

Teaching and Examination Regulations

Faculty of Science

**Master's programme in Bioinformatics and Systems Biology
(joint degree)**

Academic year 2026-2027

A. Faculty section

B1. Programme-specific section – general provisions

B2. Programme-specific section – content of programme

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Section A: Faculty section

1. General provisions

Article 1.1 Applicability of the Regulations

1. These Regulations apply to anyone enrolled in the programme, irrespective of the academic year in which the student was first enrolled in the programme.	Advice OLC, approval FGV (9.38 sub b)
2. These Regulations enter into force on 1 September 2026.	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)
4. In certain cases, students may appeal against decisions made on the basis of the Teaching and Examination Regulations, for example decisions made by an examiner, examination board, BSA committee, or admission committee. Whether an appeal can be considered depends on the type of the decision and by whom the decision was made. More information about legal protection can be found in the Student Charter and on the website Complaints, appeals, and objections - Vrije Universiteit Amsterdam.	Ordinance CvB, see Appendix III

Article 1.2 Definitions

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

- a. academic year: the period beginning on 1 September and ending on 31 August of the following calendar year;
- b. EC (European Credit): a course credit with a workload of 28 hours of study;
- c. examination: an assessment of the student's knowledge, understanding and skills relating to a unit of education. The assessment is expressed in terms of a final mark. An examination may consist of one or more partial examinations. A resit always covers the same material as the original examination. An examination can be completed in writing, orally or in another way;
- d. final examination: a Master's examination;
- e. final project: a unit comprising research into the literature and/or a contribution to scientific research, always resulting in a written report;
- f. internship: period spent working in professional practice as part of a study programme;
- g.1 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 specialisation or a specific curriculum within a degree programme) for which the collaborating institutions are jointly responsible;
- g.2 double degree: partnership between a program of a Dutch educational institution with a foreign educational institution, whereby students complete all or part of both study programmes and obtain two diplomas on the basis of agreements regarding the mutual recognition of the programme (replacement courses);
- h. period: a part of a semester;
- i. practical exercise: participation in a practical training activity or other educational learning activity, aimed at acquiring certain (academic) skills. Examples of practical exercises are:

- researching and writing a thesis or dissertation
 - carrying out a research assignment
 - taking part in fieldwork or an excursion
 - taking part in another educational learning activity aimed at acquiring specific skills, or
 - participating in and completing a work placement;
- j. programme: the totality and cohesion of the units of education, teaching activities/methods, contact hours, testing and examination methods and recommended literature;
- k. SAP/SLM: the student information system (*Student Lifecycle Management*);
- l. semester: the first (September - January) or second half (February - August) of an academic year;
- m. specialisation: optional route of study within a degree programme indicating a deepening of the context of the programme (e.g. interdisciplinary or multidisciplinary);
- n. student statute: sets out the rights and responsibilities of students on the one hand, and of Vrije Universiteit Amsterdam on the other hand, including those derived from the law and those derived from university regulations. The Executive Board (CvB) officially confirms the student statute once its completeness has been approved by the University Student Council (USC);
- o. student: the person enrolled, requesting enrolment or who has been enrolled in a course or program at the Vrije Universiteit;
- p. study guide: the guide for the study programme that provides further details of the courses, provisions and other information specific to that programme. The study guide is available online at <https://www.vu.nl/studiegids>;
- q. study monitor: dashboard for students and academic advisers containing data pertaining to the student, including the student's study progress;
- r. subject: see u. 'unit of education';
- s. track: a study pathway within a programme, of which the workload and the qualities in terms of knowledge, insight and skills that the student must have acquired by the end of the program are equal to those of the programme
- t. unit of education: a unit of study of the programme within the meaning of the WHW;
- u. university: Vrije Universiteit Amsterdam;
- v. WHW: the Dutch Higher Education and Research Act (Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek (WHW)).
- w. workload: the workload of the unit of education to which an examination applies, expressed in terms of credits = EC credits (ECTS = European Credit and Transfer Accumulation System). The workload for 1 year (1,680 hours) is 60 EC credits.

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

2. Study programme structure

Article 2.1 Structure of academic year and units of education

1. The study programme will be offered in a year divided into two semesters.	Ordinance CvB, see Appendix III
2. Every semester consists of three consecutive periods. The first two periods each	Ordinance CvB, see Appendix III

consist of eight weeks, and the final period consists of four weeks.	
3. A unit of education comprises 6 EC or a multiple thereof.	Ordinance CvB, see Appendix III
4. By way of exception to paragraph 3, the Executive Board may in special cases and on request of the Faculty Board, stipulate that a unit of education comprises 3 EC or a multiple thereof.	Ordinance CvB, see Appendix III

