

# **Teaching and Examination Regulations**

**Faculty of Science**

**Bachelor's programme in Computer Science**

**Academic year 2025-2026**

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

|                                                                                                                                                                                               |                                       |
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| 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 2025.                                                                                                                                    | Advice OLC, approval FGV (9.38 sub b) |
| 3. An amendment to the Teaching and Examination Regulations is only permitted to concern an academic year already in progress if this does not demonstrably damage the interests of students. | Advice OLC, approval FGV (9.38 sub b) |

#### Article 1.2 Definitions

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

- a. academic year: the period beginning on 1 September and ending on 31 August of the following calendar year;
- b. 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 Bachelor's programme consists of a propaedeutic examination and a Bachelor's examination;
- e. internship: period spent working in professional practice as part of a study programme;
- f. 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 major or a specific curriculum within a degree programme) for which the collaborating institutions are jointly responsible;
2. double degree: partnership between a programme 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);
- g. minor: a set of thematically related units of education totalling 30 credits. Students choose a minor in order to broaden and/or deepen their studies (within the scope for electives) during the Bachelor's programme;
- h. period: a part of a semester;
- i. practical exercise: participation in a practical training or other educational learning activity, aimed at acquiring certain (academic) skills. Examples of practical exercises are:
  - researching and writing a thesis or dissertation
  - carrying out a research assignment
  - taking part in fieldwork or an excursion
  - taking part in another educational learning activity aimed at acquiring specific skills, or
  - participating in and completing a work placement;

- j. 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 (February - August) half 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 person studying;
- o. student statute: sets out the rights and responsibilities of students on the one hand, and of Vrije Universiteit Amsterdam on the other hand, including those derived from the law and those derived from university regulations. The Executive Board (CvB) officially confirms the student statute once its completeness has been approved by the University Student Council (USC);
- p. study guide: the guide for the study programme that provides further details of the courses, provisions and other information specific to that programme. The Study Guide is available electronically at: <https://studiegids.vu.nl/en#/>;
- q. study monitor: dashboard for students and academic advisors containing data pertaining to the student, including the student's study progress;
- r. subject: see u. 'unit of education';
- s. thesis a unit comprising research into the literature and/or a contribution to scientific research, always resulting in a written report;
- t. track: a study pathway within a broader Bachelor's or Master's degree programme, such as a fully English-language study pathway within a Dutch-language Bachelor's or Master's programme;
- u. unit of education: a unit of study of the programme within the meaning of the WHW;
- v. university: Vrije Universiteit Amsterdam;
- w. WHW: the Dutch Higher Education and Research Act (Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek);
- x. 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

|                                                                                                                                                                                               |                                 |
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| 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 consist of eight weeks, and the final period consists of four weeks.                                      | Ordinance CvB, see Appendix III |
| 3. A unit of education comprises 6 ECs 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 |

### Article 2.2 Setup of programme

|                                                                                                                                                                                                                                                      |                                    |
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| 1. All Bachelor's programmes consist of at least the following components:<br>a. Academic core or academic development of at least 24 ECs<br>b. Major/compulsory components of at least 90 ECs<br>c. Elective components of study of at least 30 ECs | Ordinance CvB,<br>see Appendix III |
| 2. In the first year of the programme, the programme will offer at least fourteen contact hours a week.                                                                                                                                              | Ordinance CvB,<br>see Appendix III |
| 3. In the second and third years of the programme, the programme will offer at least twelve contact hours a week.                                                                                                                                    | Ordinance CvB,<br>see Appendix III |
| 4. Internationalisation is included as part of the Bachelor's programme and reflected in one or more units of education.                                                                                                                             | Ordinance CvB,<br>see Appendix III |

## 3. Assessment and examination

### Article 3.1 Signing up for education and examinations

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

### Article 3.2 Type of examination

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| 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,<br>Approval FGV<br>(7.13 l) |
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### Article 3.3 Oral examinations

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |
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| 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;<br>approval FGV<br>(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 can be made. This audio recording is retained by the university for the retention period applicable for examinations. | Advice OLC;<br>approval FGV<br>(7.13 l and n) |

### Article 3.4 Determining and announcing results

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| 1. The examiner determines the result of a written examination within fifteen working days. However, the marking deadline for theses and final assignments 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,<br>see Appendix III      |
| 2. The examiner determines the result (i.e. mark) of an oral examination as soon as possible, but at the latest within one working day after the examination has finished and informs the student accordingly. The third clause of the first paragraph applies.                                                                                                                                                                   | Advice OLC;<br>approval FGV<br>(7.13 o) |

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| 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;<br>approval FGV<br>(7.13 o) |
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### Article 3.5 Examination opportunities

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |
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| 1. a. Per academic year, two opportunities to take examinations will be offered for each unit of education.<br>b. By way of exception to a., the options for retaking practical exercises, work placements and theses are detailed in the relevant work placement manual, course manual or teaching regulations.                                                                                                                                                                                                                                                                                                                                                                                                                                        | Ordinance CvB,<br>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,<br>see Appendix III      |
| 3. The resit for an (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;<br>approval FGV<br>(7.13 j) |
| 4. The Examination Board may allow a student an extra opportunity to sit an examination if that student:<br>a) lacks only those credits to qualify for their degree; and<br>b) has failed the examination during all the previously offered attempts unless participation in an examination was not possible for compelling reasons.<br>The extra opportunity can only be offered if it concerns a written examination, a paper or a take home examination. This provision excludes the practical exercises and the 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. | Ordinance CvB,<br>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,<br>approval FGV<br>(7.13 j) |

### Article 3.6 Marks

|                                                                                                                                                                                                                                                              |                                    |
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| 1. (Partial) grades are given on a scale from 1 to 10 with no more than one figure after the decimal point.                                                                                                                                                  | Ordinance CvB,<br>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,<br>see Appendix III |
| 3. To pass a given course or unit, a final mark of 6 or higher is required.                                                                                                                                                                                  | Ordinance CvB,<br>see Appendix III |
| 4. The Examination Board can allow the use of symbols rather than numbers, for example: s(atisfactory), g(ood), u(n)s(at)is(factory), etc. In case a student does not take part in any examination, the examiner will register the mark 'ns' (c.q. no show). | Ordinance CvB,<br>see Appendix III |

### Article 3.7 Exemption

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| 1. At the written request of the student, the Examination Board may exempt the student from taking one or more examination components, if they:<br>a. have either passed a unit of education at a university of applied sciences (HBO) or research university (WO) that is equivalent in terms of content and level; or | Advice OLC;<br>approval FGV<br>(7.13 r) |
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| b. have demonstrated through their work and/or professional experience that they have sufficient knowledge and skills with regard to the relevant unit of education.                                                                                                                                                                                                                                                                              |                                             |
| 2. The Bachelor's thesis is excluded from the possibility of exemption.                                                                                                                                                                                                                                                                                                                                                                           | Advice OLC;<br>approval FGV<br>(9.38 sub b) |
| 3. a. A maximum of 60 EC of the curriculum can be accumulated through granted exemptions for one three-year bachelor's programme. The substituting courses are not included.<br>b. This regulation does not apply if a student is (simultaneously) enrolled in multiple programmes, which lead to multiple degrees, where courses may be part of both programmes. In such a case, the Examination Board may deviate from the regulations under a. | Advice OLC;<br>approval FGV<br>(9.38 sub b) |

