceptional circumstances diverge from the provisions of Article 4.1.1 and allow an additional resit.

4.1.8 During a master's programme, students may resit one examination that they passed, without prejudice to the power of the Board of Examiners to deviate from this stipulation in exceptional cases and at the student's request. This only applies if the resit takes place in the same academic year as the original examination. In the event of such a one-time resit, the highest result obtained applies.
The examination referred to in the first sentence may consist of a number of constituent examinations. Registration for this examination should take place in accordance with Articles 3.4.1.1 and 3.4.2.2.

4.1.9 The following are excluded from the resit option as referred to in Article 4.1.8:

- Oral examinations
- Practical assignments
- Examinations that the student passed at a different institution than Leiden University

4.1.10 If a component is included in multiple programmes, the student is only granted one opportunity to resit an examination that they previously passed for this component.

Article 4.2 **Obligatory sequence**

4.2.1 The Prospectus specifies the sequence in which examinations must be taken. Students may only sit examinations that are subject to a compulsory sequence once they have passed the examinations for one or more other components.

4.2.2 For the components and their attendant examinations which must be completed in a given sequence, the Board of Examiners may in special cases, and following a substantiated written request by the student, agree to an alternative sequence.

Article 4.3 **Form of examination**

4.3.1
The Prospectus states whether the examination or constituent examinations for a component take the form of a written, digital or oral examination, or a combination of these.

4.3.2 The procedure during examinations and the guidelines and instructions, as referred to in Article 7.12b (1) (b) of the Act, for assessing and establishing the results of examinations and final examinations are described in the 'Rules and Regulations of the Board of Examiners'.

4.3.3 Students with a disability or chronic medical condition are given the opportunity to apply for individual examination arrangements adjusted to their particular disability or condition. These arrangements may not affect the quality or level of difficulty of the examination. If necessary, the Board of Examiners seeks expert advice, as referred to in the Protocol on Studying with a Disability,[12] before reaching a decision.

4.3.4 In special cases, the Board of Examiners may, at the request of the student and within the scope of the OER, permit a student to sit an examination in another manner than specified in the Prospectus.

4.3.5 Examinations are held in the language(s) of instruction for this programme that are specified in the OER. At the request of the student, the Board of Examiners may permit a student to sit an examination in another language.

4.3.6 The final report is presented in a seminar or in an alternative manner that is to be further specified.

Article 4.4 **Oral examinations**

4.4.1 Students take oral examinations individually, unless the Board of Examiners decides otherwise.

4.4.2 Oral examinations are public, unless the Board of Examiners or the examiner concerned decides otherwise owing to special circumstances, or unless the student has reservations.

Article 4.5 **Rules and Regulations of the Board of Examiners**

4.5.1 In accordance with Article 7.12b (3) of the Act, the Board of Examiners establishes rules concerning the performance of its tasks and responsibilities and the measures it can take in the event of fraud.

4.5.2 The Board of Examiners is responsible for ensuring that the right of students to appeal against decisions of the Board of Examiners or the examiners is guaranteed.

[12] Protocol on Studying with a Disability

Article 4.6 **Assessment**

4.6.1 The examiner determines the grade immediately after an oral examination has been conducted. The student receives a message about the grade via the University study progress system.

4.6.2 The examiner determines the grade of any written or other form of examination or constituent examination within fifteen working days of the day on which the examination or constituent examination was held. The result is notified to the student within the same fifteen working days. The final grade is recorded in the University study progress system, and the student receives a message about it via that system. The student will be informed of the result at least five working days before the next opportunity to resit the relevant examination. If this deadline is not met, the resit can be postponed.

4.6.3 If the examiner is unable to comply with the periods of fifteen and five working days respectively, as specified in Article 4.6.2, the student is notified accordingly in a message sent to the student's u-mail address before this term expires. This message includes the (latest) date by which the student will be informed of the result.

4.6.4 The examination result is expressed as a whole number or a number to a maximum of one decimal place, between and including 1.0 and 10.0. The result of the examination is not expressed as a number between 5.0 and 6.0.

4.6.5 The examination result is considered to be a pass if it is 6.0 or higher.

4.6.6 If students must complete a practical assignment to be permitted to sit an examination, the Board of Examiners may decide that students have sat the examination once they have passed the practical assignments.

4.6.7 Together with the written or electronic notification of examination results, students are also informed of their right to inspect their graded examination papers, as referred to in Article 4.8, as well as of the appeals procedure.

4.6.8 The Board of Examiners may draw up rules that specify under which conditions it may exercise its power as specified in Article 7.12b (3) of the Act to determine that students do not have to pass every examination and/or under which conditions the results of constituent examinations can compensate for each other. These rules are specified in the Rules and Regulations of the Board of Examiners.

Article 4.7 **Period of validity of examinations**

4.7.1 The Faculty Board may limit the validity of an examination pass, subject to the authority of the Board of Examiners to extend the period of validity in individual cases. The period of validity of an examination pass may only be limited if the examined knowledge, understanding or skills are demonstrably outdated.

4.7.2 The Board of Examiners may, in accordance with the criteria specified in the Rules and Regulations and at the request of the student, extend the validity of examinations for a period to

be specified by the Board itself. In the event of special circumstances in the sense of Article 7.51 (2) of the Act the Board of Examiners will act in accordance with the pertinent provisions in Article 7.10 (4) of the Act.

4.7.3 The validity period referred to in 4.7.1 starts on 1 September of the academic year following that in which the grade was obtained or the exemption granted.

Article 4.8 **Inspection and feedback session**

4.8.1 Students are entitled to inspect and receive feedback on their graded examination within a maximum period of 30 calendar days following the publication of the results of a written or digital examination, and in any case before the resit takes place

4.8.2 During the period referred to in 4.8.1, students may inspect the examination questions and assignments, as well as the grading schemes used to grade the examination.

4.8.3 The time and manner of the inspection and feedback session on the examination are specified in the Prospectus or the digital teaching environment.

4.8.4 The Board of Examiners is authorised to decide whether the inspection of the examination paper and the feedback session are to be collective or individual.

4.8.5 The examiner determines where and when the inspection of the examination paper and the feedback session will take place.

4.8.6 Students who are unable to attend the feedback session due to demonstrable circumstances beyond their control are granted another opportunity, if possible within the period referred to in 4.8.1.

Article 4.9 **Exemption from examinations and/or practical assignments**

At the student's request and after consultation with the examiner in question, the Board of Examiners may grant the student exemption from one or more examinations or practical assignments if the student:

- has completed a component at a research university or university of applied sciences that is similar in content and level to the component for which the student is requesting exemption, or
- has demonstrated, through relevant work or professional experience, that they have acquired sufficient skills and knowledge in relation to the component in question.

Article 4.10 **Final examination**

4.10.1 The Board of Examiners awards a degree certificate when there is sufficient proof that the final examination has been passed.

4.10.2 As part of the final examination, the Board of Examiners is entitled to conduct its own evaluation of the knowledge, understanding and skills of the examination candidate and assess the results.

4.10.3 The degree is only conferred once the Executive Board has declared that all procedural requirements (including the requirement to pay tuition fees) have been met. One degree certificate is awarded for each programme. The degree certificate states that the programme or specialisation was delivered by Leiden University.

4.10.4 Pursuant to the regulations referred to in Article 7.11 (3) of the Act, a student who is entitled to graduate may ask the Board of Examiners to postpone graduation, as long as the student has not exceeded the maximum period of enrolment of the nominal study duration plus one academic year for the programme in question.

4.10.5 This request must be submitted within five working days of the student receiving notification of their final examination results. In the request the student must indicate when they wish to receive the degree certificate.

4.10.6 The Board of Examiners may also approve the request if refusing it would result in a considerable injustice.

4.10.7 A supplement in Dutch and/or in English that conforms to the standard European Diploma Supplement format, including the grading table applicable for the degree programme, is attached to the degree certificate. In addition to the degree certificate, students are issued with a translation of the degree certificate and a certificate in Latin.

