# EDUCATION AND EXAMINATION REGULATIONS

# **BACHELOR OF SCIENCE BUSINESS INFORMATION TECHNOLOGY**

A. GENERAL SECTION
B. PROGRAMME-SPECIFIC SECTION

2023-2024 academic year

Introduction to the Education and Examination Regulations for Bachelor's degree programmes at the Faculty of Electrical Engineering, Mathematics and Computer Science.

#### General

The Dutch Higher Education and Research Act (Wet op het hoger onderwijs en wetenschappelijk onderzoek, WHW) of 1993 requires a broad outline of the teaching programme and examining for each degree programme to be recorded in the Education and Examination Regulations (EER (Dutch: OER)).

In accordance with Section 7.13, Paragraph 1, of the WHW, the EER must contain sufficient and clear information about the degree programme or group of programmes to which they apply. Section 7.13, Paragraph 2, of the WHW lists those issues that must, as a minimum, be stipulated in the EER with respect to procedures, rights and responsibilities relating to the teaching and examinations that are part of each degree programme or group of programmes. The WHW also includes a number of separate obligations relating to the inclusion of rules within the EER.

The model EER is subdivided into two sections (Section A and Section B), which together form the EER. Section A, which can be seen as the university section, includes provisions that apply to all Bachelor's degree programmes. Section B contains the provisions that are specific to the particular Bachelor's degree programme.

# **Table of Contents**

SECTION A: GENERAL SECTION	5
A1. GENERAL PROVISIONS	5
ARTICLE 1.1 APPLICABILITY OF THESE REGULATIONS	5
ARTICLE 1.2 DEFINITIONS	6
A2. CONTENTS AND STRUCTURE OF THE PROGRAMME	8
ARTICLE 2.1 FINAL ATTAINMENT LEVELS AND STRUCTURE OF THE PROGRAMME	8
ARTICLE 2.2 THE PROGRAMME'S LANGUAGE OF TUITION	8
ARTICLE 2.3 EXEMPTION	9
ARTICLE 2.4 ELECTIVE PROGRAMME	9
A3. TEACHING AND ASSESSMENT	10
ARTICLE 3.1 GENERAL	10
ARTICLE 3.2 ONLINE ASSESSMENT	10
ARTICLE 3.3 RESULTS	10
ARTICLE 3.4 MODULES	11
ARTICLE 3.5 REGISTRATION	11
ARTICLE 3.6 DESCRIPTION OF MODULES AND ASSESSMENT SCHEDULE	11
ARTICLE 3.7 ORAL EXAMINATIONS	
ARTICLE 3.8 ASSESSMENT DEADLINE, EXAMINATION AND TEST DATE	12
ARTICLE 3.9 PERIOD OF VALIDITY	13
ARTICLE 3.10 RIGHT OF INSPECTION AND DISCUSSION	13
ARTICLE 3.11 RETENTION PERIOD FOR TESTS	14
ARTICLE 3.12 TEACHING EVALUATION	14
A4. EXAMINATIONS	15
ARTICLE 4.1 EXAMINATION BOARD	15
ARTICLE 4.2 FINAL EXAMINATION AND DEGREE	15
ARTICLE 4.3 DIPLOMA	15
A5. STUDY GUIDANCE	17
ARTICLE 5.1 STUDENT GUIDANCE	17
ARTICLE 5.2 SPECIAL FACILITIES	
A6. (BINDING) RECOMMENDATION ON CONTINUATION OF STUDIES	18
ARTICLE 6.1 PRELIMINARY RECOMMENDATION ON CONTINUATION OF STUDIES	18
ARTICLE 6.2 (BINDING) RECOMMENDATION ON CONTINUATION OF STUDIES	
ARTICLE 6.3 DISCONTINUATION OF THE PROGRAMME	19
ARTICLE 6.4 POSTPONEMENT OF RECOMMENDATION ON CONTINUATION OF STUDIES	20
A7. STUDYING WITH A FUNCTIONAL IMPAIRMENT	21
ARTICLE 7.1 STUDYING WITH A FUNCTIONAL IMPAIRMENT	21
ARTICLE 7.2 REQUEST FOR FACILITIES	21
A8. AMENDMENTS, TRANSITIONAL ARRANGEMENTS, APPEALS AND OBJECTIONS	22
ARTICLE 8.1 CONFLICTS WITH THE REGULATIONS	22
ARTICLE 8.2 ADMINISTRATIVE ERRORS	22
ARTICLE 8.3 AMENDMENTS TO THE REGULATIONS	22
ARTICLE 8.4 TRANSITIONAL ARRANGEMENTS	22
ARTICLE 8.5 ASSESSMENT OF THE EDUCATION AND EXAMINATION REGULATIONS	23
ARTICLE 8.6 APPEAL AND OBJECTIONS	23
ARTICLE 8.7 HARDSHIP CLAUSE	23
ARTICLE 8.8 PUBLICATION	23

ARTICLE 8.9 ENTRY INTO FORCE	.23
B1. CONTENTS AND STRUCTURE OF THE PROGRAMME	. 25
ARTICLE 1.1 GENERAL OBJECTIVES OF THE PROGRAMME (ARTICLE 7.13, PARAGRAPH 2C WHW)	.25
ARTICLE 1.2 THE FINAL QUALIFICATIONS OF THE PROGRAMME (ARTICLE 7.13, PARAGRAPH 2C WHW)	
ARTICLE 1.3 CONTENT OF THE PROGRAMME AND RELATED EXAMINATIONS (ARTICLE 7.13, PARAGRAPH 2A WHW)	.27
ARTICLE 1.4 PROGRAMME FORMAT (ARTICLE 7.13, PARAGRAPH 2I WHW)	.28
B2. LANGUAGE OF TUITION (ARTICLE 2.2, PARAGRAPH 2 SECTION A)	.31
B3. TEACHING AND ASSESSMENT	.31
ARTICLE 3.1 ASSESSMENT AND EXAMINATION FORMATS (ARTICLE 7.13, PARAGRAPH 2L WHW)	.31
ARTICLE 3.2 REGISTRATION OF RESULTS	.31
ARTICLE 3.3 PARTICIPATION IN TESTS (ARTICLE 3.5 SECTION A)	.31
ARTICLE 3.4 THIRD ATTEMPT	.31
ARTICLE 3.5 EXAMINATION TRANSPARENCY	.31
ARTICLE 3.6 PERIOD OF VALIDITY (ARTICLE 3.9 SECTION A)	.31
ARTICLE 3.7 CONFIDENTIALITY	.32
ARTICLE 3.8 TEACHING EVALUATIONS (ART. 3.12 SECTION A)	.32
B4. FINAL DEGREE AUDIT	
ARTICLE 4.1 PASS/FAIL REGULATION	.32
ARTICLE 4.2 CUM LAUDE	.33
B5. BINDING RECOMMENDATION (BSA)	. 33
B6. STUDY MATERIALS II	. 33

#### **SECTION A: GENERAL SECTION**

# A1. General provisions

# Article 1.1 Applicability of these regulations

- This general section of the education and examination regulations applies to all students enrolled in the bachelor's programmes Applied Mathematics, Business Information Technology, Creative Technology, Electrical Engineering and Technical Computer Science.
- 2. Students attending courses that are not part of the student's core programme (see Article 1.2) are subject to the assessment rules laid down in the assessment schedule of the relevant study unit. The decision on special facilities in accordance with Article 5.2 may only be taken by the examination board of the programme for which the student is enrolled.
- 3. Each programme has its own programme-specific part.
- 4. For each programme, this general section and the programme-specific part together form the education and examination regulations for the bachelor's programme concerned.
- 5. The general section and the programme-specific part of the education and examination regulations are determined by the faculty board.
- 6. The institute section of the student charter includes a definition of what the University of Twente considers to be academic misconduct (fraud). The rules and regulations of the examination board for the bachelor's programme in question include additional rules about academic misconduct (fraud), such as which measures the examination board may take if it establishes misconduct (fraud).
- 7. The rules and regulations of the examination board of the bachelor's programme in question include provisions about the rules of order during tests and rules in case of emergencies.
- 8. The following applies in respect of the language used in the education and examination regulations and the rules and regulations of the examination board:
  - a) In case of uncertainty or discrepancy, the Dutch version of this general section is binding<sup>i</sup>.
  - b) English versions of the programme-specific part of the education and examination regulations and the examination board's rules and regulations should be available for English-taught bachelor's programmes.
  - c) Where the programme-specific part of the EER and the rules and regulations of the examination board of the bachelor's programme concerned are available in both Dutch and English, each version must, for the sake of clarity, state which version is binding.
- 9. Requests for exemptions in respect of provisions laid down in the education and examination regulations should be submitted to the examination board or the programme director of the student's own bachelor's programme, as laid down in the relevant articles of these Regulations.

