

Teaching and Examination Regulations

Faculty of Science

Master's programme in Mathematics

Academic year 2023-2024

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

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 2023.	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. double degree programme: joint programme in the context of cooperation between Vrije Universiteit Amsterdam and an educational institution within or 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';
- c. EC (European Credit): a course credit with a workload of 28 hours of study;
- d. examination: an assessment of the student's knowledge, understanding and skills relating to a unit of education. The assessment is expressed in terms of a final mark. An examination may consist of one or more partial examinations. A resit always covers the same material as the original examination;
- e. 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;
- f. final examination: a master's programme consists of a master's examination;
- g. 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;
- h. period: a part of a semester;
- i. 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;

- j. pre-Master's enrollee: person enrolled in a pre-Master's programme, who is not a student from a legal perspective;
- k. programme: the totality and cohesion of the units of education, teaching activities/methods, contact hours, testing and examination methods and recommended literature;
- l. SAP/SLM: the student information system (*Student Lifecycle Management*);
- m. semester: the first (September - January) or second (February - August) half of an academic year;
- n. specialisation: optional route of study within a degree programme indicating a deepening of the context of the programme (e.g. interdisciplinary or multidisciplinary);
- o. student statute: sets out the rights and responsibilities of students on the one hand, and of Vrije Universiteit Amsterdam on the other hand, including those derived from the law and those derived from university regulations. The Executive Board (CvB) officially confirms the student statute once its completeness has been approved by the University Student Council (USC);
- p. 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://studiegids.vu.nl/en#/>;
- q. study monitor: dashboard for students and academic advisors with data of the student and that provides insight into the student's study progress;
- r. subject: see 'unit of education';
- s. substituting course/unit of education: see under b (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';
- t. thesis: a unit comprising research into the literature and/or contributing to scientific research, always resulting in a written report;
- u. track: a study pathway within a broader Bachelor's or Master's degree programme, such as a fully English-language study pathway within a Dutch-language Bachelor's or Master's programme;
- v. unit of education: a unit of study of the programme within the meaning of the WHW;
- w. university: Vrije Universiteit Amsterdam;
- x. WHW: the Dutch Higher Education and Research Act (Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek);
- y. workload: the workload of the unit of education to which an 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.

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

2. Study programme structure

Article 2.1 Structure of academic year and units of education

1. The study programme will be offered in a year divided into two semesters.	Ordinance CvB, see Appendix III
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2. Every semester consists of three consecutive periods. The first two periods each consist of eight weeks, and the final period consists of four weeks.	Ordinance CvB, see Appendix III
3. A unit of education comprises 6 EC or a multiple thereof.	Ordinance CvB, see Appendix III
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 III

3. Assessment and examination

Article 3.1 Signing up for education and examinations

1. Every student must sign up to participate in the units of education of the programme, the examinations and resits. The procedure for signing up is described in an annex to the student statute.	Ordinance CvB, see Appendix III
2. Signing up may only take place in the designated periods.	Ordinance CvB, see Appendix III

Article 3.2 Type of examination

1. At the examiner's request, the Examination Board may permit a different form of examination than is stipulated in the study guide.	Advice OLC, Approval FGV (7.13 l)
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Article 3.3 Oral examinations

1. An oral assessment is public unless the Examination Board determines otherwise.	Advice OLC; approval FGV (7.13 l and n)
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Article 3.4 Determining and announcing results

1. The examiner determines the result of a written examination within fifteen working days. However, the marking deadline for theses and final assignments is twenty working days after submission. 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 III
2. 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 clause of the first paragraph applies.	Advice OLC; approval FGV (7.13 o)
3. In the case of assessments other than 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 will be offered for each unit of education. b. By way of exception to a., the options for retaking practical exercises, work placements and theses are detailed in the relevant work placement manual, course manual of teaching regulations.	Ordinance CvB, see Appendix III
2. The most recent mark will apply in the event of a resit. A resit is allowed for both passed and failed units of study.	Ordinance CvB, see Appendix III