Article 4.11 **The degree**

4.11.1 The degree of Master of Science is awarded to those who have passed the final examination of the programme.

4.11.2 The degree certificate specifies which degree has been awarded.

Article 4.12 **Degree classification**

4.12.1 The student is awarded a degree classification for the final examination.

4.12.2 The final degree classification is based on the weighted average of the grades obtained for all examinations that form part of the final examination, with the exception of the components for which an exemption was granted or for which the student only obtained a proof of attendance. Components completed from other programmes, including components followed abroad, must be approved by the Board of Examiners.

4.12.3 The weighted average of all grades is determined by multiplying the number of ECTS credits for each component by the grade awarded for this component, adding these together and then dividing the result by the number of credits earned.

4.12.4 Without prejudice to the provisions of 4.12.6 and 4.12.7, the degree certificate and diploma supplement include the ‘cum laude’ classification if the following conditions are met for the full-time programmes:

- the weighted average for all components is 8.0 or higher
- the grade for the final assignment of the master's programme is 8.0 or higher
- the examination was passed within the nominal duration of study + 1 year
- Further conditions specific to the programme are laid out, depending on the programme, in Appendix 1A or Appendix 1C.

The Board of Examiners sets corresponding conditions for part-time programmes, proportionate to the nominal duration of the study programme.

4.12.5 Without prejudice to the provisions of 4.12.6 and 4.12.7, the degree certificate and the diploma supplement include the 'summa cum laude' classification if the following conditions are met for the full-time programmes:

- the weighted average for all components is 9.0 or higher
- the grade for the final assignment of the master's programme is 9.0 or higher
- the examination has been passed within the nominal duration of study
- Further conditions specific to the programme are laid out, depending on the programme, in Appendix 1A or Appendix 1C.

The Board of Examiners sets corresponding conditions for part-time programmes, proportionate to the nominal duration of the study programme.

4.12.6 The Board of Examiners may also decide to award a distinction in other, exceptional cases, on the condition that the weighted average grade does not differ by more than 0.5 from the grades stipulated in the fourth and fifth paragraphs above. This may involve such considerations as the student's development throughout the study programme, any exceptional performances on the part of the student in completing the final paper or thesis and any other relevant exceptional circumstances.

4.12.7 If a student has been subject to a disciplinary measure as a result of irregularity, fraud or plagiarism, as set out in the Rules and Regulations, he or she is not awarded a distinction, unless the Board of Examiners decides otherwise.

Article 4.13 **Further education**

The degree awarded grants the holder access to a PhD programme.

Chapter 5 Admission to the programme as of September 2024 or February 2025

Article 5.1 **Confirmation of admission**

5.1.1 The Faculty Board provides confirmation of admission if the student meets the entry requirements specified in Articles 5.2 and 5.3. If the Executive Board has determined a maximum number of students for the programme, a confirmation of admission will be issued if the student meets the entry requirements and this maximum number is not exceeded.

5.1.2 Confirmation of admission must be requested according to the rules set out in the Regulations for Admission to Master's Programmes.[13]

Article 5.2 **Admission to the programme**

5.2.1 Holders of one of the following degrees may be admitted to the programme (Article 7.30b (1) of the Act):

a. a bachelor's degree as listed in the appendix parts
b. a bachelor's degree and additionally having passed the prescribed pre-master's programme pursuant to Article 5.4.1

5.2.2 Any person who fails to meet the degree requirements or prescribed pre-master's requirement referred to in 5.2.1 may submit a request to the Board of Admissions. The Board of Admissions assesses whether the applicant may be granted admission to the programme.

To this end, the Board of Admissions assesses whether the applicant possesses sufficient knowledge, understanding and skills at the same level as a bachelor's degree or related bachelor's degree as referred to in 5.2.1 (a) and (b) or whether they meet this conditions once additional requirements have been met.

The Board of Admissions assesses, where relevant, whether the applicant meets the qualitative selection requirements referred to in 5.2.4.

Article 5.2.3 **Dutch and English languages**

5.2.3.1 As further clarification of Article 2.8 concerning command of the language of instruction, a student who wishes to be admitted to an English-taught master's programme must have one of the following diplomas or must meet the criteria of:

- An International Baccalaureate diploma from a programme taught in English (or an IB diploma with English A)
- A diploma of secondary or higher education completed in Australia, Canada (with the exception of French taught programmes in Canada), Ireland, Malta, New Zealand, Singapore, the United Kingdom, the United States or South Africa
- A diploma of an English-taught university degree programme completed at a Dutch research university
- A pre-university education (VWO) diploma
- Components to be determined by the Board of Admissions, which provide evidence of a particular level of language, obtained in a bachelor's programme[14] as specified in the appendix.

5.2.3.2 If a student who wishes to be admitted does not meet the requirements in 5.2.3.1, at least one of the following language requirements can be set:

[13] Regulations for Admission to Master's Programmes

[14] This part only applies to students without a VWO diploma. The Code of Conduct for International Students in Higher Education applies to students with a foreign diploma.

- IELTS 6.5, where each separate constituent score must be at least 6.0;
- TOEFL (internet-based) 90, where each separate constituent score must be at least 20.[15]

At the time when the student applies for the programme, the test must have been taken no more than two calendar years previously.

5.2.3.3 As further clarification of Article 2.8 concerning command of the language of instruction, a student whose native language is not Dutch and who wishes to be admitted to a Dutch-taught master's programme must have passed TUL-gevorderd.

A Dutch as a Second Language Certificate (*Certificaat Nederlands als Vreemde Taal*) at Educatief Professioneel level is also sufficient to meet the language requirement. The above does not apply for students whose native language is not Dutch but who have completed a study programme in pre-university or higher education in Dutch.

5.2.3.4 The language requirements in <5.2.3.1, with the exception of the 2nd and 3rd bullet point, and> 5.2.3.2 do not apply when a higher command of the language is required and included as a qualitative admission requirement (selection requirement) in Article 5.2.4. If a higher language requirement is included in Article 5.2.4, all students are required to fulfil this requirement.

Article 5.2.4 **Qualitative admission requirements (selection requirements)**

5.2.4.1 In addition to the requirements specified in 5.2.1 or 5.2.2 or in derogation of the language requirement in 5.2.3, qualitative admission requirements apply for the Biomedical Sciences programme pursuant to Article 7.30b (2) of the Act. The qualitative admission requirements are described in appendix part A.

5.2.4.2 These qualitative admission requirements (selection requirements) will be measured or assessed according to the method described in appendix part A.

5.2.4.3 Proof that the student meets the qualitative admission requirements (selection requirements) must be provided by the deadline described in appendix part A.

Article 5.2.5 **Capacity limitation**

5.2.5.1 If the Executive Board has determined a maximum capacity for the programme, the order of admission will be determined by the qualitative admission requirements (selection requirements) as referred to in Article 5.2.4.1, this is further specified in appendix part A.

5.2.5.2 Where Article 5.2.5.1 applies, and a maximum capacity has been determined, the Board of Admissions will use the the method of selection on the grounds of the selection criteria described in appendix part A.

5.2.5.3 Where Article 5.2.5.1 applies, and a maximum capacity has been determined, the Board of Admissions will apply the deadlines for selection described in appendix part A.

5.2.5.4 Where article 5.2.5.1 applies, and a maximum capacity has been determined, the Board of Admissions will weigh the selection requirements as described in appendix part A.

[15] See also the comparison table: english-test-equivalencies.pdf (universiteitleiden.nl)

Article 5.3 **Deficiencies**

5.3.1 Holders of a bachelor's degree from a research university, a related university bachelor's diploma as referred to in 5.2.1, point b or an equivalent diploma with a maximum of 15 ECTS of deficiencies, may be admitted to the programme, as long as it may reasonably be expected that they will meet the entry requirements within a reasonable period of time.

5.3.2 Students who still have the deficiencies referred to in 5.3.1 when admitted to the programme may participate in the programme but may not sit a final examination or any examinations that the Faculty Board has specified in its decision to grant admission.

5.3.3 For the admission referred to in 5.3.1 the Board of Admissions assembles a catch-up programme with examination opportunities.