3. Assessment and examination

Article 3.1 Signing up for education and examinations

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

Article 3.2 Type of examination

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

1. No more than one student will be examined orally at a time, unless specified otherwise in part B for the relevant unit of education.	Advice OLC; approval FGV (7.13 l and n)
2. A second examiner is present when an oral examination is being held, unless the Examination Board has determined otherwise. The oral examination takes place at a time and location to be determined by the examiner within the regular timetable, on campus or online. At the request of the student, and with the approval of the examiners, an audio recording can be made. Should the second examiner not be available unexpectedly, an audio recording of the oral exam is made. This audio recording is retained by the university for the retention period applicable for examinations.	Advice OLC; approval FGV (7.13 l and n)

Article 3.4 Determining and announcing results

1. The examiner determines the result of a written examination within fifteen working days. However, the marking deadline for final projects is no longer than twenty working days after submission. The examiner will then immediately ensure that the marks are registered and also ensures that the student is immediately notified of the mark, taking due account of the applicable confidentiality standards.	Ordinance CvB, see Appendix III
2. The examiner determines the result (i.e. mark) of an oral examination as soon as possible, but at the latest within two working days after the examination has finished and informs the student accordingly. The third clause of the first paragraph applies.	Advice OLC; approval FGV (7.13 o)
3. In the case of assessments other than oral or written examinations, the Examination Board determines in advance how and by what deadline the student will be informed of the results.	Advice OLC; approval FGV (7.13 o)

Article 3.5 Examination opportunities

1. a. Per academic year, two opportunities to take examinations will be offered for each unit of education. b. By way of exception to a., the options for retaking practical exercises, work placements and final projects are detailed in the relevant work placement manual, course manual or teaching regulations.	Ordinance CvB, see Appendix III
2. The most recent mark will apply in the event of a resit. A resit is allowed for both passed and failed units of education.	Ordinance CvB, see Appendix III
3. The resit for a (partial) examination may not take place within ten working days of the announcement of the results for the original (partial) examination. Exceptions are only possible in period 6.	Advice OLC; approval FGV (7.13 j)
4. The Examination Board may allow a student an extra opportunity to sit an examination if that student: a) has completed all but one units of education to meet the requirements of the degree; and b) has failed the examination during all the previously offered attempts unless participation in an examination was not possible for compelling reasons. This provision excludes the practical exercises and the final project. Requests for an additional examination opportunity must be submitted to the Examination Board no later than 15 July. If necessary, the method of examination may deviate from the provisions in the study guide.	Ordinance CvB, see Appendix III
5. If a unit of education is no longer offered, at least one additional opportunity will subsequently be provided to sit the examination(s) or parts thereof and a transitional arrangement will be included in Section B.	Advice OLC, approval FGV (7.13 j)

Article 3.6 Marks

1. (Partial) grades are given on a scale from 1 to 10 with no more than one figure after the decimal point.	Ordinance CvB, see Appendix III
2. A final mark between 5 and 6 will be rounded to the nearest whole number: final marks below 5.50, rounded down; final marks of 5.50 or higher, rounded up. All other final marks will be expressed in whole or half marks.	Ordinance CvB, see Appendix III
3. To pass a given course or unit, a final mark of 6 or higher is required.	Ordinance CvB, see Appendix III
4. The Examination Board can allow the use of symbols rather than numbers.	Ordinance CvB, see Appendix III

Article 3.7 Exemption

1. At the written request of the student, the Examination Board may exempt the student from taking one or more examination components, if they: a. have either passed a unit of education at a university or university of applied sciences (HBO) or a research university (WO) that is equivalent in terms of content and level; b. or have demonstrated through their work and/or professional experience that they have sufficient knowledge and skills with regard to the relevant unit of education.	Advice OLC; approval FGV (7.13 r)
2. The final project is excluded from this exemption possibility.	Advice OLC; approval FGV (9.38 sub b)

Article 3.8 Validity period for results

1. The validity period of examinations passed and exemption from examinations is unlimited, unless otherwise specified in Section B.	Legal provision
2. The validity period of a partial examination is limited to the academic year in which it was sat or until the end of the unit of study concerned, as stipulated for the relevant unit of study in Section B. In exceptional circumstances, an examiner may deviate from this; this must be stated on Canvas at the start of the unit of education.	Advice OLC; approval FGV (9.38 sub b)

Article 3.9 Right of inspection

1. Within twenty working days after the announcement of the results of a written examination, but at least ten working days before the resit opportunity for that examination, the student has the right to inspect their graded examination.	Advice OLC; approval FGV (7.13 p and q)
2. Students can view the questions and assignments set in the written examination, and the standards applied when assessing the examination, within the period specified in 3.9.1.	Advice OLC; approval FGV (7.13 q)
3. The examiner determines whether the inspection takes place collectively or individually. In all cases, the time and place of the inspection is announced in the course manual or learning environment.	Advice OLC; approval FGV (7.13 q)
4. Students are entitled to feedback on their academic performance. The manner in which this is provided in each unit of education is described in the course manual.	Advice OLC; approval FGV (7.13 p and q)

