Teaching and Examination Regulations

Bachelorprogramme in Mathematics Faculty of Science

Academic year 2020-2021

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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 be	ginning on 1	September and	l ending on 31 August of the	
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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; a part of a semester; ١. period: the participation in a practical training or other educational learning m. practical exercise: 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; 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; optional route of study within a degree programme indicating a q. specialization: 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): and that provides insight into the student's study progress; t. subject: see 'educational component'; see under c (double degree programme). A course obtained at the u. substituting course/ educational component: educational institute, within the context of cooperation, that is mentioned in the diploma supplement as such; not being an 'exemption'. full route of study within a broad bachelor's or master's degree v. track: programme or a fully English-language route of study within a Dutchlanguage bachelor's or master's degree; w. thesis/internship work scientific research, always resulting in a written report; placement:: Vrije Universiteit Amsterdam; x. university: y. WHW: the Dutch Higher Education and Research Act (Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek); the workload of the unit of study to which an interim examination z. workload:

(1,680 hours) is 60 EC credits.

applies, expressed in terms of credits = EC credits (ECTS = European Credit and Transfer Accumulation System). The workload for 1 year

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	Ordinance CvB,
request of the Faculty Board, stipulate that a unit of study comprises 3 EC or a multiple	see appendix 3
thereof.	

Article 2.2 Frame study programme

1.	The programme consists in any case of the following components: a. Academic development of at least 24 EC b. Major/compulsory components of at least 90 EC c. Elective components of study of at least 30 EC	Ordinance CvB, see appendix 3
2.	In the first year of the programme, the programme will offer at least fourteen contact hours a week.	Ordinance CvB, see appendix 3
3.	In the second and third years of the programme, the programme will offer at least twelve contact hours a week.	Ordinance CvB, see appendix 3
4.	Internationalization is included as part of the Bachelor's programme and reflected in one or more educational components.	Ordinance CvB, see appendix 3

Article 2.3. Sequence of the programme

1.	Students are admitted to take courses in the third year of study if they:	New article,
	- Passed all examinations from the first year and;	faculty addition 2020-2021
	- Have obtained at least 30EC from the second year.	2020-2021
	Students who do not meet these conditions will not be admitted to third-year study	
	components.	

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 fails both the exam and the resit, the student must repeat the entire unit of study. This rule does not apply to practical exercises and programmes that make use of partial grades that retain their validity. For further regulations see Section B of the programme involved.	Advice OLC, approval FGV, (art. 7.13 x)

Article 3.2 Type of examination

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

Article 3.3 Oral interim examinations

1. An oral assessment is public unless the Examination Board in special cases determines	Advice OLC;
otherwise.	approval FGV
otherwise.	(7.13 I 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 [and final assignments] is no longer than twenty working days. The examiner will then immediately ensure that	Ordinance CvB, see appendix 3
	the marks are registered and also ensures that the student is immediately notified of the mark, taking due account of the applicable confidentiality standards.	
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 will determine the result of the partial examination at least five working days prior to the next (partial) examination opportunity.	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	Ordinance CvB,
	component will be offered.	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	Ordinance CvB,
	passed and failed units of study.	see appendix 3
3.	The resit for a (partial) interim examination must not take place within ten working	Advice OLC;
	days of the announcement of the result of the (partial) examination being resat.	approval FGV
_	The Evamination Deard may allow a student an outre enpertunity to sit an	(7.13 j) Ordinance CvB,
4.	The Examination Board may allow a student an extra opportunity to sit an	see appendix 3
	examination if that student:	
	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 Bachelor'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.	
5.	If an educational component is no longer offered in the following academic year, one	Advice OLC,
	opportunity will be provided to sit the interim examination(s) or parts thereof during	approval FGV (7.13 j)
	the current academic year and a transitional arrangement for the subsequent period	(7.13])
	will be included in the programme-specific section of the teaching and examination	
	regulation (part B).	

Article 3.6 Marks

1.	Partial marks are given on	a scale fro	m 1 to 10) with no m	nore than one decimal point.	Ordinance CvB,
						see appendix 3
2.	2. The final marks are given in whole or half points.				Ordinance CvB,	
						see appendix 3
3.	In deviation from paragrap	h 2, final n	narks bet	ween 5 an	d 6 will be rounded off to	Ordinance CvB,
	whole marks: up to 5.50 rd	ounded dov	vn; from	5.50 round	ded up. To pass a course, a 6	see appendix 3
	or higher is required.					
	In case the examination of	a compon	ent consi	sts of two	or more parts, each of which	
	are graded separately, the	(weighted) mean o	f these ma	rks (meaning: the final mark)	
	must be rounded off using	the follow	ing table	:		
		From	То	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 Boa	rd can allov	v to use s	symbols rat	ther than numbers, for	Ordinance CvB,
				· -	In case a student does not	see appendix 3
					r will register the mark 'ns'	
	(c.q. no show).	, CAUTIII		.c. c.aiiiiic	reposer the mark no	
	(c.q. 110 3110 w).					<u> </u>

Article 3.7 Exemption

1.	At the written request of the student, the Examination Board may exempt the student	Advice OLC; approval FGV
	from taking one or more examination components, if the student:	
	 has passed a course component of a university or higher professional education programme that is equivalent in terms of content and level; 	(7.13 r)
	b) has demonstrated through their work and/or professional experience that the	
	student has sufficient knowledge and skills with regard to the relevant course	
	component.	
2.	The Bachelor's thesis is excluded from this exemption possibility.	Advice OLC;
		approval FGV
		(9.38 sub b)
3.	A maximum of 60 EC of the curriculum can be accumulated through granted	Advice OLC,
	exemptions for one three-year bachelor programme. 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.

