

Teaching and Examination Regulations

Master's Degree Programme

B. programme-specific section

M Biology

Academic year 2014-2015

Section B: Programme-specific section

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Section B: Programme-specific section

1. General provisions

Article 1.1 Definitions

The following definitions are used in these Regulations, next to the ones used in Section A:
internship: work placement, practical exercise

Article 1.2 Degree programme information

1. The programme M Biology CROHO number 66860 is offered on a full-time basis and the language of instruction is English.
2. The programme has a workload of 120EC.
3. A unit of study comprises 6 EC or a multiple thereof. Selected courses comprise 3 EC or a multiple thereof.
4. This programme is offered in partnership with the University Of Amsterdam.

Article 1.3 Intake dates

The programme is offered starting in the first semester of the academic year only (1 September). The intake date mentioned in this paragraph ensures that a programme can be completed within the nominal study duration set for the programme.

2. Programme objectives and exit qualifications

Article 2.1 Programme objective

The programme aims to achieve the following:

- to prepare the student to practice professionally within the disciplines covered by the master's programme,
- to teach the student specialized knowledge, skills and understanding in the field of the programme
- to prepare the student for academic work in the field of the programme

The programme also promotes the academic education of the student, in particular with reference to:

- independent, academic thought processes and performance;
- communicating at an academic level;
- applying specialist academic knowledge in a wider and/or philosophical and social context.

The programme focuses on the student's personal development and promotes his or her awareness of social responsibility

Article 2.2 Exit qualifications

In all events, a graduate of the degree programme will have the following:

Dublin descriptor 1: Knowledge and understanding

The graduate should have specialized theoretical and practical knowledge of Biological Science notably within the field of his/her specialization.

The graduate:

- masters the fundamental concepts of modern biology and understands the state of the art in terms of developing theories and insight into the most important current research issues in the biological discipline in which the student has specialized.
- appreciates the place of this sub discipline within the biological and natural sciences.
- is able to appreciate the scientific and social relevance of biology, and of current research in the area of specialization.
- is able to think in multidisciplinary terms, and possesses an understanding of other disciplines (and sub-disciplines) that are of importance to biology.
- has command of advanced research techniques, laboratory procedures and (statistical) methodology necessary for the specialization.

Dublin descriptor 2: Application of knowledge

The graduate should be experienced in carrying out research, in applying techniques specific to the subject area and in applying scientific knowledge to problems raised in society.

The graduate:

- is able to design experiments in the different fields associated with Biology notably within the field of his/her specialization and analyse their results.
- has knowledge about the methodology used within research of the field of his/her discipline and can apply independently these methods in research.
- is able to apply his/her scientific knowledge to social questions.
- can think multidisciplinary and has insight in the relevant (sub)disciplines that are important to his/ her specialization.
- is able to reflect on the ethical aspects of research or its uses, and include these deliberations in the decision-making process.
- adopts an attitude towards the correct and unbiased use and presentation of data.

Dublin descriptor 3: Critical judgement

The graduate should be able to independently and critically judge information.

The graduate:

- is able to independently acquire information in the field of his/ her specialization, and to analyze and critically evaluate such information.
- is able to select and order information, to distinguish essentials from trivialities, and to recognize connections.
- is able to independently and critically analyze research in the field of his/ her specialization, both in relation to its design, planning and execution, and to the results obtained.
- has the ability to evaluate his/her own performance, both introspectively and in discussion with others.

Dublin descriptor 4: Communication

The graduate should be able to transfer knowledge and skill related to his/her subject area to other persons and to adequately reply to questions and problems posed within society.

The graduate:

- can report orally on research results in English with support of modern presentation techniques.
- can report in written form on research results on the level of peer-reviewed academic journals.
- can make essential contributions to scientific discussions about plans, results and consequences of research.
- can collaborate with researchers from other disciplines.

Dublin descriptor 5: Learning skills

The graduate should develop learning skills that enable him/her further self education and development within the subject area.

The graduate:

- is able to understand and summarize scientific literature within the field of his/ her specialization.
- is able to draw up a research plan, giving details of experimental design, execution and analysis.
- is familiar with general scientific journals such as Nature and Science, and with journals in the area of his/ her specialization.
- is familiar with computer software that is relevant to the field.
- has been able to influence his/her personal learning process by the choice of courses.