#### Article 3.8 Validity period for results

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| 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 education concerned, as stipulated for the relevant unit of education 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;<br>approval FGV<br>(9.38 sub b) |

#### Article 3.9 Right of inspection and post-examination discussion

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| 1. Within twenty working days after the announcement of the results of a written examination, but at least ten working days before the resit opportunity for that examination, the student can submit a request to review their graded examination. | Advice OLC;<br>approval FGV<br>(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;<br>approval FGV<br>(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;<br>approval FGV<br>(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;<br>approval FGV<br>(7.13 p and q) |

### 4. Honours programme

#### Article 4.1 Honours programme

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| 1. The Faculty of Science offers an honours programme for students who meet the admission requirements and who started their bachelor programme before 2025. The honours programme consists of units of education taken in addition to the standard curriculum.                                                         | Ordinance CvB,<br>see Appendix III |
| 2. The honours programme comprises 30 EC, a minimum of 12 EC of which consist of faculty or programme honours components and a minimum of another 12 EC consist of interfaculty honours components. The choices available to the student will be published on the website ( <a href="http://www.vu.nl">www.vu.nl</a> ). | Ordinance CvB,<br>see Appendix III |

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| 3. For admission to the honours programme, the student must have secured all credits from the first year by no later than 31 August of the relevant year, and have been awarded a weighted average mark of at least a 7.5.                                                                                                                                                                                                                           | Ordinance CvB, see Appendix III |
| 4. Students who have met the requirements of the regular Bachelor's programme within the nominal duration of study, who have achieved a weighted average of at least 7.5 for all components of the Bachelor's programme (excluding the honours components) and who have also met the requirements of the honours programme will receive a Bachelor diploma with a transcript indicating that they have successfully completed the honours programme. | Ordinance CvB, see Appendix III |

## 5. Academic student counselling, recommendation on continuation of studies and study progress

### Article 5.1 Administration of study progress and academic student counselling

|                                                                                                                                                                                                                                                                                                                          |                                   |
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| 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 provided by <ol style="list-style-type: none"> <li>The Student Counsellor</li> <li>Student psychologists</li> <li>Faculty academic advisers</li> </ol>                                                               | Advice OLC; approval FGV (7.13 u) |

### Article 5.2 Recommendation on continuation of studies

|                                                                                                                                                                                                                                                                                                                                                                            |                                 |
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| 1. The faculty board will issue every student on a full-time Bachelor's programme with a recommendation on continuation of their studies, at the end of the first year of study. The recommendation on continuation of studies is issued on behalf of the faculty board by the faculty BSA committee.                                                                      | Ordinance CvB, see Appendix III |
| 2. Prior to 1 February, the student will receive an overview of their results.                                                                                                                                                                                                                                                                                             | Ordinance CvB, see Appendix III |
| 3. Students who have not completed enough credits, will receive a warning with the overview stating that if insufficient improvement in their performance is forthcoming by the end of the academic year, they will receive a negative advice regarding the continuation of their studies. These students will also be advised to plan a meeting with an academic adviser. | Advice OLC (7.13 f)             |
| 4. If the recommendation at the end of the academic year is negative, the provisions of Article 5.3 apply.                                                                                                                                                                                                                                                                 | Advice OLC (7.13 f)             |
| 5. A recommendation will not be issued if the student terminates their enrolment before 1 February of their first academic year.                                                                                                                                                                                                                                           | Advice OLC (7.13 f)             |

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |
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| 1. The recommendation issued at the end of the academic year will contain a binding rejection if the student has not achieved the standard required for a positive recommendation on continuation of studies. A recommendation on continuation of studies will not be issued if the student demonstrates that they have not been able to meet the standard due to personal circumstances as described in Article 2.1 of the Higher Education and Research (Implementation) Act (Uitvoeringsbesluit WHW). The standard is defined in Section B. | Ordinance CvB, see Appendix III |
| 2. As soon as possible after the last resits of the second semester of the first year, a student who has not met the standard will be informed that the faculty board                                                                                                                                                                                                                                                                                                                                                                          | Ordinance CvB, see Appendix III |

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| intends to issue them 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 students if they demonstrate that they once again did not meet the standard as a consequence of personal circumstances. |                                 |
| 3. Along with the information referred to in the previous paragraph, students will also be informed of the possibility of being heard by the BSA committee and of how they can apply for such a hearing.                                                                                                                                                                                                                                                                                                                  | Ordinance CvB, see Appendix III |
| 4. As soon as possible (no more than ten working days) after the end of the hearing and after the BSA committee has issued its advice, the faculty board will issue the definitive recommendation on continuation of studies.                                                                                                                                                                                                                                                                                             | Ordinance CvB, see Appendix III |
| 5. Students may lodge an appeal against a decision on a binding negative recommendation on continuation of studies with the Examination Appeals Board of Vrije Universiteit Amsterdam within six weeks of the day of the decision's announcement.                                                                                                                                                                                                                                                                         | Ordinance CvB, see Appendix III |
| 6. Students who receive a binding negative recommendation on continuation of studies may therefore not enrol in the same Bachelor's programme or Bachelor's programme(s) with the same first year as defined in Article 14.1.2 of section B for a period of three years.                                                                                                                                                                                                                                                  | Ordinance CvB, see Appendix III |

#### Article 5.4 Personal circumstances

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| 1. The faculty board will not include a rejection in the binding recommendation on the continuation of studies in the case of personal circumstances, as described in Article 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.                                                                                                                                                                                                                                                | Advice OLC (7.13 f) |
| 2. If a circumstance, as described in Article 2.1 of the Higher Education and Research (Implementation) Act, should occur, students must notify the academic adviser office as soon as possible, providing details of: <ol style="list-style-type: none"> <li>the period in which the circumstance occurs or occurred;</li> <li>a description of the circumstance and its seriousness;</li> <li>the extent to which they cannot or could not participate in instruction/classes or an examination.</li> </ol> It is students' responsibility to submit documentary evidence to substantiate their report. | Advice OLC (7.13 f) |
| 3. If required, the academic adviser may advise the BSA committee on the extent to which personal circumstances have influenced the student's study progress.                                                                                                                                                                                                                                                                                                                                                                                                                                             | Advice OLC (7.13 f) |

#### Article 5.5 Facilities for students with a disability or impairment

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| 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 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                                                                                                                                                                                                                                           | Advice OLC; approval FGV (7.13 m) |

