

Teaching and Examination Regulations

Masterprogramme in Drug Discovery and Safety Faculty of Science

Academic year 2020-2021

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

Index

Section A: Faculty section	4
1. General provisions	4
Article 1.1 Applicability of the Regulations	4
Article 1.2 Definitions	4
2. Study programme structure	5
Article 2.1 Structure of academic year and educational components	5
3. Assessment and Examination	6
Article 3.1 Signing up for education and interim examinations	6
Article 3.2 Type of examination	6
Article 3.3 Oral interim examinations	6
Article 3.4 Determining and announcing results	6
Article 3.5 Examination opportunities	6
Article 3.6 Marks	7
Article 3.7 Exemption	8
Article 3.8 Validity period for results	8
Article 3.9 Right of inspection and post-examination discussion	8
4. Academic student counselling and study progress	9
Article 4.1 Administration of study progress and academic student counselling	9
Article 4.2 Facilities for students with a disability	9
5. Hardship clause	10
Article 5.1 Hardship clause	10
Section B1: Programme specific – general provisions	11
6. General programme information and characteristics	11
Article 6.1 Study programme information	11
Article 6.1a Deviant size of educational component	11
Article 6.2 Teaching formats used and modes of assessment	11
Article 6.3 Academic student counselling	11
7. Further admission requirements	12
Article 7.1 Intake date(s)	12
Article 7.2 Admission requirements	12
Article 7.3 Selection criteria	14
8. Interim examinations and results	14
Article 8.1 Sequence of interim examinations	14
Article 8.2 Validity period for results	14
Section B2: Programme specific – content of programme	15
9. Programme objectives, tracks/specializations, exit qualifications and language	15
Article 9.1 Workload	15
Article 9.2 Tracks and/or specializations	15

Article 9.3 Programme objective.....	15
Article 9.4 Exit qualifications	15
Article 9.5 Language of instruction	17
10. Curriculum structure	17
Article 10.1 Composition of the programme	17
Article 10.2 Compulsory educational components	17
Article 10.3 Elective educational components	23
Article 10.4 Practical exercise	25
Article 10.5 Participation in practical training and tutorials	26
11. Evaluation and transitional provisions	26
Article 11.1 Evaluation of the education.....	26
Article 11.2 Transitional provisions.....	26
Appendix I Overview of articles that must be included in the OER	27
Appendix II Overview of advisory and approval rights of Programme Committees (OLC) and Faculty Joint Assembly (FGV).....	28
Appendix III Ordinances VU CvB and Binding Guidelines (richtlijn)	30
Appendix IV Article 2.1 of the Higher Education and Research (Implementation) Act (<i>Uitvoeringsbesluit</i>)....	31
Appendix V Addendum to the 2020-2021 Academic and Examination Regulations Master's degree programmes	33

Several articles for the 2020-2021 academic year will be temporarily suspended or amended as a result of the measures to stop the spread of COVID-19. These changes are included in Appendix V.

Section A: Faculty section

1. General provisions

Article 1.1 Applicability of the Regulations

1. These Regulations apply to anyone enrolled in the programme, irrespective of the academic year in which the student was first enrolled in the programme.	Advice OLC, approval FGV (9.38 sub b)
2. These Regulations enter into force on 1 September 2020	Advice OLC, approval FGV (9.38 sub b)
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.	Advice OLC, approval FGV (9.38 sub b)

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 Universiteit Amsterdam and the educational institution within and outside the Netherlands, 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:
- researching and writing a thesis or dissertation
 - carrying out a research assignment
 - taking part in fieldwork or an excursion
 - taking part in another educational learning activity aimed at acquiring specific skills, or
 - participating in and completing a work placement;
- n. programme: the totality and cohesion of the course components, teaching activities/methods, contact hours, testing and examination methods and recommended literature;
- o. SAP/SLM: the student information system (*Student Lifecycle Management*);
- p. semester: the first (September - January) or second half (February - August) of an academic year;
- q. specialization: optional route of study within a degree programme indicating a deepening of the (inter/multi) disciplinary context of the programme;
- 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:
<https://www.vu.nl/en/study-guide/>;
- s. study monitor: dashboard for students and academic advisors with data of the student (*studiemonitor*);
- t. subject: see 'educational component';
- u. substituting course/ educational component: see under c (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'.
- v. Track: full route of study within a broad bachelor's or master's degree programme or a fully English-language route of study within a Dutch-language bachelor's or master's degree;
- w. Thesis/ internship work placement:: scientific research, always resulting in a written report;
- x. university: Vrije Universiteit Amsterdam;
- y. WHW: the Dutch Higher Education and Research Act (*Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek*);
- z. 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, the Executive Board may in special cases and on request of the Faculty Board, stipulate that a unit of study comprises 3 EC or a multiple thereof.	Ordinance CvB, see appendix 3

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, the student is obligated to take the whole component again. This rule does not apply to practical exercises and programmes that make use of partial 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 examiner's request, the Examination Board may permit a different form of interim examination than is stipulated in the study guide.	Advice OLC, Approval FGV (7.13 l)
---	-----------------------------------

Article 3.3 Oral interim examinations

1. An oral assessment is public unless the Examination Board in special cases determines otherwise.	Advice OLC; approval FGV (7.13 l and n)
---	---

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 possible, but at the latest within one working day after the examination has finished and informs the student accordingly. The third sentence 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.	Advice OLC; 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)

Article 3.5 Examination opportunities

1. a. Per academic year, two opportunities to take examinations per educational component will be offered.	Ordinance CvB, see appendix 3
--	-------------------------------

b. By way of exception to a., the options for retaking practical components, work placements and theses are detailed in the relevant work placement manual, teaching regulations or graduation regulations.	
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: <ul style="list-style-type: none"> a) is lacking only those credits to qualify for their degree, and; 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
5. If an educational component is no longer offered in the following academic year, one opportunity will be provided to sit the interim examination(s) or parts thereof during the current academic year and a transitional arrangement for the subsequent period will be included in the programme-specific section of the teaching and examination regulation (part B).	Advice OLC, approval FGV (7.13 j)