Since the master consists of different (combinations of) specializations, the profiles of students graduating from the programme are as follows:

- Green Life Sciences

The Master's graduate with a specialization in Green Life Sciences has a broad insight into the molecular mechanisms that govern the growth and development of plants and their defence responses. The Master's graduate has specialized in one or two of the key subjects of Green Life Sciences and acquired the ability to conduct and assess scientific research in molecular and developmental processes. He/she has a theoretical background of various aspects of plant biology and current research questions that are being addressed. Moreover, he/she has a good

understanding of the applied aspects of plant biology and the possibilities, risks and societal impact of molecular genetic techniques in plant breeding

- Ecology

The Master's graduate with a specialization in Ecology has a wide-ranging insight into the functioning of and interactions among earth, plants, animals and micro-organisms and approaches these processes from divergent scales ranging from molecular genetic levels to ecosystem scales. The Master's graduate has the ability to conduct scientific research into these processes, to apply these processes to societal problems and to critically assess the results of ecological research. The Master's graduate in Ecology has specialized in one subject within the field of Ecology. He/she possesses knowledge of current theory and the key research questions in this field and has insight into the scientific and social relevance of this subject area.

- Brain and Behaviour

The Master's graduate with a specialisation in Brain and Behaviour has knowledge, insight and understanding of the multiple facets that play a role in various kinds of behavioural functions and how these are influenced by genes, environmental factors and developmental factors. The Master's graduate has the ability to conduct scientific research into these processes and can critically assess the results of neurobehavioral research. He/she possesses knowledge of the significance of brain and behaviour within the context of brain research and some of its clinical implications.

- Specialization Science in Society

The Master's graduate with a specialization Science in Society combines an academic approach with the skills and competences that will allow him or her to perform scientific research at the interface of the biological sciences and society. The specialization aims to develop strategies that contribute to an understanding of complex societal problems and strategies to solve complex societal problems through interdisciplinary research. In addition, the programme analyses the social, economic and ethical aspects of new developments in the biological sciences, so as to assess their implications for society. Master's graduates have the necessary skills to collaborate and communicate with researchers from various scientific disciplines (including but not limited to those in the life sciences) and societal actors, and the ability to use these academic insights.

- Communication specialization

Biology is increasingly becoming an interdisciplinary research field where biologists can no longer function well in isolation but benefit from interactions with other scientists but also with societal actors (e.g., scientists in the fields of molecular biology, biotechnology and ecology, and societal actors like farmers and policy makers, in the field of ecogenomics). Communication about science issues takes place between peers as well as between scientists and the general public. This makes Science Communication a complex and dynamic field of research and practice, for example on nature conservation, chemical risk assessment, the use and effects of media metaphors and hypes, and public understanding of emergent technologies. The Master's graduate with this specialization has theoretical understanding of the complex problems that arise during such communication processes and has developed the skills necessary to behave professionally at this interface in an attempt to enhance communication (outcomes) between actors in science and society.

- Education specialization

The Master's graduate with a specialization in Education (CROHO number 68502, accreditation date 1 January 2010) obtains a certificate that qualifies the graduate to teach Biology in secondary schools (this is a 'grade one' certificate, i.e. it qualifies the graduate to teach pupils who will sit public exams in the subject). There is strong demand for academically trained teachers in the Netherlands.

3. Further admission requirements

Article 3.1 Admission requirements

1. Admission to the Master's programme is possible for an individual who can demonstrate that he/she has the following knowledge and skills at the Bachelor's degree level, obtained at an institution of academic higher education (to be assessed by the Admissions Board):

- a. knowledge
 - o A minimum of 24 ECTS in molecular biology, including at least :
 - Cell biology
 - Biochemistry
 - Genetics
 - o At least 30 ECTS in biological courses, including at least courses in: Evolution, Ecology, Biodiversity, Plant physiology and Field work
 - o At least 6 ECTS in statistics
- b. skills:
 - o A bachelor research internship of at least 12 EC in a research environment. The internship should be performed within a university, academic medical centre or acknowledged research institute.
2. The Admissions Board will investigate whether the interested person meets the admission requirements.
3. Any individual who has obtained a Bachelor's degree in academic higher education on the following degree programme meets the requirements referred to in paragraph 1: Bachelor's degree in Biology from a Dutch university
4. When the programme commences, the candidate must have fully completed the Bachelor's programme or pre-Master's programme allowing admission to this Master's programme.