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| single (one time) request suffices.                                                                                                                                                                                                                                                                                                                                                                                          |                                         |
| 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;<br>approval FGV<br>(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 decide on requests for facilities with regard to examinations.                                                                                                                                                                                 | Advice OLC;<br>approval FGV<br>(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;<br>approval FGV<br>(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;<br>approval FGV<br>(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;<br>approval FGV<br>(7.13 m) |
| 8. The decision as referred to in paragraph 5 may specify a limited validity of the facilities granted.                                                                                                                                                                                                                                                                                                                      | Advice OLC;<br>approval FGV<br>(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 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;<br>approval FGV<br>(9.38 sub b) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|

## Section B1: Programme-specific section

### 7. General programme information and characteristics

#### Article 7.1 Study programme information

|                                                                                       |                                         |
|---------------------------------------------------------------------------------------|-----------------------------------------|
| 1. The programme Computer Science CROHO number 50426 is offered on a full-time basis. | Advice OLC;<br>approval FGV<br>(7.13 u) |
|---------------------------------------------------------------------------------------|-----------------------------------------|

#### 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;<br>approval FGV<br>(7.13 x) |
| 2. The modes of assessment used per unit of education are specified in the study guide. | Advice OLC;<br>approval FGV<br>(7.13 l) |

#### Article 7.3 Academic student counselling

|                                                                                                                                                                                       |                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1. The programme offers the following counselling in addition to the student counselling mentioned in Section A:<br>- There is an Academic Advisor for the bachelor Computer Science. | Advice OLC;<br>approval FGV<br>(7.13 u) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|

### 8. Further admission requirements

#### Article 8.1 Additional previous education requirements

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 1. Applicants who meet the previous education requirements as stipulated in the current 'Regulations on Registrations and Admissions in Higher Education' ('Regeling Aanmelding en Toelating Hoger Onderwijs' (RATHO, OCW)) will gain access to the programme.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Legal provision                    |
| 2. Applicants who do not meet the previous education requirements as stipulated in 'Regulations on Registrations and Admissions in Higher Education' currently in force may still be admitted to the programme by successfully completing one or more of the following exams:<br>- Mathematics B equivalent to final-examination Dutch pre-university secondary school programmes (VWO)                                                                                                                                                                                                                                                                                                                                                                                       | Exception in<br>WHW: advice OLC    |
| 3. Not applicable (concerns Dutch language programmes)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Ordinance CvB,<br>see Appendix III |
| 4. Sufficient command of the English language can be evidenced by successful completion of:<br>- IELTS Academic: an overall score of at least 6.5;<br>IELTS test has a validity of 2 years.<br>- TOEFL iBT: an overall score of at least 92;<br>TOEFL test has a validity of 2 years.<br>- Cambridge Certificate of Proficiency in English (CPE) or Cambridge Certificate of Advanced English (CAE) with an overall score of at least 180.<br>Cambridge tests are valid indefinitely.<br><br>Sufficient command of the English language can also be evidenced by successful completion of:<br>- Secondary education state exam: VWO English language and literature<br>- A VWO diploma or equivalent diploma in which the course of English of a comparable level is required | Ordinance CvB,<br>see Appendix III |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <p>Applicants who have completed one of the following meet the English language requirement and therefore are exempted from taking an English language test:</p> <ul style="list-style-type: none"> <li>- a secondary education or higher education degree fully taught in English has been completed in Australia, Canada (except Quebec province), Ireland, New Zealand, Singapore, South Africa, the United Kingdom or the United States of America;</li> <li>- a bachelor's or master's degree from an NVAO-accredited university program in the Netherlands;</li> <li>- a bachelor's or master's degree fully taught in English in a member state of the European Union/ European Economic Area.</li> </ul> |                                                      |
| <p>5. Anyone who does not meet the requirements for previous education but who has passed the propaedeutic examination of a higher professional education programme may still be admitted to the programme by demonstrating that their level of mathematics is comparable to Mathematics B as taught in Dutch preuniversity secondary school programmes (VWO).</p>                                                                                                                                                                                                                                                                                                                                               | <p>Advice OLC;<br/>approval FGV<br/>(9.38 sub b)</p> |

### Article 8.2 Entrance examination

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <p>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, as stipulated in Article 7.29 of the WHW. The entrance examination concerns the following subjects at final pre-university examination level:</p> <ul style="list-style-type: none"> <li>- Mathematics B equivalent to final-examination university entry level (VWO) and</li> <li>- A command of English equivalent to final-examination university entry level (VWO)</li> </ul> <p>In addition, applicants will have to participate in an evaluation meeting conducted by two staff members.</p> | <p>Advice OLC;<br/>approval FGV<br/>(9.38 sub b)</p> |
| <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>Advice OLC;<br/>approval FGV<br/>(9.38 sub b)</p> |

## 9. Examinations and results

### Article 9.1 Sequence of examinations

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| <p>1. Students may participate in the units of education below only if they have passed the examination or examinations for the following units of education:</p> <ul style="list-style-type: none"> <li>- Object-Oriented and Functional Programming (XB_0019) after passing Computer Programming (XB_40011) or Systems Programming Project (XB_0123) (formerly known as Computer Programming Project (X_400556)).</li> <li>- Operating Systems (X_405067) after passing Computer Programming (XB_40011) or Systems Programming Project (XB_0123) (formerly known as Computer Programming Project (X_400556)).</li> </ul> <p>Students will only be admitted to the final bachelor project if they meet the following condition:</p> <ul style="list-style-type: none"> <li>- They obtained a minimum of 120 EC from BSc Computer Science courses.</li> </ul> | <p>Advice OLC;<br/>approval FGV<br/>(7.13 h, 7.13 s/t)</p> |
| <p>2. Students may be admitted to the following specialisations only if they have passed the examinations of the following units of education: not applicable.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Advice OLC;<br/>approval FGV<br/>(7.13 h, 7.13 s/t)</p> |

**Article 9.2 Validity period for results**

|    |                                                                                                                                                                                                                                                                                                                                                        |                                         |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1. | The validity period of the examinations and exemptions from examinations below is limited as follows: not applicable.                                                                                                                                                                                                                                  | Advice OLC;<br>approval FGV<br>(7.13 k) |
| 2. | A student may request the Examination Board to extend the validity of an exam. If the student's knowledge is demonstrably outdated, or if the student's skills and understanding 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 7.51, paragraph 1.                                      | Legal provision                         |

## Section B2: Programme-specific section – content of programme

### 10. Programme objectives, tracks/specialisations, exit qualifications and language

#### Article 10.1 Programme objective

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <p>The programme aims to:</p> <ul style="list-style-type: none"> <li>- Provide students with theoretical and practical knowledge and skills in the field of computer science, including programming, computer systems, software design, algorithms, formal methods, logic, mathematics, and the broader scientific and historical context of computer science;</li> <li>- Prepare students for either joining a Master's programme in computer science or a related field, or entering the labor market.</li> </ul> | <p>Advice OLC;<br/>(7.13 a)</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|