Article 3.6 Marks

1. Partial 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. In deviation from paragraph 2, final marks between 5 and 6 will be rounded off to whole marks: up to 5.50 rounded down; from 5.50 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>To</th> <th>Grade</th> </tr> </thead> <tbody> <tr><td>1,00</td><td>1,24</td><td>1</td></tr> <tr><td>1,25</td><td>1,74</td><td>1,5</td></tr> <tr><td>1,75</td><td>2,24</td><td>2,0</td></tr> <tr><td>2,25</td><td>2,74</td><td>2,5</td></tr> <tr><td>2,75</td><td>3,24</td><td>3,0</td></tr> <tr><td>3,25</td><td>3,74</td><td>3,5</td></tr> <tr><td>3,75</td><td>4,24</td><td>4,0</td></tr> <tr><td>4,25</td><td>4,74</td><td>4,5</td></tr> <tr><td>4,75</td><td>5,49</td><td>5,0</td></tr> <tr><td>5,50</td><td>6,24</td><td>6,0</td></tr> <tr><td>6,25</td><td>6,74</td><td>6,5</td></tr> <tr><td>6,75</td><td>7,24</td><td>7,0</td></tr> <tr><td>7,25</td><td>7,74</td><td>7,5</td></tr> <tr><td>7,75</td><td>8,24</td><td>8,0</td></tr> </tbody> </table>		From	To	Grade	1,00	1,24	1	1,25	1,74	1,5	1,75	2,24	2,0	2,25	2,74	2,5	2,75	3,24	3,0	3,25	3,74	3,5	3,75	4,24	4,0	4,25	4,74	4,5	4,75	5,49	5,0	5,50	6,24	6,0	6,25	6,74	6,5	6,75	7,24	7,0	7,25	7,74	7,5	7,75	8,24	8,0
From	To	Grade																																												
1,00	1,24	1																																												
1,25	1,74	1,5																																												
1,75	2,24	2,0																																												
2,25	2,74	2,5																																												
2,75	3,24	3,0																																												
3,25	3,74	3,5																																												
3,75	4,24	4,0																																												
4,25	4,74	4,5																																												
4,75	5,49	5,0																																												
5,50	6,24	6,0																																												
6,25	6,74	6,5																																												
6,75	7,24	7,0																																												
7,25	7,74	7,5																																												
7,75	8,24	8,0																																												

	8,25	8,74	8,5	
	8,75	9,24	9,0	
	9,25	9,74	9,5	
	9,75	10,0	10	
4. The Examination Board can allow to use symbols rather than numbers, for example; v(oldaan), g(oed), n(iet)v(ol)d(aan), etc.). 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: <ol style="list-style-type: none"> has passed a course component of a university or higher professional education programme that is equivalent in terms of content and level; has demonstrated through their work and/or professional experience that the student has sufficient knowledge and skills with regard to the relevant course component. 	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-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. This regulation does not apply if a student is (simultaneously) enrolled in multiple programmes, which lead to multiple degrees, where courses may be part of both programmes. The Examination Board may decide to deviate from this regulation for a programme.	Advice OLC,

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.	Legal provision
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. Within twenty working days after the announcement of the results of a written interim examination, the student can, on request, inspect their assessed work, the questions and assignments set in it, as well as the standards applied for marking. The place and time will be announced at the time of the interim examination or 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 of their own.	Advice OLC; approval FGV (7.13 q)
3. Students who meet the requirements stipulated in paragraph 2 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)

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 their 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"> a. The Student General Counselling Service b. Student psychologists c. Faculty academic advisors 	Advice OLC; approval FGV (7.13 u)

Article 4.2 Facilities 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 one or more special facilities with regard to teaching, practical training and interim examinations. These facilities 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 the responsible person on behalf of the faculty board, decides on teaching facilities and facilities regarding logistics. The Examination Board will rule on requests for facilities 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 can make an appointment with the academic advisor to discuss the details of the provisions.	Advice OLC; approval FGV (7.13 m)
6. A request for one or more facilities can 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 responsible person on behalf of the Examination Board will register in SAP 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. The student can consult the study monitor to check which facilities have been granted.	Advice OLC; approval FGV (7.13 m)
8. The decision as referred to in paragraph 5 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 Examination Board.	Advice OLC; approval FGV (9.38 sub b)
--	---

Section B1: Programme specific – general provisions

6. General programme information and characteristics

Article 6.1 Study programme information

1. The programme Drug Discovery and Safety CROHO number 66989 is offered on a full-time basis.	Advice OLC; approval FGV (7.13 i)
2. For selected students the programme is offered in partnership with the University of Copenhagen, Denmark and leads to a joint degree.	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 size of 3 EC:			Approval OLC (art. 7.13 lid 2, under e), approval CvB
Course code	Name course	EC	
AM_1180	Clinical Development and Clinical Trials	3	
O_MFDIDAC_3	Didactiek 3	9	
O_MLDIDAC_3	Didactiek 3	9	
AM_1179	Epidemiology	3	
XM_432517	Ethics and Academic skills	3	
AM_470707	Ethics in Life Sciences	3	
O_MFPRAK_2	Praktijk 2	9	
O_MLPRAK_2	Praktijk 2	9	
O_MFPROZ_1	Praktijkonderzoek 1	3	
O_MLPROZ_1	Praktijkonderzoek 1	3	
X_400592	Scientific Writing in English	3	
XM_432741	Teaching Assistant	3	
X_432625	Tutoring Students	3	

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

1. The programme offers the following counselling in addition to the student counselling mentioned in Section A: <ul style="list-style-type: none"> - XM_0002 Research Skills and Career Perspectives - Track coordinators - Academic Advisor 	Advice OLC; approval FGV (7.13 u)
--	-----------------------------------

7. Further admission requirements

Article 7.1 Intake date(s)

1. The programme starts twice a year: on September 1 and on February 1. February 1 is only available as start date for students who obtained a Farmaceutische Wetenschappen bachelor degree at the Vrije Universiteit Amsterdam	Advice OLC; approval FGV (9.38 sub b)
---	---------------------------------------

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 on a sufficient bachelor-degree level on</p> <ol style="list-style-type: none"> Organic Chemistry Biochemistry, molecular biology, cell biology and pharmacology, including techniques such as protein expression, purification and mutagenesis; Pharmacokinetics, enzyme kinetics and pharmaceutical toxicology Physical chemistry Analytical chemistry, including techniques such as HPLC, spectrophotometry, fluorimetry, NMR and mass spectrometry <p>b. Skills "eindniveau bachelor" (final level of attainment in an appropriate university Bachelor's degree programme) on:</p> <ol style="list-style-type: none"> Practical laboratory experience Research experience <p>These knowledge, understanding and research skills can be demonstrated by a Dutch Bachelor Degree in Pharmaceutical Sciences / Pharmacochemistry, Chemistry or Medical Natural Sciences. Students with another degree and international students can demonstrate eligibility by additional documents and an interview with the Admission Board.</p>	Partly legal provision & ordinance CvB, see appendix 3. Admission requirements excepted from participation in WHW
<p>2. Applicants who wish to follow the track Drug Discovery and Target Finding must, in addition to the provisions in paragraph 1, also meet the following requirements with regard to:</p> <p>a. Knowledge and understanding "eindniveau bachelor" on:</p> <ol style="list-style-type: none"> Biochemistry, molecular biology, cell biology and pharmacology, including techniques such as protein expression, purification and mutagenesis; Pharmacokinetics, enzyme kinetics and pharmaceutical toxicology <p>Applicants who wish to follow the track Drug Design and Synthesis must, in addition to the provisions in paragraph 1, also meet the following requirements with regard to:</p> <p>a. Knowledge and understanding "eindniveau bachelor" on:</p> <ol style="list-style-type: none"> Organic Chemistry <p>b. Skills "eindniveau bachelor" on:</p> <ol style="list-style-type: none"> Practical laboratory experience with organic chemical techniques Lab safety in an organic chemical lab 	Partly legal provision & ordinance CvB, see appendix 3. Admission requirements excepted from participation in WHW