4. Academic student counselling and study progress

Article 4.1 Administration of study progress and academic student counselling

1. The faculty board is responsible for the correct registration of the students' study results. After the assessment of a unit of education has been registered, every student has the right to inspect the result for that component and also has a list of the results achieved at their disposal in VU.nl Dashboard.	Advice OLC; approval FGV (7.13 u)
2. Enrolled students are eligible for academic student counselling. Academic student counselling is in any case provided by a. The Student Counsellor b. Student psychologists c. Faculty academic advisers	Advice OLC; approval FGV (7.13 u)

Article 4.2 Facilities for students with a disability or impairment

1. Students with a disability or impairment can submit a request via VU.nl Dashboard to qualify for one or more special facilities with regard to teaching, practical exercises and examinations. These facilities will accommodate the student's individual disability or impairment as much as possible, but may not alter the quality or degree of difficulty of a unit of education or an examination. In all cases, the student must fulfil the intended learning outcomes for the study programme.	Advice OLC; approval FGV (7.13 m)
2. The request referred to in the first paragraph must be accompanied by a statement from a doctor or psychologist. If possible, an estimate should be given of the potential impact on the student's study progress. In case of a chronic disability a single (one time) request suffices.	Advice OLC; approval FGV (7.13 m)

3. Students who have been diagnosed with dyslexia must provide a statement from a BIG-, NIP- or NVO-registered professional who is qualified to conduct a psychological evaluation.	Advice OLC; approval FGV (7.13 m)
4. The faculty board, or the person acting on behalf of the faculty board, decides on teaching facilities and facilities regarding logistics. The Examination Board will decide on requests for facilities with regard to examinations.	Advice OLC; approval FGV (7.13 m)
5. In the event of a positive decision in response to a request as referred to in paragraph 1, the student can make an appointment with the academic adviser to discuss the details of the provisions.	Advice OLC; approval FGV (7.13 m)
6. A request for one or more facilities can be refused if it would place a disproportionate burden on the organisation or the resources of the faculty or university were it upheld. Any such refusal will be substantiated.	Advice OLC; approval FGV (7.13 m)
7. If the disability or impairment justifies an extension of the examination time, the responsible person on behalf of the Examination Board will register in SAP this entitlement to an extension. If a disability or impairment justifies other measures to be taken, the academic adviser can take the necessary measures. The student can consult the study monitor to check which facilities have been granted to them.	Advice OLC; approval FGV (7.13 m)
8. The decision as referred to in paragraph 5 may specify a limited validity of the facilities granted.	Advice OLC; approval FGV (7.13 m)

5. Hardship clause

Article 5.1 Hardship clause

In instances not regulated by the Teaching and Examination Regulations or in the event of demonstrable extreme unreasonableness or unfairness, the faculty board responsible for the study programme will decide, unless the matter concerned is the responsibility of the Examination Board.	Advice OLC; approval FGV (9.38 sub b)
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Section B1: Programme-specific section

6. General programme information and characteristics

Article 6.1 Study programme information

1. The programme Bioinformatics and Systems Biology RIO number 65020 is offered on a full-time basis.	Advice OLC; approval FGV (7.13 i)
2. The programme is offered in partnership with the University of Amsterdam and leads to a joint degree.	Advice OLC; approval FGV (9.38 sub b)

Article 6.2 Teaching formats used and modes of assessment

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

Article 6.3 Academic student counselling

The programme offers the following counselling in addition to the student counselling mentioned in Section A: - Student advising - Within the first two months, each student is assigned an academic mentor. A Personal Education Plan is written in consultation with this academic mentor. The academic mentor will also typically act as the examiner on the Master thesis of the student.	Advice OLC; approval FGV (7.13 u)
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7. Further admission requirements

Article 7.1 Intake date(s)

The Master's programme starts on 1 September.	Advice OLC, Approval FGV (9.38 sub b)
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Article 7.2 Admission requirements

