



# **Teaching and Examination Regulations (TER)**

**Faculty of Science**

**Masterprogramme in Biomedical Sciences**

**Academic year: 2019-2020**

- A: Faculty section
- B1: Programme specific section – general provisions
- B2: Programme specific section – content of programme

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## Section A: Faculty Section

### 1. General provisions

#### Article 1.1 Applicability of the Regulations

<p>1. These Regulations apply to anyone enrolled for the programme, irrespective of the academic year in which the student was first enrolled for the programme. These Regulations apply to the teaching and examinations for the following Master's degree programmes:</p> <ul style="list-style-type: none"> <li>▪ Artificial Intelligence</li> <li>▪ Bioinformatics and System Biology</li> <li>▪ Biomedical Sciences</li> <li>▪ Biomolecular Sciences</li> <li>▪ Business Analytics</li> <li>▪ Computer Science</li> <li>▪ Drug Discovery and Safety</li> <li>▪ Earth Sciences</li> <li>▪ Ecology</li> <li>▪ Environment and Resource Management</li> <li>▪ Global Health (research)</li> <li>▪ Health Sciences</li> <li>▪ Hydrology</li> <li>▪ Information Sciences</li> <li>▪ Management, Policy Analysis and Entrepreneurship in the Health and Life Sciences</li> <li>▪ Mathematics</li> <li>▪ Medical Natural Sciences</li> <li>▪ Neurosciences (research)</li> <li>▪ Parallel and Distributed Computer Systems</li> <li>▪ Science Business and Innovation</li> <li>▪ Stochastics and Financial Mathematics</li> </ul>	<p>Advice OLC, approval FGV (9.38 ub b)</p>
<p>2. These Regulations enter into force with effect from 1 September 2019.</p>	<p>Advice OLC, approval FGV (9.38 ub b)</p>
<p>3. An amendment to the Teaching and Examination Regulations is only permitted to concern an academic year already in progress if this does not demonstrably damage the interests of students.</p>	<p>Advice OLC, approval FGV (9.38 sub b)</p>

#### Article 1.2 Definitions

The following definitions are used in these Regulations (*in alphabetical order*):

- a. academic year: the period beginning on 1 September and ending on 31 August of the following calendar year;
- b. CvB: the Executive Board of Vrije Universiteit Amsterdam.
- c. Double degree programme: joint programme in the context of cooperation between Vrije Unviersiteit Amsterdam and the educational institution within and outside the EU, as to gain a double university degree; of the VU and the educational institution concerned; though not being the same as a 'joint degree programme' according to the art. 7.3c WHW';
- d. EC (European Credit): an EC credit with a workload of 28 hours of study;
- e. educational component: a unit of study of the programme within the meaning of the WHW;
- f. examination: the final examination of the Master's programme;
- g. exemption: Exemption from an examination/ practical/ fieldwork based on an earlier successfully completed examination, or knowledge / skills of a similar content, level and scope gained outside higher education;
- h. FGV: Faculty joint assembly – assembly of the faculty student council and faculty staff

	council;
i. interim examination:	an assessment of the student's knowledge, understanding and skills relating to a course component. The assessment is expressed in terms of a final mark. An interim examination may consist of one or more partial examinations. A resit always covers the same material as the original interim examination;
j. joint degree:	a degree awarded by an institution together with one or more institutions in the Netherlands or abroad, after the student has completed a study programme (a degree programme, a major or a specific curriculum within a degree programme) for which the collaborating institutions are jointly responsible;
k. OLC:	programme committee;
l. period:	a part of a semester;
m. practical exercise:	the participation in a practical training or other educational learning activity, aimed at acquiring certain (academic) skills. Examples of practical exercises are: <ul style="list-style-type: none"> <li>o researching and writing a thesis or dissertation</li> <li>o carrying out a research assignment</li> <li>o taking part in fieldwork or an excursion</li> <li>o taking part in another educational learning activity aimed at acquiring specific skills, or</li> <li>o participating in and completing a work placement;</li> </ul>
n. premaster student	those who enroll in a premaster programme;
o. Programme:	the totality and cohesion of the course components, teaching activities/methods, contact hours, testing and examination methods and recommended literature;
p. SAP/SLM:	the student information system ( <i>Student Lifecycle Management</i> );
q. semester:	the first (September - January) or second half (February - August) of an academic year;
r. study guide:	the guide for the study programme that provides further details of the courses, provisions and other information specific to that programme. The Study Guide is available electronically at: <a href="https://www.vu.nl/studiegids">https://www.vu.nl/studiegids</a>
s. subject	see 'educational component';
t. substituting course/educational component	see under d (double degree programme). A course obtained at the educational institute, within the context of cooperation, that is mentioned in the diploma supplement as such; not being an 'exemption'.
u. thesis/ internship work placement	a component comprising research into the literature and/or contributing to scientific research, always resulting in a written report;
v. university:	Vrije Universiteit Amsterdam;
w. WHW:	the Dutch Higher Education and Research Act ( <i>Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek</i> );
x. workload:	the workload of the unit of study to which an interim examination applies, expressed in terms of credits = EC credits (ECTS = European Credit and Transfer Accumulation System). The workload for 1 year (1,680 hours) is 60 EC credits.

The other terms have the meanings ascribed to them by the WHW.

## 2. Study programme structure

### Article 2.1 Structure of academic year and educational components

1. The study programme will be offered in a year divided into two semesters.	Ordinance CvB, see appendix 3
2. Every semester consists of three consecutive periods of eight, eight and four weeks.	Ordinance CvB, see appendix 3
3. An educational component comprises 6 EC or a multiple thereof.	Ordinance CvB,

	see appendix 3
4. By way of exception to paragraph 3, Section B may stipulate that a unit of study comprises 3 EC or a multiple thereof. The Faculty Board requests permission from the Executive Board.	Ordinance CvB, see appendix 3

#### Article 2.2 Refusal or termination of registration / (iudicium abeundi)

1. Pursuant to the provisions of Article 7.42a of the Act, the Faculty Board or the Examination Board may, in exceptional circumstances, request the Executive Board to terminate or refuse a student's registration on a programme. This may be the case if the student's conduct or statements demonstrate his or her unsuitability to work in the relevant field or discipline, or to take part in the programme's practical training component.	WHW
2. If a student is suspected of being unsuitable as described in paragraph 1, the Examination Board or the Faculty Board will examine the case, and the student will be informed of this immediately. The Examination Board or the Faculty Board will only issue a recommendation after careful consideration of the interests involved and following a hearing with the student concerned.	WHW

### 3. Assessment and Examination

#### Article 3.1 Signing up for education and interim examinations

1. Every student must sign up to participate in the educational components of the programme, the examinations and resits. The procedure for signing up is described in an annex to the Student Charter.	Ordinance CvB, see appendix 3
2. Signing up may only take place in the designated periods.	Ordinance CvB, see appendix 3
3. If a student does not pass the examination and the resit of a component, he/ she is obliged to take the whole component again. This rule does not apply to practical exercises and programmes that make use of component marks that retain their validity. For further regulations see Section B of the programme involved.	Advice OLC, approval FGV (7.13 x)