<p>Applicants who wish to follow the track Diagnostics and Imaging must, in addition to the provisions in paragraph 1, also meet the following requirements with regard to:</p> <ol style="list-style-type: none"> a. Knowledge and understanding “eindniveau bachelor” on: <ol style="list-style-type: none"> a. Biochemistry, molecular biology, cell biology and pharmacology, including techniques such as protein expression, purification and mutagenesis; b. Analytical chemistry, including techniques such as HPLC, spectrophotometry, fluorimetry, NMR and mass spectrometry c. Organic Chemistry <p>Applicants who wish to follow the track Drug Disposition and Safety Assessment must, in addition to the provisions in paragraph 1, also meet the following requirements with regard to:</p> <ol style="list-style-type: none"> a. Knowledge and understanding “eindniveau bachelor” on: <ol style="list-style-type: none"> a. Biochemistry, molecular biology, cell biology and pharmacology, including techniques such as protein expression, purification and mutagenesis; b. Pharmacokinetics, enzyme kinetics and pharmaceutical toxicology <p>Applicants who wish to follow the track Computational Medicinal Chemistry and Toxicology must, in addition to the provisions in paragraph 1, also meet the following requirements with regard to:</p> <ol style="list-style-type: none"> a. Knowledge and understanding “eindniveau bachelor” on: <ol style="list-style-type: none"> a. Physical chemistry b. Skills “eindniveau bachelor” on: <ol style="list-style-type: none"> a. Computational molecular simulation and modeling techniques <p>These knowledge, understanding and research skills can be demonstrated by a Dutch Bachelor Degree in Pharmaceutical Sciences / Pharmacology, Chemistry or Medical Natural Sciences. Students with another degree and international students can demonstrate eligibility by additional documents and an interview with the Admission Board.</p>	
<p>3. Applicants with a bachelor's degree obtained at an institution outside the Netherlands may be asked for additional methods or information to prove that they meet the admission requirements.</p>	<p>Advice OLC; approval FGV (9.38 sub b)</p>
<p>4. An applicant who did not obtain his bachelor at a Dutch university should demonstrate sufficient level of proficiency in English by meeting at least one of the following standards, no more than two (2) years before the start of the programme at the VU:</p> <ul style="list-style-type: none"> - (academic) IELTS: >6.5 - TOEFL paper based test: >580 - TOEFL internet based test >92 	<p>Advice OLC; approval FGV (9.38 sub b)</p>
<p>5. Applicants who:</p> <ul style="list-style-type: none"> - completed an English-taught secondary or higher education degree in Canada, the United States, the United Kingdom, Ireland, New Zealand or Australia or - have earned a Bachelor's or Master's degree in an English-taught programme accredited by NVAO in the Netherlands, or 	<p>Advice OLC; approval FGV (9.38 sub b)</p>

<ul style="list-style-type: none"> - have earned a Bachelor's or Master's degree in an accredited English-taught programme in another member state of the European Union - have obtained a Cambridge Certificate of Proficiency in English (CPE) or a Cambridge Certificate of Advanced English (CAE) with at least a score of A, B or C. <p>are exempted from the requirements referred to in paragraph 4.</p>	
6. The Admission Board will decide whether the applicant meets the admission requirements.	Advice OLC; approval FGV (9.38 sub b)

Article 7.3 Selection criteria

1. Not applicable	Partly legal provision & ordinance CvB, see appendix 3. Admission requirements excepted from participation in WHW
-------------------	---

8. Interim examinations and results

Article 8.1 Sequence of interim examinations

<p>1. Students may participate interim examinations or practical exercises 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"> - A major or minor internship after obtaining 18EC or more - A major or minor internship after passing a course specified by the Examination Board - A literature thesis after obtaining 18EC or more 	Advice OLC; approval FGV (7.13 h, s & t)
---	--

Article 8.2 Validity period for results

1. The validity period of the interim examinations and exemptions from interim examinations below, is not limited. See Article 3.8 of the Teaching and Examination Regulations, section A.	Advice OLC; approval FGV (7.13 k)
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.	Legal provision
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.	Legal provision

Section B2: Programme specific – content of programme

9. Programme objectives, tracks/specializations, exit qualifications and language

Article 9.1 Workload

1. The programme has a workload of 120 EC	Advice OLC; (7.13 a)
---	-------------------------

Article 9.2 Tracks and/or specializations

<p>The programme has the following tracks and/or specializations:</p> <ul style="list-style-type: none"> • Drug Discovery and Target Finding • Drug Design and Synthesis • Drug Disposition and Safety Assessment • Computational Medicinal Chemistry and Toxicology • Diagnostics and Imaging <p>Each specialization has to be combined with one of the following profiles</p> <ul style="list-style-type: none"> • Research variant (R-variant) • Society oriented variant for natural and life sciences (S-variant) • Communication variant (C-variant) • Education variant (E-variant) 	Approval OLC; (7.13 a)
---	---------------------------

Article 9.3 Programme objective

The programme aims to impart sufficient knowledge, skills and insight within the field of Drug Discovery & Safety, and any related disciplines, to be able to operate as an independent professional at an academic level, and to be a suitable candidate for a subsequent study path leading to a career in research or development. Another aim of the programme is to develop students' understanding of the relationships between academic disciplines, as well as their sense of social responsibility.	Advice OLC; (7.13 a)
--	-------------------------

Article 9.4 Exit qualifications

<p>1. At all events, a graduate of the study programme:</p> <ul style="list-style-type: none"> • has a sound theoretical and practical understanding of the modern pharmaceutical sciences (including the requisite knowledge of other disciplines) • has a thorough knowledge of theoretical and experimental methods, as well as research experience in at least one sub-field of pharmaceutical sciences • is capable, within a reasonable period of time, of becoming conversant in other sub-fields of the discipline • is capable of formulating a work plan for research within the pharmaceutical sciences, on the basis of a realistic research question • is capable of analyzing and formulating research results, and of drawing conclusions from them • is capable of writing a report or an academic paper for publication in an international journal, and of participating in a discussion on a topic related to the field of study in question 	Approval OLC (7.13 c)
---	--------------------------