Article 3.2 Pre-Master's programme

1. Students with a Bachelor's degree in a field that corresponds to a sufficient extent with the subject area covered by the Master's programme can request admission to the pre-Master's programme, to be assessed by the Admissions Board.
2. The pre-Master's programme comprises 6-30 EC and is made up of units of the Bachelor's programme Biologie or other Bachelor's programmes of the Faculty of Earth and Life Sciences at the VU, to be decided by the admission board.
3. Proof of a successfully completed pre-Master's programme serves as proof of admission to the Master's programme specified within it in the subsequent academic year.

Article 3.3 Limited programme capacity

Not in use

Article 3.4 Final deadline for registration

A candidate must submit a request to be admitted to the programme through Studielink before the dates that are determined in the Application and Registration Regulation (at <http://www.vu.nl/en/programmes/practical/policies/index.asp>). Under exceptional circumstances, the Examinations Board may consider a request submitted after this closing date.

Article 3.5 English language requirement for English-language Master's programmes

1. International applicants are required to pass an English language proficiency test. The proficiency requirement in English as the language of instruction can be met by the successful completion of one of the following examinations or an equivalent:
 - a. IELTS: 6.5
 - b. TOEFL paper based test: 580
 - c. TOEFL internet based test: 92-93
 - d. Cambridge Advanced English: A, B or C.
2. Exemption is granted from the examination in English referred to in the first paragraph to students who, within two years of the start of the programme:
 - a. met the requirements of the VU test in English language proficiency TOEFL ITP, with at least the scores specified in paragraph 1, or
 - b. had previous education in secondary or tertiary education in an English-speaking country as listed on the VU website, or
 - c. have an English-language 'international baccalaureate' diploma

Article 3.6 Free curriculum

1. Subject to certain conditions, the student has the option of compiling a curriculum of his/her own choice which deviates from the curricula prescribed by the programme.

2. The concrete details of such a curriculum must be approved beforehand by the most appropriate Examinations Board.
3. The free curriculum is put together by the student from the units of study offered by VU University Amsterdam and must at least have the size, breadth and depth of a regular Master's programme.
4. The following conditions must at least have been met in order to be eligible for the Master's degree:
 - a. at least 63 EC must be obtained from the regular curriculum, consisting of a research specialization (57 EC, including the literature thesis) and all compulsory courses (6 EC),
 - b. the level of the programme must match the objectives and exit qualifications that apply for the programme for which the student is enrolled.

4. Curriculum structure

Article 4.1 Composition of programme

1. The programme contains the following specializations:
 - I Research specializations (54-60 EC):
 - Brain and Behaviour
 - Ecology
 - Green Life Sciences
 - II C/S/E specializations:
 - Communication specialization (54 EC)
 - Specialization Science in Society (54 EC)
 - Education specialization (60 EC)

Article 4.2 Compulsory units of study

The compulsory units of study for all specializations are:

- a. compulsory master courses (all specializations)

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Scientific Writing in English	AM_471023	3	Nov-Dec or Jan-Feb	WG	IA, PF	400
Ethics in Life Sciences	AM_470707	3	Period 3	L, WG	WR, PF, GW, PT	400
Literature thesis Biology (research)*	AM_471154	9	Academic year	LD	ER, PF, PT	600

* The literature thesis must be written within the scope of one or both research specialization(s).

** L= lecture, WG= work group, PR= practical, CP= computer practical, LD= literature discussion in thesis, FW= field work

*** WR= written examination, IA= individual assignment, GW= group work, CA= computer assignment, PF= performance, participation, portfolio, PR= practical, ER= essay, report, PT= (poster)presentation

- b. Specialization specific courses, see 4.3
- c. Internships The study contains two internships, which are compulsory units of study. Each internship is 30 EC, and the research internships have the option to be extended with 3-6 EC. The two internships together may not exceed 66 EC.