#### Article 10.2 Tracks and/or specialisations

|                                                                                      |                                   |
|--------------------------------------------------------------------------------------|-----------------------------------|
| <p>The programme has the following tracks and/or specialisations: not applicable</p> | <p>Approval OLC;<br/>(7.13 b)</p> |
|--------------------------------------------------------------------------------------|-----------------------------------|

#### Article 10.3 Exit qualifications

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <p>1. At all events, a graduate of the study programme will have knowledge and understanding in the field of Computer Science.</p> <p>In particular, a graduate of the study programme will:</p> <ol style="list-style-type: none"> <li>1. Have thorough theoretical and practical knowledge of computer science which will either enable the student to join a Master's programme in the field of computer science or to enter the labor market. This knowledge covers the areas of formal methods, algorithms, logic and mathematics, programming, computer systems, and software design;</li> <li>2. Have become acquainted with research and development in the field of computer science at an academic level and with the associated scientific skills;</li> <li>3. Have acquired practical skills that are relevant to the field of computer science and be capable of applying them in specific and common professional situations. These include using tools to model, assemble, deploy, and evaluate computer systems;</li> <li>4. Be aware of the role of computer science in society, including the related ethical issues, as well as the development of the field of computer science and the nature of this academic discipline, and be able to use this awareness when reflecting on his or her own activities and thought processes;</li> <li>5. Be familiar with empirical aspects of computer science, especially the evaluation of various types of systems, both in qualitative and quantitative terms;</li> <li>6. Have demonstrated a clear analytical and problem-solving ability and be capable of taking a project-based approach to solve challenging problems, including participation in a multidisciplinary team, maintaining an open attitude about the exploratory development of complex systems;</li> <li>7. Be able to communicate professionally and at an academic level, including the formulation of objectives, the selection of appropriate resources (technology), and the definition of projects and research plans;</li> <li>8. Be capable of presenting results clearly and succinctly, both orally and in writing (i.e., reports for professional use or of an academic nature).</li> </ol> | <p>Approval OLC<br/>(7.13 )</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|

|                                                                                                                                                                                           |                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 2. Without prejudice to the provisions of paragraph 1, a graduate of the track or specialisation ... will have the following knowledge and understanding in the field of: not applicable. | Approval OLC<br>(7.13 b) |
| 3. Language proficiency may be taken into account in the assessment of examinations.                                                                                                      | Approval OLC<br>(7.13 c) |

#### Article 10.4 Language of instruction and language test

|                                                                                                                                                                                                                                                                               |                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 1. The language of instruction is English.                                                                                                                                                                                                                                    | Approval OLC<br>(9.18)             |
| 2. The 'Gedragsscode vreemde taal' (Code of conduct for foreign languages) applies.                                                                                                                                                                                           | Ordinance CvB,<br>see Appendix III |
| 3. At the start of the first year of study every student must complete a diagnostic language test in the language of instruction of the programme.                                                                                                                            | Advice OLC<br>(7.13 a)             |
| 4. Any student who does not achieve a pass on the language test must take the 'Refresher Course' organised by the Language Desk (Taalloket).                                                                                                                                  | Approval OLC<br>(7.13 c)           |
| 5. The language test is part of the following unit of education: not applicable. A mark can only be determined if the student has successfully completed the requirements of the unit of education, including a pass in the language test or completing the Refresher Course. | Approval OLC<br>(7.13 c)           |

### 11. Curriculum structure

#### Article 11.1 Academic core

|                                                                                                                                |                                    |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 1. The academic development consists of:<br>(1) Academic development<br>(2) Methods & techniques<br>(3) Philosophical training | Ordinance CvB,<br>see Appendix III |
| (4) Philosophy of Science and/or History of Science<br>(5) Academic English]                                                   | Advice OLC;<br>(7.13 a)            |

#### Article 11.2 Major

|                                                                                                                    |                                    |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------|
| 1. The major comprises a package of compulsory and possibly optional units of education.                           | Ordinance CvB,<br>see Appendix III |
| 2. In addition, units of education are categorised as introductory (100), in-depth (200) and advanced (300) level. | Ordinance CvB,<br>see Appendix III |

#### Article 11.3 Compulsory units of education of the major

*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. |             |          |       | Advice OLC;<br>(7.13 a) |
|-----------------------------------------------------------------------------|-------------|----------|-------|-------------------------|
| Name of unit of education                                                   | course code | nr of EC | level |                         |
| <b>Year 1</b>                                                               |             |          |       |                         |
| Computer Networks                                                           | X_400487    | 6        | 100   |                         |
| Computer Organization                                                       | XB_40009    | 6        | 100   |                         |
| Computer Programming                                                        | XB_40011    | 6        | 100   |                         |
| Data Structures and Algorithms I                                            | XB_0151     | 6        | 100   |                         |
| Discrete Math and Calculus                                                  | XB_0122     | 6        | 100   |                         |
| English Language Test                                                       | VU_ELT      | 0        | 000   |                         |
| Logic and Sets for CS                                                       | XB_0086     | 6        | 100   |                         |

|                                            |          |    |         |
|--------------------------------------------|----------|----|---------|
| Requirements Engineering                   | XB_0032  | 6  | 200     |
| Smart Systems Engineering                  | XB_0154  | 6  | 100     |
| Systems Programming Project                | XB_0123  | 6  | 200     |
| Web Technology                             | X_400488 | 6  | 100     |
| <b>Year 2</b>                              |          |    |         |
| Databases                                  | X_401008 | 6  | 200     |
| Data Structures and Algorithms II          | XB_0152  | 6  | 200     |
| History of Science for CS                  | XB_0076  | 3  | 200     |
| Linear Algebra                             | X_400649 | 6  | 200     |
| Object-Oriented and Functional Programming | XB_0019  | 6  | 200     |
| Operating Systems                          | X_405067 | 6  | 200     |
| Software Design                            | XB_40007 | 6  | 200     |
| Statistical Methods                        | X_401020 | 6  | 200     |
| <i>B CS year 2 constrained choice</i>      |          |    |         |
| Academic Writing for CS                    | XB_0075  | 3  | 100     |
| Information Management for CS              | XB_0087  | 6  | 100     |
| Logic and modelling                        | X_401015 | 6  | 200     |
| Professional Development                   | XB_0103  | 3  | 100     |
| Human-Computer Interaction for CS          | XB_0153  | 6  | 200     |
| Security and Safety Engineering            | XB_0088  | 6  | 200     |
| Software Engineering Processes             | XB_0089  | 6  | 200     |
| <b>Year 3</b>                              |          |    |         |
| Automata and Complexity                    | X_401049 | 6  | 300     |
| Bachelor Project Computer Science          | XB_40001 | 15 | 300     |
| Machine Learning                           | X_400154 | 6  | 200     |
| Philosophy and Ethics                      | X_400433 | 3  | 200     |
| Minor                                      | -        | 30 | 100-300 |