3. The resit for a (partial) 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) lacks 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 exercises 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 III
5. If a unit of education is no longer offered in the following academic year, at least one additional opportunity will subsequently be provided to sit the examination(s) or parts thereof and a transitional arrangement will be included in section 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 figure after the decimal point.	Ordinance CvB, see Appendix III																																																									
2. A final mark between 5 and 6 will be rounded to the nearest whole number: final marks below 5.50 will be rounded down; final marks of 5.50 or higher will be rounded up. All other final marks will be expressed in whole or half marks. 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: <table><tr><th>From</th><th>To</th><th>Grade</th></tr><tr><td>1.00</td><td>1.24</td><td>1.0</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><tr><td>8.25</td><td>8.74</td><td>8.5</td></tr><tr><td>8.75</td><td>9.24</td><td>9.0</td></tr><tr><td>9.25</td><td>9.74</td><td>9.5</td></tr><tr><td>9.75</td><td>10.0</td><td>10</td></tr></table>	From	To	Grade	1.00	1.24	1.0	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	Ordinance CvB, see Appendix III
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3. To pass a given course or unit, a final mark of 6 or higher is required.	Ordinance CvB, see Appendix III																																																									

4. The Examination Board can allow the use of symbols rather than numbers, for example: s(atisfactory), g(ood), u(n)s(at)is(factory), etc. In case a student does not take part in any examination, the examiner will register the mark 'ns' (c.q. no show).	Ordinance CvB, see Appendix III
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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 they: - have either passed a unit of education at a university of applied science (hbo) or research university (wo) that is equivalent in terms of content and level; - or have demonstrated through their work and/or professional experience that they have sufficient knowledge and skills with regard to the relevant unit of education.	Advice OLC; approval FGV (7.13 r)
2. The Master's thesis is excluded from this exemption possibility.	Advice OLC; approval FGV (9.38 sub b)
3. - A maximum of 18 EC for a one-year master's programme and 36 EC for a two-year master's programme can be accumulated through granted exemptions. The substituting courses (courses obtained at another educational institute within the context of a double degree, see art. 1.2) 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. In such a case, the examination board may deviate from the regulations under a.	Advice OLC; approval FGV (9.38 sub b)

Article 3.8 Validity period for results

1. The validity period of examinations passed and exemption from 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. In exceptional circumstances, an examiner may deviate from this; this must be stated on Canvas at the start of the unit of education.	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 examination, but at least ten working days before the resit opportunity for that examination, the student can submit a request to inspect their assessed work, the questions and assignments set in it, as well as the standards applied for marking. The place and time where students can inspect their work will be announced on VU.nl Dashboard or Canvas in all cases.	Advice OLC; approval FGV (7.13 p and 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 within the regular timetable, on campus or online.	Advice OLC; approval FGV (7.13 p and 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 a unit of education 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 VU.nl Dashboard.	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 a. The Student Counsellor b. Student psychologists c. Faculty academic advisers	Advice OLC; approval FGV (7.13 u)

Article 4.2 Facilities for students with a disability

1. A student with a disability can submit a request via VU.nl Dashboard to qualify for one or more special facilities with regard to teaching, practical exercises and 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 education 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 a psychological evaluation.	Advice OLC; approval FGV (7.13 m)
4. The faculty board, or the person acting on behalf of the faculty board, decides on teaching facilities and facilities regarding logistics. The Examination Board will decide 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 adviser 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. Any such refusal will be substantiated.	Advice OLC; approval FGV (7.13 m)
7. If the disability justifies an extension of the 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 academic adviser can take the necessary measures. The student can consult the study monitor to check which facilities have been granted to them.	Advice OLC; approval FGV (7.13 m)
8. The decision as referred to in paragraph 5 may specify a limited validity of the facilities granted.	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 or 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)
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Section B1: Programme specific – general provisions

6. General programme information and characteristics

Article 6.1 Study programme information

1. The programme Mathematics CROHO number 66980 is offered on a full-time and part-time basis.	Advice OLC; approval FGV (7.13 i)
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Article 6.1a Deviant size of units of education

By way of derogation from art. 2.1.3, the units of education offered by Mastermath may have a deviant size of 8 EC.	Approval OLC (art. 7.13 sub e), approval CvB
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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 unit of education 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: - Not applicable	Advice OLC; approval FGV (7.13 u)
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7. Further admission requirements

Article 7.1 Intake date(s)

1. The programme starts twice a year: on 1 September and on 1 February.	Advice OLC; approval FGV (9.38 sub b)
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Article 7.2 Admission requirements