- a. Research internships:

Name of course component	Course code
Internship Brain and behaviour	AM_471151
Internship Ecology	AM_471150
Internship Green Life Sciences	AM_1107

- b. C/S/E internships:

Name of course component	Course code
Internship Communication Specialization	AM_471148
Internship Specialization	AM_1134

Science in Society	
c. Internships without specialization:	
Name of course component	Course code
Internship Biology	AM_1111

Article 4.3 Specializations

a. Research specializations

The prescribed scope of the research specializations is 54-60 EC, including:

- research internship (30 EC)
- at least 3 courses from the specialization (18 EC)
- choice (6-12 EC) from:
 - an extra optional course of the specialization (6 EC)
 - an extension of the internship (3-6 EC)*

* The total EC for both internships together may not exceed 66 EC.

Brain and behaviour

Compulsory units of the specialization

Name of component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Neurobiology of Animal Behaviour	AM_471018	6	Period 1	L, WG	WR, PT	500
Methods in Behavioral Neurosciences	AM_470728	6	Period 1	L, WG	WR, PT	500
Internship Brain and behaviour	AM_471151	30	Academic year	PR, LD	ER, PF, PT	600

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At least 6 EC from the following courses is compulsory:

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Neuronal networks in vivo	AM_1001	6	Period 2	L, PR	WR, PT, ER	600
System Neuroscience	AM_470712	6	Period 2	L, WG	PT, IA, ER	500

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Ecology

Compulsory units of the specialization

Name of component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Experimental Design and Analysis	AM_470505	6	Period 2	L, CP	ER	500
Internship Ecology	AM_471150	30	Academic year	PR, LD	ER, PF, PT	600

At least 6 EC from the following courses is compulsory:

Name of course component	Course code	Number of credits	Period or semester	Teaching method	Type of test	Level
Soil-Plant-Animal Interactions	AM_470507	6	Period 1	L, PR, WG, FW	IA, PF, PT	500
Current trends in evolution	AMU_0003	6	Academic year 2015-2016	L, WG, CP, PR, FW	PF, PT, ER, GW	500

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At least 6 EC from the following courses is compulsory:

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Masterclasses in Ecology and Evolution	AM_1016	3	Academic year	L, WG	PF	400
Microbial Ecology	AMU_0008	6	Period 1	L, WG, FW	WR, PT, ER	\$
Ecosystem Services and Scientific Advocacy	AM_1053	6	Period 1	\$	\$	\$
Evolution of Species Interactions	AMU_0006	6	Period 2	L, PR	WR, PR, PF, PT	500
Evolutionary Dynamics	AMU_0007	6	Semester 2	WG, CP	CA, IA, ER	500
Soil-Plant-Animal Interactions	AM_470507	6	Period 1	L, PR, WG, FW	IA, PF, PT	500
Current trends in evolution	AMU_0003	6	Academic year 2015-2016	L, WG, CP, PR, FW	PF, PT, ER, GW	500
Spatial processes in Ecology	AMU_0009	6	Academic year 2015-2016	L, CP, PR, WG	ER, PT, PF	500
Environmental Genomics and Adaptation	AM_470506	6	Academic year 2015-2016	L, WG, PR	ER, PT, WR, PF	500

\$ See study guide

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Green Life Sciences

Compulsory units of the specialization

Name of component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Internship Green Life Sciences	AM_1107	30	Academic year	PR, LD	ER, PF, PT	600

At least 18 EC from the following courses is compulsory:

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Plant Breeding and Biotechnology	AMU_0018	6	Period 1	L, PR, WG	WR, PT	500
Biotic Interactions	AMU_0019	6	Period 1	L, PR, WG	WR, PT	600
Developmental Biology	AM_470613	6	Period 2	L	WR, PT, ER, PF	600
Abiotic Stress,	AM_470628	6	Period 2	L, LD	WP, P	600

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b. C/S/E specializations

- The prescribed scope of the Communication and Science in Society specializations is 54 EC, including:
 - Internship (30 EC)
 - At least 4 courses from the specialization (24 EC)
- The prescribed scope of the Education specialization is 60 EC

C/S/E specializations:

Communication specialization

Compulsory units of the specialization

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Qualitative and Quantitative Research Methods	AM_470582	6	Period 1	L, WG	WR, GW	400
Science and Communication	AM_470587	6	Period 1	L, WG	WR, GW, IA	500
Internship Communication Specialization	AM_471148	30	Academic year	PR, LD	ER, PF, PT	600