Article 3.8 Validity period for results

1.	The validity period of interim examinations passed and exemption from interim	Legal provision
	examinations is unlimited, unless otherwise specified in Section B.	
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 Canyas.	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. Honours programme

Article 4.1 Honours programme

1.	Vrije Universiteit Amsterdam offers an honours programme for students who meet	Ordinance CvB,
	the admission requirements. The Honours programme consists of educational	see appendix 3
	components taken in addition to the standard curriculum.	
2.	The honours programme comprises 30 EC, a minimum of 12 EC of which consist of	Ordinance CvB,
	faculty or programme honours components and a minimum of another 12 EC consist	see appendix 3
	of interfaculty honours components. The choices available to the student will be	
	published on the website (www.vu.nl).	
3.	For admission to the honours programme, the student must have secured all credits	Ordinance CvB,
	from the first year and have been awarded a weighted average mark of at least a 7.5.	see appendix 3
4.	A student who has met the requirements of the regular Bachelor's programme within	Ordinance CvB,
	the nominal duration of study, who has achieved an average weighted mark of at	see appendix 3
	least 7.5 for all components of the Bachelor's programme (excluded the honours	
	components) and who has also met the requirements of the honours programme will	
	receive a Bachelor diploma with a transcript indicating that the student has	
	successfully completed the honours programme.	
5.	First-year Bachelor's students can participate in honours components during the	Ordinance CvB,
	second semester, on the condition that they have earned 30 EC during the first	see appendix 3

semester with a weighted average of at least a 7.5. First-year students can only participate in honours components that are open for first-year students.

5. Academic student counselling, advice regarding continuation of studies and study progress

Article 5.1 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 provided by a. The Student General Counselling Service b. Student psychologists c. Faculty academic advisors	Advice OLC; approval FGV (7.13 u)

Article 5.2 Advice regarding continuation of studies

1.	The faculty board will issue every student on a full-time Bachelor's programme with a	Ordinance CvB,
	recommendation on continuation of their studies, at the end of the first year of study.	see appendix 3
	The recommendation on continuation of studies is issued on behalf of the faculty	
	board by the faculty BSA committee.	
2.	Prior to 1 February, the student will receive an overview of their results.	Ordinance CvB,
		see appendix 3
3.	A student who has not completed enough EC, will receive a warning stating that	Advice OLC
	sufficient improvement is necessary to reach the standard for a positive	(7.13 f)
	recommendation on continuation of studies at the end of the academic year and will	
	be advised to plan a meeting with an academic advisor.	
4.	If the recommendation at the end of the academic year is negative the provisions of	Advice OLC
	Article 5.3 apply.	(7.13 f)
5.	A recommendation will not be issued if the student terminates their enrolment before	Advice OLC
	1 February of their first academic year.	(7.13 f)

Article 5.3 Binding (negative) recommendation on continuation of studies (BSA)

1.	The recommendation issued at the end of the academic year will contain a binding	Ordinance CvB,
	rejection if the student has not achieved the standard required for positive	see appendix 3
	recommendation on continuation of studies. Recommendation on continuation of	
	studies will not be issued if the student demonstrates that they did not meet the	
	standard as described in Article 2.1 of the Higher Education and Research	
	(Implementation) Act (Uitvoeringsbesluit WHW). In order to obtain a positive	
	recommendation on continuation of studies, the student must have obtained at least	
	42 EC from first year courses by the end of the first year of enrolment.	
2.	As soon as possible after the last resits of the second semester of the first year, a	Ordinance CvB,
	student who has not met the standard will be informed that the faculty board intends	see appendix 3
	to issue the student with negative binding recommendation on continuation of	
	studies. The same procedure applies in the next year of enrolment if the student was	
	permitted to continue with their study programme as a result of personal	
	circumstances and has still not successfully met all of the requirements of the first	
	year of study by that time. No recommendation will be issued to the student if they	
	demonstrate that they again did not meet the standard as a consequence of personal	
	circumstances.	
	demonstrate that they again did not meet the standard as a consequence of personal	

3.	Along with the information referred to in the previous paragraph, the student will also	Ordinance CvB, see appendix 3
	be informed of the possibility of being heard by the BSA committee and of how they	see appendix 5
	can apply for such a hearing.	
4.	As soon as possible (no more than 10 working days) after the hearing and on the	Ordinance CvB,
	advice of the BSA committee, the faculty board will determine which students will be	see appendix 3
	issued with a negative binding recommendation on continuation of studies.	
5.	Students may lodge an appeal against a decision on a binding negative	Ordinance CvB,
	recommendation on continuation of studies with the Examination Appeals Board of	see appendix 3
	Vrije Universiteit Amsterdam within six weeks of the day of the decision's	
	announcement.	
6.	Students who receive a binding negative recommendation on continuation of studies	Ordinance CvB,
	may therefore not enrol in the same Bachelor's programme or Bachelor's	see appendix 3
	programme(s) with the same first year as defined in Article 14.1.2 of section B during a	
	period of three years.	