<ul style="list-style-type: none"> • is capable of studying the professional literature (including international publications) in relevant sub-fields, and of making use of the discussions and results found there • is capable of applying knowledge of the pharmaceutical sciences within a wider, multidisciplinary context • is capable of dealing with the safety and environmental aspects of the pharmaceutical sciences • is capable of taking on posts for which knowledge and research skills in the field of the pharmaceutical sciences are required • has sufficient knowledge of and insight into the social role of the pharmaceutical sciences to decide on a responsible choice of profession and professional practice • is capable of cooperating with others, of imparting knowledge to others, and of delivering a lecture both to specialists and to a wider audience <p>The programme emphasizes:</p> <ul style="list-style-type: none"> • the student's personal development; • promoting the student's sense of social responsibility; • promoting the student's communication skills and academic literacy in Dutch or in English. 	
<p>2. Without prejudice to the provisions of paragraph 1, a graduate of the following specializations will have the following knowledge and understanding</p> <p>R-variant The graduate:</p> <ul style="list-style-type: none"> • is capable of independently designing, conducting and assessing experiments and the associated controls within a given period of time; • is capable of contextualizing the results and conclusions obtained, within the framework of results obtained by others; • is capable of formulating a perspective on the development of scientific research within the field in question; • is capable of quantitatively and qualitatively analyzing chemical processes, of entering the data into existing models (or models yet to be developed), and of presenting the results at various levels of abstraction; • must possess insight into the role of the pharmaceutical sciences in a sustainable society. <p>C variant The graduate can:</p> <ul style="list-style-type: none"> • independently acquire new knowledge of the subject in the area of communication and can apply this in appropriate professional situations; • impart any knowledge and insights obtained, verbally and in writing to wider audiences. <p>E variant The graduate can:</p> <ul style="list-style-type: none"> • independently acquire new knowledge of the subject in the area of education, and can apply this in appropriate professional situations; 	Approval OLC (7.13 b)

<ul style="list-style-type: none"> impart any knowledge and insights obtained, verbally and in writing in appropriate educational settings. <p>S variant</p> <p>The graduate can:</p> <ul style="list-style-type: none"> develop a perspective on the contributions that scientific knowledge and methods can potentially make to social problems related to the field in question; distil a research question from this perspective that is geared towards solutions; implement such questions in the form of targeted research; interpret and present data obtained from analyses conducted at different scales and different levels of abstraction; cooperate with others in the context of a multidisciplinary project team 	
3. Language proficiency may be taken into account in the assessment of (interim) examinations	Approval OLC (7.13 c)

Article 9.5 Language of instruction

1. The language of instruction is English	Approval OLC (9.18)
2. The 'Gedragcode vreemde taal' (code of conduct foreign languages) applies	Ordinance CvB, see appendix 3

10. Curriculum structure

Article 10.1 Composition of the programme

1. The programme comprises at least a package of compulsory components, an individual Master's thesis and an academic internship.	Ordinance CvB, see appendix 3
2. Additionally the programme can offer: <ul style="list-style-type: none"> Minor research project Elective courses 	Advice OLC; (7.13 a)
3. 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.

Name of educational component	course code	nr of EC	level	Advice
Deficiency course				OLC (7.13 a)
Principles of Pharmaceutical Sc./ PharCH*	X_435675	6	400	
<i>*Obligatory for students who do not have a background in the field of pharmaceutical sciences</i>				
DDTF specialisation				
High-Throughput Screening	X_435047	6	500	
Signal Transduction in Health and Disease	X_432535	6	500	

Research skills and career perspectives	XM_0002	0	400
Drug Action	X_432724	6	400
<i>DDS Core courses (choose at minimum 2 out of 3*)</i>			
ADMET	X_432721	6	400
Chemical Biology	X_432538	6	400
Project Computational Design and Synthesis of	X_432734	6	400
<i>*C-, S- and E-variant students taking the deficiency course are allowed to drop 1 additional core course.</i>			
<i>Literature and colloquium DDTF (Compulsory for DDTF R-variant, choose 1 of 2, 12 EC required)</i>			
Colloquium & Literature Thesis Medicinal	XM_0032	12	600
Colloquium & Literature Thesis Organic Chemistry (Subject: Structural Chemical Biology)	XM_0034	12	600
<i>Literature and colloquium DDTF (Compulsory for DDTF C, E or S-variant, choose 1 of 2, 6 EC required)</i>			
Colloquium & Literature Thesis Medicinal Chemistry (C,E,S)	XM_0018	6	600
Colloquium & Literature Thesis Organic Chemistry (Structural Chemical Biology thesis) (C,E,S)	XM_0020	6	600
<i>Research project DDTF (Compulsory for DDTF C-, E- or S-variant, choose 1 of 2, 24 EC required)</i>			
Major research project Medicinal Chemistry	XM_0025	24-36	600
Major research project Organic Chemistry (Structural Chemical Biology project) (C,E,S)	XM_0027	24-36	600
<i>Research project DDTF (Compulsory for DDTF R-variant, choose 1 of 2, 42 EC required)</i>			
Major Research Project Medicinal Chemistry	XM_0039	42-60	600
Major Research Project Organic Chemistry (Structural Chemical Biology project)	XM_0041	42-60	600
DDSA specialisation			
Drug-induced Stress and Cellular Response	X_432536	6	500
Advanced Course on DDSA	X_435681	6	500
Research skills and career perspectives	XM_0002	0	400
<i>DDS Core courses (choose at minimum 3 out of 4)*</i>			
ADMET	X_432721	6	400
Chemical Biology	X_432538	6	400
Drug Action	X_432724	6	400
Project Computational Design and Synthesis of	X_432734	6	400
<i>*C-, S- and E-variant students taking the deficiency course are allowed to drop 1 additional core course.</i>			
<i>Literature and colloquium DDSA (Compulsory for DDSAR-variant, 12 EC required)</i>			

Colloquium & Literature Thesis Molecular & Computational Toxicology	XM_0033	12	600
<i>Literature and colloquium DDSA (Compulsory for DDSA C-, E- or S-variant, 6 EC required)</i>			
Colloquium & Literature Thesis Molecular & Computational Toxicology (C,E,S)	XM_0019	6	600
<i>Research project DDSA (Compulsory for DDSA C-, E- or S-variant, 24 EC required)</i>			
Major research project Molecular & Computational Toxicology (C,E,S)	XM_0026	24-36	600
<i>Research project DDSA (Compulsory for DDSA R-variant, 42 EC required)</i>			
Major Research Project Molecular & Computational Toxicology	XM_0040	42-60	600
CMCT specialisation			
Comp.-Aided Drug Design and Virtual Scr.	X_432673	6	400
Biomolecular Simulation in MC&T	X_432664	6	400
Project Computational Design and Synthesis of	X_432734	6	400
Research skills and career perspectives	XM_0002	0	400
<i>DDS Core courses (choose at minimum 2 out of 3)*</i>			
ADMET	X_432721	6	400
Chemical Biology	X_432538	6	400
Drug Action	X_432724	6	400
<i>*C-, S- and E-variant students taking the deficiency course are allowed to drop 1 additional core course.</i>			
<i>Literature and colloquium CMCT (Compulsory for CMCT R-variant, choose 1 of 3, 12 EC required)</i>			
Colloquium & Literature Thesis Molecular & Computational Toxicology	XM_0033	12	600
Colloquium & Literature Thesis Medicinal	XM_0032	12	600
Colloquium & Literature Thesis Theoretical	XM_0036	12	600
<i>Literature and colloquium CMCT (Compulsory for CMCT C, E or S, choose 1 of 3, 6 EC required)</i>			
Colloquium & Literature Thesis Molecular & Computational Toxicology (C,E,S)	XM_0019	6	600
Colloquium & Literature Thesis Medicinal Chemistry (C,E,S)	XM_0018	6	600
Colloquium & Literature Thesis Theoretical Chemistry (C,E,S)	XM_0022	6	600
<i>Research project CMCT (Compulsory for CMCT C-, E- or S-variant, choose 1 of 3, 24 EC required)</i>			
Major research project Molecular & Computational Toxicology (C,E,S)	XM_0026	24-36	600
Major research project Medicinal Chemistry	XM_0025	24-36	600