<sup>&</sup>lt;sup>i</sup> The Dutch version of Section A can be found here: <a href="https://www.utwente.nl/en/eemcs/education/rules-guidelines/eer-b/eer-b2022/eemcs-bachelor-oer-2022-nl.pdf">https://www.utwente.nl/en/eemcs/education/rules-guidelines/eer-b/eer-b2022/eemcs-bachelor-oer-2022-nl.pdf</a>

#### Article 1.2 Definitions

The terms used in these Regulations should be interpreted as follows:

- Academic year: The period beginning on 1 September and ending on 31 August of the following year.
- Assessment schedule: A schedule showing the method of assessment for a module.
- (Binding) recommendation on continuation of studies (Bindend studieadvies, BSA): A recommendation on continuation of studies as referred to in Article 7.8b, paragraph 1 and 2 WHW involving expulsion from the programme in accordance with Article 7.8b, paragraph 3 WHW, issued by the programme director on behalf of the institutional administration.
- Canvas: University of Twente's digital learning environment.
- Core programme: The same study units from the curriculum that apply to all the students following a programme.
- Credit: a unit of 28 study workload hours, in accordance with the European Credit Transfer System. A full-time academic year consists of 60 credits, equal to 1680 hours of study (Article 7.4 WHW).
- Curriculum: The aggregate of required and elective study units constituting a degree programme as laid down in the programme-specific part.
- Degree programme: Bachelor's degree programme as referred to in the programmespecific part to these education and examination regulations.
- Examination: An evaluation, performed to conclude a study unit, of the student's knowledge, understanding and skills as well as an assessment of the outcomes of that evaluation (Article 7.10 WHW); an examination may consist of a number of tests.
- Examination Board: The body that objectively and professionally assesses whether a student meets the conditions laid down in the education and examination regulations regarding the knowledge, understanding and skills required to obtain a degree (Article 7.12 WHW).
- Examiner: The individual appointed by the examination board to administer examinations and tests and to determine the results, in accordance with Article 7.12 paragraph c WHW.
- Exemption: The decision of the examination board that the student has knowledge and skills which are comparable in terms of content, scope and level with one or more study units or components of study units. An exemption is granted on the basis of acquired competencies, i.e. previously passed examinations in higher education or in view of knowledge and skills attained outside higher education.
- Faculty Board: Head of the faculty (Article 9.12, paragraph 2 WHW).
- Final examination: A degree programme is concluded with a final examination. If the study units in the degree programme have been completed successfully, then the final examination will be deemed to have been completed (Article 7.10 WHW).
- Higher Education and Research Act (abbreviated to 'WHW'): The Higher Education and Research Act, Bulletin of Acts and Decrees 1992, 593, and its subsequent amendments.
- Honours Programme: Institution-wide bachelor's Honours programme.
- Institution: University of Twente (Universiteit Twente).
- Institutional administration: The Executive Board of the University of Twente (Article 1.1 WHW).

- Minor profile: Elective space conferring 30 credits that the student can also fill with offer outside the programme.
- Module: A total of 15 credits of one or more study units, in which the student's programme-specific knowledge, skills and attitude are developed and assessed as far as possible in an integrated and/or coherent manner.
- Study unit: A programme component as defined in Article 7.3, paragraph 2 and 3 WHW. Each study unit is concluded with an examination.
- Osiris: System designated by the institutional administration for registration and for providing information on all relevant data related to the students and the degree programme, as referred to in the WHW.
- Practical exercise: A practical exercise as referred to in Article 7.13, paragraph 2d WHW is a study unit or a study unit component emphasising an activity that the student engages in, as described in the programme-specific part.
- Programme Committee (OLC): Committee referred to in Article 9.18 WHW.
- *Programme Director:* The person appointed by the faculty board to administer the programme (Article 9.17 WHW).
- Student: Anyone enrolled in a programme in accordance with Article 7.34 and 7.37 WHW.
- Study advisor: Person appointed by the faculty board who acts as contact between the student and the university, and in this role represents the interests of the student, as well as fulfilling an advisory role.
- Study workload: The time an average student needs to learn the course material. The study workload comprises project work, independent study, lectures and writing assignments, for example. The study workload is expressed in ECTS credits according to the European Credit Transfer System.
- Teaching period: The period in which a study unit is offered. This period starts in the first week in which an educational activity takes place for the study unit concerned and ends in the final week in which an educational activity takes place and/or a test is administered for the study unit concerned. Resits are not part of the teaching period. This period may sometimes not be the same as a quarter (a quarter of an academic year).
- Test: An evaluation of the student's knowledge, understanding and skills as well as an assessment of the outcomes of that evaluation. A test is part of an examination. If the examination for a study unit consists of a single test then the result of that test will count as the result of the examination.
- UT: University of Twente.
- Working day: Any day from Monday to Friday with the exception of official holidays and the prearranged compulsory holidays ('brugdagen') on which the staff are free.

The definition of all other terms used in these Regulations is in accordance with the definition accorded by the main text of this document, the programme-specific section of the EER, the student charter or the WHW.

# A2. Contents and structure of the programme

# Article 2.1 Final attainment levels and structure of the programme

Explanatory note: Article 7.13 WHW

- 1. The qualities relating to the knowledge, understanding and skills that the student should have acquired upon completing the programme (aims and learning outcomes) are set out in the programme-specific appendix.
- 2. The programme consists of 180 credits.
  - a) The programme consists of a core programme of 120 credits, a minor of 30 credits and a graduation phase totalling at least 15 credits.
    - Exceptions are the Advanced Technology and Technical Medicine programmes, which have electives instead of minors, or have no minors, but do have a core programme of more than 120 credits.
  - b) The core programme of the educational programme is specified in the programme-specific appendix.
  - c) The core programme consists of modules.
  - d) Before the start of a study unit, the student must meet the prior knowledge prerequisites for that study unit, as described in the Osiris Course Catalogue.
  - e) Students generally complete their minor courses in the first semester of their third year of study.
  - f) The programme for which the student is enrolled may set conditions for the number of credits required to be eligible for admission to the minor course. These conditions are specified in the relevant programme-specific appendix.
  - g) Students are limited in their choice of minor by the provisions of paragraph d and f. The choice of minors available can be viewed on the minor website
  - h) In principle, the second semester of the third year of studies is devoted to the graduation phase, which comprises a minimum of 15 credits.
  - i) The student must at a minimum have completed the core of the bachelor's programme to be admitted to the graduation phase.
  - j) The examination board<sup>ii</sup> is authorised in individual cases to deviate from paragraph d, f, h and i, if strict adherence to those provisions would result in an unacceptable delay in study progress. In consultation with the study adviser, the student may submit a proposal to the examination board for this.
- 3. The programme-specific appendix describes the degree programme in accordance with Article 7.13, paragraph 2, a to e, i, l, s, t and v WHW.