5.3.4 If students are admitted to the programme on the basis of 5.3.1 and must sit examinations to meet the entry requirements, these are not considered part of the curriculum of the master's programme.

Article 5.4 **Pre-master's programmes**

5.4.1 The programme has developed the following pre-master's programmes (for the following target groups) in order to remove deficiencies. The programmes are laid out in the appendix.

5.4.2 Information on the pre-master's programmes can be requested through the programme's study advisor.

Chapter 6 Student Counselling and Study Advice

Article 6.1 **Study progress administration**

6.1.1 The Education Service Desk keeps records of the results achieved by individual students.

6.1.2 Students may inspect their results in the study progress system at any time.

Article 6.2 **Introduction and student counselling**

The programme is responsible for the introduction and student counselling.

Article 6.3 **Supervision of the thesis/final paper/final report/final programme assignment**

6.3.1 Together with the first reader, the student draws up a plan for the thesis/final paper/final report/final programme assignment as referred to in 3.3.2. This plan is based on the study load for this component, as specified in the Prospectus.

6.3.2 The plan referred to in 6.3.1 also specifies the frequency and manner of supervision.

Article 6.4 **Top-level sport**

Students who engage in top-level sport at a professional level are given the opportunity to adjust their study programme to their sporting activities wherever possible. The programme determines who falls within this category in line with the guidelines set out in Section III of the Regulations on Financial Support for Students, drawn up by the Executive Board.

Article 6.5 **Disability or chronic medical condition**

Where possible, students with a disability or chronic medical condition are given the opportunity to adjust their study programme to the limitations resulting from their disability or chronic medical condition. The study programme can be adjusted to the individual disability or chronic medical condition of the student in question, but this must not affect the quality or level of difficulty of the components or the final examination curriculum itself. [16]

Article 6.6 **Study and internships abroad**

Special measures will be taken for students who suffer from a demonstrable delay in their studies as a result of study or an internship abroad that has been approved by the Board of Examiners, in order to limit the delay.

Chapter 7 Evaluation of the Programme

Article 7.1 **Evaluation of the programme**

The education in the programme is evaluated as follows:

The PDCA cycle serves as a guideline for our study programme evaluations. This approach is described in our Quality Handbook (*Kwaliteitshandboek Universitair Onderwijs*) and allows for systematic and continual improvement:

- The quality of programme components is evaluated through an anonymous survey. This survey is at the core of student participation at the LUMC. The survey's results are incorporated into an improvement plan which is shared with the Programme Committee.
- The quality of the programme in its entirety is evaluated continuously through various instruments, such as: programme audit, midterm review, student panel discussions, discussions with external stakeholders, programme evaluation, the *Nationale Studenten Enquête* (National Student Survey), the *Keuzegids*, and the *Nationale Alumni Enquête* (National Alumni Survey).

The Programme Board/Programme Director will inform the Programme Committee about the outcomes of the evaluation.

[16] Protocol on Studying with a Disability

Chapter 8 Final Provisions

Article 8.1 Amendments

8.1.1 Amendments to these regulations are adopted by a separate order of the Faculty Board, with the prior consent of the Student Council or the Programme Committee, depending on the topics concerned.
8.1.2 Amendments to these regulations which apply to a particular academic year must be adopted before the start of that year and published in the prescribed manner, unless earlier implementation of an amendment to the regulations is strictly necessary and, in all reasonableness, does not harm the students' interests.

8.1.3 Amendments to these regulations may not adversely affect any prior decision pertaining to students taken by the Board of Examiners on the basis of these regulations.

Article 8.2 Publication

The Faculty Board or Programme Board is responsible for publishing these regulations, the Rules and Regulations established by the Board of Examiners, and any amendments to these documents via the University website.

Article 8.3 Term of application

The Course and Examination Regulations apply for the duration of one academic year.

Article 8.4 Entry into force

These regulations enter into force on 1 September 2023.

Appendix part A:

Additional provisions for the Master's programme Biomedical Sciences

Ad. Chapter 1 General Provisions

Ad. Article 1.2 **Definitions**

Internship	"Junior research project-I (JRP-I)" and "Junior research project-II (JRP-II)". The Master's Internship Committee is responsible for the procedures of all master internships and the Scientific Review.

Ad. Chapter 2 Description of the Programme

Ad. Article 2.1 **Objectives of the programme**

The programme has the following objectives:

- to impart to students academic and scientific knowledge, insight, skills, and methodology in the field of (bio)medical sciences;
- to enable students to adopt and apply an academic attitude by acquiring the ability to:
  - engage in individual and independent academic thinking;
  - analyse complex data and/or issues;
  - write and present (scientific) data clearly, convincingly and coherently;
  - apply knowledge and skills from the field of (bio)medical sciences to (broader) scientific, societal or philosophical problems;
- to prepare students for a career and/or postgraduate education in and outside academia.

Ad. Article 2.2 **Specialisations**

The programme has the following specialisations:

- Research;
- Management;
- Communication;
- Education;
- Health.

Ad. Article 2.3 **Learning outcomes, in accordance with the Dublin descriptors.**

Holders of a Master's Degree in Biomedical Sciences:

Knowledge and Understanding	**Additional per specialization**
K1 know and understand (state-of-the-art) the development, structure, growth and integrated functioning of the healthy human body; K2 know and understand (in-depth and current) the main developmental disorders and diseases of the human body, as well as the endogenous and exogenous factors that play a part in the development of such disorders and diseases; K3 know and understand subject-specific aspects of various research fields, such as: molecular and cellular biology, genetics, immunology, anatomy, pathology, physiology, microbiology, neurobiology, endocrinology, -omics and/or data science; K4 know and understand the most common and state of the art analytical techniques in biochemistry, molecular biology, cellular biology, immunology and/or imaging, as well as different research methodologies in epidemiology and/or statistics; K5 know and understand the social aspects of the biomedical field, such as medical and scientific ethics, as well as legislation and rules related to conducting their own research; K6 know and understand the measures for promoting and protecting general health, as well as measures for avoiding or reducing complications and/or recurrence of diseases.	R*-K7 have deepened and extended learning outcomes K1 - K6 by performing a second research internship; R-K8 know and understand interdisciplinary aspects regarding laboratory animal science. M-K7 know and understand (at a basic level) the structure of businesses and organisations in the health care as well as the biomedical sector; M-K8 know and understand the basics of strategic and marketing management, financial management, project management, organisational sciences, patent policy and quality management. C-K7 know and understand aspects of modern information and communication technology; C-K8 know and understand aspects of human learning processes. E-K7 know and understand human learning processes. H-K7 have deepened and extended learning outcomes K1 - K6 by performing a second research internship; H-K8 have a broad overview of the medical sciences.

*) R=Research; M=Management; C=Communication; E=education; H=Health

Applying Knowledge and Understanding	Additional per specialization
AK1 apply most common and state of the art analytical, quantitative and statistical techniques in biomedical science; AK2 develop a scientifically sound research plan and protocol, and to evaluate this plan against the opinion of others; AK3 analyse and consider experimental results and data from their own research critically, in order to process these data and draw conclusions; AK4 think in multidisciplinary terms and make connections between their own research and (international) research results.	R-AK5 work independently on a research project in order to show overall control of their project and assess how their research can contribute to biomedical sciences and to society; R-AK6 formulate scientific questions/objectives in such a way that useful experiments can be designed of which the results will not only extend knowledge but preferably also contribute to solving problem(s) that is/are relevant to research and society. M-AK5 plan and execute a business project within a (non)-profit organisation, connected to the biomedical domain; M-AK6 work independently on a business project in order to show overall control of their project and assess how their project can contribute to the business domain. C-AK5 work independently on a communication project in order to show overall control of their project and assess how their project can contribute to the communication domain. E-AK5 familiarise pupils with the most important features and contents of the biology domain, as well as the position of the domain within society; E-AK6 help pupils to connect with professionals in other domains and support them in their choice of education and occupation; E-AK7 develop an educational product and evaluate it on feasibility and relevance. H-AK5 critically analyse medical data and to integrate these data in their own research; H-AK6 work independently on a research project in order to show overall control of their project and are able to assess how their research can contribute to biomedical sciences and society.