1. Admission to the Master's programme is possible for an applicant who has a Bachelor's degree obtained at an institution of academic higher education, which demonstrates the following knowledge, understanding and skills: a. Equivalent to a Bachelor's degree in Mathematics or Technical Mathematics from a Dutch university. b. An applicant with a university Bachelor's degree in a field other than that specified in paragraph a. may be admitted to the programme by the Examination Board if the following conditions have been met: i. the applicant's prior education, including any supplementary work, contains at least 90 EC of mathematics; ii. the applicant has reached a final attainment level for stochastics, mathematical analysis or algebra and geometry equivalent to the Bachelor's in Mathematics as taught at Vrije Universiteit Amsterdam; iii. the applicant's prior education meets the qualifications of a university Bachelor's degree programme as defined in the Dublin descriptors.	Advice OLC, approval FGV (9.38 sub b)
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c. Notwithstanding the provisions of paragraphs 7.2.1.a and 7.2.1.b, an applicant may also be admitted to the track Biomedical Mathematics subject to the following conditions and on approval of the Examination Board: i. the applicant is in possession of a university's Bachelor degree; ii. the applicant's prior education, including any supplementary work, contains at least 60 EC of mathematics and at least 30 EC in the Life Sciences; iii. the applicant has demonstrable knowledge of Linear Algebra, Differential Equations and General Statistics; iv. the applicant's prior education meets the qualifications of a university Bachelor's degree programme as defined in the Dublin descriptors. d. The Teacher track is only open to applicants with an HBO degree in Mathematics Teacher Training, with Mathematics at the Grade 2 qualification level. Graduates of the Teacher track will receive a Master's degree in Mathematics and a Grade 1 teaching qualification. An applicant may be admitted to the Teacher track subject to the following conditions and on approval of the Examination Board: i. the applicant is in possession of an HBO Bachelor's Degree from a Mathematics Teacher training programme, including a Grade 2 Teaching qualification in Mathematics; ii. demonstrable mathematical knowledge corresponding to the following subjects (from the VU Bachelor's in Mathematics): 1. X_401104: Basic Concepts in Mathematics, 2. X_400638: Linear Algebra, 3. XB_0006: Introduction to Mathematical Modelling, Latex and Mathematica, 4. X_400629 Introduction to Programming (Python) 5. XB_41008: Multivariable Calculus, 6. X_400622: Probability Theory, iii. academic skills at university Bachelor's level, as demonstrated by completing the subjects listed above, for example.	
2. Not applicable	Advice OLC, approval FGV (9.38 sub b)
3. Applicants with a Bachelor's degree obtained at an institution outside the Netherlands may be asked for additional methods to prove that they meet the admission requirements.	Advice OLC; approval FGV (9.38 sub b)
4. Applicants who wish to follow the track Education who have completed a prior programme of education in a language other than Dutch which entitles them to admission must demonstrate adequate command of the Dutch language, which can be evidenced by successful completion of: a. The official Dutch as a Second Language Programme II (NT2-II); b. The Inter-university Dutch Language Admission Test (ITN); c. Certificate of Dutch as a Second Language (CNaVT), profile '<i>Educatief Professioneel</i>' (EDUP) C1 or '<i>Educatief Startbekwaam</i>' (SRTR)B2; d. Final school examinations accepted by Vrije Universiteit Amsterdam, which included the Dutch language.	Advice OLC; approval FGV (9.38 sub b)

Those who have been admitted to a Dutch-language study programme based on a diploma obtained abroad and who have successfully completed level 4 of VWO or higher with a pass grade in Dutch are exempted from the language requirement.	
5. Applicants should demonstrate that they have a sufficient level of proficiency in English by meeting at least one of the following standards, no more than two years before the start of the programme: - (academic) IELTS: 6,5; - TOEFL paper based test: 580; - TOEFL internet based test: 92.	Advice OLC; approval FGV (9.38 sub b)
6. Applicants who: - 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 - have earned a Bachelor's or Master's degree in an accredited English-taught programme in another member state of the European Union; or - have obtained a Cambridge Certificate of Proficiency in English (CPE) or a Cambridge Certificate of Advanced English (CAE) with at least a score of C; or - have earned a VWO diploma or equivalent diploma in which English of a comparable level is required are exempt from the requirements referred to in paragraph 5.	Advice OLC; approval FGV (9.38 sub b)
7. The Admission Board will investigate whether the applicant meets the admission requirements.	Advice OLC; approval FGV (9.38 sub b)