1. A. Admission to the Master's programme is possible for an applicant who has obtained a Bachelor's degree at an institution of higher education in any of the following – or closely related – disciplines: Artificial Intelligence, Biology, Biomedical Sciences, Biotechnology, (Bio)Chemistry, Computer Science, Data Science, Engineering, Health Sciences, (Bio)Informatics, Mathematics, Medical (Natural) Sciences, Medicine, Pharmaceutical Sciences or (Medical/Bio) Physics and which demonstrates the following knowledge, understanding and skills: - At least 5 ECTS in Calculus or Linear Algebra on Bachelor level or equivalent. Successful completion of the OMP Test (omptest.org) is an acceptable alternative for a graded course; and - At least 5 ECTS in Molecular Biology on Bachelor level or equivalent or at least 5 ECTS in Programming on Bachelor level or equivalent. B. As an alternative to A, an applicant is also admissible when they:	Advice OLC, approval FGV (9.38 sub b)
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- show a motivated interest in solving biological problems with computational or mathematical tools as demonstrated in their motivation letter; and - can demonstrate the ability to easily acquire knowledge and skills by having a GPA of 7.5; and - have at least 5 ECTS in Calculus or Linear Algebra on Bachelor level or equivalent. Successful completion of the OMP Test (omptest.org) is an acceptable alternative for a graded course.	
2. Not applicable.	Advice OLC, approval FGV (9.38 sub b)
3. Applicants with a Bachelor's degree obtained at an institution outside the Netherlands may be asked for additional methods to prove that they meet the admission requirements.	Advice OLC, approval FGV (9.38 sub b)
4. Not applicable.	Advice OLC, approval FGV (9.38 sub b)
5. Applicants should demonstrate that they have a sufficient level of proficiency in English by meeting at least one of the following standards: - IELTS Academic: an overall score of at least 6.5, with minimum sub-scores for Listening, Reading, Writing and Speaking of 6.0; At the start of the program, the test must not have been taken more than two years ago. - TOEFL iBT: an overall score of at least 4.5, with minimum sub-scores for Listening, Reading, Writing and Speaking of 4, 4, 4 and 4 respectively; At the start of the program, the test must not have been taken more than two years ago. - Cambridge C2 Proficiency/Certificate of Proficiency in English (CPE): an overall score of at least [180] - Cambridge C1 Advanced/Certificate Advanced English (CAE) an overall score of at least [180] - LanguageCert Academic SELT: an overall score of at least [70]. At the start of the program, the test must not have been taken more than two years ago. - Pearson PTE Academic: an overall score of at least [68]. At the start of the program, the test must not have been taken more than two years ago.	Advice OLC, approval FGV (9.38 sub b)
6. Applicants who have completed one of the following meet the English language requirement and therefore are exempted from taking an English language test (as mentioned in the section 5) if: - a secondary education or higher education degree fully taught in English has been completed in Australia, Canada, Ireland, New Zealand, the United Kingdom or the United States of America; - a fully English-language, accredited bachelor's or master's degree in the Netherlands, EU/EFTA countries, Singapore or South Africa, or - a vwo diploma or equivalent diploma in which the course on English of a comparable level is required has been earned;	Advice OLC, approval FGV (9.38 sub b)
7. The Admission Board will investigate whether the applicant meets the admission requirements.	Advice OLC; approval FGV (9.38 sub b)

Article 7.3 Selection criteria

Not applicable.	Advice OLC, approval FGV (9.38 sub b)
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Article 7.4 Pre-Master's programme

1. Applicants with a Bachelor's degree from a university of applied sciences (HBO) or a Bachelor's degree from a research university (WO) who wish to enter the programme but do not fulfil the admission requirements as stipulated in Article 7.2 can request admission to the pre-Master's programme. Article 2 of these regulations does not apply to admission to a bridging or pre-Master's programme. The provisions of sections A and B only apply to the extent that they are described in Article 7.4. Information about the programme from part B2 applies, insofar as it concerns the units of education from the pre-Master's programme.	Advice OLC; approval FGV (9.38 sub b)
2. Applicants must, in addition to paragraph 1 above, also satisfy the following requirements regarding: a. Admission to the pre-Master's programme is possible for an applicant who has obtained a Bachelor's degree at an institution of academic higher education in any of the following – or closely related – disciplines: Artificial Intelligence, Biology, Biomedical Sciences, Biotechnology, (Bio)Chemistry, Business Analytics, Computer Science, Data Science, Engineering, Health Sciences, (Bio)Informatics, Mathematics, Medical (Natural) Sciences, Medicine, Pharmaceutical Sciences or (Medical/Bio) Physics. b. Applicants are expected to have maths skills at the level of either Mathematics A in Dutch pre-university education <i>VWO</i> (final examination) or Mathematics B in Dutch senior general secondary education <i>HAVO</i> (final examination).	Advice OLC; approval FGV (9.38 sub b)
3. A candidate must demonstrate that they meet the language requirements, as specified in Article 7.2.	Advice OLC; approval FGV (9.38 sub b)
4. The pre-Master's programme has 30 credits and is determined for each student individually. The following terms also apply: a. If a pre-Master's student completes an individualised pre-Master's programme, this is to be communicated to that student in writing. b. The Examination Board can, if the pre-Master's student submits a written request, exempt the student from one or more examinations of a standard pre-Master's programme. c. The provision under b. does not apply to an individualised pre-Master's programme.	Advice OLC; approval FGV (9.38)
5. Evidence that the pre-Master's programme has been completed successfully will entitle the student to admission to the relevant Master's programme in the following academic year. A pre-Master's programme must be completed within one academic year.	Advice OLC; approval FGV (9.38 b)