Making Judgements	**Additional per specialization**
J1 estimate the value and applicability of laboratory and clinical results obtained within the context of their research project; J2 relate research within the field of biomedical sciences to relevant associated fields (such as medicine, biology, pharmacology); J3 collect, select and interpret biomedical data from scientific literature for their research project systematically; J4 demonstrate responsible scientific conduct through the ability to form a balanced judgment based on consideration of relevant social, cultural, scientific or ethical aspects.	R-J5 collect, select and interpret scientific literature systematically in order to write their scientific review. M-J5 call attention to, characterise and describe problems in projects and organisations, and develop policies to address and resolve these problems. E-J5 develop a vision of biology as a school subject, its place in society, as well as its relationship to other natural sciences.
Communication	**Additional per specialization**
C1 communicate data and conclusions from their research project clearly and unambiguously, as well as the knowledge, motives and considerations underlying their research to a specialist and non-specialist public; C2 defend and debate their position regarding their own research; C3 participate in the organisation and management of multidisciplinary (project)teams, both in the private and public sector; C4 translate questions from the public debate into a scientific research question and formulate research projects on that basis.	C-C5 apply different methods of knowledge transfer; C-C6 place developments in (biomedical) science within a social perspective and make these developments understandable for a wider audience; C-C7 interest a wider audience in such developments, and to motivate this audience to participate in a social debate on such developments; C-C8 communicate research results comprehensibly to non-specialists, and judiciously advise on the implications of such research results. E-C5 apply different methods of knowledge transfer. H-C5 mediate between the life sciences and medical sciences by working in both disciplines.

Learning Skills	**Additional per specialization**
L1 acquire and extend knowledge and understanding efficiently, including study of specialist literature; L2 reflect on one's own actions as well as the actions and judgments of others and to assimilate them in order to improve a product or approach; L3 adopt a professional and critical position during (research) projects and are able to give and receive peer review; L4 can think and work at an academic level and can and will improve in this; L5 are capable and aware of the need to keep abreast of relevant developments in the biomedical field; L6 make a conscious choice for possible further education and/or a job on the labor market.	R-L7 acquire and extend knowledge and understanding independently for their own research; M-L7 acquire and extend knowledge and understanding independently for their own project. C-L7 acquire and extend knowledge and understanding independently for their own project. E-L7 acquire and extend knowledge and understanding independently for their own project and/or teaching. H-L7 acquire and extend knowledge and understanding independently for their own research.

For more information on the learning outcomes for the purpose of a function in secondary education see: 'Learning outcomes/ Initial Competence Requirements ICLON Teacher Education' (Eindtermen/ Startbekwaadheidseisen ICLON Lerarenopleiding) and the 'Decision on Competence Requirements for Teaching Staff' (Besluit Bekwaamheidseisen Onderwijspersoneel) (http://wetten.overheid.nl/BWBR0018692/ under Title 4: Competence Requirements havo and vwo upper school, in Dutch).

Ad. Article 2.3 **Learning outcomes: Tracks and diversity**

To achieve the learning outcomes, diversity in research methods and subjects has to be obtained as follows:

A. The Master's programme of each student must cover a diverse spectrum of research methods, literature and subjects. In order to accomplish this, the combination of the student's Junior Research Projects I and II, and FOS courses should contain diversity in research methodology and subjects as described in the Procedure for Training Periods Biomedical Sciences 2023-2024.

B. Students in the Research specialisation with specific interest in and strong motivation towards specialisation are allowed to do so in a track related to the research themes of the LUMC, e.g. *Data-driven research, Neuroscience, Immunity and Infection, Cancer,* or *Regenerative Medicine*, provided they cover the diverse spectrum of research methods, literature and subjects stated under A. Students can also determine their own specific area of specialisation or expertise, again within the set frameworks.

Ad. Article 2.4 **Structure of the programme**

The nominal duration of the master's programme Biomedical Sciences is two years.

Ad. Article 2.6 **Start of the programme; uniform structure of the academic year**

The programme starts on 1 September and on 1 February of each year.

Ad. Article 2.8 **Language of instruction**

In accordance with the Code of Conduct on the Language of Instruction and Examination[14] the language of instruction and examination in the programme is English in the programme for the Research, Management and Communication specialisations and English and Dutch for the specialisations Education and Health. Students are expected to have an adequate command of the language(s) of instruction and examination in the programme, in accordance with the requirements stated in Article 5.2.3. As appropriate, the Faculty publishes the Course and Examination Regulations in English for English-taught programmes.

Ad. Chapter 3 Curriculum

Ad. Article 3.1.1 **Compulsory components**

The programme includes compulsory components worth a total study load of 107 (Research); 103 (Health); 96 (Management); 101 (Communication); 112 (Education) ECTS credits. These compulsory components include the set components from which students are obliged to choose.

Ad. Article 3.2.1 **Optional components**

Alongside the components referred to 3.1.1, the student selects components worth a total study load of 13 EC for the Research specialisation; 17 EC for the Health specialisation; 24 EC for the Management specialisation; 19 EC for the Communication specialisation and 8 EC for the Education specialisation.

Ad. Articles 3.1 and 3.2 **Content of the programme**

Students within all specialisations are required to earn a minimum of 60 European Credits (ECTS) from courses pertaining to Biomedical Sciences.

The components of the **Research*** specialisation are:

Code	Component	ECTS	Practical	Level
312100100Y	Clinical Research in Practice	6	yes	400
312100200Y	Junior Research Project-I	29	yes	500
312100300Y	How to Write a Research Proposal	2	yes	400
312100400Y	Reflection Course: Scientific Conduct	1	no	400
312100510Y	Career orientation**	2	no	400
3125FOS-variable-Y	Choice of: Frontiers of Science***	12	yes	500
312200400Y	Course on Laboratory Animal Science	4	yes	400
312200100Y	Research Proposal Biomedical Sciences	5	no	600
312200200Y	JRP-II Research Internship	40	yes	600
312200300Y	Scientific Review Biomedical Sciences	6	yes	600
	Elective area	13		≥ 400

* Information and guidelines on the tracks *Data-driven research, Neuroscience, Immunity and Infection, Cancer,* and *Regenerative Medicine* can be obtained from the document "Tracks in the Research and Health specialisations master BMS 2023-24" in the general master BMS Brightspace module.
** Compulsory for students, starting from September 2018; For students, that have started in 2016-17 or 2017-18, 312100500Y Career orientation 1 ECTS suffices; students who have started prior to September 2016 have to take either Career orientation (1 ECTS or 2 ECTS) or Guest Lectures.
*** For an overview of the FOS courses organised by the LUMC see the e-prospectus.

The components of the **Management** specialisation are:

Code	Component	ECTS	Practical	Level
312100100Y	Clinical Research in Practice	6	yes	400
312100200Y	Junior Research Project-I	29	yes	500
312100300Y	How to Write a Research Proposal	2	yes	400
312100400Y	Reflection Course: Scientific Conduct	1	no	400
312100510Y	Career orientation**	2	no	400
3125FOS-variable-Y	Choice of: Frontiers of Science***	12	yes	500
4603BSMK3	Marketing Science*	3	yes	500
4603BSOM4	Operations Management*	4	yes	500
4603BSSF3	Strategic Financial Management*	3	yes	500
4603BSSY5	Strategy and Technology*	5	yes	500
312300100Y	Project Proposal Management internship	3	yes	600
312300200Y	JRP-II Management Internship#	26-42	yes	600
	Elective area	8-24		≥ 400

* Students with prior education in management, business and entrepreneurship (e.g. students who have completed the Science Based Business (SBB) Fundamentals course – Bachelor edition or MSc edition) are exempted from following the courses Strategy and Technology, Marketing Science, Operations Management and Strategic Financial Management. These courses need to be substituted by at least an equal number of ECTS of other SBB master modules, offered by the Faculty of Science or elsewhere.
** Compulsory for students, starting from September 2018; For students, that have started in 2016-17 or 2017-18, 312100500Y Career orientation 1 ECTS suffices; students who have started prior to September 2016 have to take either Career orientation (1 ECTS or 2 ECTS) or Guest Lectures.
*** For an overview of the FOS courses organised by the LUMC see the e-prospectus.
# During the JRP-II management internship it is compulsory to attend at least 3 Management

discussion sessions organized by the LUMC.