#### Article 3.2 Type of examination

1. At the student's request, the Examination Board may permit a different form of interim examination than that stipulated in the course catalogue. If applicable, more detailed regulations on this are included in the Rules and Guidelines for the Examination Board.	Advice OLC, Approval FGV (7.13 l)
2. In an educational component is no longer offered in the academic year following its termination, at least one opportunity will be provided to sit the interim examination(s) or parts thereof and a transitional arrangement will be included in the programme-specific section for the subsequent period.	Advice OLC, approval FGV (7.13 j)

#### Article 3.3 Oral interim examinations

1. An oral assessment is public unless the Examinations Board on request determines otherwise.	Advice OLC; approval FGV (7.13 l and n)
2. An oral examination will be taken in the presence of a second examiner.	Advice OLC, approval FGV (art. 9.38 par. b)

#### Article 3.4 Determining and announcing results

1. The examiner determines the result of a written interim examination as soon as possible, but at the latest within fifteen working days. By way of departure from that stipulated in the first clause, the marking deadline for theses, internships / work placements and final assignments is no longer than twenty working days. The examiner will then immediately ensure that the marks are registered and also ensures that the student is immediately notified of the mark, taking due account of the applicable confidentiality standards.	Ordinance CvB, see appendix 3
2. a. The examiner determines the result (i.e. mark) of an oral examination as soon as	Advice OLC;

possible, though within one working day, after the examination has finished and informs the student accordingly. The third clause of the first paragraph applies. b. The examiner determines the result of an interim examination no later than five working days before the next (interim) examination will be held.	approval FGV (7.13 o)
3. In the case of alternative forms of oral or written examinations, the Examination Board determines in advance how and by what deadline the student will be informed of the results.	Advice OLC; approval FGV (7.13 o)
4. A student can submit a request for reassessment to the examiner. A request for reassessment does not affect the time period for lodging an appeal.	Advice OLC; approval FGV (9.38 sub b)
5. Together with the result of an examination, the student's attention will also be drawn to their right to inspect the assessed work and have a post-examination discussion as stipulated in Art. 3.9, as well as his/her option to lodge a complaint before the Examination Board, and if necessary, to appeal to the Examinations Appeals Board (in Dutch: COBEX).	

### Article 3.5 Examination opportunities

1. a. Per academic year, two opportunities to take examinations per educational component will be offered. b. The options for retaking practical components, work placements and these are detailed in the relevant work placement manual, teaching regulations or graduation regulations.	Ordinance CvB, see appendix 3
2. The most recent mark will apply in the event of a resit. A retake is allowed for both passed and failed units of study.	Ordinance CvB, see appendix 3
3. The resit for a (partial) interim examination must not take place within ten working days of the announcement of the result of the (partial) examination being resat.	Advice OLC; approval FGV (7.13 j)
4. The Examination Board may allow a student an extra opportunity to sit an examination if that student: a) is lacking only those credits to qualify for his or her degree; b) has failed the examination during all the previously offered attempts, unless participation in an examination was not possible for compelling reasons. The extra opportunity can only be offered if it concerns a written examination, a paper or a take home examination. This provision excludes the practical assignments and the Master's thesis. Requests for an additional examination opportunity must be submitted to the Examination Board no later than 15 July. If necessary, the method of examination may deviate from the provisions in the study guide.	Ordinance CvB, see appendix 3

### Article 3.6 Marks

1. Marks are given on a scale from 1 to 10 with no more than one decimal point.	Ordinance CvB, see appendix 3															
2. The final marks are given in whole or half points.	Ordinance CvB, see appendix 3															
3. Final marks between 5 and 6 will be rounded off to whole marks: up to 5.5 rounded down; from 5.5 rounded up. To pass a course, a 6 or higher is required. In case the examination of a component consists of two or more parts, each of which are graded separately, the (weighted) mean of these marks (meaning: the final mark) must be rounded off using the following table:	Ordinance CvB, see appendix 3															
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>From</th> <th>Up to</th> <th>Grade</th> </tr> </thead> <tbody> <tr> <td>1,00</td> <td>1,25</td> <td>1</td> </tr> <tr> <td>1,25</td> <td>1,75</td> <td>1,5</td> </tr> <tr> <td>1,75</td> <td>2,25</td> <td>2,0</td> </tr> <tr> <td>2,25</td> <td>2,75</td> <td>2,5</td> </tr> </tbody> </table>		From	Up to	Grade	1,00	1,25	1	1,25	1,75	1,5	1,75	2,25	2,0	2,25	2,75	2,5
From	Up to	Grade														
1,00	1,25	1														
1,25	1,75	1,5														
1,75	2,25	2,0														
2,25	2,75	2,5														

	2,75	3,25	3,0		
	3,25	3,75	3,5		
	3,75	4,25	4,0		
	4,25	4,75	4,5		
	4,75	5,50	5,0		
	5,50	6,25	6,0		
	6,25	6,75	6,5		
	6,75	7,25	7,0		
	7,25	7,75	7,5		
	7,75	8,25	8,0		
	8,25	8,75	8,5		
	8,75	9,25	9,0		
	9,25	9,75	9,5		
	9,75	10,0	10		
4. The Examination Board can allow to use symbols rather than numbers, such as: pass, fail, (un)satisfactory, good, VRS (exemption). In case a student does not take part in any (interim) examination, the examiner will register the mark 'ns' (c.q. no show).					Ordinance CvB, see appendix 3

### Article 3.7 Exemption

1. At the written request of the student, the Examination Board may exempt the student from taking one or more examination components, if the student: <ul style="list-style-type: none"> <li>a) has passed a course component of a university or higher professional education programme that is equivalent in terms of content and level;</li> <li>b) has demonstrated through his/her work and/or professional experience that he/she has sufficient knowledge and skills with regard to the relevant course component.</li> </ul> The Examination Board will make a decision within six weeks after receiving the request.	Advice OLC; approval FGV (7.13 r)
2. The Master's thesis, the final work placement (c.q. internship) and the final project (c.q. final paper) are excluded from this exemption possibility.	Advice OLC; approval FGV (9.38 sub b)
3. A maximum of 18 EC for a one one-year master programme and 36 EC for a one two-year master programme can be accumulated through granted exemption. The substituting courses (educational components) are not included.	Advice OLC, approval FGV (art. 7.13 par. 2, under r WHW jo art. 9.38 par. b)

### Article 3.8 Validity period for results

1. The validity period of interim examinations passed and exemption from interim examinations is unlimited, unless otherwise specified in Section B.	WHW
2. The validity period of a partial examination is limited to the academic year in which it was sat or until the end of the unit of study concerned, as stipulated for the relevant unit of study in Section B.	Advice OLC; approval FGV (9.38 sub b)

### Article 3.9 Right of inspection and post-examination discussion

1. For twenty working days after the announcement of the results of a written interim examination, the student can, on request, inspect his or her assessed work, the questions and assignments set in it, as well as the standards applied for marking. The place and time referred to in the previous clause will be announced at the time of the interim examination on VUnet or Canvas.	Advice OLC; approval FGV (7.13 p en q)
2. If a collective post-examination discussion has been organized, individual post-examination discussions will be held only if the student has attended the collective discussion or if the student was unable to attend the collective discussion through no fault	Advice OLC; approval FGV (7.13 q)



of his or her own.	
3. Students who meet the requirements stipulated in paragraph 1 can submit a request for an individual post-examination discussion to the relevant examiner. The discussion shall take place at a time and location to be determined by the examiner.	Advice OLC; approval FGV (7.13 p en q)