#### Article 2.2 The programme's language of tuition

- The official language of tuition is the language in which education is given, in which teaching material is provided and in which tests and examinations are held. Bachelor's programmes taught in Dutch will generally use study materials in English or Dutch.
- The choice of the official language for an educational programme or components of an educational programme lies with the programme director, subject to the right of

ii It is important that the student is still able to achieve the final attainment levels of the programme. In light of this consideration, this authorisation has been formally conferred to the examination board, as they are the ones to ensure that a student who achieves the final attainment levels is able to graduate.

- consent of the programme committee. The educational programme's language of tuition is specified in the programme-specific appendix.
- 3. If programme components deviate from the language of tuition, then this is to take place in accordance with the Code of Conduct for Languages of the University of Twente and Article 7.2 WHW.
- 4. For bachelor's programmes taught in Dutch, components of study units may be taught and assessed in English, if:
  - a) a lecturer or tutor in the unit of study is not a native speaker of Dutch, or
  - b) students from the relevant bachelor's programme take the module together with students from an English-taught bachelor's programme, or
  - c) the programme director considers it necessary in order to fulfil one of the attainment targets or objectives of the educational programme in question in the area of English language communication skills.

# Article 2.3 Exemption

- The examination board may grant an exemption to students at their request for one or more examinations or tests. To this end, the student should demonstrate having sufficient knowledge and skills in relation to the examination concerned or the test in question.
- 2. An exemption granted by the examination board will be registered in Osiris under the study unit or study units, or components thereof, by means of an EX (exemption).
- 3. Students cannot be compelled to take additional study units or components of study units in their curriculum instead of an exemption that has been granted.
- 4. Students may also be exempted from practical exercises if they can demonstrate that a required practical exercise will likely give rise to a personal moral dilemma. In such cases, the examination board will determine whether the component can be completed in another manner and in what way.

# Article 2.4 Elective programme

The examination board decides on requests for permission to take an elective programme as referred to in Article 7.3 WHW. The examination board assesses whether an elective programme is appropriate and consistent within the domain of the educational programme and whether the level is high enough in light of the attainment targets of the programme.

# A3. Teaching and Assessment

#### Article 3.1 General

- Each study unit concludes with an examination.
- 2. The examination consists of one or more tests.
- 3. A test or examination may take several forms, e.g. a written test, an assignment, an oral test, practical exercises or a combination of the aforementioned. Tests and examinations can be administered online.
- 4. The programme director publishes at least the following details of the study units in Osiris not less than four (4) weeks in advance: scope, learning objectives and content, language of tuition and assessment, prerequisites, required and recommended study materials, design of teaching methods and assessment.
- 5. The possibility of unconditional access to at least one resit<sup>iii</sup> must be offered for each study unit in the same academic year. An exception may be made for practical exercises (such as practical classes and projects).

#### Article 3.2 Online assessment

- If an examination or test is administered using online surveillance<sup>iv</sup> or online proctoring<sup>v</sup>, the examination board may set further rules and conditions for online (proctored) assessment.
- 2. Further information and detailed rules on online assessment can be found on the university's website.

#### Article 3.3 Results

- Results of examinations, tests or components of tests must be announced to students.
   Osiris is used for the registration of grades for examinations and in some cases also for tests.
- The student has the right to inspect model test questions, such as akin tests, past tests, or tutorial assignments that are representative of the test or examination, as well as their keys and the norm for assessment.
- 3. The time allotted to administering a test may not exceed three hours. Exceptions in this regard are listed in section 7.2.
  - If the examiner wishes to use a form of assessment that requires more than three hours, the examiner must, with due regard for article 3.1.4, ask the examination board for approval to deviate from the above.
- 4. Test results are expressed in a grade from 1 to 10 with a single decimal, or as 'pass' / 'fail'.
- 5. The examination result of a study unit, as determined by the examiner, is expressed in half grades from 1.0 to 5.0 and from 6.0 to  $10.0^{vi}$ , with grades only being rounded in the final phase<sup>vii</sup> of the assessment of a study unit and in accordance with the schedule below:

iii This means resits of all the tests within a study unit.

iv Camera surveillance of the student or students during an <u>unrecorded</u> test, using for example Canvas, Teams, etc.

<sup>&</sup>lt;sup>v</sup> Surveillance of the student or students using special *proctoring* software, such as Proctorio.

<sup>&</sup>lt;sup>vi</sup> In Osiris, a comma is used, based on the Dutch grading system (e.g. 7,0).

vii Final phase: when all grades are known.

# If figure before the decimal (n) ≠5

Figure  $\geq$ n.00 and <n,25  $\Rightarrow$  n.0 Figure  $\geq$ n.75 and <n,75  $\Rightarrow$  n.5 Figure  $\geq$ n.25 and <(n+1),00  $\Rightarrow$  (n+1).0

If figure before the decimal =5:

- 6. Examination results of 6.0 or higher are a pass.
- Examination results, if a pass, obtained at foreign universities will be registered as a P
  (pass). Examination results obtained at Dutch universities will be adopted one-to-one,
  with due regard for the provisions in paragraph 5.
- 8. Credits may only be issued for a study unit if the study unit has been completed with a pass mark.
- 9. If more than one examination or test result has been recorded in Osiris for one and the same unit of study, the highest grade will apply.

#### Article 3.4 Modules

- 1. Each module has a module coordinator, appointed by the programme director.
- If a module comprises a single study unit then the examiner of that study unit will also be the module examiner.

#### Article 3.5 Registration

- 1. Registration in Osiris is required prior to participating in a module or study unit viii.
- 2. Upon registering for the module or study unit, the student will automatically be registered for the assessments associated with the teaching period of the module/study unit<sup>ix</sup>.

#### Article 3.6 Description of modules and assessment schedule

- 1. The programme-specific part contains a description of each module.
- 2. The module description must include:
  - a) the study units comprising the module and the number of related credits;
  - b) if applicable<sup>x</sup>, the number of tests and their relative weighting;
  - c) the language of tuition and assessment (Dutch-language programmes only);
  - d) the manner in which the examinations and/or tests are sat (oral, written or an alternative manner).
- The assessment schedule of a module is drawn up by the examiner or examiners and
  is determined by the programme director. The examination board provides advice on
  the assessment schedule.
- 4. The assessment schedule must be published in Canvas at least two weeks before the start of the module.

viii The applicable registration deadlines are mentioned on the webpage <a href="www.utwente.nl/en/education/student-services/education/courses-and-modules/">www.utwente.nl/en/education/student-services/education/courses-and-modules/</a>

ix The applicable registration deadlines are mentioned on the webpage <a href="https://www.utwente.nl/en/education/student-services/education/courses-and-modules/">www.utwente.nl/en/education/student-services/education/courses-and-modules/</a>

<sup>&</sup>lt;sup>x</sup> As with integrated modules or larger study units.

- The assessment schedule of a module must include:
  - a) how the learning objectives of the module or the study units of the module are assessed and when they are attained;
  - b) the period of validity of the result of the test or tests;
  - c) in which weeks examimations, tests and resits are held (the precise times and dates will be announced via my-timetable);
  - d) any required minimum grade per test; a minimum grade for a test may not be set higher than 5.5;
  - e) if applicable: information on resits (such as conditions, compensation options and grading periods).
- 6. The programme director may modify the assessment schedule during the module or study unit:
  - a) The assessment schedule may only be changed in consultation with the module coordinator and the examiner of the study unit.
  - b) The programme director will consult the examination board before any changes to the form or manner of administering an examination or one or more tests. If the change only involves moving tests to a timeslot other than as shown in the timetable, the programme director will inform the examination board of the decision as soon as possible.
  - Students are to be informed immediately of the change.
- 7. Changes to the assessment schedule may not put students at an unreasonable disadvantage. The examination board may take special measures in individual cases.