The components of the **Communication** specialisation are:

Code	Component	ECTS	Practical	Level
312100100Y	Clinical Research in Practice	6	yes	400
312100200Y	Junior Research Project-I	29	yes	500
312100300Y	How to Write a Research Proposal	2	yes	400
312100400Y	Reflection Course: Scientific Conduct	1	no	400
312100510Y	Career orientation**	2	no	400
3125FOS-variable-Y	Choice of: Frontiers of Science***	12	yes	500
4603SCRSCY	Research in Science Communication*	4	yes	500
4603SCISEY	Informal Science Education*	4	Yes	500
4603SCPDSY	Policy & Development in Science and Society*	4	Yes	500
4603SCSJ4Y	Science Journalism*	4	Yes	500
4603SCPRDY	Science Communication product development*#	4	yes	500
4603SCNV3Y	Scientific Narration and Visualization	3	yes	500
4603SCSPPY	SCS Project Proposal##	3	yes	600
4603SCSS1Y 4603SCSS2Y	JRP-II SCS Internship	23-34	yes	600
	Elective area	8-19		≥ 400

* Students that have finished 4603SCF19Y Science, Communication and Society (SCS)-Fundamentals (19 ECTS) are exempted from following these courses. All courses have to be successfully completed before the start of the JRP-II SCS internship.

** Compulsory for students, starting from September 2018; For students, that have started in 2016-17 or 2017-18, 312100500Y Career orientation 1 ECTS suffices; students who have started prior to September 2016 have to take either Career orientation (1 ECTS or 2 ECTS) or Guest Lectures.

*** For an overview of the FOS courses organised by the LUMC see the e-prospectus.

This course can only be followed after successful completion of the courses: Research in Science Communication, Informal Science Education, Policy & Development in Science and Society, Science Journalism and SCS: Scientific Narration and Visualization.

the SCS project proposal has to be written prior to the start of the research part of JRP-II SCS Internship.

The components of the **Education** specialisation are:

Code	Component	ECTS	Practical	Level
312100100Y	Clinical Research in Practice	6	yes	400
312100200Y	Junior Research Project-I	29	yes	500
312100300Y	How to Write a Research Proposal	2	yes	400
312100400Y	Reflection Course: Scientific Conduct	1	no	400
312100510Y	Career orientation**	2	no	400
3125FOS-variable-Y	choice of: Frontiers of Science***	12	yes	500
	Elective area	8		≥ 400
variable	ICLON lerarenopleiding Biologie	60	yes	600

** Compulsory for students, starting from September 2018; For students, that have started in 2016-17 or 2017-18, 312100500Y Career orientation 1 ECTS suffices; students who have started prior to September 2016 have to take either Career orientation (1 ECTS or 2 ECTS) or Guest Lectures.
*** For an overview of the FOS courses organised by the LUMC see the e-prospectus.

The compulsory components of the **Health*** specialisation are:

Code	Component	ECTS	Practical	Level
312100100Y	Clinical Research in Practice	6	yes	400
312100200Y	Junior Research Project-I	29	yes	500
312100300Y	How to Write a Research Proposal	2	yes	400
312100400Y	Reflection Course: Scientific Conduct	1	no	400
312100510Y	Career orientation**	2	no	400
3125FOS-variable-Y	choice of: Frontiers of Science***	12	yes	500
312400200Y	Clinical internship (semi-arts stage)#	22	yes	600
	Elective area##	6-17		≥ 400
312400100Y	JRP-II Health internship##	29-40	yes	600

* Information and guidelines on the tracks *Data-driven research, Neuroscience, Immunity and Infection, Cancer*, and *Regenerative Medicine* can be obtained from the document "Tracks in the Research and Health specialisations master BMS 2023-24" in the general master BMS Brightspace module.
** Compulsory for students, starting from September 2018; For students, that have started in 2016-17 or 2017-18, 312100500Y Career orientation 1 ECTS suffices; students who have started prior to September 2016 have to take either Career orientation (1 ECTS or 2 ECTS) or Guest Lectures.
*** For an overview of the FOS courses organised by the LUMC see the e-prospectus.
# The entry requirement for the "Semi-arts stage", minimal length 16 weeks, consists of the successful completion of all compulsory clinical rotations (co-schappen) belonging to the master's Dutch or Flemish, NVAO accredited, programme in Medicine.
The Examination Board decides on the minimum length of Junior Research Project-II depending on previous education of the student. This means that for students with a Dutch or Flemish, NVAO accredited bachelor Biomedical Sciences, JRP-II can be flexible in length. For students who have successfully completed the premaster programme Journey into Biomedical Sciences (BW-track; bachelor Medicine Leiden), JRP-II is at least 28 wks long (40 ECTS).

FOS courses organised outside LUMC

The following components count as FOS course, but are organized outside the LUMC. Specific selection criteria may exist.

Code	Component	ECTS	Level
3125FOS50Y	Tumor Immunology, Virology and Cancer‡ University of Heidelberg, German Cancer Research Center	5	500
3125FOS51Y	Pathogenic Microorganisms‡ University of Heidelberg, German Cancer Research Center	5	500
3125FOS56Y	Molecules, neurons, networks and behavior ‡ University of Heidelberg, Interdisciplinary Center for Neurosciences	5	500
3125FOS52Y	Biolab internship Tumor immunology, Virology and Cancer‡# University of Heidelberg, German Cancer Research Center	10-15	500
3125FOS53Y	Biolab internship Pathogenic Microorganisms‡# University of Heidelberg, German Cancer Research Center	10-15	500
3125FOS58Y	Biolab internship Neuroscience‡# University of Heidelberg, Interdisciplinary Center for Neurosciences	10-15	500

the number of ECTS is agreed upon prior to the start of the Biolab internship by the master Biomedical Sciences and the student. A 6 week Biolab will give 10 ECTS and a 9 week Biolab will give 15 ECTS.

‡ In addition to a FOS Course and/or Biolab internship in Heidelberg, students always have to follow at least 1 FOS course in Leiden. The additional ECTS obtained in Heidelberg will go to the elective area.

Electives

Elective courses (art. 3.2.3) can include the components listed below.

Code	Component	ECTS	Level
3126ELE03Y	A Philosophical Inquiry concerning Biomedicine	1	400
3126ELE12Y	Regression-analysis (Boerhaave)	1	400
3126ELE13Y	Survival-analysis (Boerhaave)	1	400
3010HC070X	Masterclass klinisch onderzoek en epidemiologie (in Dutch)	3	400
3010HC080X	Journal club: dagelijkse toepassingen van de epidemiologie (in Dutch)	3	400
3126ELE16Y	Statistical aspects of clinical trials (Boerhaave)	1	400
3010HC090X	Dwalingen in de methodologie (in Dutch)	2	400
3126ELE18Y	Analysis of repeated measurements (Boerhaave)	1	400
4433STPRP	Statistics and Probability (master Statistics and Data Science)	9	400
3126ELE21Y	Meta-analysis (Boerhaave)	1	400
3126ELE11Y	CIS: Presenting like a Pro	1	400
3126ELE11Y	CIS: Film-making for scientists	1	400
3126ELE28Y	Practical Aspects of Quality Management in Pharma and Biotech	6	500

The following component counts as elective course, but is organized outside the LUMC:

5794KAR21	Art, Science and Technology: Transdisciplinary Connections	5	500

Ad. Article 3.4 **Taking part in programme components and sitting examinations:**

Ad. Article 3.4.2.5
For enrolment in the FOS courses the procedure is described in "Procedure enrolment FOS courses 2023-24", which can be found in the general master BMS Brightspace module.

Ad. Chapter 4 Examinations, Final Examination and Further Education

Ad. Article 4.12 **Degree classification**

The degree certificate and the diploma supplement include the 'cum laude' classification if the following additional condition is met:
- all programme components of the master's programme were passed at the first attempt with a grade of 7.5 or higher;
- the grade for the JRP-I of the master's programme is 8.0 or higher.