8. Examinations and results

Article 8.1 Sequence of examinations

Students may participate in the examinations and/or practical exercises of the units of education listed below only if they have passed the examination or examinations for following units of education: - "Minor research project" XM_0072 after passing at least 18 EC (3 courses)	Advice OLC; approval FGV (7.13 h, s & t)
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out of the “compulsory taught courses” or “constrained-choice courses”, as defined in article 10; - “Major research project BSB” XM_0190 after passing at least 42 EC (7 courses), of which at least 30 EC (5 courses) out of the “compulsory taught courses” or the “constrained-choice courses”, as defined in article 10.	
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Article 8.2 Validity period for results

If a student’s knowledge, understanding or skills as evaluated in the exam are demonstrably outdated, the Examination Board may impose a supplementary or replacement examination for a unit of education for which an examination was passed more than five years ago.	Advice OLC; approval FGV (7.13 k)
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Section B2: Programme-specific section – content of programme

9. Programme objectives, specialisations, intended learning outcomes and language

Article 9.1 Workload

The programme has a workload of 120 EC.	Approval OLC; (7.13 g)
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Article 9.2 Specialisations

The programme has the following specialisation(s): Not applicable.	Approval OLC (7.13 b)
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Article 9.3 Programme objective

The programme aims to: provide students with sufficient knowledge, understanding and skills to translate biomolecular problems into models or computational methods, providing enough focus to understand and perform current research in Bioinformatics and Systems Biology, and providing enough balance such that all skills and knowledge required for this are obtained during the programme. This results in the following objectives: - teaching students to conduct empirical research to develop their practical skills, knowledge and insights into bioinformatics and systems biology (focus); - enabling students to perform research in various application fields of bioinformatics and systems biology (balance); - teaching key techniques and formalisms (focus), while providing sufficient options for differentiation (balance); - teaching students the technical skills of programming and modelling, all applied to problems in molecular biology and genomics (translation); - providing a student-oriented education that is of high, internationally recognised quality (focus); - providing a feasible study programme to a heterogeneously composed student population in an inspiring academic learning environment of two universities (balance).	Advice OLC (7.13 a)
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Article 9.4 Intended learning outcomes

1. At all events, a graduate of the study programme will have: - knowledge and understanding in the field of bioinformatics and systems biology Our society is becoming increasingly data-rich. There is a growing need not only for strong data science skills, but foremost for the ability to translate between tools and methods, as well as from application to problems and vice versa. There are two main requirements that enable translation, which we find to be crucial: sufficient focus (depth) on multidisciplinary topic areas, coupled with a balanced breadth from adjacent disciplines. ¹ We have organised the intended learning outcomes by Dublin Descriptors, and associate them with the three key elements “translation”, “focus” and “balance”	Approval OLC (7.13)
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¹ “Training for translation between disciplines: a philosophy for life and data sciences curricula” Feenstra, Abeln, Westerhuis, Brancos dos Santos, Molenaar, Teusink, Hoefsloot, Heringa. Bioinformatics, 2018, [doi: 10.1093/bioinformatics/bty233](https://doi.org/10.1093/bioinformatics/bty233).

[in square brackets].

Knowledge and understanding

1. both a solid academic basic as well as specialist knowledge and understanding in the field of bioinformatics and systems biology and in one or more sub-areas of bioinformatics and systems biology, and related fields such as biophysics, biochemistry, mathematical modelling and cell biology [focus and balance];
2. the ability to access and use international professional literature and master current scientific research developments and has knowledge of current scientific developments within relevant subdomains of bioinformatics and systems biology [focus and translation];
3. knowledge and understanding of the (iterative) research process in Bioinformatics and Systems Biology: i.e. the relation between model, experiment, data analysis and the biological system [focus].
4. acquired profound knowledge, insight and practical experience in at least one specialist area of bioinformatics or systems biology [focus];

Applying knowledge and understanding

5. the skills to analyse and interpret biological patterns and processes in both a qualitative and quantitative sense and make inferences based on these scientific results [balance and focus];
6. insight of the applications of bioinformatics and systems biology in general and specific specialisations in particular and is able to apply this knowledge in new and continuously changing practical situations, also in broader, multidisciplinary contexts [translation];
7. the ability to independently set up and implement experiments contributing to a line of research [focus, balance and translate].

Making judgements

8. an attitude that enables critical reflection and discussion [translation].

Communication skills

9. the skills to present research projects and results both orally and written in English, at various scales and levels of abstraction, and communicate these to specialist and non-specialist audiences [focus and translation].