#### Article 3.10 Fraud and plagiarism

1. The provisions of the Rules and Guidelines for the Examination Board apply in full.	Ordinance CvB
2. Electronic detection software programmes may be used to detect plagiarism in texts. In submitting a text, the student implicitly consents to the text being saved in the database of the detection programme concerned.	Ordinance CvB

### 4. Academic student counselling and study progress

#### Article 4.1 Administration of study progress and academic student counselling

1. The faculty board is responsible for the correct registration of the students' study results. After the assessment of an educational component has been registered, every student has the right to inspect the result for that component and also has a list of the results achieved at his or her disposal in VUnet.	Advice OLC; approval FGV (7.13 u)
2. Enrolled students are eligible for academic student counselling. Academic student counselling is in any case provided by: <ol style="list-style-type: none"> <li>The Student General Counselling Service</li> <li>Student psychologists</li> <li>Faculty academic advisors</li> </ol>	Advice OLC; approval FGV (7.13 u)

#### Article 4.2 Adaptations for students with a disability

1. A student with a disability can, at the moment of submission to VUnet, or at a later instance, submit a request to qualify for special adaptations with regard to teaching, practical training and interim examinations. These adaptations will accommodate the student's individual disability as much as possible, but may not alter the quality or degree of difficulty of a unit of study or an examination. In all cases, the student must fulfil the exit qualifications for the study programme.	Advice OLC; approval FGV (7.13 m)
2. The request referred to in the first paragraph must be accompanied by a statement from a doctor or psychologist. If possible, an estimate should be given of the potential impact on the student's study progress. In case of a chronic disability a single (one time) request suffices.	Advice OLC; approval FGV (7.13 m)
3. Students who have been diagnosed with dyslexia must provide a statement from a BIG, NIP or NVO registered professional who is qualified to conduct psychological evaluation.	Advice OLC; approval FGV (7.13 m)
4. The faculty board, or on behalf of the faculty board, the educational director, or the programme director, decides on the adaptations concerning the teaching facilities and logistics. The Examination Board will rule on requests for adaptations with regard to examinations.	Advice OLC; approval FGV (7.13 m)
5. In the event of a positive decision in response to a request as referred to in paragraph 1, the student will make an appointment with the study adviser to discuss the details of the provisions.	Advice OLC; approval FGV (7.13 m)
6. A request for adaptations will be refused if it would place a disproportionate burden on the organization or the resources of the faculty or university were it upheld.	Advice OLC; approval FGV (7.13 m)
7. If the disability justifies an extension of the interim examination time, the Examination Board will grant permission testifying to this entitlement to an extension. If a disability justifies other measures to be taken, the Examination Board will advise the Faculty Board on the necessary measures to be taken.	Advice OLC; approval FGV (7.13 m)
8. The decision as referred to in paragraph 7, is valid for a maximum period of one year with the exception for the chronic diseases and disabilities.	Advice OLC; approval FGV (7.13 m)

## 5. Hardship clause

### Article 5.1 Hardship clause

In instances not regulated by the Teaching and Examination Regulations or in the event of demonstrable extreme unreasonableness and unfairness, the faculty board responsible for the study programme will decide, unless the matter concerned is the responsibility of the Examinations Board.	Advice OLC; approval FGV (9.38 sub b)
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### Article 5.2. Publication

1. The faculty board will ensure the appropriate publication of these Regulations and any amendments to them.	WHW
2. The Teaching and Examination Regulations will be posted in the study guide or on VUnet.	WHW

Approved by authorized representative advisory body FGOV of the Faculty of Science on 3 September 2019.

Adopted by the Faculty Board on 30 August 2019.

## Section B1: Programme specific – general provisions

### 6. General programme information and characteristics

#### Article 6.1 Study programme information

1. The programme M Biomedical Sciences, CROHO number 66990, is offered on a full-time basis.	Advice OLC; approval FGV (7.13 i)
2. The language of instruction is English.	Advice OLC; approval FGV (9.38 sub b)

#### Article 6.1a. Deviant size of educational component

By way of derogation from art. 2.1 par. 3, the units listed below have deviant sizes:			Approval OLC (art. 7.13 lid 2, under e), approval CvB
<b>Course Code</b>	<b>Educational component</b>	<b>EC</b>	
AM_1021	The human microbiome in health & disease	3	
AM_1161	Scientific Writing in Engl (AM_BMED)	3	
AM_1179	Epidemiology	3	
AM_1180	Clinical Development and Clinical Trials	3	
AM_1215	From Molecule to Mind	9	
AM_1216	Statistics in Neurosciences	3	
AM_1224	Single Cell Technologies in Life Science	3	
AM_1245	Study and career M Biomedical Sciences	3	
AM_470707	Ethics in life sciences	3	
AM_471135	Literature thesis Biomed. Sc. (Research)	9	

#### Article 6.1b. Additional definition(s)

In addition to Article 1.2 of the Teaching and Examination Regulation, section A, the following additional definitions are used in this section B:	Approval OLC (art. 7.13 lid 2, under e), approval CvB
<p><b>Intake procedure</b></p> <p>The intake consists of two parts:</p> <ul style="list-style-type: none"> <li>- an interview to assess competence to function at academic MSc level and motivation for a career in research, and;</li> <li>- a small assessment: discussing an article chosen by the admission board.</li> </ul> <p>The interview is used to assess your motivation for our master program and to get an insight in the research experience gained during your bachelor's thesis.</p> <p>The assessment has been developed to test your academic skills and background. The article chosen is related to one of the specializations you are interested in. You will receive the article by e-mail between 24-48 hours before the intake takes place. You need to summarize, answer questions and in addition formulate your opinion about the article.</p>	

#### Article 6.2 Teaching formats used and modes of assessment

1. The programme uses the teaching formats as specified in the study guide.	Advice OLC; approval FGV (7.13 x)
2. The modes of assessment used per educational component are specified in the study guide.	Advice OLC; approval FGV (7.13 l)

**Article 6.3 Academic student counselling**

<p>The programme offers the following counselling in addition to the student counselling mentioned in Section A:</p> <ul style="list-style-type: none"> <li>- Master's coordinator: study planning.</li> <li>- Tutor(s)</li> </ul>	<p>Advice OLC; approval FGV (7.13 u)</p>
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**7. Further admission requirements****Article 7.1 Intake date(s)**

<p>1. The programme starts on September 1.</p>	<p>Advice OLC; approval FGV (9.38 sub b)</p>
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**Article 7.2 Admission requirements**