Article 7.3 Selection criteria

1. In addition to the admission requirements referred to in Article 7.2, the Faculty board also sets (at least two of) the following selection criteria: Not applicable	Advice OLC, approval FGV (9.38 sub b)
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Article 7.4 Pre-Master's programme

1. Applicants with a Bachelor's degree from a university of applied sciences (HBO) or a Bachelor's degree from a research university (WO) who wish to enter the programme but do not fulfill the admission requirements as stipulated in Article 7.2 can request admission to the pre-Master's programme. Article 2 of these regulations does not apply to admission to a bridging or pre-Master's programme. The provisions of sections A and B only apply to the extent that they are described in Article 7.4. Information about the programme from part B2 applies, insofar as it concerns the units of education from the pre-Master's programme.	Advice OLC; approval FGV (9.38 sub b)
1a. Applicants holding a HBO degree are only admissible to the pre-Master's programme if they have a Grade 2 teaching qualification in Mathematics ("tweedegraads bevoegdheid wiskunde") and subsequently can only enter the Teachers Track of the Master's degree.	
2. Applicants must, in addition to paragraph 1 above, also satisfy the following requirements: Not applicable	Advice OLC; approval FGV (9.38 sub b)
3. A candidate must demonstrate that they meet the language requirements, as specified in Article 7.2.	
4. The pre-Master's has at most 30 EC credits is determined for each student individually.	Advice OLC; approval FGV

The following terms also apply: - If the pre-Master's enrollee is completing an individualized pre-Master's programme, this is to be communicated to the enrollee in writing. - The Examination Board can, if the pre-Master's enrollee submits a written request, exempt the enrollee from one or more examinations. - Article 3.5.4 does not apply to pre-Master's enrollees.	(9.38)
5. Evidence that the pre-Master's has been completed successfully will entitle the enrollee to admission to the relevant Master's programme in the following academic year.	Advice OLC; approval FGV (9.39)
6. The pre-Master's programme must be completed within one academic year.	Advice OLC; approval FGV (9.39)

8. Examinations and results

Article 8.1 Sequence of examinations

1. Students may participate in the examinations and practical exercises of the units of education listed below only if they have passed the examination or examinations for following units of education: - Before starting the Master Project Mathematics X_400355, the student must have earned all other programme credits except a shortfall of 8 EC is permissible. - Before starting the Master Project Mathematics (T,E track) X_405037, the student in the Education track must have earned all other mathematics and elective credits of the programme (see Article 10.3, paragraph 3) except a shortfall of 8 EC is permissible. - Before starting the Master Project Mathematics (T,E track) X_405037, the student in the Teachers track must have earned all other mathematics credits of the programme except a shortfall of 8 EC is permissible. The student can request an exception to the above; the study advisor and the Examination Board will investigate whether the exception can be granted.	Advice OLC; approval FGV (7.13 h, s & t)
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Article 8.2 Validity period for results

1. The validity period of the examinations and exemptions from examinations below, is limited as follows: Not applicable	Advice OLC; approval FGV (7.13 k)
2. A student may request the Examination Board to extend the validity of an exam. If the student's knowledge is demonstrably outdated, or if the student's skills and insights 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/specialisations, exit qualifications and language

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 Tracks and/or specialisations

The programme has the following tracks and/or specialisations: - specialisation Applied Mathematics a. track Biomedical Mathematics b. track Data Science and Optimization - specialisation Pure Mathematics a. track Algebra, Geometry and Number Theory b. track Analysis and Dynamical Systems c. track Probability and Statistics - specialisation Education a. track Education b. Teachers track	Approval OLC; (7.13 a)
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Article 9.3 Programme objective

The programme aims are for the students to acquire sufficient knowledge, skills and insight within the field of Mathematics, and any related disciplines, to be able to operate as an independent professional at an academic level (including teaching), and to be a suitable candidate for a subsequent course of study leading to a career in scientific research. Another aim of the programme is to develop students' understanding of the interrelationships between academic disciplines, as well as their sense of social responsibility.	Advice OLC; (7.13 a)
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Article 9.4 Exit qualifications