#### Article 11.4 Elective units of education of the major

Not applicable

#### Article 11.5 Practical exercise

Not applicable

#### Article 11.6 Participation in practical exercises and tutorials

|                                                                                                                                                                                     |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 1. In the case of practical exercises, there may be attendance requirements. For details on attendance requirements, please refer to the study guide of the relevant unit of study. | Approval OLC (7.13 d) |
| 2. In the case of tutorials, there may be attendance requirements. For details on attendance requirements, please refer to the study guide 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) |

## 12. Electives

### Article 12.1 Electives

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 1. The first semester of the third year of the curriculum comprises at least 30 EC of elective units of education at an academic level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Ordinance CvB, see Appendix III |
| 2. For this elective period, the student can take: <ol style="list-style-type: none"> <li>a minor (as a coherent package of related units of education)</li> <li>individual choice of units of education at the faculty or elsewhere, of which at least two (12 EC) must be at level 300 and maximum 1 (6 EC) can be at level 100.</li> <li>units of education at a university abroad. For this, the same requirements apply as indicated above. In addition, at a university abroad, students can include maximum one unit of education (6 EC) at Master's level (level 400 or higher) into their programme. The unit of education concerned can then no longer be included in the student's Master's programme.</li> </ol> | Ordinance CvB, see Appendix III |
| 3. Prior consent must be obtained from the Examination Board.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Ordinance CvB, see Appendix III |

### 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 III |
| 2. The student can take one of the following minors without prior consent from the Examination Board: <ul style="list-style-type: none"> <li>- X_MINBSB Minor Bioinformatics and Systems Biology;</li> <li>- X_MINDP Minor Deep programming;</li> <li>- XB3_Mi-BA_K3 Minor Business Analytics and Data Science for Computer Science<sup>1</sup></li> <li>- OMI_INF Educatieve Minor Informatica.</li> </ul> | Advice OLC; (7.13a)             |

## 13. Honours programme

### Article 13.1 Honours components

The components of the honours programme offered by the faculty or the programme are:

| Name of unit of education                        | course code | nr of EC | level | Advice OLC; (7.13 a) |
|--------------------------------------------------|-------------|----------|-------|----------------------|
| AI/CS/IS Honours Components                      |             |          |       |                      |
| Honours Research Project 1                       | X_HP003     | 6        | 400   |                      |
| Honours Research Project 2                       | X_HP004     | 6        | 400   |                      |
| Honours Research project 3                       | X_HP006     | 6        | 400   |                      |
| Honours Research project 4                       | X_HP009     | 6        | 400   |                      |
| Honours Project Research Community and Practice  | X_HP010     | 6        | 400   |                      |
| Science Faculty Honours Courses                  |             |          |       |                      |
| Five O’Clock Neurosciences*                      | A_HP003     | 6        | 400   |                      |
| Project Science and Tech-based Entrepreneurship* | A_HP007     | 6        | 400   |                      |
| Climate Leadership*                              | A_HP008     | 6        | 400   |                      |

<sup>1</sup> Students enrolled in the BSc Computer Science must follow the minor curriculum specifically designed for CS students, titled "Minor Business Analytics & Data Science for Computer Science."

|                                      |         |   |     |  |
|--------------------------------------|---------|---|-----|--|
| Impact of Algorithms on Human Lives* | X_HP015 | 6 | 400 |  |
|--------------------------------------|---------|---|-----|--|

\*NB: These Faculty Honours courses are offered every other year. In academic year 2025-2026, A\_HP007 and X\_HP015 are offered. In academic year 2026-2027, A\_HP003 and A\_HP008 are offered.

#### 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:<br>a. at least 42 EC of first year's 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 enrol in the following Bachelor's programme(s) offered by the Faculty during the subsequent three academic years:<br>- Computer Science<br>- Artificial Intelligence | Advice OLC (7.13 f) |
| 3. Not applicable                                                                                                                                                                                                                                                | Advice OLC (7.13 f) |

#### 15. Evaluation and transitional provisions

##### Article 15.1 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) |
|------------------------------------------------------------------------------------------------------------------------|------------------------|

##### 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 previous set of Teaching and Examination Regulations:<br><br><ul style="list-style-type: none"> <li>- Data Structures and Alg for CS XB_0091 has been replaced by the course Data Structures and Algorithms I XB_0151 in 2025-2026. Students who did not successfully complete Data Structures and Alg for CS XB_0091 should enroll in Structures and Algorithms I XB_0151 in 2025-2026.</li> <li>- Pervasive Computing XB_40008 has been replaced by the course Smart Systems Engineering XB_0154 in 2025-2026. Students who did not successfully complete Pervasive Computing XB_40008 should enroll in Smart Systems Engineering XB_0154.</li> <li>- Networks and Graphs X_401010 has been replaced by the course Data Structure and Algorithms II XB_0152 in 2025-2026. Students who did not successfully complete Networks and Graphs X_401010 should enroll in Data Structure and Algorithms II XB_0152.</li> <li>- The constrained choice Human-Computer Interaction X_400432 has been replaced by the course Human-Computer Interaction for CS XB_0153. Students who did not successfully complete Human-Computer Interaction X_400432 can enroll in Human-Computer Interaction for CS XB_0153 or Software Engineering Processes XB_0089 or Security and Safety Engineering XB_0088.</li> <li>- Advanced Network Programming XB_0048 has been replaced by the course Advanced Systems Programming XB_0150. Students who did not</li> </ul> | Advice OLC (7.13 a) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>successfully complete Advanced Network Programming XB_0048, and want to complete the minor Deep Programming, should enroll in Advanced Systems Programming XB_0150</p> <ul style="list-style-type: none"><li>- From academic year 2025-2026 the minor Information Sciences X_MINIS is no longer offered.</li></ul> <p>A comprehensive overview of the curriculum and the changes that have been made in the past four academic years is available in appendix V, including a summary of all transitional provisions.</p> |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

Approval of the Programme Committee of the curriculum structure (submitted via UAS), on 6/12/2024.

Advice and/or approval by the Programme Committee (with the exception of the curriculum structure), on 22/05/2025.

Approved by the Faculty Joint Assembly, on 25/07/2025.

Adopted by the board of the Faculty of Science on 11/08/2025.