Learning skills

10. the ability to get acquainted with a field of study and acquire specialist knowledge, understanding and skills in a short period of time [focus and translation];
11. the ability to continue their career either as a researcher able to pursue a PhD degree at the best universities, as a scientist in research institutes worldwide, or as a research-skilled professional in organisations of government, civil society or business and industry [balance and translation];
12. the ability to successfully fulfil a position in society requiring an academic qualification as an independently operating professional that has a good

knowledge base and attitude towards a biological approach to relevant societal issues [translation]; 13. capability of writing research or project proposals on the basis of realistic problem descriptions or to write a critical essay based on literature within a specialised field of study and one's opinion [translate and focus].	
2. Not applicable.	Approval OLC (7.13)
3. Language proficiency may be taken into account in the assessment of examinations.	Approval OLC (7.13 c)

Article 9.5 Language of instruction

1. The language of instruction is English.	Approval OLC (9.18)
2. The 'Gedragcode vreemde taal' (Code of conduct for foreign languages) applies.	VU policy

10. Curriculum structure

Article 10.1 Composition of the programme

1. The programme comprises at least a package of compulsory components and an individual Master's thesis or academic work placement.	Ordinance CvB, see Appendix III
4. Additionally, the programme can offer: - "Compulsory taught courses" comprising 24 EC; - "Constrained-choice courses" comprising at least 24 EC. Students need to choose two constrained-choice courses in period 4 and at least two constrained-choice courses in periods 5 and 6 combined. - o In Period 4, students must choose 12 EC from the three constrained-choice courses as defined in 10.2. - o In Period 5+6, students must choose at least 12 EC from the four constrained-choice courses as defined in 10.2. - Elective courses comprising 6 EC up to 24 EC; - A minimum of 42 EC and a maximum of 60 EC in academic internships in the form of an optional minor and a compulsory major research project, whereby the major research project comprises at least 30 EC.	Advice OLC (7.13 a)
2. Units of education are categorised as specialised (400), research-oriented (500) and highly specialised (600) level.	Ordinance CvB, see Appendix III

Article 10.2 Compulsory units of education

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

Detailed description per unit of education can be found in the Study Guide.				
Name of unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
<u>Year 1 Compulsory Courses</u>				
Fundamentals of Bioinformatics	X_405052	6	400	
Introduction to Systems Biology	X_428565	6	400	
Algorithms in Sequence Analysis	X_405050	6	600	
Statistics with R	X_418156	6	400	
Biosystems Data Analysis	XM_0078	6	400	

Name of unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
<u>Year 1 Constrained Choice P4*</u>				
Scientific Machine Learning	XM_0138	6	400	
Structural Bioinformatics	X_405019	6	500	
Basic Models of Biological Networks	X_418154	6	500	
* students must choose 12 EC from these three constrained-choice courses, see 10.1.4.				

Name of unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
<u>Year 1 Constrained Choice P5+6*</u>				
Systems Biology in Practice	XM_0079	6	400	
Image Processing & Quantitative Data Analysis	XM_0085	6	500	
Bioinformatics for Translational Medicine	X_405092	6	500	
Quantitative Single-cell Biology	XM_0084	6	500	
* students must choose 12 EC from these four constrained-choice courses, see 10.1.4.				

Name of unit of education	course code	nr of EC	level	Advice OLC; (7.13 a)
<u>Year 2 Compulsory Courses</u>				
Major research project BSB	XM_0190	30-60	600	

Article 10.3 Elective units of education

1. The student can take one or more of the following electives without prior consent from the Examination Board:				Advice OLC; (7.13 a)
Name of unit of education	course code	nr of EC	level	
Year 1 Optional Courses				
Biomolecular Simulations	XMU_0036	6	500	
Data Mining Techniques	X_400108	6	400	
Machine Learning for the Quantified Self	XM_40012	6	500	
Year 2 Optional Courses				
Evolutionary Computing	X_400111	6	400	
Protein Science	AM_470145	6	400	
Microbial Ecology	AMU_0008	6	500	
Knowledge Representation	XM_0059	6	400	
Deep Learning	XM_0083	6	500	
Drug Target Biochemistry & Signalling	XM_0111	6	400	
Brain Imaging	P_MBRIMAG	6	500	
Data Mining Techniques	X_400108	6	400	
Biomolecular Simulations	XMU_0036	6	500	
Machine Learning for the Quantified Self	XM_40012	6	500	
Minor Research Project M BSB	XM_0072	18	500	
Collective Futures 1	52241CF18Y	18	500	
2. If the student wishes to take a different unit of education than listed, advance				

permission must be obtained in writing from the Examinations Board. The student can choose to participate in the minor Collective Futures, offered at the UvA, as part of the master programme. - The minor Collective Futures consists of 30 EC. The minor must be combined with a research programme, comprising at least 90 EC of the general compulsory components (courses, research project and literature study) to meet the general requirements of the programme. The minor consists of 2 courses: Collective Futures 1 (18 EC, 52241CF18Y) and Collective Futures 2 (12 EC, 52242CF12Y). Students may choose to follow only Collective Futures 1 as an elective or the complete program as a 30 EC minor. Further information on this minor can be found in the course catalogue of the University of Amsterdam and on www.collectivefutures.nl. - Students have to go through a separate intake procedure for admission to the minor Collective Futures; - The minor Collective Futures will replace the Second Research Project (Minor Research Project M BSB / XM_0072) for 30 EC; - The student can participate in the minor Collective Futures without prior approval of the Examinations Board when following the programme as described here;	(7.13 a)
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Article 10.4 Practical exercise

Not applicable.