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At least 12 EC from the following courses is compulsory:

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Science Journalism	AM_471014	6	Period 2	L, WG	WR, GW, IA	500
Communication, Organization and Management	AM_470572	6	Period 2	L, WG	WR, IA, ER	500
Science in Dialogue	AM_1002	6	Period 2	L, WG	WR, GW, IA, PT	500
Science Museology	AM_470590	6	Period 3	L, WG	WR, PT, GW	500

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Specialization Science in Society

Compulsory units of the specialization

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Qualitative and Quantitative Research Methods	AM_470582	6	Period 1	L, WG	WR, GW	400
Analysis of Governmental Policy	AM_470571	6	Period 1	L, WG	WR, PF, GW	500
Communication, Organization and Management	AM_470572	6	Period 2	L, WG	WR, IA, ER	500
Internship Specialization Science in Society	AM_1134	30	Academic year	PR, LD	ER, PF, PT	600

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At least 6 EC from the following courses is compulsory:

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Clinical development and clinical trials	AM_470585	6	Period 3	L, WG	WR	500
Business Management in Health and Life Sciences	AM_470584	6	Period 2	L	WR, IA	500
Disability and Development	AM_470588	6	Period 2	L, WG	WR, IA, PF	500
Entrepreneurship in Health and Life Sciences	AM_470575	6	Period 2	L, WG	WR, IA	500
Health, Globalisation and Human Rights	AM_470818	6	Period 2	L, WG	WR, GW	500
Policy, Politics and Participation	AM_470589	6	Period 2	L, WG	PF, GW	500
Science in Dialogue	AM_1002	6	Period 2	L, WG	WR, GW, IA, PT	500

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Education specialization

Education specialization is only available in the second year of the master's programme, after having finished the first research specialization.

Compulsory units of the specialization

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Algemene didactiek en Pedagogiek I	O_MLADEPI	6	Academic year	L	WR, PF	500
Algemene Didactiek en Pedagogiek II	O_MLADEPII	3	Academic year	L, WG	WR, PF	500
Praktijk I	O_MLPRAKI	15	Academic year	PR	PF, IA	500
Praktijk II	O_MLPRAKII	15	Academic year	PR	PF, IA	500
Professionele ontwikkeling en onderzoek I	O_MLVPOOI	3	Academic year	L, WG	IA	500
Professionele ontwikkeling en onderzoek II	O_MLVPOOII	6	Academic year	L, WG	PT, ER	500
VakdidactiekBiologie I	O_MLVDBII	3	Academic year	WG	PF, IA	500
VakdidactiekBiologie II	O_MLVDBIII	6	Academic year	WG	PF, IA	500
Verdieping	O_MLVERD	3	Academic year	L, WG	IA	500

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If the student is exempted for parts of the specialisation in Education, the exempted EC have to be compensated with other mastercourses of the programme.