<p>1. Admission to the Master's programme is possible for an applicant who has obtained a Bachelor's degree obtained at an institution of academic higher education, which demonstrates the following knowledge, understanding and skills:</p> <p>a. knowledge and understanding: A minimum of 24 EC in molecular biology and a minimum of 24 EC in human biology, including at least:</p> <ul style="list-style-type: none"> <li>• Cell biology;</li> <li>• Biochemistry;</li> <li>• Genetics;</li> <li>• Immunology;</li> <li>• Microbiology;</li> <li>• Statistics.</li> </ul> <p>And preferably:</p> <ul style="list-style-type: none"> <li>• (Human) anatomy and physiology;</li> <li>• Histology and pathology.</li> </ul> <p>b. research laboratory skills:</p> <ul style="list-style-type: none"> <li>• Practical laboratory techniques gained in courses;</li> <li>• A bachelor research internship/thesis of <math>\geq 12</math> EC in a research laboratory in a relevant field (molecular and/or human biology). The internship should be performed at a research department within a university, academic medical center or acknowledged research institute.</li> </ul> <p>c. grades:</p> <ul style="list-style-type: none"> <li>• Holding a Bachelor's degree in Biomedical Sciences from a Dutch university or a Bachelor's degree in Gezondheid en Leven, major Biomedisch, from VU University Amsterdam: <ul style="list-style-type: none"> <li>- Direct admission: final grade bachelor research internship/thesis in a relevant field (molecular biology or human biology) is at least 7.5 and a bachelor grade average of at least 7.0 (excluding the internship), or the other way round.</li> <li>- Intake procedure: final grade bachelor research internship/thesis in a relevant field (molecular biology or human biology) is at least 7.0;</li> </ul> </li> <li>• Holding another Bachelor's degree from a university, an international Bachelor's degree in a relevant field or a Bachelor's degree from an institute of higher education (HBO/HLO) in the Netherlands: <ul style="list-style-type: none"> <li>- Intake procedure: final grade bachelor research internship/thesis in a relevant field (molecular biology or human biology) is at least 7.5 and a</li> </ul> </li> </ul>	<p>Partly legal provision &amp; ordinance CvB, see appendix 3. Admission requirements excepted from participation in WHW</p>
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<p>bachelor grade average of at least 7.0 (excluding the internship), or the other way round.</p> <p>For bachelor's degrees from an institute of higher education (HBO/HLO): the average is calculated on a program of 240EC (4 years of study; including the propedeuse/first-year diploma)</p> <p>d. specialization specific requirements:          Neurobiology (limited to 10 spots): at least background in Neuroscience (course(s), internship);          International Public Health: at least a course in Epidemiology/SPSS;          Education: at least 30 EC in biological courses, including at least courses in Evolution, Ecology, Biodiversity, Plant physiology and Fieldwork.</p>	
<p>2. The Admissions Board will investigate whether the applicant meets the admission requirements.</p>	Legal provision
<p>3. In addition to the requirements referred to in the first paragraph, the Admissions Board can also assess requests for admission in terms of (at least two of) the following criteria:</p> <p>a. talent and motivation;          b. academic attitude and critical thinking.</p>	Partly legal provision & ordinance CvB, see appendix 3. Admission requirements excepted from participation in WHW

#### Article 7.3 Pre-Master's programme

<p>1. a) Students with a Bachelor's degree of a university of applied science (HBO) in a field that corresponds to a sufficient extent with the subject area covered by the Master's programme can request admission to the pre-Master's programme.</p> <p>b) Students with a Bachelor's degree from an institution of academic higher education in a field that does not sufficiently corresponds with the subject area covered by the Master's programme can request admission to the pre-Master's programme.</p>	Advice OLC; approval FGV (9.38 sub b)
<p>2. The pre-Master's programme comprises 6-30 EC and is made up of units of the Bachelor's programme Biomedical Sciences or other Bachelor's programmes of the Faculty of Science at the VU, to be decided by the Admission Board.</p>	Advice OLC; approval FGV (9.38 sub b)
<p>3. A successfully completed pre-Master's programme serves as proof of meeting the requirements referred to in Article 7.2 paragraph 1a and 1b, and will be either directly admitted or invited for an intake procedure for admission to the specified Master's programme in the subsequent academic year.</p>	Legal provision
<p>4. A candidate can only participate in one pre-Master's programme at the Vrije Universiteit.</p>	Ordinance CvB, see appendix 3

## 8. Interim examinations and results

### Article 8.1 Sequence of interim examinations

<p>1. Students may participate in interim examinations of the components below only if they have passed the interim examination or examinations for the components mentioned hereinafter:</p> <ul style="list-style-type: none"> <li>- Research Methods for HS (AM_1255) after passing a course in Epidemiology (preferably AB_470180 or AM_1179);</li> <li>- The compulsory internship of each specialization (as listed in part B2) only if they attended the compulsory course(s) of the specialization and have acquired 12 EC of the specialization specific courses.</li> <li>- The second internship after passing the first internship.</li> </ul>	<p>Advice OLC; approval FGV (7.13 h, s &amp; t)</p>
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### Article 8.2 Validity period for results

<p>1. The validity period of the interim examinations and exemptions from interim examinations below, is limited as follows:</p> <ul style="list-style-type: none"> <li>- The validity period of the interim examinations and exemptions from interim examinations is as laid down in Article 3.8 of TER Section A.</li> <li>- The validity period of partial examinations (practicals, work groups and corresponding assignments) is limited to two academic years, if content is unchanged during that period.</li> </ul>	<p>Advice OLC; approval FGV (7.13 k)</p>
<p>2. A student may request the Examination Board to extend the validity of an exam. If the exam shows that a student's knowledge is insufficient or outdated, or if the student's skills and insights evaluated in the exam are demonstrably outdated, the Examination Board may impose a supplementary examination, impose a replacement examination or refuse to extend the period of validity.</p>	<p>Legal provision</p>
<p>3. In situations where a limited period of validity applies, the period of validity of examinations may be extended in the event of extenuating circumstances as stipulated in WHW Article 7.51, paragraph 2, with at least the period of allocated financial assistance specified in WHW Article 7.15, paragraph 1.</p>	<p>Legal provision</p>

### Article 8.3 Maximum Exemption(s)

<p>A maximum of 36 EC of the curriculum can be accumulated through granted exemptions, based on previous results within other master's programmes.</p>	<p>Advice OLC, approval FGV (7.13 par. 2, under r jo art. 9.38 sub b)</p>
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### Article 8.4 Degree

<p>Degree Students who have successfully completed their Master's final Examination are awarded a Master of Science degree (MSc). The degree awarded is stated on the diploma. Specialization name will be stated on the diploma, if one has successfully completed at least 54 EC of the specific track; otherwise no track name will be stated on the diploma.</p>	<p>Legal provision, WHW</p>
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## Section B2: Programme specific – content of programme

### 9. Programme objectives, specializations and exit qualifications

#### Article 9.1 Workload

1. The programme has a workload of 120 EC	Advice OLC; (7.13 a)
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#### Article 9.2 Specializations

<p>The programme has the following specializations:</p> <ul style="list-style-type: none"> <li>• Immunology;</li> <li>• Infectious Diseases;</li> <li>• Neurobiology;</li> <li>• International Public Health;</li> <li>• Science Communication specialization;</li> <li>• Specialization Science in Society;</li> <li>• Education specialization.</li> </ul>	Advice OLC; (7.13 a)
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#### Article 9.3 Programme objective

<p>The programme aims to equip the student with the knowledge, skills and understanding required to operate as an independent professional within the disciplines covered by the Master's programme, and to be a suitable candidate for a subsequent career in biomedical research. The Master's graduate should be competitive in his or her field at both the national and the international levels, in relation to both PhD research programmes in national and international scientific institutions or employment in trade and industry or government. Having completed the programme, the student should have developed a critical scientific approach and an awareness of the ethical and societal aspects of the biomedical sciences in general, and the field addressed by the Master's specialization(s) in particular.</p> <p>Graduates are specialized in one or two specific disciplines, with a second year profile focused on research or a profile focused at health and society (I/C/S/E profile).</p>	Advice OLC; (7.13 a)
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#### Article 9.4 Exit qualifications