Major research project Theoretical Chemistry	XM_0029	24-36	600
<i>Research project CMCT (Compulsory for CMCT R-variant, choose 1 of 3, 42 EC required)</i>			
Major Research Project Molecular & Computational Toxicology	XM_0040	42-60	600
Major Research Project Medicinal Chemistry	XM_0039	42-60	600
Major Research Project Theoretical Chemistry	XM_0043	42-60	600
DD&S specialisation			
Physical-Organic Chemistry	X_435663	6	400
Synthetic Approaches in Medicinal Chemistry	X_435685	6	500
Research skills and career perspectives	XM_0002	0	400
<i>DDS Core courses (choose at minimum 3 out of 4)*</i>			
ADMET	X_432721	6	400
Chemical Biology	X_432538	6	400
Drug Action	X_432724	6	400
Project Computational Design and Synthesis of	X_432734	6	400
<i>*C-, S- and E-variant students taking the deficiency course are allowed to drop 1 additional core course.</i>			
<i>Literature and colloquium DD&S (Compulsory for DD&S R-variant, choose 1 of 4, 12 EC required)</i>			
Colloquium & Literature Thesis Medicinal	XM_0032	12	600
Colloquium & Literature Thesis Organic Chemistry	XM_0034	12	600
Colloquium & Literature Thesis Radiopharmaceutical Chemistry	XM_0035	12	600
Colloquium & Literature Thesis Molecular & Computational Toxicology	XM_0033	12	600
<i>Literature and colloquium DD&S (Compulsory for DD&S C, E or S-variant, choose 1 of 4, 6 EC required)</i>			
Colloquium & Literature Thesis Medicinal Chemistry (C,E,S)	XM_0018	6	600
Colloquium & Literature Thesis Molecular & Computational Toxicology (C,E,S)	XM_0019	6	600
Colloquium & Literature Thesis Organic Chemistry (C,E,S)	XM_0021	6	600
Colloquium & Literature Thesis Radiopharmaceutical Chemistry (C,E,S)	XM_0022	6	600
<i>Research project DD&S (Compulsory for DD&S C-, E- or S-variant, choose 1 of 4, 24 EC required)</i>			
Major research project Medicinal Chemistry	XM_0025	24-36	600
Major research project Molecular & Computational Toxicology (C,E,S)	XM_0026	24-36	600
Major Research project Organic Chemistry (C,E,S)	XM_0027	24-36	600
Major Research project Radiopharmaceutical Chemistry (C,E,S)	XM_0028	24-36	600

<i>Research project DD&S (Compulsory for DD&S R-variant, choose 1 of 4, 42 EC required)</i>			
Major Research Project Medicinal Chemistry	XM_0039	42-60	600
Major Research Project Molecular & Computational Toxicology	XM_0040	42-60	600
Major Research Project Organic Chemistry	XM_0041	42-60	600
Major Research Project Radiopharmaceutical	XM_0042	42-60	600
Diagnostics and Imaging specialisation			
Chemical Biology	X_432538	6	400
Research skills and career perspectives	XM_0002	0	400
<i>DDS Core courses (choose at minimum 2 out of 3)*</i>			
ADMET	X_432721	6	400
Drug Action	X_432724	6	400
Project Computational Design and Synthesis of	X_432734	6	400
<i>*C-, S- and E-variant students taking the deficiency course are allowed to drop 1 additional core course.</i>			
<i>Choice of at minimum 2 out of 6 subjects depending on the Major Project (to be discussed with the master coordinator)</i>			
Advanced Analytical Sciences in Drug-Related and Clinical Environments	XM_0068	6	400
Translational Radiopharmaceutical Sciences	XM_0067	6	400
High-Throughput Screening	X_435047	6	500
Advanced Radiopharmaceutical Sc	XM_0069	6	600
Protein Analysis	X_435045	6	500
Mass Spectrometry	X_435604	6	400
<i>Literature and colloquium D&I (Compulsory for D&I R-variant, choose 1 of 3, 12 EC required)</i>			
Colloquium & Literature Thesis Bioanalytical	XM_0030	12	600
Colloquium & Literature Thesis Radiopharmaceutical Chemistry	XM_0035	12	600
Colloquium & Literature Thesis Environmental Bioanalysis	XM_0031	12	600
<i>Literature and colloquium D&I (Compulsory for D&I C, E or S-variant, choose 1 of 3, 6 EC required)</i>			
Colloquium & Literature Thesis Bioanalytical Chemistry (C,E,S)	XM_0016	6	600
Colloquium & Literature Thesis Radiopharmaceutical Chemistry (C,E,S)	XM_0022	6	600
Colloquium & Literature Thesis Environmental Bioanalysis (C,E,S)	XM_0017	6	600
<i>Research project D&I (Compulsory for D&I R-variant, choose 1 of 3, 42 EC required)</i>			
Major Research Project Bioanalytical Chemistry	XM_0037	42-60	600

Major Research Project Radiopharmaceutical Chemistry	XM_0042	42-60	600
Major Research Project Environmental Bioanalysis	XM_0038	42-60	600
<i>Research project D&I (Compulsory for D&I C-, E- or S-variant, choose 1 of 3, 24 EC required)</i>			
Major research project Bioanalytical Chemistry	XM_0023	24-36	600
Major Research project Radiopharmaceutical Chemistry (C,E,S)	XM_0028	24-36	600
Major research project Environmental Bioanalysis (C,E,S)	XM_0024	24-36	600
Additional compulsory Research variant courses			
<i>Ethics and academic skills (6 EC required)</i>			
Ethics and Academic Skills	XM_432517	3	400
Ethics and Academic Skills	XM_437556	6	400
Teaching Assistant	XM_432741	3	400
Teaching Assistant	XM_432742	6	400
Managing science and technology	AM_470586	6	600
Research methods for analyzing problems	AM_1182	6	400
Science and Communication	AM_470587	6	500
Societal entrepreneurship H&L sciences	AM_470575	6	500
Business management	AM_470584	6	500
Communication, Org. and Management	AM_470572	6	500
Science in Dialogue	AM_1002	6	500
Science Journalism	AM_471014	6	500
Tutoring Students	X_432625	3	400
Scientific Writing in English	X_400592	3	400
Clinical Development and Clinical Trials	AM_1180	3	500
Epidemiology	AM_1179	3	500
Ethics in life sciences	AM_470707	3	400
Replacement Refinement and Reduction	XM_0066	6	400
Caput AIMMS Seminars and Lectures	XM_0001	3	500
Additional compulsory Societal variant courses			
Internship Science in Society	AM_1185	30	600
Analysis of Governmental Policy	AM_470571	6	500
Research methods for analyzing problems	AM_1182	6	400
Communication, Org. and Management	AM_470572	6	500
Additional compulsory Communication variant courses			
Research methods for analyzing problems	AM_1182	6	400
Science and Communication	AM_470587	6	500
<i>Internship communication: compulsory for Communication variant, choose one (30 EC)</i>			
Reflective Practice Int. SC. Comm.	AM_1163	30	600
Research Internship Science Comm.	AM_1162	30	600