1. At all events, a graduate of the study programme: - has developed thorough theoretical and practical knowledge in the field of contemporary mathematics; - has insight into the development and the heuristics of contemporary mathematics, and has gained research experience in a sub-field of mathematics; - is capable, within a reasonable period of time, of becoming conversant in other sub-fields of mathematics; - is capable of formulating a plan for a research project based on a broad research question; - is capable of analyzing and formulating research results, and of drawing conclusions from them; - is capable of writing a report and of participating in a discussion on a topic related to the field of study; - is capable of studying the professional literature (including international publications) in relevant sub-fields, and of utilizing the relevant content; - has sufficient knowledge of, and insight into, the social role of contemporary mathematics to decide on a responsible choice of profession and professional practice; - is capable of imparting knowledge to others and of delivering a lecture.	Approval OLC (7.13 c)
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2. Notwithstanding the provisions of paragraph 1, a graduate of the track/specialization will have the following knowledge and understanding in the field of:	Approval OLC (7.13 b)
The graduate in the specialisation Applied Mathematics is able to: - define a solution-based scientific question from a biomedical/business problem of a quantitative nature; - address such questions in the form of targeted research; - interpret in the relevant practical context the results/data obtained from analyses conducted at different scales and different levels of abstraction. The graduate in the specialisation Pure Mathematics is able to: - study and combine mathematical literature from various sources, and augment the field of mathematics with contributions of their own; - contextualize the obtained results and conclusions within the framework of results obtained by others. The graduate in the specialisation Education: - is able to acquire new knowledge in the field of education and communication; - is qualified to teach in pre-university education.	
3. Language proficiency may be taken into account in the assessment of 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 III

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 III
2. Additionally the programme can offer: - electives	Advice OLC; (7.13 a)
3. Units of education are categorized as specialized (400), research oriented (500) and highly specialized (600) level.	Ordinance CvB, see Appendix III
4. All tracks of the programme except for the Teachers track comprise at most two 300-level courses. In the Teachers track, the compulsory components are as specified in Article 10.2 and all electives must be courses in mathematics of level 400 or higher.	Advice OLC; (7.13 a)

Article 10.2 Compulsory units of education

A detailed description per unit of education can be found in the Study Guide.

Article 10.2a Compulsory units of education common to all tracks in Applied Mathematics

Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Advanced Machine Learning	XM_0010	6	400	
Introduction to Master Mathematics	XM_0095	6	400	
Master Project Mathematics	X_400355	36	600	

Statistical Models	X_400418	6	400	
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Seminars constrained choice: at least 1 and at most 2 out of 3				
Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Master Seminar in Algebra and Geometry	XM_0058	6	400	
Master Seminar in Analysis and Dynamical Systems	XM_41013	6	400	
Master Seminar in Stochastics	XM_41011	6	400	

Article 10.2b Track-specific compulsory units of education in Applied Mathematics

Biomedical Mathematics – compulsory course				
Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Mathematical Biology *)	XMM_400504	8	400	
*) taught every other year, yes in 2023-24				

Biomedical Mathematics – constrained choice: at least 30 EC of life science courses; if the student wishes to take a different course than listed, it must be of level 400 or higher and advance permission must be obtained in writing from the Examination Board				
Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Algorithms in Sequence Analysis	X_405050	6	600	
Basic Models of Biological Networks	X_418154	6	500	
Bioinformatics for Translational Medicine	X_405092	6	500	
Brain Imaging	P_MBRIMAG	6	500	
From Molecule to Mind	AM_1275	6	400	
From Protein to Cell *)	AB_1052	6	300	
Fundamentals of Bioinformatics	X_405052	6	400	
Mechanics and Thermodynamics in the Cell	X_422589	6	400	
Principles of Systems Biology *)	X_428566	6	300	
Project Biomedical Mathematics *)	XB_0038	6	300	
Structural Bioinformatics	X_405019	6	500	
Tracer Kinetic Modelling	XM_0014	6	400	
*) choice should comply with Article 10.1.4				

Data Science and Optimization – compulsory course				
Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Mathematical Optimization	XM_0051	6	400	

Data Science and Optimization – constrained choice: at least 2 out of 3				
Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Applied Stochastic Modeling	X_400392	6	400	
Entrepreneurship in Analytics and AI	XM_0090	6	400	
Optimization of Business Processes	X_400422	6	400	

Article 10.2c Compulsory units of education common to all tracks in Pure Mathematics

Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Introduction to Master Mathematics	XM_0095	6	400	
Master Project Mathematics	X_400355	36	600	