#### Article 3.7 Oral examinations

- 1. If the student or the examiner wishes a third party to be present when administering an oral examination, then a request to this end must be submitted to the programme director at least fifteen working days prior to the oral examination. The student and the examiner will be notified of the programme director's decision not less than five working days in advance. The programme director must inform the examination board of the decision. Public graduation symposia, public presentations and group tests are excluded from this provision.
- If the examination board has decided that members of the examination board or an
  observer on behalf of the examination board is to be present during the
  administration of an oral examination, then the examination board is to make this
  known to the examiner and the student at least one working day before the oral
  examination.

#### Article 3.8 Assessment deadline, examination and test date

- 1. The examiner is to inform the student of the result of an oral examination within one working day, unless, for the examiner, the oral examination is part of a series of oral examinations of the same study unit which are administered on more than one working day. In that case, the examiner is to determine and announce the result within one working day following the conclusion of the series of oral examinations.
- 2. The result of a test is to be disclosed to the student within ten working days after the test date, with due regard for paragraph 8 below.
- The examination result of a study unit is to be disclosed to the student within ten working days after the conclusion of the teaching period during which the study unit is offered.

- 4. The examination date is the date on which the test is taken with which the student definitively passes the study unit.
- 5. The test date is the date on which a written or oral test is taken.
- 6. If a test assessment is (among other things) dependent on completing one or more assignments or writing a paper or thesis, then the test date will be the deadline of submission of the final component (or the date of the last written or oral test).
- 7. If a test resit is planned shortly after the first test, the results of the first test will be published at least five working days before the resit to give the student time to prepare.
- 8. Should the examiner not be able to meet the deadline referred to in paragraphs 1, 2, 3, 4 and 7 due to exceptional circumstances, then the examiner is to notify the examination board, providing reasons for the delay. The student concerned is to be informed of the delay immediately, and a new deadline for publication of the results will be set and notified to them. If the examination board is of the opinion that the examiner has not met the obligations, it may appoint another examiner to ascertain the result of the exam and determine the grade.

# Article 3.9 Period of validity

- The results of an examination that has been passed remain valid indefinitely. The
  period of validity of an examination that was passed may only be limited if the tested
  knowledge or understanding is demonstrably outdated or the tested skills are
  demonstrably outdated.
- 2. Results of tests of a study unit that was failed expire after the academic year. The study unit must be repeated in its entirety in the next academic year. Any exceptions are listed in the assessment schedule.

# Article 3.10 Right of inspection and discussion

- 1. Student are entitled to discuss and review their test together with the examiner, and the examiner is to explain the assessment.
- 2. If the examiner holds a group discussion of the assessment, the student must use that opportunity to exercise the right to discussion referred to in paragraph 1. If a student cannot attend the group discussion or if the student is not given the opportunity at the group discussion to discuss the reasons for the examiner's assessment of the test with the examiner, the student may submit a request for individual discussion with the examiner no later than on the first working day following the working day of the group discussion. Students are informed about the group discussions and the aforementioned deadline. The individual discussion is to take place no later than three working days prior to the next test opportunity.
- 3. If there is no group discussion of the test, then a student may submit a request to the examiner for an individual discussion within ten days after publication of the results. The individual discussion is to take place no later than three working days prior to the next test opportunity.
- 4. Individual and group discussions must take place no later than five weeks after the publication of the test results, but at least three working days prior to the next test opportunity, in the presence of the examiner or a substitute designated for that purpose.
- 5. Students are to be given the opportunity to inspect their assessed work for a period of two years following the assessment.

# Article 3.11 Retention period for tests

- 1. The retention period for test assignments, keys, papers and the assessments of written tests is two years.
- 2. The retention period for final bachelor's projects is a minimum of seven years.

# Article 3.12 Teaching evaluation

- 1. The programme director is responsible for monitoring the quality of the educational programme.
- 2. The programme director is responsible for evaluating the programme.
- 3. The programme-specific part details how the tuition in the programme is evaluated.

#### A4. Examinations

#### Article 4.1 Examination Board

- 1. In line with Articles 7.12a and 7.12b WHW:
  - a) the faculty board appoints an examination board for each educational programme or group of programmes;
  - b) examination boards determine the rules and regulations for the examiners, examinations and final examinations without further consultation.

#### Article 4.2 Final examination and degree

Explanatory notes: Article 7.10, paragraph 2 and Article 7.11 WHW

- 1. The bachelor's final examination is considered to be complete when the student has passed all study unit exams in the bachelor's programme.
- 2. The date of the final examination is the date on which the student completes the final study unit of the degree programme.
- 3. A student may submit a written request, giving reasons, to the examination board to postpone the final examination, and thus to postpone the awarding of the diploma. The maximum duration of any postponement that can be granted is twelve months, in principle. In exceptional cases<sup>xi</sup>, the student may have valid reasons for requesting that the awarding of the diploma be postponed for more than twelve months.
- 4. If the student has requested postponement based on the provisions of paragraph 3, then the date of the examination will be the date on which the examination board decides that the student has passed the final examination subsequent to the postponement.
- 5. Students who have successfully met all requirements for the bachelor's final examination will be awarded a Bachelor of Science (BSc) degree.
- 6. The degree conferred is stated on the diploma.

#### Article 4.3 Diploma

Explanatory note: Article 7.11 WHW

- The examination board will award a diploma as proof that the student has satisfied all
  the requirements of the exam once the institutional administration has confirmed
  that the procedural requirements for awarding the diploma have been met. The date
  indicated on the diploma (i.e. the date of the final examination) is the date on which
  the student completed the final study unit of the degree programme.
- 2. The diploma will be signed by the chair of the examination board. If the Chair is absent, one of the members of the examination board may also sign the diploma.
- 3. The following information is to be stated on the diploma:
  - a) the student's name and date of birth;
  - b) the name of the institution and the degree programme as stated in the register referred to in Article 6.3 WHW;
  - c) the date of the final examination;
  - d) the study unit components of the final examination;

xi Some examples (by way of illustration, not to exclude other situations): the student follows a double bachelor's programme, the student needs more time for a pre-Master's programme, an extensive extra-curricular activity requires more than twelve months.

- e) the degree conferred (in accordance with Article 7.10a WHW);
- f) where appropriate, the specific qualifications associated with the degree (with due consideration for Article 7.6, paragraph 1 WHW);
- g) the date on which the programme was last accredited or the date on which the programme passed the new programme assessment (Article 5a.11 WHW).
- 4. An International Diploma Supplement is to be appended to the diploma. This supplement is intended to provide insight into the nature and content of the degree programme to promote the international recognition of the programme, among other aspects. The diploma supplement is to include the following information at a minimum:
  - a) the name of the programme and the name of the university;
  - b) that the programme was offered at an institution for academic education;
  - c) a description of the programme content; an indication of any specialisation and/or minor, if applicable;
  - d) the study workload of the programme;
  - e) the final examination components and results, based on the registration of grades in Osiris;
  - f) examinations passed by the student that are not part of the final examination;
  - g) if the student has successfully completed an honours programme while on the bachelor's programme, then this fact will be stated on the diploma supplement as an extracurricular programme;
  - h) the student's average grade, weighted by credits (Grade Point Average, GPA). The diploma supplement indicates how the average grade is calculated.
- 5. If the examination board has awarded a specific distinction (e.g. cum laude) to the student, then this is to be mentioned on the diploma.
- 6. Students who have successfully completed more than one examination but cannot be awarded a diploma as referred to in paragraph 1, will receive, at their own request, from the Student Services Desk a statement prepared by or on behalf of the examination board which in any case will state the results of the examinations the student in question has passed.