Additional compulsory Education variant courses			
Peergroup 1	O_MLPEERGR_1	0	400
Didactiek 1	O_MLDIDAC_1 or _MFDIDAC_1	6	400
Praktijk 1	O_MLPRAK_1or O_MFPRAK_1	6	400
Praktijkonderzoek 1	O_MLPROZ_1 or O_MFPROZ_1	3	400
Didactiek 2	O_MLDIDAC_2 or O_MFDIDAC_2	6	400
Praktijk 2	O_MLPRAK_2 or _MFPRAK_2	9	400
Didactiek 3	O_MFDIDAC_3 or O_MLDIDAC_3	9	400
Praktijk 3	O_MFPRAK_3 or O_MLPRAK_3	15	400
Praktijkonderzoek 2	O_MFPROZ_2 or O_MLPROZ_2	6	400
Peergroup 2	O_MLPEERGR_2	0	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:				Advice OLC; (7.13 a)
Recommended choice (Communication variant)				
Communication, Org. and Management	AM_470572	6	500	
Science in Dialogue	AM_1002	6	500	
Science Journalism	AM_471014	6	500	
Science Museology	AM_470590	6	500	
Recommended choice (Societal variant)				
Societal entrepreneurship H&L sciences	AM_470575	6	500	
Business management	AM_470584	6	500	
Policy, Politics and Participation	AM_470589	6	500	
Clinical Development and Clinical Trials	AM_1180	3	500	
Epidemiology	AM_1179	3	500	
Concepts in chemical biology	XMU_0080	6	400	
Recommended optional courses DDTF				
Concepts in chemical biology	XMU_0080	6	400	
Supramolecular Chemistry and Nanomat.	XMU_435653	6	400	
Computer-Aided Drug Design and Virtual Screening	X_432673	6	400	
Drug-induced Stress and Cellular Response	X_432536	6	500	
Mass Spectrometry	X_435604	6	400	
Advanced Computational Chemistry	XMU_0014	6	500	
Molecular Computational Chemistry	X_435666	6	400	
Protein Analysis	X_435045	6	500	
Advanced Course on DDSA	X_435681	6	500	
Biomolecular Simulation in Medicinal Chemistry & Toxicology	X_432664	6	400	

Advanced Computational Chemistry	XMU_0014	6	500
Minor Research Project Bioanalytical Chemistry	XM_0044	18-36	500
Minor Research Project Environmental Bioanalysis	XM_0045	18-36	500
Minor Research Project Medicinal Chemistry	XM_0046	18-36	500
Minor Research Project Molecular & Computational Toxicology	XM_0047	18-36	500
Minor Research Project Organic Chemistry	XM_0048	18-36	500
Minor Research Project Radiopharmaceutical Chemistry	XM_0049	18-36	500
Minor Research Project Theoretical Chemistry	XM_0050	18-36	500
Recommended optional courses DDSA			
Concepts in chemical biology	XMU_0080	6	400
Supramolecular Chemistry and Nanomat.	XMU_435653	6	400
Computer-Aided Drug Design and Virtual Screening	X_432673	6	400
Signal Transduction in Health and Disease	X_432535	6	500
Advanced Computational Chemistry	XMU_0014	6	500
Molecular Computational Chemistry	X_435666	6	400
Biomolecular Simulation in Medicinal Chemistry & Toxicology	X_432664	6	400
Minor Research Project Bioanalytical Chemistry	XM_0044	18-36	500
Minor Research Project Environmental Bioanalysis	XM_0045	18-36	500
Minor Research Project Medicinal Chemistry	XM_0046	18-36	500
Minor Research Project Molecular & Computational Toxicology	XM_0047	18-36	500
Minor Research Project Organic Chemistry	XM_0048	18-36	500
Minor Research Project Radiopharmaceutical Chemistry	XM_0049	18-36	500
Minor Research Project Theoretical Chemistry	XM_0050	18-36	500
Recommended optional courses CMCT			
Concepts in chemical biology	XMU_0080	6	400
Supramolecular Chemistry and Nanomat.	XMU_435653	6	400
Drug-induced Stress and Cellular Response	X_432536	6	500
Signal Transduction in Health and Disease	X_432535	6	500
Advanced Computational Chemistry	XMU_0014	6	500
Molecular Computational Chemistry	X_435666	6	400
Density Functional Theory for Chemists	XM_435112	12	500
Minor Research Project Bioanalytical Chemistry	XM_0044	18-36	500
Minor Research Project Environmental Bioanalysis	XM_0045	18-36	500
Minor Research Project Medicinal Chemistry	XM_0046	18-36	500
Minor Research Project Molecular & Computational Toxicology	XM_0047	18-36	500
Minor Research Project Organic Chemistry	XM_0048	18-36	500
Minor Research Project Radiopharmaceutical Chemistry	XM_0049	18-36	500
Minor Research Project Theoretical Chemistry	XM_0050	18-36	500
Recommended optional courses DD&S			

Concepts in chemical biology	XMU_0080	6	400
Computer-Aided Drug Design and Virtual Screening	X_432673	6	400
Drug-induced Stress and Cellular Response	X_432536	6	500
Signal Transduction in Health and Disease	X_432535	6	500
Molecular Computational Chemistry	X_435666	6	400
Biomolecular Simulation in Medicinal Chemistry & Toxicology	X_432664	6	400
Minor Research Project Bioanalytical Chemistry	XM_0044	18-36	500
Minor Research Project Environmental Bioanalysis	XM_0045	18-36	500
Minor Research Project Medicinal Chemistry	XM_0046	18-36	500
Minor Research Project Molecular & Computational Toxicology	XM_0047	18-36	500
Minor Research Project Organic Chemistry	XM_0048	18-36	500
Minor Research Project Radiopharmaceutical Chemistry	XM_0049	18-36	500
Minor Research Project Theoretical Chemistry	XM_0050	18-36	500
Translational Radiopharmaceutical Sciences	XM_0067	6	400
Advanced Radiopharmaceutical Sc	XM_0069	6	600
Recommended optional courses D&I			
Concepts in chemical biology	XMU_0080	6	400
Minor Research Project Bioanalytical Chemistry	XM_0044	18-36	500
Minor Research Project Environmental Bioanalysis	XM_0045	18-36	500
Minor Research Project Medicinal Chemistry	XM_0046	18-36	500
Minor Research Project Molecular & Computational Toxicology	XM_0047	18-36	500
Minor Research Project Organic Chemistry	XM_0048	18-36	500
Minor Research Project Radiopharmaceutical Chemistry	XM_0049	18-36	500
Minor Research Project Theoretical Chemistry	XM_0050	18-36	500
Computer-Aided Drug Design and Virtual Screening	X_432673	6	400
Drug-induced Stress and Cellular Response	X_432536	6	500
Signal Transduction in Health and Disease	X_432535	6	500
Molecular Computational Chemistry	X_435666	6	400
Biomolecular Simulation in Medicinal Chemistry & Toxicology	X_432664	6	400
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;