Article 5.4 Personal circumstances

1.	The faculty board will not include a rejection in the binding recommendation on the	Advice OLC
	continuation of studies in the case of personal circumstances, as described in Article	(7.13 f)
	2.1 of the Higher Education and Research (Implementation) Act, as a result of which	
	the student concerned cannot have been reasonably expected to have met the BSA	
	standard.	
2.	If a circumstance, as described in Article 2.1 of the Higher Education and Research	Advice OLC
	(Implementation) Act, should occur, the student must notify the academic adviser	(7.13 f)
	office as soon as possible, providing details of:	
	a) the period in which the circumstance occurs or occurred;	
	b) a description of the circumstance and its seriousness;	
	c) the extent to which the student cannot or could not participate in	
	instruction/classes or an interim examination.	
	It is the student's responsibility to submit documentary evidence to substantiate their	
	report.	
4.	If required, the academic advisor may advise the BSA Committee on the extent to	Advice OLC
	which personal circumstances have influenced the student's study progress.	(7.13 f)

Article 5.5 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 facilities.	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)

6. Hardship clause

Article 6.1 Hardship clause

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

Section B1: Programme specific – general provisions

7. General programme information and characteristics

Article 7.1 Study programme information

1.	The programme Mathematics CROHO number 59322 is offered on a full-time and	Advice OLC;
	part-time basis.	approval FGV
	pure time basis.	(7.13 i)

Article 7.1a Deviant size of educational component

code	ourse		under e), approval CvB
6	Introduction to Mathematical Modelling, Latex and natica		
29	ction to Programming (PYTHON)		
52	of Science		
33	phy and Ethics		

Article 7.2 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	Advice OLC;
	guide.	approval FGV
	Suide.	(7.13 l)

Article 7.3 Academic student counselling

1.	The programme offers the following counselling in addition to the student	Advice OLC;
	counselling mentioned in Section A:	approval FGV
	- Not applicable	(7.13 u)

8. Further admission requirements

Article 8.1 Additional previous education requirements

1.	Students who meet the previous education requirements as stipulated in the current	Legal provision
	'Regulations on Additional Prior Education Requirements for Higher Education'	
	(Regeling nadere vooropleidingseisen hoger Onderwijs - OCW) will gain access to the	
	programme.	
2.	Students who do not meet the previous education requirements as stipulated in	Exception in
	'Regulations on Additional Prior Education Requirements for Higher Education'	WHW: advice OLC
	currently in force may still be admitted to the programme by successfully completing	OLC
	one or more of the following exams:	
	- Not applicable	

3.	The language requirements and conditions for registration are included in the Application and Registration Regulation of the Vrije Universiteit Amsterdam.	Ordinance CvB, see appendix 3
4.	Students who do not meet the previous education requirements but have successfully completed the first year of a higher professional education programme can gain admission to the programme by demonstrating that their level of mathematics is comparable to Mathematics B as taught in Dutch pre-university secondary school programmes. The examination board will assess whether these conditions have been met.	Advice OLC; approval FGV (9.38 sub b)
5.	Applicants with a diploma from a country other than the Netherlands will meet the previous education requirements if the level of mathematics and the topics covered are comparable to Mathematics B as taught in Dutch pre-university secondary school programmes. The examination board will assess whether these conditions have been met. The topics covered are specified in Appendix V.	

Article 8.2 Colloquium doctum (entrance examination)

1.	Persons aged 21 years and older who do not meet the requirements for previous education can submit a request to the Executive Board to take an entrance examination (colloquium doctum), as stipulated in Article 7.29 of the WHW. The	Advice OLC; approval FGV (9.38 sub b)
	entrance examination concerns the following subjects at final pre-university examination level: - Mathematics B equivalent to final examination university entry level (VWO), and	
	- A command of English equivalent to pre-university final-exam level (VWO).	
2.	The proof that the entrance examination has been passed, only provides entitlement to admission to the intended programme or programmes for the academic year after the examination was taken.	Advice OLC; approval FGV (9.38 sub b)

Article 8.3 Additional English language requirements for Bachelor's programmes based on special educational concept or with a special quality mark

Not applicable.

9. Interim examinations and results

Article 9.1 Sequence of interim examinations

1.	Students may participate in interim examinations and practical exercises of the components below only if they have passed the interim examination or examinations for the components mentioned hereinafter: - All second-year students of Mathematics are required to take the Study and Career course in period 6. Students can only receive credits for completing the Project Pure Mathematics or the Project Applied Mathematics if they have passed the Study and Career course. - Students may only start on the Bachelor Project Mathematics if they meet the following condition at the start of the course: they have earned at least 120 of the full 180 credits.	Advice OLC; approval FGV (7.13 h, 7.13 s/t)
2.	Students may be admitted to the following specializations only if they have passed the interim examinations of the following educational components: - Not applicable	Advice OLC; approval FGV (7.13 h, 7.13 s/t)

Article 9.2 Validity period for results

1.	As laid down in Article 3.8.	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

<u>Section B2: Programme specific – content of programme</u>

10. Programme objectives, specializations, exit qualifications and language

Article 10.1 Programme objective

The objective of the programme is for students to acquire sufficient basic theoretical and	Advice OLC;
practical knowledge and skills in the field of Mathematics and any related science	(7.13 a)
disciplines to enable them to go on to pursue a Master's in Mathematics or a related	
science discipline, or to enter the labor market. The programme also aims to impress upon	
the student the importance of the discipline in a broader scientific, philosophical and	
societal context.	