4.4 Electives

Name of course component	Course code	Number of credits	Period or semester	Teaching method**	Type of test***	Level
Abiotic Stress,	AM_470628	6	Period 2	L, LD	WP, P	600
Neurobiology of Animal Behaviour	AM_471018	6	Period 1	L, WG	WR, PT	500
Methods in Behavioral Neurosciences	AM_470728	6	Period 1	L, WG	WR, PT	500
Neuronal networks in vivo	AM_1001	6	Period 2	L, PR	WR, PT, ER	600
System Neuroscience	AM_470712	6	Period 2	L, WG	PT, IA, ER	500
Soil-Plant-Animal Interactions	AM_470507	6	Period 1	L, PR, WG, FW	IA, PF, PT	500
Experimental Design and Analysis	AM_470505	6	Period 2	L, CP	ER	500
Masterclasses in Ecology and Evolution	AM_1016	3	Academic year	L, WG	PF	400
Microbial Ecology	AMU_0008	6	Period 1	L, WG, FW	WR, PT, ER	\$
Ecosystem Services and Scientific Advocacy	AM_1053	6	Period 1	\$	\$	\$
Evolution of Species Interactions	AMU_0006	6	Period 2	L, PR	WR, PR, PF, PT	500
Evolutionary Dynamics	AMU_0007	6	Semester 2	WG, CP	CA, IA, ER	500
Current trends in evolution	AMU_0003	6	Academic year 2015-2016	L, WG, CP, PR, FW	PF, PT, ER, GW	500
Spatial processes in Ecology	AMU_0009	6	Academic year 2015-2016	L, CP, PR, WG	ER, PT, PF	500
Environmental Genomics and Adaptation	AM_470506	6	Academic year 2015-2016	L, WG, PR	ER, PT, WR, PF	500
Plant Breeding and Biotechnology	AMU_0018	6	Period 1	L, PR, WG	WR, PT	500
Biotic Interactions	AMU_0019	6	Period 1	L, PR, WG	WR, PT	600
Developmental Biology	AM_470613	6	Period 2	L	WR, PT, ER, PF	600
Analysis of Governmental Policy	AM_470571	6	Period 1	L, WG	WR, PF, GW	500
Business Management in Health and Life Sciences	AM_470584	6	Period 2	L	WR, IA	500
Clinical development and clinical trials	AM_470585	6	Period 3	L, WG	WR	500
Communication, Organization and Management	AM_470572	6	Period 2	L, WG	WR, IA, ER	500

Disability and Development	AM_470588	6	Period 2	L, WG	WR, IA, PF	500
Entrepreneurship in Health and Life Sciences	AM_470575	6	Period 2	L, WG	WR, IA	500
Health, Globalisation and Human Rights	AM_470818	6	Period 2	L, WG	WR, GW	500
Policy, Politics and Participation	AM_470589	6	Period 2	L, WG	PF, GW	500
Qualitative and Quantitative Research Methods	AM_470582	6	Period 1	L, WG	WR, GW	400
Science and Communication	AM_470587	6	Period 1	L, WG	WR, GW, IA	500
Science in Dialogue	AM_1002	6	Period 2	L, WG	WR, GW, IA, PT	500
Science Journalism	AM_471014	6	Period 2	L, WG	WR, GW, IA	500
Science Museology	AM_470590	6	Period 3	L, WG	WR, PT, GW	500

§ See studyguide

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If the student wishes to take a different course than the units of study listed, advance permission must be obtained in writing from the Examinations Board.

Article 4.5 Sequence of examinations

1. Students may participate in practical exercises (all internships; as listed under Art. 4.4) only if they have passed at least 18 EC in specialization specific courses.
2. For the second year internship, the student must have finished the first internship

Article 4.6 Participation in practicals and assignments

1. In the case of a practical, the student must attend 100 % of the practical sessions. Should the student attend less than 100 %, he/she must repeat the practical, or the examiner of the course may have one or more supplementary assignments issued.
2. In the case of a work group with assignments, the student must attend 100 % of the work group sessions. Should the student attend less than 100 %, he/she must repeat the work group, or the examiner of the course may have one or more supplementary assignments issued.
3. In exceptional circumstances, the Examinations Board may, at the request of the student, permit an exemption from this requirement if, in the opinion of the Board, the assessment of the intended skills is also possible with a lesser percentage of participation, with or without the imposition of supplementary requirements.

Article 4.7 Maximum exemption

A maximum of 40EC of the curriculum can be accumulated through granted exemptions, based on previous results within other master's programmes within the Life Sciences.

Article 4.8 Validity period for results

As laid down in article 4.8 of TER part A.

Article 4.9 Degree

Students who have successfully completed their Master's final examination are awarded a Master

of Science degree. The degree awarded is stated on the diploma.

5. Transitional and final provisions

Article 5.1 Amendments and periodic review

1. Any amendment to the Teaching and Examination Regulations will be adopted by VU: the faculty board after taking advice from the relevant Board of Studies. A copy of the advice will be sent to the authorised representative advisory body.
2. An amendment to the Teaching and Examination Regulations requires the approval of the authorised representative advisory body if it concerns components not related to the subjects of Section 7.13, paragraph 2 sub a to g and v, as well as paragraph 4 of the WHW and the requirements for admission to the Master's programme.
3. An amendment to the Teaching and Examination Regulations can only pertain to an academic year that is already in progress if this does not demonstrably damage the interests of students.