Article 10.4 Practical exercise

The following components can be considered as practical exercises:	Approval OLC (7.13 d)
Not applicable	

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%, the student must repeat the practical training, or the course coordinator or 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%, the student must repeat the practical training, or the course coordinator or 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**

1. The education provided in this programme is evaluated in accordance with the document 'Kwaliteitszorg Onderwijs BETA'.	Approval OLC (7.13 a1)
---	---------------------------

Article 11.2 Transitional provisions

<p>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:</p> <p>For students who started before 2019-2020 and did not pass Bio-analysis and clinical diagnostics (X_432765) the following replacement course applies:</p> <p>Bio-analysis and clinical diagnostics (X_432765) is replaced by Advanced Analytical Sciences in Drug-Related and Clinical Environments (XM_0068). Students who already passed Bio-analysis and clinical diagnostics (X_432765) are not allowed to take Advanced Analytical Sciences in Drug-Related and Clinical Environments (XM_0068).</p>	Advice OLC (7.13 a)
--	------------------------

Advice and approval by the Programme Committee, on June 15th, 2020

Approved by the Faculty Joint Assembly, on June 16th, 2020.

Adopted by the board of the Faculty of Science on July 17th, 2020.

Appendix I

Overview of articles that must be included in the OER

Based on Article 7.13, paragraph 2, of the WHW and other Articles of the Act.

Section A: Faculty section

2. Study programme structure	
Article 2.1 Structure of academic year and educational components	7.13 paragraph 2 sub e
3. Assessment and Examination	
Article 3.2 Type of examination	7.13 paragraph 2 sub h, l, j
Article 3.3 Oral interim examinations	7.13 paragraph 2 sub l, n
Article 3.4 Determining and announcing results	7.13 paragraph 2 sub o
Article 3.5 Examination opportunities	7.13 paragraph 2 sub h, j
Article 3.7 Exemption	7.13 paragraph 2 sub r
Article 3.8 Validity period for results	7.13 paragraph 2 sub k
Article 3.9 Right of inspection and post-examination discussion	7.13 paragraph 2 sub p, q
4. Academic student counselling and study progress	
Article 4.1 Administration of study progress and academic student counselling	7.13 paragraph 2 sub u
Article 4.2 Facilities for students with a disability	7.13 paragraph 2 sub m

Section B1: Programme specific – general provisions

6. General programme information and characteristics	
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
7. Further admission requirements	
Article 7.2 Admission requirements	7.30b paragraph 1
Article 7.3 Selection criteria	7.30b paragraph 2, 5
8. Interim examinations and results	
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

9. Programme objectives, tracks/specializations, exit qualifications and language	
Article 9.1 Workload	7.13 paragraph 2 sub g
Article 9.2 Tracks and/or 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
Article 9.5 Language of instruction	9.18 (<i>implementation expected in 2020</i>)
10. Curriculum structure	
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
11. Evaluation and transitional provisions	
Article 11.1 Evaluation of the education	7.13 paragraph 2 sub a1
Article 11.2 Transitional provisions	7.13 paragraph 2 sub a

Appendix II

Overview of advisory and approval rights of Programme Committees (OLC) and Faculty Joint Assembly (FGV)

(English underneath)

Onderwerpen Onderwijs – en Examenregeling (OER) 7.13 lid 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 onderwijseenheden				
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 (<i>verhoogde studielast</i>)				
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>excellentietraject 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

Afkortingen:

FGV: Facultaire Gezamenlijke Vergadering

OplC: Opleidingscommissie

I: Instemmingsrecht

A: Adviesrecht

Appendix II (English)

Overview of advisory and approval rights of Programme Committees (OLC) and Faculty Joint Assembly (FGV)

Disclaimer: this is a translation which only serves as an aid. No rights may be derived from it. The Dutch document prevails.

Article 7.13, paragraph 2, of the Higher Education and Research Act	FGV		OpIC	
	I	A	I	A
a. content of the programme and associated examinations				
a1. the manner in which teaching and education in the relevant programme are evaluated				
b. the content of the specializations offered as part of the programme				
c. the programme's final attainment levels with regard to the knowledge, understanding and skills				
d. where applicable, the design of practical exercises				
e. the study load of the programme and of each of its constituent educational units				
f. the detailed rules referred to in Article 7.8b, sixth paragraph, and Article 7.9, fifth paragraph (recommendation on continuation of studies)				
g. the Master's programmes to which Article 7.4a, eighth paragraph, applies (elevated study load)				
h. the number and sequence of examinations and the times at which these can be taken				
i. the full-time, part-time or work-study structure of the programme				
j. where necessary, the order, and the periods in which and the number of times per academic year that the opportunity to sit examinations and final degree assessments is given				
k. where necessary, the period of validity for pass grades awarded for examinations, notwithstanding the authority of the Examination Board to extend this period of validity				
l. whether examinations are administered in oral, written or another form, notwithstanding the authority of the Examination Board to decide otherwise				
m. the way in which students with a disability or chronic health condition are given a reasonable opportunity to take the examinations				
n. the public nature of oral examinations, subject to the right of the Examination Board to determine otherwise in special cases				
o. the period within which the results of an examination must be announced, together with details of whether this period can be altered and if so in what way				
p. the way in which and the period within which students who have taken an examination are given the opportunity to inspect their marked work				
q. the way in which and the period within which information can be provided about the questions asked and exercises given in the framework of a written examination and about the standards used for assessment				
r. the grounds on which the Examination Board could grant exemption from the taking of one or more examinations to students who have previously passed examinations in higher education or have acquired knowledge or skills outside higher education				
s. where necessary, the stipulation that students must pass certain examinations as a condition for admission to other examinations				
t. where necessary, the obligation to take part in certain practical exercises with a view to admission to the examination in question, subject to the authority of the Examination Board to grant exemption from this obligation, with or without the imposition of alternative requirements				
u. the monitoring of academic progress and individual student support and guidance;				
v. where applicable, the manner in which students are selected for a special track within a programme as referred to in Article 7.9b (excellence track within a programme)				
x. the actual design of the education provided.				
<i>All other matters that are regulated in the Academic and Examination Regulations but which are not mentioned as such in Article 7.13 of the Higher Education and Research Act under points a to x.</i>				

Abbreviations used:

- FGV: Faculty Joint Assembly
 OLC: Programme Committee
 I: right of approval
 A: right of advice

Appendix III

Ordinances VU CvB and Binding Guidelines (richtlijn)