Article 10.2 Tracks

The programme has the following majors and tracks (for students enrolled in 2018 or later)		Approval OLC;	
a)	maj	or Pure Mathematics	(7.13 b)
	i)	track Algebra and Geometry	
	ii)	track Analysis and Dynamical Systems	
	iii)	track Probability and Statistics	
	iv)	track Education	
b)	maj	or Applied Mathematics	
	i)	track Biomedical Mathematics	
	ii)	track Computer Science	
	iii)	track Data Science	
	iv)	track Econometrics and Operations Research	
	v)	track Education	

Article 10.3 Exit qualifications

1.	Upon completing the Bachelor's programme in Mathematics, the student is expected	Approval OLC
		(7.13 c)

ĺ	A1 to have a thorough theoretical and practical knowledge of the main disciplines of	
	mathematics (algebra, geometry, analysis, dynamical systems, probability, statistics),	
	at an internationally recognized Bachelor level;	
	A2 to be aware of the interconnected, international and advancing character of	
	mathematics, and of the role and applicability of mathematics in other sciences and	
	in society;	
	A3 (only applicable to students who followed the major Applied Mathematics) to be	
	knowledgeable of at least one other scientific discipline in which mathematics plays an	
	essential role (e.g. computer science, data science, econometrics and operations	
	research, or biomedical science);	
	B1 to be able to select and apply mathematical and computational techniques for	
	answering quantitative questions, and to select appropriate mathematical models	
	for solving problems from other scientific disciplines;	
	B2 to be able to program a computer in a programming language and a number of	
	mathematical software packages, in order to solve (applied) mathematical	
	problems; B3 to possess the ability to manage a small research project and to perform	
	mathematical or applied mathematical research under close supervision;	
	C1 to be capable of strict reasoning in the way that is characteristic for mathematics,	
	and in particular of giving mathematical proofs and abstractions;	
	C2 to possess a critical and independent attitude towards the validity of mathematical	
	·	
	argumentation, and towards the usage of mathematical models and techniques in	
	science and engineering. D1 to be able to communicate about mathematics and its applications, both orally	
	.,	
	and in writing, to audiences with varying mathematical backgrounds;	
	E1 to have the ability to acquire new mathematical knowledge, and to collect mathematical information, for example through the internet, literature study, or	
	research;	
	E2 to meet the entrance requirements for a Master's programme in Mathematics or	
	Mathematics Education at a Dutch or foreign university, and to be able to make a	
	motivated choice for a further study and career.	
	2. Not applicable.	Approval OLC
ļ		(7.13 b)
	3. Language proficiency may be taken into account in the assessment of (interim)	Approval OLC (7.13 c)
	examinations	(1.13 0)

Article 10.4 Language of instruction and language test

1.	The language of instruction is English.	Approval OLC (9.18)
2.	The 'Gedragscode vreemde taal' (code of conduct foreign languages) applies	Ordinance CvB, see appendix 3
3.	At the start of the first year of study every student must complete a diagnostic language test (VU_ELT) in the language of instruction of his or her programme.	Advice OLC; (7.13 a)
4.	Any student who does not achieve a pass in the language test must take the 'Refresher Course' organized by the Language Desk (Taalloket).	Approval OLC (7.13 c)
5.	Not applicable.	Approval OLC (7.13 c)

11. Curriculum structure

Article 11.1 Academic development

1.	Academic development is part of the study programme. This includes:	Ordinance CvB,
	(1) Academic skills/critical reasoning	see appendix 3
	(2) Methods & techniques	
	(3) Philosophical training	
2.	Not applicable	Advice OLC;
	(4) Philosophy of Science and/or History of Science	(7.13 a)
	(5) Academic English	
3.	The Academic development is covered in the following compulsory courses:	Advice OLC;
	(1) X_401104: Basis Concepts in Mathematics;	(7.13 a)
	(2) X_400652: History of Science;	
	(3) XB_0006: Introduction to Mathematical Modelling, Latex and Mathematica;	
	(4) X_400629: Introduction to Programming (Python);	
	(5) XB_0007: Mathematical Modelling of Dynamical Systems;	
	(6) X_400433: Philosophy and Ethics;	
	(7) XB_0049 : Mathematical Statistics;	
	(8) XB_0027: Mathematical Modelling of Stochastic Systems.	
4.	Not applicable.	Advice OLC
		(art. 7.13 lid 2
		WHW)

Article 11.2 Major

1.	The major comprises a package of compulsory and possibly optional units of study.	Ordinance CvB,
		see appendix 3
2.	In addition, units of study are categorized as introductory (100), in-depth (200) and	Ordinance CvB,
	advanced (300) level.	see appendix 3