1. At all events, a graduate of the study programme will have:	Approval OLC (7.13 c)
<p><b>Dublin descriptor 1: Knowledge and understanding</b> The graduate should have specialized theoretical and practical knowledge of Biomedical Science notably within the field of his/her specialization.</p> <p>The graduate:</p> <ul style="list-style-type: none"> <li>• masters the fundamental concepts of modern biomedical sciences and understands the state of the art in terms of developing theories and insight into the most important current research issues in the biomedical discipline in which the student has specialized.</li> <li>• appreciates the place of his/her specialization within the biomedical and the natural sciences.</li> <li>• is able to appreciate the scientific and social relevance of biomedical sciences, and of current research in the area of specialization.</li> <li>• is able to think in multidisciplinary terms, and possesses an understanding of other disciplines (and sub-disciplines) that are of importance to biomedical sciences.</li> <li>• has command of advanced research techniques, laboratory procedures and (statistical) methodology necessary for the specialization.</li> </ul>	

<p><b>Dublin descriptor 2: Application of knowledge</b> The graduate should be experienced in carrying out research, in applying techniques specific to the subject area and in applying scientific knowledge to problems raised in society.</p>	
<p>The graduate:</p> <ul style="list-style-type: none"> <li>• is able to design experiments in the different fields associated with Biomedical Sciences notably within the field of his/her specialization and analyze their results.</li> <li>• has knowledge about the methodology used within research of the field of his/her discipline and can apply independently these methods in research.</li> <li>• is able to apply his/her scientific knowledge to social questions.</li> <li>• can think multidisciplinary and has insight in the relevant (sub)disciplines that are important to his/ her specialization.</li> <li>• is able to reflect on the ethical aspects of research or its uses, and include these deliberations in the decision-making process.</li> <li>• adopts an attitude towards the correct and unbiased use and presentation of data.</li> </ul>	
<p><b>Dublin descriptor 3: Critical judgment</b> The graduate should be able to independently and critically judge information.</p>	
<p>The graduate:</p> <ul style="list-style-type: none"> <li>• is able to independently acquire information in the field of his/ her specialization, and to analyze and critically evaluate such information.</li> <li>• is able to select and order information, to distinguish essentials from trivialities, and to recognize connections.</li> <li>• is able to independently and critically analyze research in the field of his/ her specialization, both in relation to its design, planning and execution, and to the results obtained.</li> <li>• has the ability to evaluate his/her own performance, both introspectively and in discussion with others.</li> </ul>	
<p><b>Dublin descriptor 4: Communication</b> The graduate should be able to transfer knowledge and skills related to his/her subject area to other persons and to adequately reply to questions and problems posed within society.</p>	
<p>The graduate:</p> <ul style="list-style-type: none"> <li>• can report orally on research results in English with support of modern presentation techniques.</li> <li>• can report in written form on research results on the level of peer-reviewed academic journals.</li> <li>• can make essential contributions to scientific discussions about plans, results and consequences of research.</li> <li>• can collaborate with researchers from other disciplines.</li> </ul>	
<p><b>Dublin descriptor 5: Learning skills</b> The graduate should develop learning skills that enable him/her further self-education and development within the subject area.</p>	
<p>The graduate:</p> <ul style="list-style-type: none"> <li>• is able to understand and summarize scientific literature within the field of his/ her specialization.</li> <li>• is able to draw up a research plan, giving details of experimental design, execution and analysis.</li> <li>• is familiar with general scientific journals such as Nature and Science, and with journals in the area of his/ her specialization.</li> <li>• is familiar with computer software that is relevant to the field.</li> </ul> <p>has been able to influence his/her personal learning process by the choice of courses.</p>	
<p>2. Without prejudice to the provisions of paragraph 1, a graduate of the following specializations will have the following knowledge and understanding in the field of specialization:</p> <ul style="list-style-type: none"> <li>• Immunology:</li> </ul>	<p>Approval OLC (7.13 b)</p>



The Master's graduate with a specialization in Immunology has a broad understanding of immunological processes, ranging from the molecular and cellular interactions between host and pathogen to an integrative knowledge of the role of the immune system in various pathologies, such as cancer, infectious diseases and autoimmunity. The Master's graduate has specialized in one of the subjects within the field of immunology. He/she possesses knowledge of current theory and the key research questions in the field of immunology and has an understanding of the scientific and social relevance of this subject area.

- Infectious diseases:

The Master's graduate with a specialization in Infectious diseases has a broad understanding of the biology of pathogenic organisms and the interaction between pathogens and their hosts. The Master's graduate has the ability to conduct scientific research in the field of medical microbiology and to critically assess the results of microbial research. The Master's graduate has specialized in one of the subjects within the field of medical microbiology. He/she possesses knowledge of current theory and the key research questions in this field and has an understanding of the scientific and social relevance of this subject area.

- Neurobiology:

The Master's graduate with a specialization in Neurobiology has knowledge, insight and understanding of the state of the art in terms of developing theories and insight into the most important current research issues in the neurosciences. The Master's graduate has the ability to conduct scientific research in the field of neurobiological research and to critically assess the results. The Master's graduate has specialized in one of the subjects within the field of neurobiology. He/she possesses knowledge of the significance of neurobiology within the context of brain research and some of its clinical implications.

- International public health:

The Master's graduate with a specialization in International public health has a broad understanding of current and future challenges in international public health, their main causes, and applied and potential interventions. The Master's graduate has specialized knowledge of relevant concepts from various disciplines, including epidemiology, policy science, anthropology, management studies, biomedical sciences and health sciences. The Master's graduate has the ability to conduct scientific research in the field of international public health and to critically assess the results of international public health research. The Master's graduate has specialized in one of the subjects within the field of international public health. He/she possesses knowledge of current theory and the key research questions in this field and has an understanding of the scientific and social relevance of this subject area.

- Communication specialization:

Biomedical science is increasingly becoming an interdisciplinary research field in which biomedical scientists can no longer function effectively in isolation. Rather, they benefit from interaction with other scientists (such as those in the fields of molecular biology, neurobiology and immunobiology) and societal actors (such as doctors, patients and policymakers). Communication about science takes place between academic peers and between scientists and the general public. This makes the Communication specialization a complex and dynamic field of research and practice, for example on patient participation in health research, the use and effects of media metaphors and hype, and public understanding of emergent technologies. The Master's

<p>graduate with this specialization has a theoretical understanding of the complex problems that arise during such communication processes, and has developed the necessary skills to act professionally at this interface to enhance communication and the outcomes of communication between scientific actors and society.</p> <ul style="list-style-type: none"> <li>• <b>Science in Society:</b> The Master's graduate with a specialization Science in Society combines an academic approach with the skills and competences that will allow him or her to perform scientific research at the interface of the biomedical sciences and society. The specialization aims to develop strategies that contribute to an understanding of complex societal problems and strategies to solve complex societal problems through interdisciplinary research. In addition, the programme analyses the social, economic and ethical aspects of new developments in the biomedical sciences, so as to assess their implications for society. Master's graduates have the necessary skills to collaborate and communicate with researchers from various scientific disciplines (including but not limited to those in the life sciences) and societal actors, and the ability to use these academic insights.</li> <li>• <b>Education specialization:</b> The Master's graduate with a specialization in Education (CROHO number 68502, accreditation date 1 January 2010) obtains a certificate that qualifies the graduate to teach Biology in secondary schools (this is a 'grade one' certificate, i.e. it qualifies the graduate to teach pupils who will sit public exams in the subject).</li> </ul>	
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## 10. Curriculum structure

### Article 10.1 Composition of the programme

1. The programme comprises at least a package of compulsory components and an individual Master's thesis or academic internship.	Ordinance CvB, see appendix 3
2. Educational components are categorized as specialized (400), research oriented (500) and highly specialized (600) level.	Ordinance CvB, see appendix 3

### Article 10.2 Compulsory educational components

A detailed description per educational component can be found in the Study Guide.