## Appendix I

### Overview of articles that must be included in the Teaching and Examination Regulations:

#### Section A: Faculty section

|                                                                                                      |                              |
|------------------------------------------------------------------------------------------------------|------------------------------|
| <b>2. Study programme structure</b>                                                                  |                              |
| Article 2.1 Structure of academic year and units of education                                        | 7.13 paragraph 2 sub e       |
| Article 2.2 Setup of the programme                                                                   | 7.13 paragraph 2 sub a, e, x |
| <b>3. Assessment and examination</b>                                                                 |                              |
| 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    |
| <b>4. Honours programme</b>                                                                          |                              |
| Article 4.1 Honours programme                                                                        | 7.13 paragraph 2 sub v       |
| <b>5. Academic student counselling, recommendation on continuation of studies and study progress</b> |                              |
| Article 5.1 Administration of study progress and academic student counselling                        | 7.13 paragraph 2 sub u       |
| Article 5.2 Recommendation on 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 section – general provisions

|                                                             |                              |
|-------------------------------------------------------------|------------------------------|
| <b>7. General programme information and characteristics</b> |                              |
| 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    |
| [Keuze:] Article 7.3 Academic student counselling           | 7.13 paragraph 2 sub u       |
| <b>8. Further admission requirements</b>                    |                              |
| Article 8.1 Additional previous education requirements      | 7.25, paragraph 4            |
| Article 8.2 Entrance examination                            | 7.29, paragraph 2            |
| <b>9. Examinations and results</b>                          |                              |
| Article 9.1 Sequence of examinations                        | 7.13 paragraph 2 sub h, s, t |
| [Keuze 1:] Article 9.2 Validity period for results          | 7.13 paragraph 2 sub k       |
| [Of keuze 2:] Article 9.2 Validity period for results       | 7.13 paragraph 2 sub k       |

#### Section B2: Programme-specific section – content of programme

|                                                                                 |                                        |
|---------------------------------------------------------------------------------|----------------------------------------|
| <b>10. Programme objectives, tracks/specialisations and exit qualifications</b> |                                        |
| Article 10.1 Programme objective                                                | 7.13 paragraph 2 sub a                 |
| Article 10.2 Tracks and/or specialisations                                      | 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 a, c |
| <b>11. Curriculum structure</b>                                         |                           |
| Article 11.1 Academic core [ <i>keuze</i> : academic development]       | 7.13 paragraph 2 sub a    |
| Article 11.2 Major                                                      | 7.13 paragraph 2 sub a    |
| Article 11.3 Compulsory units of education of the major                 | 7.13 paragraph 2 sub a    |
| [ <i>Keuze</i> :] Article 11.4 Elective units of education of the major | 7.13 paragraph 2 sub a    |
| [ <i>Keuze</i> :] Article 11.5 Practical exercise                       | 7.13 paragraph 2 sub d    |
| Article 11.6 Participation in practical exercises and tutorials         | 7.13 paragraph 2 sub d    |
| <b>12. Electives</b>                                                    |                           |
| Article 12.1 Electives                                                  | 7.13 paragraph 2 sub a    |
| Article 12.2 Minors                                                     | 7.13 paragraph 2 sub a    |
| <b>13. Honours programme</b>                                            |                           |
| Article 13.1 Honours components                                         | 7.13 paragraph 2 sub a    |
| <b>14. Binding recommendation on continuation of studies (BSA)</b>      |                           |
| Article 14.1 Binding (negative) recommendation                          | 7.13 paragraph 2 sub f    |
| <b>15. Evaluation and transitional provisions</b>                       |                           |
| Article 15.1 Evaluation of the programme                                | 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)

| 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 the examinations and the 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  
 OpIC: Programme Committee  
 I: right of approval  
 A: right of advice

### Appendix III

#### Ordinances of VU Executive Board (CvB) and Guidelines in the model Bachelor's TER

| Section A, article:  | Concerns:                                                                                                                     | CvB ordinance/guideline                                                                                                                                                                     |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1.1, 2.1.2         | Year planning two semesters 8-8-4 (uniform year calendar VU-UvA)                                                              | 29-9-2008 (period 2009-2015)<br>22-05-2014 (period 2016-2025)                                                                                                                               |
| 2.1.3, 2.1.4         | Units of education                                                                                                            | Bachelor's guideline, included in the model TER, revised on 2 July 2019                                                                                                                     |
| 2.2.1                | Setup of the programme                                                                                                        | Bachelor's guideline, included in the model TER, revised on 2 July 2019                                                                                                                     |
| 2.2.2, 2.2.3         | Planning academic year (number of contact hours)                                                                              | Bachelor's guideline, included in the model TER, revised on 2 July 2019                                                                                                                     |
| 2.2.4                | Internationalisation                                                                                                          | CvB ordinance, following the advice from the Internationalisation Board and included in the IP                                                                                              |
| 3.1.1, 3.1.2         | Signing up for education and examinations                                                                                     | CvB ordinance 17-11-2020, prior consent of USC.                                                                                                                                             |
| 3.4.1                | Determination and publication of the results<br>(1) Grading deadline exams ten working days<br>(2) Theses twenty working days | (1) Bachelor's guideline, included in the model TER, revised on 2 July 2019<br>(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 guideline, included in the 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 TER 16-17 following a request from E&R committee and adopted by CvB on 28-10-2015                                                                                 |
| 3.6                  | Grades                                                                                                                        | CvB ordinance 30-09-2010, prior consent USR. As a result of harmonisation 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<br>Revised 'Regeling VU-UvA Honoursprogramma' on 27-11-2018                                                                                          |
| 5.2.1                | Recommendation on continuation of studies (BSA) at end of first year                                                          | BSA kaderregeling ordinance CvB 18-01-2010<br>(1) BSA kaderregeling ordinance CvB 27-10-2015, consent USR on OER 2016-2017<br>(2) Framework regulation revised on 12-09-2017                |
| 5.2.2                | Formal warning before February 1st                                                                                            | BSA kaderregeling ordinance CvB 18-01-2010<br>(1) BSA kaderregeling ordinance CvB 27-10-2015, consent USR on OER 2016-2017<br>(2) Framework regulation revised on 12-09-2017                |
| 5.3                  | Binding (negative) recommendation on continuation of studies                                                                  | BSA kaderregeling ordinance CvB 18-01-2010<br>(1) BSA kaderregeling ordinance CvB 27-10-2015, consent USR on OER 2016-2017<br>(2) Framework regulation revised on 12-09-2017                |
| Section B1, article: | Concerns:                                                                                                                     | CvB ordinance/guideline                                                                                                                                                                     |
| 8.1.3                | RATHO                                                                                                                         | RATHO <a href="https://wetten.nl">wetten.nl</a> - <a href="https://wetten.nl">Regulation - Regulation for registration in and admission to higher education - BWBR0035059 (overheid.nl)</a> |

| Section B2, article | Concerns:                                                          | CvB ordinance/guideline                                                                                                                                                                 |
|---------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.2              | 'Gedragscode vreemde taal' (Code of conduct for foreign languages) | CvB ordinance 20-07-2009                                                                                                                                                                |
| 11.1.1              | Academic core                                                      | Bachelor's guideline, included in the model TER, revised on 2 July 2019. 6 June 2017 (Possibly 'development' instead of 'core' due to harmonisation with UvA. CvB ordinance 24-02-2014. |
| 11.2                | Major                                                              | Bachelor's guideline, included in the model TER, revised on 2 July 2019                                                                                                                 |
| 12.1                | Elective period (first semester, third year)                       | Bachelor's guideline, included in the model TER, revised on 2 July 2019                                                                                                                 |
| 12.2                | Participation in university minor                                  | CvB ordinance Profileringsruimte 22-11-2010                                                                                                                                             |