# A5. Study guidance

Explanatory notes: Article 7.13 paragraph 2u and Article 7.59 WHW

# Article 5.1 Student guidance

- 1. The faculty board is responsible for student guidance.
- Student support and guidance includes 'decentralized' guidance, as provided within study programmes, and 'central' guidance, as provided by the Centre for Educational Support.
- 3. Student guidance includes guidance with questions or problems with regard to career orientation and career choices and guidance with problems that affect study progress. Students are offered personal and professional student (career) guidance for optimal study progress. Where possible, needs for specific guidance are met.
- 4. Each student is assigned a study adviser.
- 5. The study adviser supervises students and advises them on all aspects of the studies, also on personal circumstances that may be affecting the student's studies.
- 6. The opportunity for an introductory interview will be offered to each student before 1 November of the first year of enrolment in the programme.
- 7. A systematic method on how students are monitored and obstruction in study progress is signalled is documented by the programme (for example in a policy plan or an annual cycle).
- 8. Information about the guidance facilities of the study programme is in any case available on the website of the study programme.

#### Article 5.2 Special facilities

- If students wish to exercise their right to specific supervision or special facilities, they should contact the study adviser. The study adviser will record the agreements made with the student in Osiris.
- 2. A student is entitled to special facilities in case of demonstrable circumstances beyond the student's control or extenuating personal circumstances. The facility may provide for dispensation from or an additional opportunity to sit examinations or tests to be granted and/or for specific facilities to be made available. Such dispensation and additional resits may only be granted by the examination board.

# A6. (Binding) recommendation on continuation of studies

Explanatory note: Article 7.8b WHW

# Article 6.1 Preliminary recommendation on continuation of studies

- Students will receive a preliminary recommendation on continuation of studies by
  calendar week 52 at the latest of their first year of enrolment in the programme and a
  second recommendation on continuation of studies by calendar week 10 at the latest.
  These recommendations can be positive, negative or neutral and are not binding.
  Students with a postponed recommendation on continuation of studies receive a
  warning in their second year of enrolment in the degree programme when their study
  progress is jeopardized.
- 2. Students who receive a negative recommendation on continuation of studies will be invited for an interview with the study adviser to discuss their study methods and review their choice of specialisation. A negative preliminary recommendation on continuation of studies is considered as a warning (Article 6.2, paragraph 4).

#### Article 6.2 (Binding) recommendation on continuation of studies

- 1. Students receive a written recommendation on continuation of studies, at the latest by the end of the first year of enrolment in the programme, about continuing their studies. This recommendation is based on the student's results: the student may be allowed to continue on the programme, or may be required to leave the programme, with due regard for Articles 6.3 and 6.4. The institutional administration mandates the programme director to issue recommendations on continuation of studies.
- 2. The recommendation on continuation of studies includes:
  - a) the results of examinations and tests from the first year of the programme that remain valid the following academic year;
  - b) the exemptions for examinations and tests in the first year that were granted to the student.
  - The programme director may set programme-specific requirements which must be met. These requirements are specified in the programme-specific part. Programme-specific requirements may not state that all study units of a certain curricular course must be attained<sup>xii</sup>.
- 3. The programme director may decide that a recommendation on continuation of studies should involve expulsion. A recommendation on continuation of studies that involves expulsion is referred to as a binding recommendation on continuation of studies (bindend studieadvies, BSA). The programme director will take the student's personal circumstances of which the university is aware into consideration when making a decision. The recommendation on continuation of studies may only involve expulsion if the programme director considers the student as not suited to the educational programme, or the student's results do not meet the required standard, i.e. if:
  - a) the student has obtained fewer than 45 credits of the first year, or

xii For example: 'The student must pass all mathematics study units from the B1 programme' is not permitted, whereas 'The student must pass three of the four mathematics study units from the B1 programme' is permitted

- b) the student has obtained 45 or more credits of the first year, but does not meet the programme-specific requirements (as referred to in paragraph 2 of this article).
  - The decision notification relating to a binding recommendation on continuation of studies must inform the students of their right to file an objection and appeal via the Complaints Desk.
- 4. Before issuing a binding recommendation on continuation of studies, the programme director must first issue a warning to the student giving him/her a reasonable term in which to improve the course results, to the programme director's satisfaction (Article 6.1 paragraph 2), and the programme director will give the student the opportunity to be heard.
- 5. Students may file a request (supported by documentary evidence) for assessment of their personal circumstances to the Personal Circumstances Committee (CPO). This request is to be filed in consultation with the study adviser. The CPO will assess the validity, nature, severity and duration of the personal circumstances and will issue an advisory opinion on these matters. The CPO's advisory opinion, issued to the programme director and the study adviser concerned, will be taken into account in the programme director's decision-making referred to in paragraph 3.
- 6. Personal circumstances include illness, physical, sensory or other functional disability or pregnancy of the student involved, extenuating family circumstances, participation in top-level sports or arts and membership of the university council, faculty council, programme committee or a Category 3 or 4 board in accordance with the FOBOS Regulations.
- 7. Students who have received a binding recommendation on continuation of studies (BSA) may not enrol in the same degree programme for a period of three consecutive academic years. If a student re-enrols in the relevant bachelor's programme after this period, this enrolment is designated as a first-year enrolment and the relevant provisions of this section apply in full.

# Article 6.3 Discontinuation of the programme

- 1. The programme is considered to be discontinued if the student stops taking courses or any form of tests for the programme, and where the student:
  - a) submits a request to the University of Twente to terminate the enrolment, or
  - submits a request to terminate the enrolment for one programme at the University of Twente and enrols in another programme at the University of Twente, thus switching to another programme at the University of Twente, or
  - c) continues the studies at another institute of higher education with a proof of tuition fees paid (bewijs betaald collegegeld, BBC).
- 2. A recommendation on continuation of studies will not be issued if the request to terminate enrolment is received through Studielink by 31 January in the first year of enrolment for the degree programme and the student does not re-enrol for the same programme in that same academic year. If the student re-enrols in the same bachelor's programme in a following academic year, this enrolment is designated as the first-year enrolment.
- 3. Students who de-enrol after 1 February for a degree programme at the University of Twente will receive a recommendation on continuation of studies, as referred to in Article 6.2 paragraph 1, from the programme they discontinued.

#### Article 6.4 Postponement of recommendation on continuation of studies

- 1. The recommendation on continuation of studies as referred to in Article 6.2 paragraph 1 may be postponed if:
  - a) the student has enrolled in the degree programme on or after 1 October of the relevant academic year and on 31 August at the latest has not met the norm, or
  - b) if personal circumstances preclude an assessment of the student's suitability at the end of the first year of enrolment in the degree programme.
     In the event of postponement pursuant to the provisions under a), the recommendation on continuation of studies will be issued by the degree programme in which the student is newly enrolled.
  - In the event of postponement pursuant to the provisions under a), the recommendation on continuation of studies will be issued by the degree programme in which the student is newly enrolled.
- 2. If the student whose recommendation has been postponed re-enrols in a subsequent academic year in the same programme, the end of the second year of enrolment in the relevant programme at the latest will be the deadline for issuing the recommendation on continuation of studies. The student will in any event be notified in writing within six weeks of the date of enrolment before which date the programme will issue the final recommendation. The same norm as set out in Article 6.2 paragraph 3 applies to this recommendation.
- 3. If a student transfers to another UT degree programme prior to 1 October, then the recommendation on continuation of studies will not be postponed based on transfer and the norm will not therefore be adjusted as referred to in Article 6.2, paragraph 3.