Seminars constrained choice: at least 1 and at most 2 out of 3				
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Unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
Master Seminar in Algebra and Geometry	XM_0058	6	400	
Master Seminar in Analysis and Dynamical Systems	XM_41013	6	400	
Master Seminar in Stochastics	XM_41011	6	400	

Article 10.2d Track-specific compulsory units of education in Pure Mathematics

Algebra, Geometry and Number Theory – constrained choice: at least 3 out of 5				Advice OLC; (7.13 a)
Unit of education	course code	nr of EC	level	
Algebraic Geometry 1	XMM_40001	8	400	
Algebraic Number Theory	XMM_400324	8	400	
Algebraic Topology 1	XMM_400600	8	400	
Differential Geometry	XMM_400509	8	400	
Elliptic Curves	XMM_400505	8	400	

Analysis and Dynamical Systems – compulsory courses				Advice OLC; (7.13 a)
Unit of education	course code	nr of EC	level	
Dynamical Systems	XMM_400429	8	400	
Functional Analysis	XMM_400328	8	500	
Partial Differential Equations	XMM_400330	8	500	

Probability and Statistics – compulsory courses				Advice OLC; (7.13 a)
Unit of education	course code	nr of EC	level	
Asymptotic Statistics	XMM_400323	8	400	
Measure Theoretic Probability	XMM_400244	8	400	
Stochastic Processes	XMM_400339	8	400	

Article 10.2e Compulsory units of education in specialisation Education

Compulsory for both track Education and Teachers tracks				Advice OLC; (7.13 a)
Unit of education	course code	nr of EC	level	
Master Project Mathematics (T,E track)	X_405037	24	600	
Leraar VHO Wiskunde *):				
Didactiek 1	O_MLDIDAC_1	6	400	
Didactiek 2	O_MLDIDAC2	9	400	
Didactiek 3, Februari start	O_MLDIDAC_3F	9	400	
Peer group	O_PEERGR	0	-	
Praktijk 1	O_MLPRAK_1	6	400	
Praktijk 2	O_MLPRAK_2	9	400	
Praktijk 3, feb	O_MLPRAK_3F	15	400	
*) In the Teachers track, 30 EC are exempted by the Examination Board of Master Leraar VHO Wiskunde. In the Education track, 27 EC are exempted for those students who have done the Educational Minor Mathematics in their Bachelor's.				

Compulsory for Teachers track				Advice OLC; (7.13 a)
Unit of education of education	course code	nr of EC	level	
Complex Analysis	X_400386	6	300	
Dynamical Systems (BSc)	X_400637	6	300	
Fourier Analysis	XB_0005	6	200	
Mathematical Statistics	XB_0049	6	300	

Measure Theory	X_401028	6	400	
Numerical Methods	X_401039	6	300	
Statistical Data Analysis	X_401029	6	300	

Article 10.3 Elective units of education

1. The student can take one or more of the following electives without prior consent from the Examination Board:				Advice OLC; (7.13 a)
Unit of education	course code	nr of EC	level	
Additive Combinatorics	XMM_0025	8	500	
Advanced Algebraic Geometry	XMM_418083	8	400	
Advanced Linear Programming	XMM_400326	6	400	
Advanced Machine Learning	XM_0010	6	400	
Algebraic Geometry 1	XMM_40001	8	400	
Algebraic Geometry 2	XMM_40002	8	500	
Algebraic Number Theory	XMM_400324	8	400	
Algebraic Topology 1	XMM_400600	8	400	
Algebraic Topology 2	XMM_0017	8	500	
Algorithms in Sequence Analysis	X_405050	6	600	
Applied Analysis: Financial Math	X_400076	6	400	
Applied Stochastic Modeling	X_400392	6	400	
Asymptotic Statistics	XMM_400323	8	400	
Bayesian Statistics	XMM_40004	8	400	
Category Theory	XMM_418114	8	400	
Causality	XMM_0057	8	500	
Coding and Cryptography	X_405041	6	500	
Coding Theory	XMM_418160	8	400	
Commutative Algebra	XMM_418136	8	400	
Complexity Theory	XMM_0006	8	400	
Computational Finance	XMM_0060	8	500	
Continuous Optimization	XMM_400446	6	400	
Differential Geometry	XMM_400509	8	400	
Diophantine Approximation	XMM_0038	8	400	
Discrete Optimization	XMM_400445	6	400	
Dynamic Programming and Reinforcement Learning	XM_0093	6	400	
Dynamical Systems	XMM_400429	8	400	
Elliptic Curves	XMM_400505	8	400	
Forensic Probability and Statistics	XMM_0005	8	400	
Functional Analysis	XMM_400328	8	500	
Graph Symmetries and Combinatorial Designs	XMM_0044	8	400	
Homotopy Type Theory	XMM_0061	8	500	
Infinity-categories	XMM_0062	8	600	
Introduction to Numerical Bifurcation	XMM_0018	8	400	
Inverse Problems in Imaging	XMM_0047	6	400	
Lie Algebras	XMM_0037	8	400	
Lie groups	XMM_400350	8	400	
Machine Learning Theory	XMM_0002	8	400	
Mathematical Biology*)	XMM_400504	8	400	
Mathematical Optimization	XM_0051	6	400	