10.2.a Compulsory master courses				Advice OLC; (7.13 a)
Educational component	course code	nr of EC	level	
Scientific Writing in English	AM_1161B	3	400	
Ethics in Life Sciences	AM_470707	3	400	
Literature thesis Biomedical Sciences*	AM_471135	9	600	
Study and Career M Biomedical Sciences	AM_1245	3	400	
*The literature thesis must be written within the scope of one or both research specialization(s)				
<b>10.2.b First year: Research specialization of 54-60 EC</b> The prescribed scope of the research specializations is 54-60 EC, including: <ul style="list-style-type: none"> <li>- research internship (30 EC)</li> <li>- at least 3 courses from the specialization (18 EC)</li> <li>- choice (6-12EC) from:               <ul style="list-style-type: none"> <li>• literature thesis in the field of the specialization (9 EC);</li> <li>• an extra optional course of the specialization (6 EC)</li> <li>• an extension of the internship (3-6 EC)*</li> </ul> </li> </ul> *The total EC for both internships together may not exceed 66EC.				

Educational component	course code	nr of EC	level
<b>MSc BMED spec. Immunology</b>			
Advanced Molecular Immunology	AM_470656	6	500
Translational Immunology	AM_1031	6	600
Clinical Immunology	AM_470655	6	500
Internship Immunology	AM_471137	30	600
<b>MSc BMED spec. Infectious Diseases</b>			
Containment Strategies	AM_470127	6	500
Parasitology	AM_470052	6	400
Molecular infection Biology	AM_470657	6	600
Internship Infectious Diseases	AM_471138	30	600
<b>Specialization Neurobiology</b>			
From Molecule to Mind	AM_1215	9	400
Statistics in Neurosciences	AM_1216	3	400
Internship Neurobiology	AM_1178	30	600
<p>10.2.c Second year: specialization of 54-60 EC, either in research or I/C/S/E.</p> <p>The prescribed scope of the International Public Health, Communication and Science in Society specializations is 54 EC, including:</p> <ul style="list-style-type: none"> <li>- Internship (30 EC)</li> <li>- At least 4 courses from the specialization (24 EC).</li> </ul> <p>The prescribed scope of the Education specialization is 60 EC.</p>			
<b>MSc BMED spec. Internat. Public Health</b>			
Containment Strategies	AM_470127	6	500
Research Methods for Health Sciences	AM_1255	6	400
Policy, Management and Organisation in IPH	AM_470819	6	500
Internship International Public Health	AM_471139	30	600
<b>MSc BMED spec. Science Communication</b>			
Research methods for analyzing problems	AM_1182	6	400
Science and Communication	AM_470587	6	500
<b>MSc BMED Specialization Science in Society</b>			
Internship Science in Society (BMED)	AM_1133	30	600
Research methods for analyzing problems	AM_1182	6	400
Analysis of Governmental Policy	AM_470571	6	500
Communication, Org. and Management	AM_470572	6	500
<b>MSc BMED Education specialisation (Dutch) (Master Leraar VHO Biologie 2015)</b>			
Praktijk 3 voor 2-jarige Master	O_M2PRAK3	15	400
Didactiek 1	O_MLDIDAC_1	6	400
Didactiek 2	O_MLDIDAC_2	6	400
Didactiek 3	O_MLDIDAC_3	9	400
Peergroup 1	O_MLPEERGR_1	0	400
Peergroup 2	O_MLPEERGR_2	0	400

Praktijk 1	O_MLPRAK_1	6	400
Praktijk 2	O_MLPRAK_2	9	400
Praktijk 3	O_MLPRAK_3	15	400
Praktijk onderzoek 1	O_MLPROZ_1	3	400
Praktijk onderzoek 2	O_MLPROZ_2	6	400

### Article 10.3 Elective educational components

1. The student can take one or more of the following electives without prior consent from the Examination Board:				Approval OLC (7.13 a)
Name of educational component	course code	nr of EC	level	
<b>MSc BMED spec. Immunology</b>				
Molecular infection Biology	AM_470657	6	600	
Single Cell Technologies in Life Science	AM_1224	3	600	
<b>MSc BMED spec. Infectious Diseases</b>				
The human microbiome in health & disease	AM_1021	3	500	
Advanced molecular immunology	AM_470656	6	500	
<b>Specialization Neurobiology</b>				
Clinical Neurosciences	AM_1005	6	400	
Genetics in Neuroscience	AM_1214	6	400	
<b>MSc BMED spec. Internat. Public Health</b>				
Disability and development	AM_470588	6	500	
Health, Globalisation and Human Rights	AM_470818	6	500	
International Comparative Analys. of HCS	AM_470820	6	500	
<b>MSc BMED spec. Science Communication</b>				
<i>Choose two of these courses</i>				
Science in Dialogue	AM_1002	6	500	
Communication, Org. and Management	AM_470572	6	500	
Science Museology	AM_470590	6	500	
Science Journalism	AM_471014	6	500	
<i>Choose one of these courses</i>				
Research Internship Science Comm.	AM_1162	30	600	
Reflective Practice Int. SC. Comm.	AM_1163	30	600	
<b>MSc BMED Specialization Science in Society</b>				
Science in Dialogue	AM_1002	6	500	
Epidemiology	AM_1179	3	500	
Clinical Development and Clinical Trials	AM_1180	3	500	
Business management	AM_470584	6	500	
Disability and development	AM_470588	6	500	
Policy, Politics and Participation	AM_470589	6	500	
Health, Globalisation and Human Rights	AM_470818	6	500	
Management of Innovative Technologies	AM_1181	6	500	
2. If the student wishes to take a different educational component than listed, advance permission must be obtained in writing from the Examinations Board.				Advice OLC; (7.13 a)

**Article 10.4 Practical exercise**

The following components can be considered as practical exercises:				Approval OLC (7.13 d)
Course code	Name of educational component	nr of EC	level	
AM_471137	Internship Immunology	30	600	
AM_471138	Internship Infectious Diseases	30	600	
AM_1178	Internship Neurobiology	30	600	
AM_471158	Internship Biomedical Sciences- no spec.	30	600	
AM_471139	Internship International Public Health	30	600	
AM_1162	Research Internship Science Comm.	30	600	
AM_1163	Reflective Practice Int. SC. Comm.	30	600	
AM_1133	Internship Science in Society (BMED)	30	600	

**Article 10.5 Participation in practical training and tutorials**

1. In the case of a practical training, the student must attend at least 100 % of the practical sessions. Should the student attend less than 100 %, he or she must repeat the practical training, or the Examinations Board may have one or more supplementary assignments issued.	Approval OLC (7.13 d)
2. In the case of a tutorial, the student must attend at least 100 % of the practical sessions. Should the student attend less than 100 %, he or she must repeat the practical training, or the Examinations Board may have one or more supplementary assignments issued.	Approval OLC (7.13 d)