## Appendix IV

### Article 2.1 of the 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.

**Appendix V Bachelor Computer Science Curriculum Overview 2022-2025**

|                                                                |          |
|----------------------------------------------------------------|----------|
| <b>Bachelor Computer Science Curriculum Overview 2022-2025</b> | <b>1</b> |
| Curriculum 2022-2023                                           | 2        |
| Main changes:                                                  | 2        |
| Transitional provisions from TER 2022-2023:                    | 2        |
| Curriculum 2023-2024                                           | 3        |
| Main changes:                                                  | 4        |
| Transitional provisions from TER 2023-2024:                    | 4        |
| Curriculum 2024-2025                                           | 4        |
| Main changes:                                                  | 5        |
| Transitional provisions from TER 2024-2025:                    | 5        |
| Curriculum 2025-2026                                           | 6        |
| Main changes:                                                  | 6        |
| Transitional provisions from TER 2025-2026:                    | 7        |

**Curriculum 2022-2023**

|        | Period 1                                   | Period 2                       | Period 3                  | Period 4                        | Period 5              | Period 6                       |
|--------|--------------------------------------------|--------------------------------|---------------------------|---------------------------------|-----------------------|--------------------------------|
| Year 1 | Computer Programming                       | Logic and Sets                 | Web Technology            | Information Management for CS   | Computer Networks     | Computer Programming Project   |
|        | Introduction to Computer Science           | Data structures and algorithms |                           | Computer Organization           | Networks and Graphs   |                                |
|        | Computational Thinking for Coders          |                                |                           |                                 |                       |                                |
| Year 2 | Object Oriented and Functional Programming | Operating Systems              | History of Science for CS | Software Design                 | Databases             | Software Engineering Processes |
|        | Pervasive Computing                        | Statistical Methods            | Academic Writing for CS   | Human-Computer Interaction      | Linear Algebra        |                                |
|        | Requirements Engineering                   |                                |                           | Security and Safety Engineering | Logic and Modeling    |                                |
| Year 3 |                                            |                                |                           | Automata and Complexity         | Philosophy and Ethics | Bachelor Project               |
|        |                                            |                                |                           | Machine Learning                | Bachelor Project      | Bachelor Project               |

#### Main changes:

- XB\_0091 Data Structures and Alg for CS has been moved from period 1 of year 2 to period 2 of year 1 (it was mandatory in both cases, as constrained choices were first introduced in 2022-2023). In 2022-2023, it has been offered twice: once in period 1 for the students in year 2 and once in period 2 for the students in year 1.
- X\_400432 Human-Computer Interaction was moved from period 6 to period 4 of year 2 and it has become a constrained choice.
- X\_400649 Linear Algebra has been moved from period 4 to period 5 of year 2.

#### Transitional provisions from TER 2022-2023:

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:

- Logic and Sets X\_401090 (offered in period 4 of year 1 in 2021-2022) has been replaced by Logic and Sets for CS XB\_0086 (offered in period 2 of year 1 in 2022-2023). Students who took Logic and Sets X\_401090 in 2021-2022 and still need to obtain a passing grade should enroll in Logic and Sets for CS in 2022-2023.
- Data Structures and Algorithms X\_400614 (offered in period 1 of year 2 in 2021-2022) has been replaced by Data Structures and Algorithms for CS XB\_0091 (offered in period 2 of year 1 in 2022-2023). Data Structures and Algorithms X\_400614 will be offered once more in period 1 in 2022-2023 so the students who started in 2021-2022 can take it at the right time. The students who started in 2022-2023 should take Data Structures and Algorithms for CS XB\_0091 in period 1.
- Pervasive Computing XB\_40008 and Requirements Engineering XB\_0032 (offered in period 2 of year 1 in 2021-2022) have been moved to period 1 of year 2 in 2022-2023. Students who took Pervasive Computing XB\_40008 and Requirements Engineering XB\_0032 in 2021-2022 and still need to obtain a passing grade should enrol in these courses in period 1 in 2022-2023.
- Study and Career for CS X\_400633 (offered in period 5 of year 2 in 2021-2022) has been removed from the curriculum in 2022-2023. It is now offered as an optional module that will not appear on the

student's academic record. Students who did not pass the course in previous years may take the optional module if they wish to do so. Information will be provided on the Canvas Community page of the Bachelor Computer Science.

### Curriculum 2023-2024

|               | Period 1                                   | Period 2                       | Period 3                  | Period 4                        | Period 5                      | Period 6                       |
|---------------|--------------------------------------------|--------------------------------|---------------------------|---------------------------------|-------------------------------|--------------------------------|
| <b>Year 1</b> | Computer Programming                       | Pervasive Computing            | Web Technology            | Computer Organization           | Computer Networks             | Computer Programming Project   |
|               | Introduction to Computer Science           | Data Structures and algorithms |                           | Logic and Sets                  | Linear Algebra                |                                |
|               | Computational Thinking for Coders          |                                |                           |                                 |                               |                                |
| <b>Year 2</b> | Object Oriented and Functional Programming | Operating Systems              | History of Science for CS | Software Design                 | Databases                     | Software Engineering Processes |
|               | Networks and Graphs                        | Statistical Methods            | Academic Writing for CS   | Human-Computer Interaction      | Information Management for CS |                                |
|               | Requirements Engineering                   |                                | Professional Development  | Security and Safety Engineering | Logic and Modeling            |                                |
| <b>Year 3</b> |                                            |                                |                           | Automata and Complexity         | Philosophy and Ethics         | Bachelor Project               |
|               |                                            |                                |                           | Machine Learning                | Bachelor Project              | Bachelor Project               |

#### Main changes:

- X\_400649 Linear Algebra was moved to year 1/period 5 from year 2/period 5 and it has become mandatory. Students who started in 2022-2023 can just follow the curriculum of their second year, as shown in the curriculum overview of 2022-2023. In period 5, they can still choose between Linear Algebra and Logic and Modelling. They cannot take Information Management for CS as a constrained choice in year 2 because they have already taken it as a mandatory course in year 1.
- XB\_40008 Pervasive Computing has been moved from year 2/period 1 to year 1/period 2 and it has become mandatory. In 2023-2024, XB\_40008 Pervasive Computing has been offered twice so that students who started in 2022-2023 were able to choose between Requirements Engineering and Pervasive Computing in period 1 of year 2. For the students who started in 2022-2023, Networks & Graphs is a mandatory course and they took it in period 5 of year 1.
- XB\_0075 Academic Writing for CS became a constrained choice in 2023-2024.

#### Transitional provisions from TER 2023-2024:

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:

- The course XB\_40008 Pervasive Computing will be offered twice in 2023-2024: the students who started in 2023-2024 must take it in the second period of year 1 as a mandatory course. Students who started in previous years can decide to follow XB\_40008 Pervasive Computing in the first period to fulfill the constrained choice in the second period. Notice that students who decide to switch to the

new TER still need to take either XB\_0032 Requirements Engineering or XB\_40008 Pervasive Computing, even if they have already passed X\_401010 Networks and Graphs.