Article 11.3 Compulsory educational components of the major

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

Article 11.3a | Year 1

Yea	Year 1					
Name of educational component	course code	nr of EC	level	Advice OLC;		
Basic Concepts in Mathematics	X_401104	6	100	(7.13 a)		
Discrete Mathematics	XB_0008	6	100			
English Language Test	VU_ELT	0	100			
Group Theory	X_401105	6	200			
Introduction to Mathematical Modelling, Latex and	XB 0006	3	100			
Mathematica	XB_0000	3	100			
Introduction to Programming (PYTHON)	X_400629	3	100			
Linear Algebra	X_400638	6	100			
Mathematical Analysis	XB_0009	6	100			
Mathematical Modelling of Dynamical Systems	XB_0007	6	100			
Multivariable Calculus	XB_41008	6	100			
Probability Theory	X_400622	6	200			
Single Variable Calculus	XB_41007	6	100			

Article 11.3b | Year 2

Year 2					
Name of educational component	course code	nr of EC	level	Advice	
Mathematical Statistics	XB_0049	6	300	OLC; (7.13	
Numerical Methods	X_401039	6	300	a)	
Fourier Analysis	XB_0005	6	200		
Mathematical Modelling of Stochastic Systems	XB_0027	6	200		
Dynamical Systems	X_400637	6	300		

Article 11.3c | Year 2 - Major Pure Mathematics

Year 2 – Major Pure Mathematics					
Name of educational component	course code	nr of EC	level	Advice	
Rings and Fields	X_400630	6	300	OLC; (7.13	
Complex Analysis	X_400386	6	300	a)	
Topology	X_400416	6	300		
Project Pure Mathematics	XB_0029	6	300	1	

Year 2 – Major Pure Mathematics – Track Algebra and Geometry				
Name of educational component	course code	nr of EC	level	Advice
Galois Theory	XBU_417008	6	300	OLC; (7.13
				a)

Year 2 – Major Pure Mathematics – Track Analysis and Dynamical systems				
Name of educational component	course code	nr of EC	level	Advice
Galois Theory (*)	XBU_417008	6	300	OLC; (7.13
Statistical Data Analysis (*)	X_401029	6	300	a)
(*): one out of two		•	•	
Year 2 – Major Pure Mathematics – Track Probability and Statistics				
Name of educational component	course code	nr of EC	level	Advice
Statistical Data Analysis	X_401029	6	300	OLC; (7.13
				a)

Article 11.3d | Year 2 – Major Applied Mathematics

Year 2 – Major Applied Mathematics				
Name of educational component	course code	nr of EC	level	Advice OLC;
Statistical Data Analysis	X_401029	6	300	(7.13 a)
Project Applied Mathematics	XB_0028	6	300	

Year 2 – Major Applied Mathematics – Track Biomedical Mathematics					
Name of educational component	course code	nr of EC	level	Advice OLC;	
Genetics	AB_1135	6	100	(7.13 a)	
Biochemistry	XB_0030	6	200		
Complex Analysis (*)	X_400386	6	300		
Topology (*)	X_400416	6	300		
(*): one out of two	<u>.</u>		•		

Year 2 – Major Applied Mathematics – Track Computer Science					
Name of educational component	course code	nr of EC	level	Advice OLC;	
				(7.13 a)	
Introduction to Programming (Java)	X_400634	6	100]	
Computer Networks (*)	X_400487	6	100		
Computer Organization (*)	XB_40009	6	100		
Databases (*)	X_401008	6	200		
(*): two out of three	•	•	•	•	

Year 2 – Major Applied Mathematics – Track Data Science							
Name of educational component course code nr of EC level							
				(7.13 a)			
Introduction to Programming (Java)	X_400634	6	100				
Business Intelligence and Analytics	E_IBK3_BIA	6	300				
Databases	X_401008	6	200				

Year 2 – Major Applied Mathematics – Track Econometrics and Operations Research					
Name of educational component	course code	nr of EC	level	Advice OLC;	
				(7.13 a)	
Operations Research 1	E_EOR2_OR1	6	200		
Operations Research 2	E_EOR2_OR2	6	200		
Complex Analysis (*)	X_400386	6	300		
Topology (*)	X_400416	6	300		
(*): one out of two	-	•			

Article 11.3e | Year 3

Year 3				
Name of educational component	course code	nr of EC	level	Advice
History of Science	X_400652	3	200	OLC; (7.13
Bachelor Project Mathematics	X_400581	1	400	a)
		2		
Philosophy and Ethics	X_400433	3	200	

Article 11.3f | Year 3 - Major Pure Mathematics

Year 3 – Major Pure Mathematics – Track Algebra and Geometry					
Name of educational component	course code	nr of EC	level	Advice	
Partial Differential Equations (BSc) (*)	X_400163	6	300	OLC; (7.13	
Modules and Categories (*)	XBU_0016	6	400	a)	
Functional Analysis (*)	XBU_417013	6	400		
(*): at least one out of three	-	•	-		

Year 3 – Major Pure Mathematics – Track Analysis and Dynamical systems					
Name of educational component	course code	nr of EC	level	Advice	
Partial Differential Equations (BSc) (*)	X_400163	6	300	OLC; (7.13	
Functional Analysis (*)	XBU_417013	6	400	a)	
(*): at least one out of two					