# A7. Studying with a functional impairment

Explanatory notes: Article 7.13 paragraph 2m WHW and Article 2 of the Equal Treatment of Disabled and Chronically III People Act (WGBH/CZ)

# Article 7.1 Studying with a functional impairment

- 1. A functional impairment is defined as having an illness, condition, impairment or handicap that might impede or otherwise constitute a barrier to the student's academic progress.
- 2. Facilities are to be aimed at removing individual barriers in the teaching programme and/or when it comes to taking examinations and tests. These facilities may be related to access to infrastructure (buildings, classrooms and teaching facilities) and study materials, adjustments to the form of assessment, alternative learning pathways or a customised study plan.

# Article 7.2 Request for facilities

- 1. The study adviser and the student concerned will discuss the most effective facilities that can be provided for the student.
- 2. Based on the discussion referred to in paragraph 1, the student is to submit a request for facilities. This request should be submitted to the study adviser, who has been mandated by the faculty board, preferably three months before the student is to participate in classes, exams and tests for which the facilities are required.
- 3. The request should be supported by documents that are needed to enable an assessment to be made.
- 4. The study adviser will decide on the admissibility of the request and will inform the student of the decision within twenty working days after receipt of the request, or sooner if the urgency of the request dictates.
  - a) Should the request be granted, the period of validity will also be indicated.
  - b) If the request is not granted, or only partly granted, the study adviser will inform the student of the justification for not granting the request as well as the possibilities for filing an objection and an appeal with the Complaints Desk.
  - c) Students who are dyslexic, will be granted a maximum of 15 extra minutes for each hour that a test or exam is officially scheduled.
- 5. The study adviser shall inform the relevant parties in good time about the facilities that have been granted.
- 6. The applicant and the study adviser will evaluate the facilities before the end of the period for which they have been granted. During this evaluation, the parties discuss the effectiveness of the facilities provided and whether they should be continued. No evaluation takes place of facilities granted to students because of the functional impairment dyslexia.

# A8. Amendments, transitional arrangements, appeals and objections

#### Article 8.1 Conflicts with the regulations

If other additional regulations and/or provisions pertaining to education and/or examinations conflict with these education and examination regulations, the provisions in these education and examination regulations will prevail.

#### Article 8.2 Administrative errors

If, following the publication of a result, a marks sheet, or a student's progress report a manifest error is discovered, the discoverer, be it the university or the student, is required to make this known to the other party immediately upon finding the error and to cooperate in rectifying the error.

# Article 8.3 Amendments to the Regulations

- 1. Substantive amendments to these Regulations are enacted by the faculty board in a separate decision.
- 2. In principle, substantive amendments to these Regulations do not apply to the current academic year. Amendments to these Regulations may apply to the current academic year if the interests of the students are not prejudiced within reasonable bounds, or in situations of force majeure.
- Amendments to these Regulations have no effect on earlier decisions by the examination board.

# Article 8.4 Transitional arrangements

- 1. In the case of amendment of these education and examination regulations, the faculty board will adopt a transitional arrangement, as necessary.
- 2. The transitional arrangement is to be published on the degree programme's website.
- 3. Changes to the curriculum are to be announced prior to the academic year in which the changes take effect. No guarantee can be made that all programme study units that were part of the curriculum when students enrolled in a programme will continue to be part of the curriculum. The final bachelor's examination is to be based on the curriculum most recently adopted by the faculty board.
- 4. The transitional arrangement will always include:
  - a) the study units, which have been dropped, that are equivalent to study units from the current curriculum as indicated in the programme-specific part;
  - an indication that if a study unit that does not involve a practical is dropped from the curriculum, then students are to have at least two opportunities in the following academic year to take a written or oral exam or to undergo another form of assessment;
  - an indication that if a study unit with practical exercises is dropped from the curriculum and there is no opportunity in the subsequent academic year to complete the practical exercises concerned, then at least one study unit will be designated that may be completed as a substitute for the study unit that has been dropped;
  - d) the period of validity of the transitional arrangement.
- 5. The transitional arrangement must be approved by the examination board.
- 6. In exceptional cases and to the student's benefit, the examination board may deviate from the prescribed number of opportunities to sit exams and/or tests related to study units that have been dropped from the curriculum.

#### Article 8.5 Assessment of the education and examination regulations

- 1. The faculty board is responsible for the regular assessment of the education and examination regulations, with specific emphasis on the study workload.
- Based on Article 9.18 WHW, the programme committee has a partial right of consent of and a partial right to be consulted on parts of the education and examination regulations.
- 3. The programme committee is responsible for the annual assessment of the manner in which the education and examination regulations are implemented.

#### Article 8.6 Appeal and objections

An appeal and objections must be submitted in writing to the University of Twente Complaints Desk within six weeks after notification of a decision to the student.

# Article 8.7 Hardship clause

In cases of demonstrable unreasonableness and unfairness of a predominant nature, the examination board or the programme director may allow the provisions in these Regulations to be deviated from. This depends on which body is authorised or has the duty according to these Regulations to take a decision on or make an exception to a provision in these Regulations.

#### Article 8.8 Publication

The education and examination regulations and the examination board's rules and regulations are to be published on the degree programme's website.

#### Article 8.9 Entry into force

These Regulations enter into force on 1 September 2023 and replace the Regulations dated 1 September 2022.

Adopted on 26 May 2023 by the faculty board, having regard to Article 9.5, 9.15 paragraph 1a, 7.13 paragraph 1 and 2, 9.38b, 9.18 paragraph 1a and 7.59 WHW, and after approval by the faculty council.

# **SECTION B: PROGRAMME-SPECIFIC SECTION**

# **BACHELOR BUSINESS INFORMATION TECHNOLOGY (B-BIT)**

# **About this Section**

The Education and Examination Regulations (EER) are subdivided into two sections (Section A and Section B), which together form the EER. Section A, which can be seen as the university section, includes provisions that may apply for all EEMCS Bachelor's degree programmes. Section B contains the provisions that are specific to the particular degree programme, in this case the Bachelor's programme in Business Information Technology.

#### **B1. CONTENTS AND STRUCTURE OF THE PROGRAMME**

# Article 1.1 General objectives of the programme (Article 7.13, paragraph 2c WHW)

The Bachelor's programme in Business Information Technology (BIT) focuses on providing academic training to Bachelor's students to enable them to graduate with knowledge, insight and experience in the integrated and coordinated development of business processes in organizations and associated information and communication technology support structures. The graduates have thorough understanding of and insight into the academic disciplines of Computer Science and Industrial Engineering and Management, and they are capable of integrating their knowledge and insights.

Students develop an academically inquisitive attitude while on the programme, along with thorough technical understanding, insight and experience in the integrated application of their expertise in a design process. Programme graduates are thus capable of working with advanced IT in an academically prudent, ethically sound and socially responsible way, and of contributing to the further development of the field of study. Furthermore, graduates are capable of pursuing a Master's programme to specialize in a particular aspect of IT or aspect of the field and/or to gain further experience by conducting scientific research. The design-oriented programme activates and challenges students by focusing on the combination of expertise, quality, creativity and technological developments, thus preparing them for a future in which they continually work on their professional development and apply their expertise appropriately, effectively and with sound professional judgement.

The main objectives of the Bachelor's programme in Business Information Technology are admission to a Master's programme, and qualification of the graduate for independent professional practice.

The BIT Bachelor's programme trains academic Bachelor students to be able of designing high quality, efficient and effective IT systems and to synchronize them with the needs and context of their users. To this end, Bachelor BIT graduates possess:

- 1. insight into and experience with the application of models,
- 2. an academically inquisitive attitude,
- 3. thorough technical knowledge and understanding,
- 4. experience in the integrated application of their expertise in a design process:
  - a. assessing the costs and benefits of potential solutions,
  - b. implementing information systems in the relevant business contexts,
  - c. the software development process (software engineering),
  - d. developing web applications and other programmes,
  - e. the interaction between people and technology.
- 5. the knowledge and skills to work with advanced IT in an academically prudent, ethically sound and socially responsible way,
- 6. the knowledge and skills to further the development of the field of study.