**11. Evaluation and transitional provisions****Article 11.1 Evaluation of the education**

The education provided in this programme is evaluated in accordance with the (attached) evaluation plan. The faculty evaluation plan offers the framework.	Approval OLC (7.13 a1)
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**Article 11.2 Transitional provisions**

By way of departure from the Teaching and Examination Regulations currently in force, the following transitional provisions apply for students who started the programme under a previous set of Teaching and Examination Regulations:			Advice OLC (7.13 a)
<ol style="list-style-type: none"> <li>Compulsory components that have been removed from the curriculum: For students who started their program before academic year 2013-2014 AM_471017 History of Life Sciences is compulsory. For these students, the course can be replaced by AB_1004 Geschiedenis van de levenswetenschappen. For students who started their program in academic year 2013-2014 or later, this course is no longer part of the Master's curriculum.</li> <li>Specializations that have been removed from the curriculum: <ol style="list-style-type: none"> <li>Specialization Cardiovascular Diseases: only applies to students who started their program in academic year 2013-2014 or earlier. 18EC in specialization courses and the Internship (30-36) were compulsory. The specialization programme consisted of the following components.</li> </ol> </li> </ol>			
<i>code</i>	<i>name</i>	<i>EC</i>	
	Compulsory		
M_CCLINBIO09	Clinical and Biophysical Aspects of Cardiovascular Diseases and Imaging	6	
M_CPATHO09	Pathophysiology of Heart and Circulation	6	
M_CREMODE09	Remodeling of the Circulatory System	6	
M_CVASCFU09	Vascular Function and Metabolic Diseases	6	
AM_471136	Internship Cardiovascular Diseases	30-36	
Students who have already successfully completed (some of) these courses before 1 September 2015 can use it as part of their specialization Cardiovascular Diseases or as			

<p>an elective course.</p> <p>b) Specialization Psychophysiology: only applies to students who started their program in academic year 2014-2015 or earlier. 18EC in specialization courses and the Internship (30- 36) were compulsory. The specialization programme consisted of the following components.</p>		
code	name	EC
AM_1003	Advanced Human Neurophysiology	6
AM_470715	Functional Brain Imaging	6
AM_471140	Internship Psychophysiology	30-36
AM_470700	Neuroendocrinology	6
AM_470736	Psychophysiology	6
<p>Students who have already successfully completed this course before 1 September 2016 can use it as part of their specialization Psychophysiology or as an elective course.</p> <p>c) Specialization Medical and behavioral genomics: only applies to students who started their program in academic year 2014-2015 or earlier. 18EC in specialization courses and the Internship (30-36) were compulsory. The specialization programme consisted of the following components.</p>		
code	name	EC
AM_471142	Internship Medical and Behavioral Genomics	30-36
AM_1008 or AM_470725	Genomic Data Analysis or Bioinformatics	6
AM_470729	Gene Hunting	6
AM_470733	Complex Trait Genetics	6
AM_1040 or AM_470734	Statistical Genetics for Gene Finding	5-6
<p>Students who have already successfully completed this course before 1 September 2016 can use it as part of their specialization Medical and Behavioral Genomics or as an elective course.</p>		
<p>3. Specialization components that have been removed from the curriculum:</p> <p>a) The following component was removed from the specialization Medical and behavioral genomics in academic year 2014-2015: AM_470729 Gene Hunting (6 EC). Students who have already successfully completed this course before 1 September 2014 can use it as part of their specialization Medical and behavioral genomics or as an elective course.</p> <p>b) The following component was removed from the specialization Infectious Diseases in academic year 2016-2017: M_OVIRONC03 Viral Oncogenesis (3 EC). Students who have already successfully completed this course before 1 September 2016 can use it as part of their specialization Infectious diseases or as an elective course.</p> <p>c) The following component was removed from the specialization Infectious Diseases in academic year 2017-2018: AM_470094 Health Geography (6 EC). Students who have already successfully completed this course before 1 September 2017 can use it as part of their specialization Infectious diseases or as an elective course.</p>		
<p>4. Compulsory components of specializations:</p> <p>a) Specialization Immunology: for students who started their program before academic year 2017-2018, the compulsory and optional components are different:</p>		

Name of course component	Course code	Number of credits	Compulsory or optional
Advanced Molecular Immunology	AM_470656	6	Compulsory
Internship Immunology	AM_471137	30	Compulsory
Immunity and Disease	AM_1031	6	Optional
Clinical immunology	AM_470655	6	Optional
Molecular infection Biology	AM_470657	6	Optional
b) Specialization Infectious Diseases: for students who started their program before academic year 2017-2018, the compulsory and optional components are different:			
Name of course component	Course code	Number of credits	Compulsory or optional
Advanced Molecular Immunology	AM_470656	6	Compulsory
Internship Infectious Diseases	AM_471138	30	Compulsory
Molecular infection Biology	AM_470657	6	Compulsory
Microbial Genomics	AM_1021	3	Optional
Parasitology	AM_470052	6	Optional
Health Geography	AM_470094	6	Optional
Containment Strategies	AM_470127	6	Optional
Viral Oncogenesis	M_OVIRONC03	3	Optional
5. Components that have been replaced:			
In academic year, spec.	Former component	New component	
2012-2013, spec. Immunology	M_OIMMU03 Immunity and Diseases (6EC)	AM_1031 Immunity and Disease/Translational Immunology (6EC)	
2012-2013, spec. Medical and behavioral genomics	AM_470725 Bioinformatics (6 EC)	AM_1008 Genomic Data Analysis (6 EC)	
2013-2014, spec. Medical and behavioral genomics	AM_470734 Statistical Genetics for Gene Finding (5EC)	AM_1040 Statistical Genetics for Gene Finding (6EC)	
2015-2016, spec. Infectious Diseases	AM_1055 Parasitology (6EC)	AM_470052 Parasitology (6EC)	
2015-2016, compulsory courses	AM_471023 Scientific Writing in English (3EC)	AM_1161A/B, Scientific Writing in English (BMED) (3EC) or comparable courses	
2015-2016, spec. Communication and Science in Society	AM_470582 Qualitative and Quantitative Research Methods (6EC)	AM_1182 Research methods for analyzing complex problems	
2015-2016, spec. Communication	AM_471145 Internship Communication Specialization (30EC)	AM_1162 Research Internship Science Communication or AM_1163 Reflective Practice Internship Science Communication (30EC)	
2015-2016, spec.	AM_471144	AM_1133 Internship	

Science in Society	Internship Societal Specialization (30EC)	Science in Society (BMED)	
2015-2016, spec. Science in Society	AM_470585 Clinical Development and Clinical Trails (6EC)	AM_1179 Epidemiology (3EC) and AM_1180 Clinical Dev. and Clinical Trails (3EC)	
2018-2019, spec. Neurobiology	AM_1190 From Molecule to Mind (6EC)	AM_1215 From Molecule to Mind (9 EC)	
2018-2019, spec. Neurobiology	AM_1191 Data Analysis and Visualization (6EC)	AM_1216 Statistics in Neurosciences (3 EC)	
2018-2019, spec. Neurobiology	AM_1006 Behavioral Genetics (6EC)	AM_1214 Genetics in Neurosciences (6 EC)	

From the academic year of change, students obtain the new courses, unless they passed the former ones.

6. Specialization that has been changed in components:  
For students who started their program in academic year 2015-2016, the courses below are part of the specialization Neurobiology.