Article 10.5 Participation in practical training and tutorials

1. In the case of practical exercises, there may be attendance requirements. For details on attendance requirements, please refer to the study manual of the relevant unit of study.	Approval OLC (7.13)
2. In the case of tutorials, there may be attendance requirements. For details on attendance requirements, please refer to the study manual of the relevant unit of study.	Approval OLC (7.13 d)
3. For thesis and internship, the programme applies the guidelines as stipulated in the Thesis and Placement Regulations.	Approval OLC (7.13 d)

11. Evaluation and transitional provisions

Article 11.1 Evaluation of the programme

The education provided in this programme is evaluated in accordance with the document 'Kwaliteitszorg Onderwijs BETA'.	Approval OLC (7.13 a1)
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Article 11.2 Transitional provisions

By way of departure from the Teaching and Examination Regulations currently in force, the following transitional provisions apply for students who started the programme under a previous set of Teaching and Examination Regulations: As of academic year 2026-2027, the specialisations "Bioinformatics" and "Systems Biology" have been removed. Students who started in or before academic year 2026-2027 are still allowed to follow and graduate in one or both of the specialisations, provided their course selection meets all requirements of the specialisation. Diplomas for these specialisations will be issued until 31 August 2029.	Advice OLC (7.13 a)
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- As of academic year 2026-2027, the courses Major Bioinformatics Research Project BSB (XM_0103) and Major Systems Biology Research Project BSB (XM_0104) have been removed and replaced by the course Major research project BSB (XM_0190). Students who started in or before academic year 2026-2027 are still allowed to complete one or both of the courses Major Bioinformatics Research Project BSB (XM_0103) and Major Systems Biology Research Project BSB (XM_0104) instead of course XM_0190. - As of academic year 2026-2027, the course Algorithms in Sequence Analysis (X_405050) is compulsory. Students who started before academic year 2026-2027 and want to graduate without a specialisation need to complete this course. - Students who completed Machine Learning (X_400154) as part of their Bachelor programme, or who completed this course during the Master before 2024-2025, are not allowed to take Scientific Machine Learning (XM_0138) as an elective. - As of academic year 2024-2025, Bachelor courses will no longer be allowed as part of the Master curriculum. Students who started before September 2024 and took a Bachelor course as an elective may still count this towards their master's degree after consultation with their academic mentor and approval by the exam board. - Students who started before September 2024 can still take a different elective course instead of the course Statistics with R (X_418156) which was made compulsory as of academic year 2024-2025. - The following elective courses have been removed as of academic year 2026-2027: - o Computational Biology (XMU_0032, UvA course code 5284COBI6Y) Students can choose any of the other elective courses.	
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Approval of the Programme Committee of the curriculum structure (submitted via UAS), on 09/01/2026.

Approved by the Programme Committee (with the exception of the curriculum structure), on 19/06/2026.

Approved by the Faculty Joint Assembly, on 07/07/2026.

Adopted by the board of the Faculty of Science on 10/07/2026.

Appendix I

Overview of articles that must be included in the OER

Based on Article 7.13, paragraph 2 and Article 7.30b, paragraph 2 of the WHW.

Section A: Faculty section

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

Section B1: Programme specific – general provisions

6. General programme information and characteristics	
Article 6.1 Study programme information	7.13 paragraph 2 sub i, r
Article 6.2 Teaching formats used and modes of assessment	7.13 paragraph 2 sub l, x
[keuze:] Article 6.3 Academic student counselling	7.13 paragraph 2 sub u
7. Further admission requirements	
Article 7.2 Admission requirements	7.30b paragraph 1
Article 7.3 Selection criteria	7.30b paragraphs 2 & 5
Article 7.4 Pre-Master's programme	7.57i section 1
8. Examinations and results	
Article 8.1 Sequence of examinations	7.13 paragraph 2 sub h, s, t
[option 1:] Article 8.2 Validity period for results	7.13 paragraph 2 sub k
[option 2:] Article 8.2 Validity period for results	7.13 paragraph 2 sub k