# Article 1.2 The final qualifications of the programme (Article 7.13, paragraph 2c WHW)

The BIT programme's intended learning outcomes are shown in Table 1, grouped in six different domains.

#### Table 1. B-BIT Programme Intended Learning Outcomes (PILOs)

After completing this study programme the student:

#### 1 Business domain knowledge and skills

- 1.1 Understands theories of the process behind the production of goods and services and can apply this in designing solutions.
- 1.2 Understands models of costing and budgeting and their significance for the ability to manage business processes and can apply this in designing solutions.
- 1.3 Can analyse, design and/or redesign business processes that support business operations, making use of theories and models of business processes and methods for analysis and design.

# 2 Information Technology domain knowledge and skills

- 2.1 Understands the methods, techniques and tools for the development of software systems, and can apply them.
- 2.2 Understands theories, methods and techniques for the management and analysis of data, as well as of relevant implementation and maintenance aspects.
- 2.3 Knows and understands how to design user interfaces, focusing on the interactions between the end-users and the system.
- 2.4 Knows and understands how to design, implement, and manage secure information systems and networks.

# 3. Business-IT alignment knowledge and skills

- 3.1 Can systematically integrate requirements and practices from business and IT in specified application areas using theories and models of organization and IT.
- 3.2 Understands theories concerning the role of information technology in business operations and innovation.
- 3.3 Can analyse, design and/or redesign the information systems that support business operations using the design cycle (see 4.1).
- 3.4 Understands the management aspects, quality and risk management of the software development process and software products.
- 3.5 Can analyse and interpret data through data-driven approaches to inform intelligent business decision-making and drive innovation.

# 4 Scientific approach

- 4.1 Can under supervision systematically apply the design cycle (analysis, design, implementation, evaluation and reflection) to IT- and business-related problems, while applying theories from different disciplines if necessary.
- 4.2 Can under supervision systematically design and execute a research plan (literature research, problem analysis, formulating hypothesis, design and execution of a research plan, data analysis, reporting, conclusions) crossing different disciplines or fields if necessary.
- 4.3 Has basic knowledge of, and is able to apply research methodology and research ethics, both in the area of social science research as in design research.
- 4.4 Can apply creative and critical thinking, reflection and argumentation.
- 4.5 Is capable of independently acquiring new knowledge and skills from different disciplines.
- 4.6 Can apply specific mathematical theories, and analyse problems and solutions conceptually.

#### 5 Professional skills

- 5.1 Can cooperate, discuss and report in written and verbal ways, in English, in both professional and research settings, and is aware of the differences between these settings.
- 5.2 Is capable of working as part of a (multi-disciplinary) team in different roles, as member or leader, in terms of sharing responsibilities, applying time management, and planning resources and reporting, and is aware of group dynamics in development projects.
- 5.3 Is capable of functioning as a professional in and between different disciplines/fields.
- 5.4 Is capable of setting up and leading a (simple) enterprise.
- 5.5 Is capable of shaping his/her learning process, his/her competencies and develop his/her professional identity, by deliberately choosing, motivating and completing study units that match personal capacities, skills, and motives.

# 6. Taking account of Social and Temporal context

- 6.1 Is capable of analysing and discussing ethical, social, cultural, and societal aspects of problems, solutions and developments and their consequences in the field.
- 6.2 Can value differences between cultures and can learn from these.

Article 1.3 Content of the programme and related examinations (Article 7.13, paragraph 2a WHW)

# Article 1.3.1 The Curriculum (Article 3.6, paragraph 1 Section A)

Table 2 shows which modules make up the curriculum, the study units comprising them where applicable, their credits, required or preferred prior knowledge and the sequence of these modules throughout the programme. The associated learning goals are included in the module descriptions provided through the OSIRIS system.

#### *Article 1.3.2 The minor profile*

- 1. The minor profile consists of two minor modules;
- 2. Approved minors are listed on the minors site: www.utwente.nl/minor;
- 3. The minor profile is limited to no more than one in-depth minor. See Table 3;
- 4. If the student is opting for a free-choice minor, which is a minor that is not in the list of approved minors, the student must first request the permission of the Examination Board;
- 5. The Examination Board uses the following guidelines to assess the student's request:
  - a. The educational study unit of the minor must be at an academic level;
  - b. At least 15 of the 30 credits must involve a paradigm shift;
    - i. The contents of an exchange minor may fall within the field of computer science, business administration or industrial engineering and management, provided that the minor is taken at an institute of higher education abroad and the educational component of the minor is at an academic level.
  - c. The educational study unit of the minor may not overlap with the programme's compulsory content;
  - d. Up to five credits may be devoted to courses on the language and culture of the host country.

See www.utwente.nl/bit for further information regarding the Examination Board's procedure for approving the minor. Once approval has been granted, the Bureau of Educational Affairs (BOZ) is responsible for the administrative procedure involved in enrolling the student in the relevant minor.

# Article 1.3.3 Sequence requirements (Article 7.13, paragraph 2s WHW)

- 1. To enrol in minors' courses/modules through the Minor Bureau, students must have accumulated at least 75 credits, including all first-year modules (phase 1);
- 2. To enrol in modules BIT INC (202001092) or Research Project (202001050), students must have accumulated at least 120 credits from the core of the BIT program, i.e. years 1 and 2, excluding minors.

# Article 1.4 Programme format (Article 7.13, paragraph 2i WHW)

The programme is only offered on a full-time basis.

Table 2. B-BIT curriculum

Course Code Module/ Module name	Name Study Unit	SU code	EC	Q	Prerequisites
B1-fase (Year 1)	<u> </u>				1
DI Juse (rear 1)	Introduction to mathematics +	202001187	4	4.0	
	Calculus 1A for BIT			1A	
20201060	Intro to Computer Science	202001061	6		
Introduction to BIT	Intro to Business Information	202001062	4		
introduction to bir	Technology				
	Research Methods	202100155	1		
202001064	Calculus 1B for BIT	202001194	3	1B	
	System Design	202001065	4		
Software Development	Programming	202001066	8		
	Linear Algebra for BIT	202001202	3	2A	
202001067	Business Intelligence and	202001068	4.5		
	Databases				
<b>Business Intelligence</b>	Business Process Management	202001069	4.5		
and IT	Research Methods	202001070	2.5		
	Academic Skills	202001071	0.5		
202001027	Probability Theory for CS/BIT	202001233	3	2B	
<b>Data &amp; Information</b>	Data & Information Core	202001028	12		
Module					
B2-fase (Year 2)					
	Accounting and Finance	202000411	3.5	1A	
202000410	Option Pricing	202000412	2.5		
Finance for Engineers	Project Finance for Engineers	202000413	6		
	IT & Law	202100211	3		
202001031	Statistical Techniques for	202001033	3	1B	Desirable: Software
Intelligent Interaction	CS/BIT				Development/
Design Module for	HCI Design and Evaluation	202200146	6		Software Systems
CS/BIT	AI & Cyber Security	202200146	6		
	ERP Apps & ICT Architecture	202001084	5	2A	Desirable: all
202000420	Product Design to Online	202000421	4		preceding modules
From Product Design to	Business Theory			1	
Online Business	Product Design to Online	202000422	6		
	Business Project				
202001087	IT Project Design & Initiation	202001088	4	2B	
Business Innovation	IT Project Performance	202001089	<u>4</u>		
through IT Project	IT Project in Context	202001090	3		
	IT Project Design in Practice	202001091	4		