Article 5.2 Transitional provisions

Notwithstanding the current Teaching and Examination Regulations, the following transitional provisions apply for students who started the programme under a previous set of Teaching and Examination Regulations:

1. Compulsory components that are replaced

The compulsory components below have been replaced in academic year 2012-2013

New component	Former component
AM_1107 Internship Green Life Sciences	AM_471149 Internship Integrative Plant Sciences

From 1 September 2012 students obtain the new internship, unless they passed the former .

Students who started their programme before academic year 2014-2015 are, under specified conditions, permitted to replace compulsory courses by another compulsory course from their the former examination programme.

- a. For students who started Ecology in 2013-2014 or earlier:

Compulsory course	Permitted replacement course
AM_470505 Experimental Design and Analysis (6EC), AM_470507 Soil-Plant Interaction (6EC), AMU_0003 Current Trends in Evolution (6EC)	18 EC of the following choices AM_470502 Spatial Ecology (6EC), <i>or</i> AM_470505 Experimental Design and Analysis (6EC), <i>or</i> AM_470506 Environmental Genomics and Adaptation (6EC), <i>or</i> AM_470507 Soil-Plant Interaction (6EC)

- b. For students who started Science in Society specialization in 2013-2014 or earlier:

New Component	Former Component
AM_1134 Internship Specialization Science in Society	AM_471147 Internship Societal specialization

- c. From 1 September 2014 students obtain the new courses, unless they passed the former ones.

2. Compulsory components that do not apply for students that started before 2014-2015

For students who started their programme before academic year 2014-2015 the courses below are not compulsory:

For students who started Ecology in 2013-2014 or earlier:

- AM_470505 Experimental Design and Analysis

3. **Restricted options**

For students who started their programme before academic year 2014-2015 the restricted choice from courses is as follows :

a. Ecology

New restricted optional courses	Former restricted optional courses
6 EC from: AM_470507 Soil-Plant Interaction (6EC), <i>or</i> AMU_0003 Current Trends in Evolution (6EC)	In addition, for students who started in 2013-2014 or earlier the 6 EC can also be chosen from: AM_470502 Spatial Ecology (6EC), <i>or</i> AM_470505 Experimental Design and Analysis (6EC), <i>or</i> AM_470506 Environmental Genomics and Adaptation (6EC) In addition, for students who started in 2012-2013 or earlier the 6 EC can also be chosen from: AM_1038 Evolutionary Dynamics (UvA) (6EC)
6 EC from: AM_1016 Masterclasses in Ecology and Evolution (6EC), <i>or</i> AM_470511 Microbial Ecology (UvA) (6EC), <i>or</i> AM_1038 Evolutionary Dynamics (UvA) (6EC), <i>or</i> AM_470507 Soil-Plant Interaction (6EC), <i>or</i> AMU_0003 Current Trends in Evolution (6EC), <i>or</i> AM_1053 Ecosystem Services and Scientific Advocacy (6EC), <i>or</i> AMU_0006 Evolution of Species Interactions (6EC), <i>or</i> AMU_0009 Spatial Processes in Ecology (6EC), <i>or</i> AM_470628 Abiotic Stress (VU) (6EC), <i>or</i> AM_470506 Environmental Genomics and Adaptation (6EC)	In addition, for students who started in 2013-2014 or earlier the 6 EC can also be chosen from: AM_450137 Aquatic Ecology (VU) (6EC), <i>or</i> AM_470512 Ecotoxicology and Environmental Quality (VU) (6EC), <i>or</i> AM_470517 Marine Biology and Oceanography (VU) (6EC) In addition, for students who started in 2011-2012 or earlier the 6 EC can also be chosen from: AM_470510 Nature of Life Meetings (6EC)

4. **Total of 120 EC**

The final examination programme should always total 120 EC.

Article 5.3 Publication

1. The faculty board will ensure the appropriate publication of these Regulations and any amendments to them.
2. The Teaching and Examination Regulations will be posted on the faculty website and deemed to be included in the course catalogue.

Article 5.4 Effective date

These Regulations enter into force with effect from 1 September 2014

Advice from Board of Studies, Biology, on 28 April 2014

Approved by authorised representative advisory body on 18 September 2014

Adopted by the faculty board on 19 September 2014