- The students who started in 2022-2023 must choose between these two constrained choice courses in period 5 of year 2: X\_401015 Logic & Modelling and X\_400649 Linear Algebra. X\_400649 Linear Algebra has become a mandatory year-1 course in 2023-2024 but for the students who started in 2022-2023, it counts as a constrained choice in year 2.
- Notice that students who decide to switch to the new TER still have to choose a course from the constrained choice in period 5 even if they have followed XB\_0087 Information Management for CS.

### Curriculum 2024-2025

|               | Period 1                                   | Period 2                       | Period 3                  | Period 4                 | Period 5                      | Period 6                        |
|---------------|--------------------------------------------|--------------------------------|---------------------------|--------------------------|-------------------------------|---------------------------------|
| <b>Year 1</b> | Computer Programming                       | Pervasive Computing            | Web Technology            | Computer Organization    | Computer Networks             | Systems Programming Project     |
|               | Logic and Sets                             | Data Structures and algorithms |                           | Requirements Engineering | Discrete Math and Calculus    |                                 |
| <b>Year 2</b> | Object Oriented and Functional Programming | Operating Systems              | History of Science for CS | Software Design          | Databases                     | Software Engineering Processes  |
|               | Statistical Methods                        | Networks and Graphs            | Academic Writing for CS   | Linear Algebra           | Information Management for CS | Human-Computer Interaction      |
|               |                                            |                                | Professional Development  |                          | Logic and Modeling            | Security and Safety Engineering |
| <b>Year 3</b> |                                            |                                |                           | Automata and Complexity  | Philosophy and Ethics         | Bachelor Project                |
|               |                                            |                                |                           | Machine Learning         | Bachelor Project              |                                 |

### Main changes:

- X\_401087 Introduction to Computer Science (3 EC) and XB\_0046 Computational Thinking for Coders (3 EC) have been removed from the curriculum and replaced by XB\_0122 Discrete Math and Calculus (6 EC). Students who have not passed one or both courses must take XB\_0122 Discrete Math and Calculus instead. In case they passed one of the two courses, those credits can count towards their elective or extracurricular space.
- XB\_0086 Logic and Sets for CS has been moved from period 4 to period 1. Students who started in 2023-2024 and have not passed XB\_0086 Logic and Sets for CS need to do the resit in period 1.
- X\_400649 Linear Algebra has been moved from year 1/period 5 to year 2/period 4. Students who started in 2023-2024 and have not passed X\_400649 Linear Algebra need to do the resit in period 4.
- X\_401010 Networks and Graphs and XB\_0032 Requirements Engineering were constrained choices in 2023-2024 and they both became mandatory for all students in 2024-2025. Students who started in 2023-2024 must take both courses: X\_401010 Networks and Graphs in period 2 of year 2, along with X\_405067 Operating Systems, and XB\_0032 Requirements Engineering in period 4 of year 2, along with Software Design. Notice that XB\_0032 Requirements Engineering has been moved from year 2 to year 1 and that in 2024-2025 it will be taken by all first-year students and all second-year students. This is because officially the second-year students should take X\_400649 Linear Algebra along with

XB\_40007 Software Design in period 4 according to the 2024-2025 curriculum, but they have already taken X\_400649 Linear Algebra in period 5 of year 1 in 2023-2024.

#### Transitional provisions from TER 2024-2025:

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:

- The following compulsory courses have been removed in 2024-2025:
  - Introduction to Computer Science X\_401087 (3 EC)
  - Computational Thinking for Coders XB\_0046 (3 EC)

These courses have been replaced by the new course Discrete Math and Calculus (6 EC). Students who did not successfully complete X\_401087 or XB\_0046 must complete Discrete Math and Calculus instead. Students who gained 3 EC from one of these courses can use them towards their elective/minor space.

- Requirements Engineering XB\_0032 (P4) and Networks and Graphs X\_401010 (P2) are mandatory starting from 2024/2025; the students who started in 2023/2024 must take Networks and Graphs X\_401010 next to Operating Systems in period 2 and Requirements Engineering XB\_0032 next to Software Design XB\_40007 in period 4 in 2024-2025.

Computer Programming Project X\_400556 has been replaced by the course Systems Programming Project XB\_0123 in 2024-2025. Students who did not successfully complete Computer Programming Project X\_400556 should enroll in Systems Programming Project XB\_0123 in 2024-2025.

#### Curriculum 2025-2026

|               | Period 1                                   | Period 2                          | Period 3                  | Period 4                 | Period 5                      | Period 6                          |
|---------------|--------------------------------------------|-----------------------------------|---------------------------|--------------------------|-------------------------------|-----------------------------------|
| <b>Year 1</b> | Computer Programming                       | Data Structures and Algorithms I  | Web Technology            | Computer Organization    | Computer Networks             | Systems Programming Project       |
|               | Logic and Sets                             | Smart Systems Engineering         |                           | Requirements Engineering | Discrete Math and Calculus    |                                   |
| <b>Year 2</b> | Object Oriented and Functional Programming | Operating Systems                 | History of Science for CS | Software Design          | Databases                     | Software Engineering Processes    |
|               | Statistical Methods                        | Data Structures and Algorithms II | Academic Writing for CS   | Linear Algebra           | Information Management for CS | Human-Computer Interaction for CS |
|               |                                            |                                   | Professional Development  |                          | Logic and Modeling            | Security and Safety Engineering   |
| <b>Year 3</b> |                                            |                                   |                           | Automata and Complexity  | Philosophy and Ethics         | Bachelor Project                  |
|               |                                            |                                   |                           | Machine Learning         | Bachelor Project              |                                   |

#### Transitional provisions from TER 2025-2026:

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:

- Data Structures and Alg for CS XB\_0091 has been replaced by the course Data Structures and Algorithms I XB\_0151 in 2025-2026. Students who did not successfully complete Data Structures and Alg for CS XB\_0091 should enroll in Structures and Algorithms I XB\_0151 in 2025-2026.
- Pervasive Computing XB\_40008 has been replaced by the course Smart Systems Engineering XB\_0154 in 2025-2026. Students who did not successfully complete Pervasive Computing XB\_40008 should enroll in Smart Systems Engineering XB\_0154.
- Networks and Graphs X\_401010 has been replaced by the course Data Structure and Algorithms II XB\_0152 in 2025-2026. Students who did not successfully complete Networks and Graphs X\_401010 should enroll in Data Structure and Algorithms II XB\_0152.
- The constrained choice Human-Computer Interaction X\_400432 has been replaced by the course Human-Computer Interaction for CS XB\_0153. Students who did not successfully complete Human-Computer Interaction X\_400432 can enroll in Human-Computer Interaction for CS XB\_0153 or Software Engineering Processes XB\_0089 or Security and Safety Engineering XB\_0088.
- Advanced Network Programming XB\_0048 has been replaced by the course Advanced Systems Programming XB\_0150. Students who did not successfully complete Advanced Network Programming XB\_0048, and want to complete the minor Deep Programming, should enroll in Advanced Systems Programming XB\_0150