The degree certificate and the diploma supplement include the 'summa cum laude' classification if the following additional condition is met:
- all programme components of the master's programme were passed at the first attempt with a grade of 8.3 or higher;
- the grade for the JRP-I of the master's programme is 9.0 or higher.

Final assignment is defined as "Junior research project-II (JRP-II)".

Ad. Chapter 5 Admission to the programme per September 2024 or February 2025

Ad. Article 5.1 **Confirmation of admission**

The maximum number of students that can be enrolled in the first year of the programme of the master Biomedical Sciences at the LUMC is 100 students.

Ad. Article 5.2 **Admission to the programme**

Ad. Article 5.2.1 Pursuant to Article 7.30b (1) of the Act holders of one of the following degrees may be admitted to the programme and one of its specialisations or who have successfully completed the following prescribed pre-master's programme:

- a bachelor's degree in Biomedical Sciences [bachelor biomedische wetenschappen], of a NVAO accredited Biomedical Sciences programme.
- a prescribed pre-master's programme pursuant to article 5.4.1.

Ad. Article 5.2.3.1

For the Education and Health specialisation, which requires additional knowledge of Dutch (see article 2.8), the requirements in article 5.2.3.3 have to be met.

The Board of Admissions may request that applicants demonstrate an adequate command at this level. If required, language requirements can be included as one of the qualitative admission requirements referred to in Article 5.2.4

Components to be determined by the Board of Admissions, which provide evidence of a particular level of language, obtained in a bachelor's programme:

- Applicants who have completed a bachelor's degree at a Dutch University and have started their bachelor's (WO) programme with a HBO-P are exempted from submitting an English Proficiency test.

- Applicants who have completed a bachelor at a Dutch university of applied sciences (HBO) (and have successfully completed our premaster's programme) are exempted from submitting an English Proficiency test.

Ad.Article 5.2.3 **Dutch and English languages**

Ad. Article 5.2.3.2 If a student who wishes to be admitted does not meet the requirements in 5.2.3.1, proof of sufficient proficiency in English can be provided by one of the following tests:

- Cambridge C2 Proficiency (CPE) or C1 Advanced (CAE) 180, Cambridge component score 169

Ad. Article 5.2.4 **Qualitative admission requirements (selection requirements)**

Ad. Article 5.2.4.1 In addition to the requirements specified in 5.2.1 or 5.2.2 or in derogation of the language requirement in 5.2.3, qualitative admission requirements apply for the Biomedical Sciences programme pursuant to Article 7.30b (2) of the Act:

- Relevant bachelor programme;
- Research experience for at least three months in a final project (internship) at the start of the master's programme;
- During a final project (internship) and/or courses the applicant has acquired skills with respect to working in a laboratory for at least three weeks;
- In depth knowledge, understanding and skills (demonstrated by grades and/or ECTS) in Immunology (6 ECTS), Pathology (6 ECTS), Bio-Statistics (6 ECTS), Neuroscience (6 ECTS) and Molecular Biology (9 ECTS) at the start of the master's programme;
- Grade Point Average of at least 6.0 (Dutch grading system or international equivalent) at the submission deadline.

Ad Article 5.2.4.2 These qualitative admission requirements (selection requirements) will be measured or assessed according to the following criteria:

- Date when the bachelor degree was obtained;
- Duration of the bachelor programme;
- Experience in performing research at a laboratory (internship);
- Skills with respect to working in a laboratory;
- In depth knowledge, understanding and skills in Immunology, Pathology, Bio-Statistics, Neuroscience and Molecular Biology;
- Grade Point Average (GPA; the GPA is the weighted average of the Bachelor's course grades according to the international Grading system (maximum 4.00)).

Submission of all the required application documents at latest one week after the first of April for a start in September. Submission of all the required application documents at latest one week after the 15th of October for a start in February, provided that the capacity of 100 is not exceeded.

Ad. Article 5.2.5 **Capacity limitation**

Where article 5.2.5.1 applies, the method of selection on the grounds of the criteria will be pursuant to article 5.2.4.

- A selection procedure shall be held if the number of applicants exceeds the maximum capacity. Applicants will be informed about such a measure within eight weeks after the submission deadline.

- Applicants will be informed whether or not they are provisionally admitted into the programme within ten weeks after the submission deadline.

The weighting of the criteria will be as follows:

- Period between the date that the (bachelor) degree was obtained and the start of the Biomedical Science master's programme, range 1-5;
- Duration of the study, range 1-5;
- Research experience, range 1-5;
- Skills with respect to working in a laboratory 1-5;
- In depth knowledge, understanding and skills in (demonstrated by grades and/or ECTS) in Immunology (6 ECTS), Pathology (6 ECTS), Bio-Statistics (6 ECTS), Neuroscience (6 ECTS) and Molecular Biology (9 ECTS), range 1-10;
- Grade Point Average (Dutch grading system or international equivalent), range 1-10.

And the following procedure will be used to rank the applicants:

- Each applicant will be assigned a random number.
- All scores will be summed and each applicant will receive a ranking number.
- "Hoge Laboratorium School" applicants who have successfully completed their 1 year pre-master's programme (premaster applicants) will receive the lowest ranking (e.g. rank number 1, 2, etc.);
- For the other applicants, the applicant with the highest score will receive the lowest available ranking (e.g. rank number 10, 11, etc.);
- When applicants have an equal score, the pre-assigned random number determines the ranking order of the applicants (lowest pre-assigned number will obtain the lowest available rank number);
- The applicants ranked in the range 1-100 are conditionally admitted to the programme, provided that they accept the offer within two weeks. If the offer is not accepted within two weeks, we will consider it to be rejected. The position will then be offered to the applicant with the next ranking number.

Ad. Article 5.4 **Pre-master's programmes**

Ad. Article 5.4 .1. The programme in Biomedical Sciences has developed the following bridging programmes (for the following target groups) in order to remove deficiencies:

Premaster's programme Biomedical Sciences- Hogere Laboratorium School (Track Biology and Medical Laboratory Research)

Students that master the Dutch language meaning:

- TUL or equivalent qualifications in the Dutch language
- Dutch as a Second Language Certificate (*Certificaat Nederlands als Vreemde Taal*) *Educatief Professioneel* level is also sufficient to meet the language requirement.
- havo-5, vwo-6 or have completed a study programme in pre-university or higher education in Dutch

from the Hogere Laboratorium School with a Dutch bachelor's degree in Biology and Medical Laboratory Research, including a research internship in an academic institution; may be admitted to the pre-master's programme. The pre-master's programme is limited to a maximum of 10 Dutch Hogere Laboratorium School students;

The compulsory components of the premasters' programme Hogere Laboratorium School (HLO; Track Biology and Medical Laboratory Research) which prepares selected bachelors HLO for a masters' programme in Biomedical Sciences are:

Code	Component	ECTS	Practical	Level
3127pre02Y	Immunology premaster (zonder practicum)	7	No	200
3127pre03Y	Infectious Agents and Immunity	6	No	300
311200220Y	Introduction to the Neurosciences	6	Yes	200
3127pre04Y	Introduction to Molecular Biology and Oncology	2	No	100
3127pre05Y	Molecular Biology and Oncology (zonder practicum)	9	No	300
3127pre07Y	Data Science assignment	1	No	200
311100360Y	Methoden en Technieken van Wet. Onderzoek	4	Yes	100
3127pre01Y	Human Pathology (zonder snijzaal)	5	No	300
311200270Y	Hormones and the Nervous System	8	Yes	300
3127pre06Y	CIS (premaster)	1	No	200

Medical students (LUMC); Journey into Biomedical Sciences (BW-track).