Section B2: Programme-specific section – content of programme

9. Programme objectives, tracks/specialisations, intended learning outcomes and language	
Article 9.1 Workload	7.13 paragraph 2 sub g
Article 9.2 Tracks and/or specialisations	7.13 paragraph 2 sub a
Article 9.3 Programme objective	7.13 paragraph 2 sub a
Article 9.4 Intended learning outcomes	7.13 paragraph 2 sub b, c
Article 9.5 Language of instruction	9.18 (implementation expected in 2020)
10. Curriculum structure	
Article 10.1 Composition of the programme	7.13 paragraph 2 sub a
Article 10.2 Compulsory units of education	7.13 paragraph 2 sub a

[Keuze:] Article 10.3 Elective units of education	7.13 paragraph 2 sub a
[Keuze:] Article 10.4 Practical exercise	7.13 paragraph 2 sub d
Article 10.5 Participation in practical training and tutorials	7.13 paragraph 2 sub d
11. Evaluation and transitional provisions	
Article 11.1 Evaluation of the programme	7.13 paragraph 2 sub a1
Article 11.2 Transitional provisions	7.13 paragraph 2 sub a

Appendix II

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

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

The lettering corresponds to the lettering of Article 7.13 section 2 of the WHW

Abbreviations used:

FGV: Faculty Joint Assembly

OplC: Programme Committee
I: right of approval
A: right of advice

Appendix III

Ordinances of VU Executive Board (CvB) and Binding Master's Guidelines

Section A, article:	Concerns:	CvB ordinance / guideline
1.1.4	Legal protection for students	4-11-2025
2.1.1, 2.1.2	Year planning two semesters 8-8-4 (uniform year calendar VU-UvA)	29-9-2008 (period 2009-2015) 22-05-2014 (period 2016-2025)
2.1.3, 2.1.4	Units of education	Bachelor's and Master's education guidelines included in model TER, revised on 2 July 2019
3.1	Signing up for education and examinations	CvB ordinance 17-11-2020, prior consent of USC.
3.4.1	Determination and publication of the results (1) Grading deadline exams ten working days (2) Theses twenty working days	(1) Bachelor's guideline included in model TER, revised on 2 July 2019 (2) Quality demand 11 from the VU-wide assessment policy, CvB ordinance 15-05-2012, approval GV 28-02-2013
3.5.1	Two possibilities to take examinations per year	Bachelor's and Master's education guidelines included in model TER, revised on 2 July 2019
3.5.2	Resit: most recent grade is valid, resit allowed in case of pass grade	Taken from the UvA guidelines, as part of the harmonisation, CvB ordinance 24-02-2014
3.5.4	One-time extra resit in relation to examination requirement	Included in (prior) model OER 16-17 following a request from committee O&O and adopted by CvB op 27-10-2015
3.6	Grades	CvB ordinance 30-09-2010, prior consent USC. As a result of harmonisation UvA, the guideline: 5.5 is a pass, has been added. CvB ordinance 24-02-2014.
Section B1, article:	Concerns:	CvB ordinance / guideline
7.2	Admission criteria	Bachelor's and Master's education guidelines included in model TER, revised on 2 July 2019
7.3	Selection criteria	Bachelor's and Master's education guidelines included in model TER, revised on 2 July 2019
Section B2, article:	Concerns:	CvB ordinance / guideline
10.1.1	Composition programme	Bachelor's and Master's education guidelines included in model TER, revised on 2 July 2019
10.1.3	Categorisation of units	Bachelor's and Master's education guidelines included in model TER, revised on 2 July 2019

Appendix IV

Higher Education and Research (Implementation) Act

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

- a. illness of the person concerned,
- b. physical, sensory or other impairment of the person concerned,
- c. pregnancy of the person concerned,
- d. extenuating family circumstances,
- e. membership, including the chairmanship of:
 - 1. universities: the university council, faculty council, the body established under the participation regulation referred to in Article 9.30, paragraph 3, or Article 9.51, paragraph 2, of the Act, the programme management or the programme committee, or membership on the board of a foundation whose bylaws allow for the exploitation of facilities belonging to the student services, or an equivalent body with regard to its activities in the opinion of the board of the institution,
 - 2. universities of applied sciences: the participation council, district council, student committee or programme committee,
- f. other circumstances to be designated by the board of the institution in the regulation as referred to in Article 7.8b, paragraph 6, and Article 7.9, paragraph 5, of the Act in which the person concerned engages in activities within the framework of the organisation and the administration of the affairs of the institution,
- g. membership on the board of a student organisation of a certain size with full legal capacity, or a similar organisation of a certain size, whose primary task regards general societal interest and which actually develops activities for this purpose,
- h. other personal circumstances set out in the Teaching and Examination Regulations as referred to in Article 7.13 of the Act, pursuant to Article 7.13, paragraph 2, clause f of the Act,
- i. personal circumstances other than those referred to in a – h above which, if overlooked by the governing bodies of the institution, would lead to an obviously unfair outcome.

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