Mathematical Systems and Control Theory*)	X_400180	6	400
Measure Theoretic Probability	XMM_400244	8	400
Modern Cryptography	XMM_0053	8	400
Modular Forms	XMM_400599	8	400
Non-linear Dynamical Systems	XB_0098	6	400
Numerical Linear Algebra	XMM_400329	8	400
Numerical Methods for Time-dependent PDE	XMM_0028	8	500
Operator Algebras	XMM_418062	8	400
Optimal Transport	XMM_0063	8	400
Optimization of Business Processes	X_400422	6	400
Parallel Algorithms	XMM_418011	8	400
Partial Differential Equations	XMM_400330	8	500
Performance of Networked Systems	X_405105	6	400
Poisson Geometry	XMM_0011	8	500
Probabilistic and Extremal Combinatorics	XMM_418118	8	400
Quantum Computing	XMM_0013	8	400
Quantum Information Theory	XMM_0024	8	500
Queueing Theory	XMM_400397	6	400
Riemann Surfaces	XMM_400325	8	400
Scheduling	XMM_400396	6	400
Selected Areas in Cryptology	XMM_40011	8	500
Semidefinite Optimization	XMM_0015	8	400
Set Theory	XMM_418035	8	400
Statistical Mechanics	XMM_0064	8	500
Statistical Models	X_400418	6	400
Statistics for High-Dimensional Data *)	X_405113	6	400
Statistics for Networks **)	X_405110	6	600
Statistics for Stochastic Processes	XMM_0034	8	500
Stochastic Gradient Techniques in Optimization and Learning	XMM_0043	6	500
Stochastic Integration	XMM_0049	8	400
Stochastic Processes	XMM_400339	8	400
Stochastic Processes for Finance	X_400352	6	400
Symplectic Geometry	XMM_418036	8	400
Systems and Control	XMM_400332	6	400
Topological Data Analysis	XMM_0036	8	400
Topos Theory	XMM_0020	8	500
*) taught every other year, offered in 2023-24			
**) taught every other year, not offered in 2023-24			
2. If the student wishes to take a different unit of education than listed, advance permission must be obtained in writing from the Examination Board.			Advice OLC; (7.13 a)
3. In all tracks of the programme except for the Teachers track, the student can choose (at most) 12 EC of electives outside of mathematics. In the tracks in Applied/Pure Mathematics, these must be courses of level 400 or higher. In the track Education, these may also be the following courses from the Beta4all/Wisk4all programme: Meetkunde (6 EC), Geschiedenis (6 EC). Advance permission must be obtained in writing from the Examination Board.			Advice OLC; (7.13 a)

[Article 10.4 Practical exercise](#)

Not applicable.

[Article 10.5 Participation in practical training and tutorials](#)

Not applicable.