Course code Module/	Name Study Unit	SU code	EC	Q	Prerequisites
Module name					
B3-fase (Year 3)					
Minor			15	1A	Required: See art.
					1.3.3 lid 1 of appendix
Minor			15	1B	Required: See art.
					1.3.3 lid 1 of appendix
202001092	Practical Component	202001093	10	1A/	Required see art.
BIT Inc	Reflection Component	202001094	5	2A	1.3.3 lid 2 of this
					appendix
202001050	Research Component	202001051	15	1B/	Required see art.
Research Project	Reflection Component			2B	1.3.3 lid 2 of this
					appendix

<sup>\*</sup> Desirable: some prior module-specific knowledge is advised, although this is not a prerequisite. Required: prerequisite must be met prior to starting the module

Table 3. In-depth minor modules

Course Code Module/	Name Study Unit	SU code	EC	Q	Prerequisites
Module name					
202001098	Serious Gaming	202001100	4.5	1A	
Serious Gaming	redesigned				
	Serious Gaming project	202001099	10.5		
20200092	Smart Cities –	202000093	15	1A	
Smart Cities –	Multifunctional Flood				
Multifunctional Flood	Defences				
Defences					
202001040	Smart Spaces Core	202001041	15	1A	
Smart Spaces Module					
202200020	Machine Learning for	202200021	3.5	1A	Desirable: Intelligent
Data Science &	Datatypes				Interaction Design
Artificial intelligence:	Knowledge	202200022	4.5		
Seeing through the	Representation and				
hype	Reasoning & Data Quality				
	Explainable AI & Ethics	202200023	3		
	Project	202200024	4		
202001044	Social Network and	202001045	6.5	1B	Desirable: Software
Web Science	Dynamics				Development/ Software
	Games, Auctions and	202001046	6.5		Systems
	Voting				
	Web Science Final Project	202001047	2		
202000594	High Tech Talent	202000595	15	1B	
High Tech Talent	Management in a Global				
Management in a	Context				
Global Context					
202001042	Cyber Physical Systems	202001042	15	1B	Desirable: Software
Cyber-Physical	Core				Development/ Software
Systems Module					Systems
202001038	Programming Paradigms	202001038	15	2B	Desirable: Software
Programming	Core				Development/ Software
Paradigms Module					Systems

# B2. LANGUAGE OF TUITION (Article 2.2, paragraph 2 Section A)

The programme is taught in English.

#### **B3. TEACHING AND ASSESSMENT**

#### Article 3.1 Assessment and examination formats (Article 7.13, paragraph 2l WHW)

The examination format for each study unit is specified in the module descriptions provided through the OSIRIS system, and test schedules are published on the module's Canvas page prior to the start of the specific module.

# Article 3.2 Registration of results

In addition to Article 3.3 Section A:

- 1. Exemptions for examinations are indicated with the code 'EX'.
- 2. The examination results of sufficient (P), insufficient (F) have no numerical values.

# Article 3.3 Participation in tests (Article 3.5 Section A)

- If attendance in designated educational activities is a prerequisite for participation in a test, then the module coordinator must decide on granting exemptions to students resitting the test or must define an alternative method to satisfy the attendance requirement.
- 2. If a module has been changed and the non-divisible study unit is no longer clearly identifiable, then the module coordinator must decide which tests must be passed in order to complete the former non-divisible study unit.
- 3. A substantiated request must be submitted to the Examination Board if a student wishes to participate in tests that are not part of the regular module.

# Article 3.4 Third attempt

If a student fails to pass a module after having been offered a 2<sup>nd</sup> opportunity to pass such a module (either for failing the 2<sup>nd</sup> attempt or for not registering for the 2<sup>nd</sup> attempt), then the student must agree on a study plan together with the Study Adviser at least two weeks prior to the start of each additional opportunity to pass this module. The study plan must include at least agreements on timekeeping and active participation tutorials.

#### Article 3.5 Examination transparency

In addition to Article 3.6 Section A, the programme is to ensure that information is made available for each examination regarding its level, structure and marking norms, e.g. by providing a sample examination, an examination from a previous year or a collection of sample examination questions.

# Article 3.6 Period of validity (Article 3.9 Section A)

A study unit only becomes indefinitely valid if the student has received a 6.0 or higher grade for that particular study unit. The test schedules, published on the Canvas page of the module as described in Article 3.1 Section B, indicate which grades remain valid indefinitely.

# Article 3.7 Confidentiality

#### In addition to Article 3.11 Section A:

- 1. Reports of final assignments are public documents except for the cases in items 2 and 3.
- 2. The programme director may deem a report to be confidential for a specific period based on a detailed request:
  - a. The first supervisor must submit a request to the programme director prior to the start of the final assignment.
  - b. The confidential report must be accessible/available to the committee responsible for assessing the final assignment, the programme director, and representatives of bodies that have a statutory duty of overseeing the quality of the assessment or the programme as a whole.
  - c. The parties mentioned above are required to observe confidentiality with regard to the report.
- 3. In the case of a confidential report as referred to in point 2, the public presentation of the report may be amended to ensure that no confidential information is made public.

#### Article 3.8 Teaching evaluations (Art. 3.12 Section A)

- 1. The online Student Experience Questionnaire (SEQ) is used for evaluation purposes at the conclusion of each module;
- Additionally, the module coordinator may initiate supplementary evaluations, such as additional surveys and panel discussions during the module or at its conclusion;
- 3. If the SEQ results and/or student complaints give reason for concern, then the programme management is to discuss the matter with the module coordinator either during the module or at its conclusion;
- 4. The programme management and module coordinator are to use this discussion to develop a plan for improving the remainder of the module or for the subsequent module, including a strategy for evaluating the improvements.

# **B4. FINAL DEGREE AUDIT**

# Article 4.1 Pass/Fail Regulation

- 1. Students who meet the following requirements will pass the Bachelor's final degree audit for the BIT programme:
  - a. The student has received an assessment for all units of study of the Bachelor's final degree audit;
  - b. The student's final results are 6.0 or higher for all units of study;

#### Article 4.2 Cum Laude

- 1. A student may pass the Bachelor's final degree audit with distinction (cum laude) upon meeting all of the following requirements:
  - a. The student passes the Bachelor's final degree audit within four years of initial enrolment (performance requirement);
  - b. The student's average mark is 8.0 or higher (non-numeric assessments and exemptions not included). This is a weighted average based on the relative number of credits per unit of study. The results for minor modules are taken into account. Results for study units outside the examination programme are not taken into account.
  - c. No more than one unit of study may have a final result of 6.0 or lower.
  - d. The mark for the study unit "Research component" (202001096) of the module Research Project is 8.0 or higher.
- 2. At the student's request, the Examination Board may award the distinction of cum laude if the student has met all requirements with the exception of the performance requirement, due to extenuating circumstances. These circumstances may involve delays recognized and provided for by the institution. The distinction of cum laude is never awarded automatically, but only following individual assessment of the student's academic achievements.
- 3. If a student has committed a registered case of academic misconduct, the examination board may decide to exclude the student from Cum Laude.

# **B5. BINDING RECOMMENDATION (BSA)**

A student will receive a positive BSA upon satisfying one of the following conditions (Article 6.2 Section A):

- 1. Successful completion of minimum 45 credits of first year study units, including at least three of the mathematics study units (Introduction to Mathematics + Calculus 1A, Calculus 1B, Linear Algebra, Probability Theory), or;
- 2. Successful completion of minimum 51 credits of first year study units, including at least 2 of the mathematics study units (Introduction to Mathematics + Calculus 1A, Calculus 1B, Linear Algebra, Probability Theory).

#### B6. STUDY MATERIALSπ

Students must obtain a 'budget notebook' from the Notebook Service Centre (or acquire a similar or better device). A high-end notebook is recommended. All other required and recommended study materials are specified in the module descriptions provided through the OSIRIS system. The programme is not responsible for any problems or study delays due to notebooks that are not obtained via the university.