Name of course component	Course code	Number of credits	Compulsory or optional
Advanced Molecular Immunology	AM_470656	6	Compulsory
System Neurosciences	AM_470712	6	Compulsory
Internship Neurobiology	AM_1178	30	Compulsory
Methods in behavioral neuroscience	AM_470728	6	Optional
Live Cell Imaging	AM_470726	6	Optional
Developmental Neurobiology	AM_470713	6	Optional
Neuronal networks in vivo	AM_1001	6	Optional

Students that started in academic year 2015-2016 and who successfully complete this course before 1 September 2017 can use it as part of their specialization Neurobiology or as an elective course.

For students who started their program in academic year 2016-2017, the specialization Neurobiology consists of the courses as mentioned above.

Advice and approval by the Programme Committee of M Biomedical Sciences, on 4 April 2019

Approved by the Faculty Joint Assembly, on 3 September 2019.

Adopted by the board of the Faculty of Science 30 August 2019.



## Appendix I Overview of articles that must be included in the OER

Based on Section 7.13, paragraph 2, of the WHW and other Sections of the Act.

### Section B1: Programme specific – general provisions

<b>6. General programme information and characteristics</b>	
Article 6.1 Study programme information	7.13 paragraph 2 sub i, r
Article 6.2 Teaching formats used and modes of assessment	7.13 paragraph 2 sub l, x
[option:] Article 6.3 Academic student counselling	7.13 paragraph 2 sub u
<b>7. Further admission requirements</b>	
Article 7.2 Admission requirements	7.30b paragraph 2
<b>8. Interim examinations and results</b>	
Article 8.1 Sequence of interim examinations	7.13 paragraph 2 sub h, s, t
[option 1:] Article 8.2 Validity period for results	7.13 paragraph 2 sub k
[option 2:] Article 8.2 Validity period for results	7.13 paragraph 2 sub k

### Section B2: Programme specific – content of programme

<b>9. Programme objectives, specializations and exit qualifications</b>	
Article 9.1 Workload	7.13 paragraph 2 sub g
Article 9.2 Specializations	7.13 paragraph 2 sub a
Article 9.3 Programme objective	7.13 paragraph 2 sub a
Article 9.4 Exit qualifications	7.13 paragraph 2 sub b, c
<b>10. Curriculum structure</b>	
Article 10.1 Composition of the programme	7.13 paragraph 2 sub a
Article 10.2 Compulsory educational components	7.13 paragraph 2 sub a
[Optional] Article 10.3 Elective educational components	7.13 paragraph 2 sub a
[Optional] Article 10.4 Practical exercise	7.13 paragraph 2 sub d
Article 10.5 Participation in practical training and tutorials	7.13 paragraph 2 sub d
<b>11. Evaluation and transitional provisions</b>	
Article 11.1 Evaluation of the education	7.13 paragraph 2 sub a l
Article 11.2 Transitional provisions	7.13 paragraph 2 sub a

## Appendix II Overview of rights to prior consultation (advice) and rights to approve OLC and FGV

(Dutch only)

Onderwerpen Onderwijs – en Examenregeling (OER) 7.13 paragraf 2 WHW	FGV		OplC	
	I	A	I	A
a. de inhoud van de opleiding en van de daaraan verbonden examens				
a1. de wijze waarop het onderwijs in de desbetreffende opleiding wordt geëvalueerd				
b. de inhoud van de afstudeerrichtingen binnen een opleiding				
c. de kwaliteiten op het gebied van kennis, inzicht en vaardigheden die een student zich bij beëindiging van de opleiding moet hebben verworven				
d. waar nodig, de inrichting van praktische oefeningen				
e. de studielast van de opleiding en van elk van de daarvan deel uitmakende onderwijsseenheden				
f. de nadere regels, bedoeld in de artikelen 7.8b, zesde lid, en 7.9, vijfde lid (BSA)				
g. ten aanzien van welke masteropleidingen toepassing is gegeven aan artikel 7.4a, achtste lid (verhoogde studielast)				
h. het aantal en de volgtijdelijkheid van de tentamens alsmede de momenten waarop deze afgelegd kunnen worden				
i. de voltijdse, deeltijdse of duale inrichting van de opleiding				
j. waar nodig, de volgorde waarin, de tijdvakken waarbinnen en het aantal malen per studiejaar dat de gelegenheid wordt geboden tot het afleggen van de tentamens en examens				
k. waar nodig, de geldigheidsduur van met goed gevolg afgelegde tentamens, behoudens de bevoegdheid van de examencommissie die geldigheidsduur te verlengen				
l. of de tentamens mondeling, schriftelijk of op een andere wijze worden afgelegd, behoudens de bevoegdheid van de examencommissie in bijzondere gevallen anders te bepalen				
m. de wijze waarop studenten met een handicap of chronische ziekte redelijkerwijs in de gelegenheid worden gesteld de tentamens af te leggen				
n. de openbaarheid van mondeling af te nemen tentamens, behoudens de bevoegdheid van de examencommissie in bijzondere gevallen anders te bepalen				
o. de termijn waarbinnen de uitslag van een tentamen bekend wordt gemaakt alsmede of en op welke wijze van deze termijn kan worden afgeweken				
p. de wijze waarop en de termijn gedurende welke degene die een schriftelijk tentamen heeft afgelegd, inzage verkrijgt in zijn beoordeelde werk				
q. de wijze waarop en de termijn gedurende welke kennis genomen kan worden van vragen en opdrachten, gesteld of gegeven in het kader van een schriftelijk afgenomen tentamen en van de normen aan de hand waarvan de beoordeling heeft plaatsgevonden				
r. de gronden waarop de examencommissie voor eerder met goed gevolg afgelegde tentamens of examens in het hoger onderwijs, dan wel voor buiten het hoger onderwijs opgedane kennis of vaardigheden, vrijstelling kan verlenen van het afleggen van een of meer tentamens				
s. waar nodig, dat het met goed gevolg afgelegd hebben van tentamens voorwaarde is voor de toelating tot het afleggen van andere tentamens				
t. waar nodig, de verplichting tot het deelnemen aan praktische oefeningen met het oog op de toelating tot het afleggen van het desbetreffende tentamen, behoudens de bevoegdheid van de examencommissie vrijstelling van die verplichting te verlenen, al dan niet onder oplegging van vervangende eisen				
u. de bewaking van studievoortgang en de individuele studiebegeleiding				
v. indien van toepassing: de wijze waarop de selectie van studenten voor een speciaal traject binnen een opleiding, bedoeld in artikel 7.9b, plaatsvindt ( <i>excellentietaject binnen een opleiding</i> )				
x. de feitelijke vormgeving van het onderwijs				
<i>alle overige onderwerpen die in de OER zijn geregeld maar die niet als zodanig zijn genoemd in art. 7.13 WHW onder a t/m x.</i>				

De lettering komt overeen met de lettering van artikel 7.13 lid 2 WHW

### Appendix III Ordinances VU CvB and Binding Guidelines (richtlijn)

Section B1, article:	Concerns:	CvB ordinance / guideline
7.2.1	Admission criteria; at least WO Bachelor's degree	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017
7.2.3	Additional admission criteria; type of criteria	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017
Section B1, article:	Concerns:	CvB ordinance / guideline
10.1	Composition programme	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017
10.2	Categorization of components	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017