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)
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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: - If followed before or in 2020-21, the course X_401094 Principles of Bioinformatics (6 EC, level 300) counts towards the 30 EC package of life science courses in the track Biomedical Mathematics. - The discontinued course AM_1215 From Molecule to Mind (9 EC, offered last time in 2020-21) is the previous version of AM_1275 From Molecule to Mind (6 EC) and counts towards the 30 EC package of life science courses in the track Biomedical Mathematics. - If followed before or in 2021-22, the course X_401056 Biomedical Mathematics (6 EC, level 300) counts towards the 30 EC package of life science courses in the track Biomedical Mathematics. - The discontinued course AB_1053 Molecular Cell Biology (6 EC, level 300, offered last time in 2021-22) counts towards the 30 EC package of life science courses in the track Biomedical Mathematics. - If followed before or in 2022-23, the course X_401029 Statistical Data Analysis (6 EC, level 300) counts towards the electives in mathematics (next to the list in Article 10.3, paragraph 1). - The non-teacher Mastermath courses that were offered in the past but not in 2023-24 count towards the electives in mathematics (next to the list in Article 10.3, paragraph 1). - All Mastermath teacher courses followed before or in 2020-21 and all Wisk4all courses of the Beta4all programme followed in 2021-22, 2022-23 count towards the electives outside of mathematics in the Education track (next to the list in Article 10.3, paragraph 3). - For the Education specialization (curriculum changes per 2023-2024): 1. For students who started before 1 September 2023, the 2022/2023 curriculum still applies in 2023/2024. This means that Praktijkonderzoek 1 (3 EC) is a compulsory unit of education, and that Didactiek 2 is a 6 EC unit of education. 2. Until August 2024, it is possible to finish Praktijkonderzoek 1 (3 EC) and Didactiek 2 (6 EC) from the old curriculum. At the end of semester 1 and at the end of semester 2, retakes will be offered at the regular moments. 3. Praktijkonderzoek 1 (3 EC) will be offered as a self study module in semester 1 for the students who have not yet followed (all) the sessions of Praktijkonderzoek 1 (3 EC).	Advice OLC (7.13 a)
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4. Students who have not yet followed (all) the sessions of Didactiek 2 (6 EC) can join the sessions of the new unit of education Didactiek 2 (9 EC)	
5. Per September 2024, all students can only graduate according to the exit qualifications and units of education of the new curriculum.	

Approval of the Programme Committee of the curriculum structure (submitted via UAS), on 08-12-2022.

Advice and approval by the Programme Committee (with the exception of the curriculum structure), on 25-05-2023.

Approved by the Faculty Joint Assembly, on 23-06-2023.

Adopted by the board of the Faculty of Sciences on 23-06-2023.

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 units of education	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 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. Examinations and results	
Article 8.1 Sequence of 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/specialisations, exit qualifications and language	
Article 9.1 Workload	7.13 paragraph 2 sub g
Article 9.2 Tracks and/or specialisations	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 (implementation expected in 2020)
10. Curriculum structure	
Article 10.1 Composition of the programme	7.13 paragraph 2 sub a
Article 10.2 Compulsory units of education	7.13 paragraph 2 sub a
[Optional] Article 10.3 Elective units of education	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 below)*

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 (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				
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.				

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		OplC	
	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 specialisations 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 workload 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 workload)				
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
OplC:	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 (uniform year calendar VU-UvA)	29-9-2008 (period 2009-2015) 22-05-2014 (period 2016-2025)
2.1.3, 2.1.4	Units of education	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017
3.1	Signing up for education and examinations	CvB ordinance 30-09-2010, prior consent USR.
3.4.1	Determination and publication of the results (1) Grading deadline exams ten working days (2) Theses twenty working days	(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	One-time extra resit in relation to examination requirement	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 units	Richtlijn Bachelor en Masteronderwijs, revised on 6 June 2017

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

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.
- h. andere in de onderwijs- en examenregeling, bedoeld in artikel 7.13 van de wet, op grond van artikel 7.13, tweede lid, onderdeel f, van de wet, vast te leggen persoonlijke omstandigheden,
- i. andere dan in de onderdelen a tot en met h bedoelde persoonlijke omstandigheden die, indien zij door het instellingsbestuur niet in de beoordeling zouden worden betrokken, zouden leiden tot een onbillijkheid van overwegende aard.

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**

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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 person concerned,
- d. extenuating family circumstances,
- e. membership, including the chairmanship of:

- 1. 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. universities of applied sciences: 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 a certain size with full legal capacity, or a similar organization of a certain size, whose primary task regards general societal interest and which actually develops activities for this purpose,
- h. other personal circumstances set out in the Teaching and Examination Regulations as referred to in Article 7.13 of the Act, pursuant to Article 7.13, paragraph 2, clause f of the Act,
- i. personal circumstances other than those referred to in a – h above which, if overlooked by the governing bodies of the institution, would lead to an obviously unfair outcome.

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.