The compulsory components of the premasters' programme (Journey into Biomedical Sciences) which prepares selected Leiden Medical bachelors for a masters' programme in Biomedical Sciences (with specialisation Health) are:

Code	Component	ECTS	Practical	Level
3113426PPY	BW-track Cellular Communication	4	Yes	200
3113432PPY	BW-track Medical Genetics	4	No	200-300
3113436PPY	BW-track Immunology	4	No	300
3113442PPY	BW-track Molecular Biology and Oncology	5	No	300-400
3113454PPY	BW-track Summer practical	6	yes	300
3113451PPY	BW-track Review	4	Yes	300
3113453PPY	BW-track Internship	≥ 6	Yes	300-400

Part B

Additional provisions for the Master's programme Population Health Management

Article 2.1 Aim of the master's programme

The aim of the master PHM is competence-oriented education of students to become *academic trusted partners* in the field of healthcare. The learning outcomes pertain to acquiring substantive knowledge and subsequent ability to work with that knowledge and to acquiring the skills students need to be effective professionals.

Article 2.3 Intended learning outcomes

The intended learning outcomes are covered by six competences. Population Health Management expertise lies at the core of the competences. The competences are linked to the Dublin Descriptors with the corresponding character:

K. Knowledge and understanding
A. Applying knowledge and understanding
J. Making judgements
C. Communication
L. Lifelong learning skills :

1. *Population Health Management expert*
   - gather and analyse relevant data from multidisciplinary sources on population health to identify major health challenges in that population and formulate effective solutions (A);
   - analyse the impact of past, present and future technological, social and medical developments on the population health and vice versa (A, J);
   - create and apply instruments to segment and stratify risks in populations according to health (care) outcomes (A);
   - appraise and contemplate the contribution of various scientific traditions, like primary care, epidemiology, social sciences, health psychology, medical anthropology, biostatistics, public administration and governance in relation to the population health management (K);
   - design and contrast strategies to implement healthcare programmes with respect to population characteristics in which effective governance structures are respected (A).

2. *Academic skills*
   - use scientific theories and research to formulate and analyse health problems (A, J);
   - to create prediction models for health problems of specific and generic populations by using multidisciplinary research methods and scientific data(A);
   - critically reflect on causal pathways between determinants and outcomes taken into account specific populations and contexts (like time and environmental factors) (A);
   - know, recognise, acknowledge and act upon the scientific foundation of the different value perspectives in healthcare of their own value perspectives in healthcare and of various stakeholders (A, J);
   - analyse, interpret and appraise critically scientific evidence and distinguish scientific evidence with respect to quality (reliability and validity) and relevance(A, J);
   - independently design, perform and reflect upon scientific research using quantitative, qualitative and mixed methods research-methodology (A, C).

3. *Data driven thinking and acting*

- describe and explain the health and its determinants of a population by using quantitative and qualitative research methods in an interdisciplinary way (K, A) ;
- assess methods used for healthcare interventions, such as screening, treatment and prevention of risk groups with respect to their effectiveness and apply these methods in concrete situations (A, J);
- know various innovative strategies to predict health(care) outcomes, and be able to develop an innovative predictive strategy (K, A);
- develop, implement and evaluate interventions which fit the risk profile of the population to improve health outcomes (A).

4. *Eclectic thinking and acting*
   - collect, understand and communicate about the aetiology, diagnosis and prognosis of diseases related to healthcare needs of the population (A, C);
   - recognise the importance of the complexity of interactions between different diseases (syndemics) and anticipate upon them in the development of intervention programmes (A);
   - create and assess interdisciplinary healthcare programmes appropriate for the healthcare needs of a population to realise a sustainable healthcare infrastructure (A, J);
   - contemplate the various perspectives of different stakeholders (see 4.1) with regard to the specific health problems (like: youth at risk, multi-problem, etc.) (K);
   - evaluate intervention programmes and implementation strategies of interventions with respect to their (financial) feasibility and relevance (J);
   - demonstrate the benefits and challenges of data-linkage (A).

5. *Deliberative governance thinking and acting*
   - independently acquire, maintain and critically appraise scientific research about issues related to the sustainability of the healthcare infrastructure and the behaviour of its stakeholders (A, J, L);
   - synthesize and anticipate upon the interests of various stakeholders and characteristics of specific populations (K, A);
   - generate, assess and communicate interdisciplinary solutions for health problems taking into account different disciplines and interests (A, C);
   - argue the effect of the distinct governance structures and potential modifications for the health of a population (K).

6. *Transformative skills*
   - reflect on healthcare programmes and its components such as analysis, design, implementation and evaluation (A, L);
   - communicate solutions for health problems appropriately with the population at stake and stakeholders (C);
   - report verbally and in written form on solutions, including recommendations for health problems (C);
   - choose the appropriately communication and public affairs strategy appropriate for the population at stake and stakeholders (C);
   - improve their selves continuously by critically reviewing their own and other actions (L);
   - have insight in their personal (medical) leadership competencies to handle the continuously changing healthcare environment (L);
   - independently acquire and maintain relevant knowledge and skills (life-long learning), whether or not in the context of career changes (A, L).

Chapter 3 Contents of the programme

The compulsory components of the programme are:

Code	Year	Course	Level	EC
342110000Y	1	Fundamentals of Population Health Management	400	5
342120000Y	1	Study Design	500	5
342130000Y	1	Health and Health Behaviour	500	4
342140000Y	1	Governance	500	4
342150000Y	1	Responsible Data Analysis	500	5
342160000Y	1	Alternative Payment Models	500	4
342112000Y	1	Project Case I	500	6
342170000Y	1	Syndemics	500	5
342180000Y	1	Predictive Analytics	600	5
342190000Y	1	Panel Management Next Level	500	5
342111000Y	1	Implementation: putting PHM into action	500	5
	1	Project Case II	500	5
	1	Professional and Personal Development	500	2
	2	Choose one of the following tracks:		
		Epidemiology	500	30
		Governance	500	30
		Data Science	500	30
		Syndemics	500	30
Tba	2	Final research project	600	30
			Total	120

*Optional components

The first part of the second year is designed as a free format, in which students compile their own programme through a free selection of components. The selection is done during two orientation weeks and in consultation with the track coordinator. The student designs their own second year track (30ECTS) as long as it is a balanced programme which fits in one or two of the four tracks. It is subject of approval of the examination Board.

Transitional arrangements

Students who started the master's programme in September 2022 or earlier and have successfully completed the old 7ec course Project Case II (342113000Y) are exempted from the professional and personal development course.

Sequence

A student can only start the chosen second year track once the student has passed the first year courses belonging to that track:

Track	***Belonging courses***
Epidemiology	Fundamentals, Study Design, Responsible Data Analyses, Panel Management
Governance	Fundamentals, Governance, Alternative Payment Models, Implementation
Data Science	Fundamentals, Study Design, Responsible Data Analyses, Predictive Analytics
Syndemics	Fundamentals, Health and Health Behaviour, Syndemics, Panel Management

Chapter 5 Admission to the programme

Elaboration 5.2.1: Pursuant to Article 7.30b (1) of the Act holders of (one of) the following degrees may be admitted to the programme, or who have successfully completed the following prescribed pre-master's/bridging programme:

a. A bachelor's degree from a Dutch research university in one of the following programmes:
    - Medicine
    - Biomedical Sciences
    - Clinical Technology
    - Bio-Pharmaceutical Sciences
    - Pharmacy
    - Human Nutrition
    - Health Sciences
    - Veterinary
    - Health and Society
    - European Public Health
    - Medical Natural Sciences

b. a bachelor's degree from a Dutch University (including University of Applied Sciences) in the field of health, provided the student has at least 12 credits of each of the following relevant fields:

    - Medicine: on pathophysiology and pathology (12 EC or equivalent), proven by bachelor certificates or working experience
    - Quantitative methods: on research methodology, epidemiology and/or statistics (12 EC or equivalent), proven by bachelor certificates or working experience

    The Board of Admissions will assess whether the degree and background is sufficiently related to the level and content of the Dutch BSc degree in a health related programme.

c. A prescribed pre-master's/bridging programme pursuant to article 5.4.1. The prescribed premasters/bridging programme must be completed within 1 year.

Further elaboration of article 5.2.2.:

To be considered as holding a degree equal to the one specified in 5.2.1a or b, applicants must meet the following requirements: a bachelor's degree from a research university, equivalent to the level of a Dutch academic Bachelor's degree, or demonstrate to meet the requirements for such a degree. In addition, applicants must also meet the criteria mentioned in 5.2.1b.