Section A, article:	Concerns:	CvB ordinance / guideline
2.1.1, 2.1.2	Year planning two semesters 8-8-4 (uniforme jaarkalender VU-UvA)	29-9-2008 (period 2009-2015) 22-05-2014 (periode 2016-2025)
2.1.3, 2.1.4	Educational components	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017
3.1	Signing up for education and interim examinations	CvB ordinance 30-09-2010, prior consent USR.
3.4.1	Determination and publication of the results (1) Grading deadline exams 10 workdays (2) Theses 20 workdays	(1) Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017 (2) Quality demand 11 from the VU assessment policy, CvB ordinance 15-05-2012
3.5.1	Two possibilities to take examinations per year	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017
3.5.2	Retake: most recent grade is valid. A pass can be retaken	Taken from the UvA guidelines, as part of the harmonization, CvB ordinance 24-02-2014
3.5.4	Extra retake last year	Included in (prior) model OER 16-17 following a request from committee O&O and adopted by CvB op 27-10-2015
3.6	Grades	CvB ordinance 30-09-2010, with University council's consent. As a result of harmonization UvA, the guideline: 5.5 is a pass, has been added. CvB ordinance 24-02-2014.
Section B1, article:	Concerns:	CvB ordinance / guideline
7.2	Admission criteria; at least WO Bachelor's degree	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017
7.3	Selection 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

Appendix IV**Article 2.1 of the Higher Education and Research (Implementation) Act (*Uitvoeringsbesluit*)**

Entered into force on 1 June 2018

(English underneath)

1 De persoonlijke omstandigheden bedoeld in de artikelen 7.8b, derde lid, en 7.9, derde lid, van de wet, zijn uitsluitend:

- a. ziekte van betrokkene,
- b. lichamelijke, zintuiglijke of andere functiestoornis van betrokkene,
- c. zwangerschap van betrokkene,
- d. bijzondere familie-omstandigheden,
- e. het lidmaatschap, daaronder begrepen het voorzitterschap, van:
 - 1. bij universiteiten: de universiteitsraad, faculteitsraad, het orgaan dat is ingesteld op grond van de medezeggenschapsregeling, bedoeld in artikel 9.30, derde lid, onderscheidenlijk artikel 9.51, tweede lid, van de wet, het bestuur van een opleiding of de opleidingscommissie, alsmede het lidmaatschap van het bestuur van een stichting die blijkens haar statuten tot doel heeft de exploitatie van voorzieningen, behorende tot de studentenvoorzieningen, dan wel van een daarmee naar het oordeel van het instellingsbestuur gelet op de taak gelijk te stellen orgaan,
 - 2. bij hogescholen: de medezeggenschapsraad, deelraad, studentencommissie of opleidingscommissie.

f. andere in de regelingen, bedoeld in de artikelen 7.8b, zesde lid, en 7.9, vijfde lid, van de wet door het instellingsbestuur aan te geven omstandigheden waarin betrokkene activiteiten ontplooit in het kader van de organisatie en het bestuur van de zaken van de instelling,

g. het lidmaatschap van het bestuur van een studentenorganisatie van enige omvang met volledige rechtsbevoegdheid, dan wel van een vergelijkbare organisatie van enige omvang, bij wie de behartiging van het algemeen maatschappelijk belang op de voorgrond staat en die daartoe daadwerkelijk activiteiten ontplooit.

2 Het instellingsbestuur kan voor de toepassing van het eerste lid, onderdeel g, nadere regels vaststellen omtrent het aantal bestuursleden dat ten hoogste per organisatie per studiejaar in aanmerking komt, zomede omtrent welke bestuursfuncties in aanmerking komen.

Appendix IV (English)

Article 2.1 of the Higher Education and Research (Implementation) Act

Entered into force on 1 June 2018

Disclaimer: This is a translation which only serves as an aid. No rights may be derived from it. The Dutch document prevails.

1. The extenuating personal circumstances referred to in Article 7.8b, paragraph 3 and 7.9, paragraph 3 of the Act (WHW) are limited to:

- a. illness of the person concerned,
- b. physical, sensory or other impairment of the person concerned,
- c. pregnancy of the woman concerned,
- d. extenuating family circumstances,
- e. membership, including the chairmanship of:

1. at universities: the university council, faculty council, the body established under the participation regulation referred to in Article 9.30, paragraph 3 or Article 9.51, paragraph 2 of the Act, the programme management or the Programme Committee, or membership on the board of a foundation whose bylaws allow for the exploitation of facilities belonging to the student services, or an equivalent body with regard to its activities in the opinion of the board of the institution,
2. at universities of applied science: the participation council, district council, student committee or Programme Committee.

- f. other circumstances to be designated by the board of the institution in the regulation as referred to in Article 7.8b, paragraph 6 and Article 7.9, paragraph 5 of the Act in which the person concerned engages in activities within the framework of the organization and the administration of the affairs of the institution,
- g. membership on the board of a student organization of any size with full legal capacity, or a similar organization of any size, whose primary task regards general societal interest and which actually develops activities for this purpose.

2. The institutional board may, for the purposes of the first paragraph, part g, establish specific rules regarding the maximum number of eligible board members per organization per academic year, as well as the eligible administrative offices.

Appendix V

Addendum to the 2020-2021 Academic and Examination Regulations Master's degree programmes

Several articles for the 2020-2021 academic year will be temporarily suspended or amended as a result of the consequences of the measures to stop the spread of COVID-19. These amendments apply exclusively to the 2020-2021 academic year, which ends 31 August 2021. In this regard, reference is also made to the addendum to the Application and Registration Regulations for the 2020-2021 academic year.

Part B1 Programme-specific section

Article 7.2 Admission requirements

Supplementary to Article 7.2.1, students* are also admissible for the 2020-2021 academic year (start date September 2020) if, at the latest by 31 August 2020

they have earned at least 150 EC of the Bachelor's programme (university in The Netherlands or EEA (European Economic Area)) that confers entitlement to admission, under the following conditions:

- The Bachelor's degree certificate must still be obtained before 1 September 2021 or before the Master's degree certificate is obtained, whichever comes first. If this condition is not met, the student will not be able to continue or complete the Master's programme.
- Additional admission requirements (not EC related) remain applicable.

they have earned at least 24 EC of the bridging or pre-Master's programme, under the following conditions:

- The bridging or pre-Master's programme must still be successfully completed before 1 September 2021 or before the Master's degree certificate is obtained, whichever comes first. If this condition is not met, the student will not be able to continue or complete the Master's programme.
- Additional admission requirements (not EC related) remain applicable.

*The above supplements do not apply to non-EEA students who must complete a Bachelor's programme outside of the Netherlands.

Article 7.4 Bridging or pre-Master's programme

Supplementary to Article 7.4.1, students* are also admissible for the 2020-2021 academic year (start date September 2020) if, at the latest by 31 August 2020 they have earned at least 210 EC of the designated HBO Bachelor's programme, under the following conditions:

- The HBO Bachelor's diploma must still be obtained before 1 September 2021 or before the bridging or pre-Master's programme is completed, whichever comes first. If this condition is not met, the student will not be able to complete or continue the programme.
- Additional admission requirements (not EC related) remain applicable.

*The above supplements do not apply to non-EEA students who must complete a Bachelor's programme outside of the Netherlands.