Year 3 – Major Pure Mathematics – Track Probability and Statistics				
Name of educational component	course code	nr of EC	level	Advice
Bayesian Statistics (BSc) (*)	XBU_400468	6	400	OLC; (7.13
Functional Analysis (*)	XBU_417013	6	400	a)
(*): at least one out of two				

Article 11.3g | Year 3 - Major Applied Mathematics

Year 3 – Major Applied Mathematics – Track Biomedical Mathematics					
Name of educational component	course code	nr of EC	level	Advice OLC;	
Bayesian Statistics (BSc) (*)	XBU_400468	6	400	(7.13 a)	
Functional Analysis (*)	XBU_417013	6	400		
Partial Differential Equations (BSc) (*)	X_400163	6	300		
(*): at least one out of three					

Year 3 – Major Applied Mathematics – Track Computer Science					
Name of educational component	course code	nr of EC	level	Advice OLC;	
				(7.13 a)	
Bayesian Statistics (BSc) (*)	XBU_400468	6	400		
Functional Analysis (*)	XBU_417013	6	400		
Modules and Categories (*)	XBU_0016	6	400		
Partial Differential Equations (BSc) (*)	X_400163	6	300		
(*): at least one out of four	<u>.</u>				

Year 3 – Major Applied Mathematics – Track Data Science					
Name of educational component	course code	nr of EC	level	Advice OLC; (7.13 a)	
Bayesian Statistics (BSc) (*)	XBU_400468	6	400]	
Machine Learning (*)	X_400154	6	300		
*): at least one out of two	·				

Year 3 – Major Applied Mathematics – Track Econometrics and Operations Research					
Name of educational component	course code	nr of EC	level	Advice OLC;	
Applied Analysis: Financial Math (*)	X_400076	6	400	(7.13 a)	
Bayesian Statistics (BSc) (*)	XBU_400468	6	400]	
Math Economics II (*)	E_EOR2_ME2	6	200]	
Operations Research III (*)	E_EOR3_OR3	6	300		
(*) at least one out of four					

Article 11.4 Elective educational components of the major

Year 3 electives					
Name of educational component	course code	nr of EC	level	Advice	
Applied Analysis: Financial Mathematics	X_400076	6	400	OLC; (7.13	
Automata and Complexity	X_401049	6	300	a)	
Bayesian Statistics	XBU_400468	6	400		
Biomedical Mathematics	X_401056	6	300		
Chaotic Dynamical Systems	XBU_41003	6	300		
Complex Analysis	X_400386	6	300		
Differential Geometry (BSc)	X_400631	6	400		
Functional Analysis (BSc)	XBU_417013	6	400		

Galois Theory	XBU_417008	6	300
Machine Learning	X_400154	6	300
Markov Chains	XBU_418085	6	300
Mathematical Systems and Control Theory(*)	X_400180	6	400
Measure Theory	X_401028	6	300
Modules and Categories	XBU_0016	6	400
Number Theory	X_400632	6	400
Partial Differential Equations (BSc)	X_400163	6	300
Representation Theory	XBU_417004	6	400
Rings and Fields	X_400630	6	300
Statistical Data Analysis	X_401029	6	300
Topology	X_400416	6	300
*): not in 2020-2021, taught every other year		•	

Article 11.5 Practical exercise

Not applicable

Article 11.6 Participation in practical exercises and tutorials

Not applicable

12. Electives

Article 12.1 Elective period

1.	The first semester of the third year of the curriculum comprises elective educational	Ordinance CvB,
	components.	see appendix 3
2.	For this elective period, the student can take: a) a minor (a coherent package of related educational components) b) individual choice of at least five educational components at the faculty or elsewhere, of which at least two (12 EC) must be at level 300, and maximum 1 course (6 EC) at level 100. c) an educational component of the university abroad. The same requirements apply as stated above. In addition, a maximum of one educational component of	Ordinance CvB, see appendix 3
3.	the master programme (6 EC) at level 400 or higher can be included in the package at a university abroad. The approval of the Examination Board is required. The educational component concerned, cannot be included in the master educational programme. Prior consent must be obtained from the Examination Board.	Ordinance CvB, see appendix 3

Article 12.2 Minors

1.	The student who meets the admission requirements can take a 'University minor' without prior consent from the Examination Board. The 'University minors' are listed on the VU website.	Ordinance CvB, see appendix 3
2.	The student can take one of the following minors without prior consent from the Examination Board: - the minor corresponding to the major and track followed by the student: the compulsory components are specified below, the remaining credits out of the 30 EC of the minor should be filled up with Year 3 electives listed in Article 11.4;	Advice OLC; (7.13a)

- Educational minor;
- University minor.