Pre-master's programmes Pre-master's programmes (with a maximum of 36 EC) are tailormade and can consist of courses in the domains of: medicine, health care and/or quantitative methods. The Board of Admissions determines the exact content of a pre-master's programme.

Part C:
Additional provisions for the Master's programme Vitality and Ageing

Ad. Chapter 1 General Provisions

Ad. Article 1.1 **Scope of the regulations**

The programme is taught in Leiden at the LUMC and at the campus The Hague of the Leiden University.

Ad. Article 1.2 **Definitions**

Internship Committee	The Master's Internship Committee is responsible for the procedures of all master internships

Ad. Chapter 2 Description of the Programme

Ad. Article 2.1 **Objectives of the programme**

The programme has the following objectives:

- to impart to students' academic knowledge, insights and methodological background in the field of vitality and ageing;
- to enable students to develop skills to think and act interdisciplinary, independently and innovatively;
- to enable students to analyse complex issues in the field of vitality and ageing while taking into account the perspectives of older people;
- to prepare students for a career as an academic professional and innovator in the international field of vitality and ageing, regarding science, healthcare or policy.

Ad. Article 2.3 **Learning outcomes**

Graduates of the programme have attained the following learning outcomes, listed according to the Dublin descriptors.

The holder of a Master's Degree in Vitality and Ageing:

a. Knowledge and understanding

K1 has subject specific knowledge and understanding of biological mechanisms of ageing;

K2 has subject specific knowledge and understanding of somatic, psychological, functional and social mechanisms in older individuals, including healthy ageing and vitality;

K3 has subject-specific knowledge and understanding of the organization of an ageing society: demography, healthcare financing and structures, prevention, models of care, international differences, health governance;

K4 has state-of-the-art knowledge and understanding of research, study designs and evidence based decision making;

K5 has the current knowledge and understanding of interdisciplinary collaboration, leadership, organizational (change)management and innovation.

b. Applying knowledge and understanding

A1 is able to critically analyse the challenges, shortcomings and opportunities in the fields of biology of vitality and ageing, older individuals and organisation of an ageing society;

A2 is able to conduct a scientific analysis of original data or existing literature in the field of vitality and ageing;

A3 is able to tackle complex problems in the field of vitality and ageing by designing innovative solutions;

A4 is able to develop well-founded policy recommendations regarding the organisation of an ageing society.

c. Making judgements

J1 is able to base his or her decisions on the available scientific evidence and analyses of international practices, taking ethical and societal perspectives into account;

J2 values the perspectives of older people and is able to revise prior judgments accordingly.

d. Communication

C1 is able to communicate or debate scientific or societal findings, conclusions from their own research, as well as the knowledge, motivation and considerations of underlying topics clearly and unambiguously to a specialist and non-specialist audience in English.

e. Learning skills

L1 has an academic level of thinking and operating within their field and is able and willing to further improve this level;

L2 is able to use principles of leadership and interpersonal skills in a (interdisciplinary) team environment.

Ad. Article 2.6 **Start of the programme**

The programme starts on 1 September and on 1 February of each year.

Ad. Chapter 3 Curriculum

Ad. Article 3.1.1 **Compulsory components**

The programme includes compulsory components worth a total study load of 60 ECTS credits. These compulsory components include the set components from which students are obliged to choose.

Ad Chapter 4 Examinations, Final Examination and Further Education

Ad. Article 4.12 **Degree classification**

The degree certificate and the diploma supplement include the 'cum laude' classification if the following additional condition are met:

- all constituent exams must be passed at the first attempt;
- all programme components of the master's programme were passed with a grade of 7.5 or higher.

The degree certificate and the diploma supplement include the 'summa cum laude' classification if the following additional condition are met:

- all constituent exams must be passed at the first attempt;
- all programme components of the master's programme were passed with a grade of 8.5 or higher.

Thesis (Internship) is equivalent to "Science and Career"

Ad. Chapter 5 Access and Admission to the Programme

Ad. Article 5.2 **Admission to the programme**

Ad. Article 5.2.1 Pursuant to Article 7.30b (1) of the Act holders of one of the following degrees may be admitted to the programme and one of its specialisations:

- a Bachelor's degree in Medicine [Geneeskunde], or
- a Bachelor's degree in Biomedical Sciences [Biomedische wetenschappen] or
- a Bachelor's degree in Health and Society [Gezondheid en Leven] or
- a Bachelor's degree in Health Sciences [Gezondheidswetenschappen] or
- a Bachelor's degree in Nutrition and Health [Voeding en Gezondheid] or
- a Bachelor's degree in [Farmacie] or
- a Bachelor's degree in [Biofarmaceutische wetenschappen] or
- a Bachelor's degree in Clinical Technology [Klinische Technologie] or
- a Bachelor's degree in Technical Medicine [Technische Geneeskunde] or
- a Bachelor's degree in [Medische natuurwetenschappen] or
- a Bachelor's degree in Liberal Arts, with a major/specialisation in public health, global health or premedical programme from University College.
- a Bachelor's degree in Movement Sciences [Bewegingswetenschappen] or
- a Bachelor's degree in Health and Society [Gezondheid en maatschappij] or
- a Bachelor's degree in European Public Health or
- a Bachelor's degree in [Psychologie] or

- a Bachelor's degree in [Culturele Antropologie] or
- a Bachelor's degree in [Sociologie] or
- a Bachelor's degree in [Urban studies]

based on the level of a bachelor's degree, of an NVAO accredited programme, at a Dutch or Flemish University.

Ad Article 5.2.2

To be considered as holding a degree equal to the one specified in 5.2.1, applicants must meet the following requirements:

- an appropriate (bachelor's) degree from a (research) university or a Dutch university of applied sciences (HBO, health domain), equivalent to the level of a bachelor's degree, of an NVAO accredited programme, at a Dutch or Flemish university, described in 5.2.1, or demonstrate to meet the requirements for such a degree. This requirement must be substantiated in an application form (required for Bachelor's other than free admissible Bachelor's); stating why the applicant has chosen this master's programme; the degree of the applicant, the applicant's knowledge of, and experience in biology; the applicant's knowledge of, and experience with older individuals; and the applicant's knowledge of and experience with management; the applicant's experience with research and the applicant's future career perspectives.

Two e-learnings modules (equivalent to 1 EC per e-learning) are available to compensate for deficiencies in biology and research methods. Completing these modules is obligatory for applicants with a Bachelor of a university of applied sciences (HBO; within the health domain). After completing the modules two board members of admission committee will conduct an interview to assess wether the candidates understanding and knowledge of human biological mechanisms, the human body and research methods is sufficient.

The Board of Admissions will then assess whether the degree and background suffices for admission to the programme, based on the equivalence to the level of a bachelor's degree, of an NVAO accredited programme, at a Dutch or Flemish University, described in 5.2.1.

Ad. Article 5.2.3.1

Components to be determined by the Board of Admissions, which provide evidence of a particular level of language, obtained in a bachelor's programme:

- Applicants who have completed a bachelor's degree at a Dutch University and have started their bachelor's (WO) programme with a HBO-P are exempted from submitting an English Proficiency test.

Article 5.2.3 **Dutch and English languages**

Ad. 5.2.3.2 In addition, If a student who wishes to be admitted does not meet the requirements in 5.2.3.1, the following language requirements can also be set:

- Language requirements*:
  - Cambridge C2 Proficiency (CPE) or C1 Advanced (CAE) 180, Cambridge component score 169

Contents of the full time and part time programme

Code	component	credits	level
322110400Y	Future perspectives	1	400
3221BVA00Y	Biology of vitality and ageing	10	500
3221OI000Y	The older individual	10	500
3221OAS00Y	Organisation of the ageing society	10	500
3221CS000Y	Communication in science (Educational line)	5	400
3221RE000Y	Research and evidence (Educational line)	5	400
3221AD000Y	Academic development (Educational line)	7	400
3221SC000Y	Science and Career	12	600