Minor Pure Mathematics – Track Algebra and Geometry				
Name of educational component	course code	nr of EC	level	Advice OLC;
Differential Geometry (BSc) (*)	X_400631	6	400	(7.13 a)
Number Theory (*)	X_400632	6	400	
Representation Theory (*)	XBU_417004	6	400	
Project Computer Assisted Proofs	XB_0039	6	300	
(*): at least two out of three	<u>.</u>			

Minor Pure Mathematics – Track Analysis and Dynamical systems					
Name of educational component	course code	nr of EC	level	Advice OLC;	
Chaotic Dynamical Systems (*)	XBU_41003	6	300	(7.13 a)	
Differential Geometry (BSc) (*)	X_400631	6	400		
Measure Theory (*)	X_401028	6	300		
Project Computer Assisted Proofs	XB_0039	6	300		
(*): at least two out of three					

Minor Pure Mathematics – Track Probability and Statistics					
Name of educational component	course code	nr of EC	level	Advice OLC;	
Measure Theory	X_401028	6	300	(7.13 a)	
Markov Chains	XBU_41808	6	400		
	5				
Project Computer Assisted Proofs	XB_0039	6	300		

Minor Applied Mathematics – Track Biomedical Mathematics					
Name of educational component	course code	nr of EC	level	Advice OLC;	
Biomedical Mathematics	X_401056	6	300	(7.13 a)	
Principles of Bioinformatics	X_401094	6	300		
From Protein to Cell (*)	AB_1052	6	300		
Mechanics and thermodynamics in the cell (*)	X_422589	6	400		
Molecular Cell Biology (*)	AB_1053	6	300		
Project Biomedical Mathematics	XB_0038	6	300		
(*): at least one out of three					

Minor Applied Mathematics – Track Computer Science				
Name of educational component	course code	nr of EC	level	Advice OLC; (7.13 a)
Data Structures and Algorithms	X_400614	6	200	
Computer Organization (*)	XB_40009	6	100	
Equational Programming (*)	X_401011	6	300	
Pervasive Computing (*)	XB_40008	6	100	
Project Computer Assisted Proofs	XB_0039	6	300	
(*): at least one out of three	·			

Minor Applied Mathematics – Track Data Science					
Name of educational component	course code	nr of EC	level	Advice OLC;	
Data Structures and Algorithms	X_400614	6	200	(7.13 a)	
Data Analytics and Privacy (*)	R_DAP	6	300		

Information Retrieval (*)	X_400435	6	300	
Data Wrangling	XB_0014	6	300	
(*): at least one out of two	<u>.</u>			

Minor Applied Mathematics – Track Econometrics and Operations Research					
Name of educational component	course code	nr of EC	level	Advice OLC; (7.13 a)	
Math Economics I	E_EOR2_ME1	6	200	,	
Measure Theory	X_401028	6	300		
Project Computer Assisted Proofs	XB_0039	6	300		

13. Honours programme

Article 13.1 Honours components

The components of the honours programme offered by bachelor Mathematics programme	Advice OLC;
are chosen by the honours student in consultation with the study advisor.	(7.13 a)

14. Binding recommendation on continuation of studies (BSA)

Article 14.1 Binding (negative) recommendation

1.	In order to obtain a positive recommendation on continuation of studies, the student must have obtained at least 42 EC from first year courses by the end of the first year of enrolment.	Advice OLC (7.13 f)
2.	Students who receive a binding negative recommendation on continuation of studies cannot enroll in the following Bachelor's programme(s) offered by the Faculty during the subsequent three academic years: - Mathematics.	Advice OLC (7.13 f)
3.	For students taking part-time programmes there will be no formal recommendation on continuation of studies.	Advice OLC (7.13 f)

15. Evaluation and transitional provisions

Article 15.1 Evaluation of the education

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

Article 15.2 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	(7.13 a)	
previous set of Teaching and Examination Regulations:		
- Not applicable.		

Advice and approval by the Programme Committee, on June 9th, 2020.

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

Adopted by the board of the Faculty of Science, on June 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.

Deel A: facultair deel

2. Study programme structure		
Article 2.1 Structure of academic year and educational components	7.13 paragraph 2 sub e	
Article 2.2 Frame study programme	7.13 paragraph 2 sub a, e, x	
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. Honours programme		
Article 4.1 Honours programme	7.13 paragraph 2 sub v	
5. Academic student counselling, advice regarding continuation of studies and	study progress	
Article 5.1 Administration of study progress and academic student counselling	7.13 paragraph 2 sub u	
Article 5.2 Advice regarding continuation of studies	7.13 paragraph 2 sub f	
Article 5.3 Binding (negative) recommendation on continuation of studies (BSA)	7.13 paragraph 2 sub f	
Article 5.4 Personal circumstances	7.13 paragraph 2 sub f	
Article 5.5 Facilities for students with a disability	7.13 paragraph 2 sub m	

Section B1: Programme specific – general provisions

Section B1.1 Togramme specime General provisions			
7. General programme information and characteristics			
Article 7.1 Study programme information 7.13 paragraph 2 sub i, r			
Article 7.2 Teaching formats used and modes of assessment 7.13 paragraph 2 sub l, x			
Article 7.3 Academic student counselling 7.13 paragraph 2 sub u			
8. Further admission requirements			
Article 8.1 Additional previous education requirements	7.25, paragraph 4		
Article 8.2 Colloquium doctum (entrance examination) 7.29, paragraph 2			
9. Interim examinations and results			
Article 9.1 Sequence of interim examinations 7.13 paragraph 2 sub h, s, t			
Article 9.2 Validity period for results	7.13 paragraph 2 sub k		

Section B2: Programme specific – content of programme

10. Programme objectives, tracks/specializations and exit qualifications		
Article 10.1 Programme objective	7.13 paragraph 2 sub a	
Article 10.2 Tracks and/or specializations	7.13 paragraph 2 sub a	
Article 10.3 Exit qualifications	7.13 paragraph 2 sub b, c	
Article 10.4.1 Language of instruction	9.18 (implementation expected	
	in 2020)	
Article 10.4.3 Language test 7.13 paragraph 2 sub		
11. Curriculum structure		
Article 11.1 Academic development	7.13 paragraph 2 sub a	
Article 11.2 Major	7.13 paragraph 2 sub a	
Article 11.3 Compulsory educational components of the major	7.13 paragraph 2 sub a	
Article 11.4 Elective educational components of the major	7.13 paragraph 2 sub a	
Article 11.5 Practical exercise	7.13 paragraph 2 sub d	
Article 11.6 Participation in practical exercise and tutorials	7.13 paragraph 2 sub d	
12. Electives		

Article 12.1 Elective period	7.13 paragraph 2 sub a	
Article 12.2 Minors	7.13 paragraph 2 sub a	
13. Honours programme		
Article 13.1 Honours components 7.13 paragraph 2 sub a		
14. Binding recommendation on continuation of studies (BSA)		
Article 14.1 Binding (negative) recommendation	7.13 paragraph 2 sub f	
15. Evaluation and transitional provisions		
Article 15.1 Evaluation of the education	7.13 paragraph 2 sub a1	
Article 15.2 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	
		Α	1	Α	
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					
I. 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 (excellentietraject binnen een opleiding)					
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.					

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		IC
	1	Α	ı	Α
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				
I. 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.				
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.				

Abbreviations used:

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

Appendix III
Ordinances VU Executive Board (CvB) and Binding Bachelor's Guidelines (Bachelor Richtlijn)

Deel 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	Fixed nr of EC	Bachelor-richtlijn, revised on 6 June 2017
2.2.1	Setup of the programme	Bachelor-richtlijn, revised on 6 June 2017
2.2.2, 2.2.3	Planning academic year (number of contact hours)	Bachelor-richtlijn, revised on 6 June 2017
2.2.4	Internationalization	CvB ordinance, following the advice of the Internationalization Board, in December 2008 and included in the IP
3.1.1, 3.1.2	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) Bachelor-richtlijn, 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	Bachelor-richtlijn, 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 28-10-2015
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.
4.1	Honours programme	Joint CvB ordinance UvA-VU, 28-10-2013 Revised 'Regeling VU-UvA Honoursprogramma' on 27-11-2018
5.2.1	Recommendation on continuation of studies (BSA)	BSA kaderregeling ordinance CvB 18-01-2010, consent USR on OER 2016-2017 Kaderregeling revised on 12-09-2017
5.2.2	Formal warning before February 1st.	BSA kaderregeling ordinance CvB 18-01-2010, consent USR on OER 2016-2017 Kaderregeling revised on 12-09-2017
5.3	Binding (negative) study advice	BSA kaderregeling ordinance CvB 18-01-2010, consent USR on OER 2016-2017 Kaderregeling revised on 12-09-2017
8.1.3	Application and Registration Regulation (RAI)	CvB ordinance 8-10-2019 (annuelly)
10.4.2	'Gedragscode vreemde taal' (Code of Conduct for foreign languages)	CvB ordinance 20-07-2009
11.1.1	Academische development	Bachelor-richtlijn, revised on 6 June 2017
11.2	Major	Bachelor-richtlijn, revised on 6 June 2017
12.1	Elective period (first semester, 3rd year)	Bachelor-richtlijn, revised on 6 June 2017
12.2.1	Participation in universityminor	CvB ordinance Profileringsruimte 22-11-2010

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 Bachelor's degree programmes

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 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 A Faculty section

Article 2.3 Sequence of the programme

If a student is not admitted to courses in the third academic year due to the inability to complete previous course units as a result of the Corona measures, the student will contact the academic advisor. In consultation with the academic advisor, a request for exemption may be submitted to the Examination Board.

Article 5.3 Binding (negative) recommendation on continuation of studies

The first paragraph does not apply to students who failed to meet the standard for a positive recommendation on continuation of studies at the end of the 2019-2020 academic year. These students will be given another opportunity to meet the standard for a positive recommendation on continuation of studies at the end of the 2020-2021 academic year.

Part B2 Programme-specific section

Article 8.1 Additional educational requirements

Supplementary to paragraph 4, students from institutes of higher professional education (HBO) who are preparing for the first-year examination will be admitted to the Bachelor's programme, provided that:

- The student can produce a positive advisory on completion from his/her HBO institution, which must be provided to Vrije Universiteit Amsterdam (VU) by no later than 1 August.
- The student must still pass no more than one teaching unit of the first year of HBO, or in the case that more than one teaching unit must still be passed, these must be worth no more than 6 EC;

If the student has not passed the first-year examination of an HBO Bachelor's programme at the latest by 31 December 2020, the Bachelor's registration at VU will be terminated.

Article 14 Recommendation on continuation of studies (BSA)

The student to whom Article 5.3 of this addendum is applicable has by the end of the 2020-2021 academic year met the requirement as regards the BSA as formulated in Article 14 of the Academic and Examination Regulations for the 2019-2020 academic year.