Teaching and Examination Regulations (OER)
(under Articles 7.13 and 7.59 of the Higher Education and Research Act)

The Dean of the School of Management and Governance (SMG) and the Dean of the Faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS),

in view of the Articles 9.5, 9.15, paragraph 1 under a, 7.13 paragraph 1 and 2, 9.38, under b, and 9.18 paragraph 1 under a, and 7.59 of the Higher Education and Research Act (WHW), and

in due consideration of the recommendations of the programme committees, as well as the approval by, or advice of, both Faculty Councils, pertaining to the programme-specific appendix of the programme in question,

hereby authorizes

the Teaching and Examination Regulations 2013 / 2014

of the UT Master of Science (MSc) degree programme:
Business Information Technology

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1 The right of recommendation pertains to Article 7.13, parts a through g, of the WHW. The right of consent refers to the other parts of Article 7.13.
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Program specific appendix
Preamble – Applicability

1. Each Master's programme has its own programme-specific appendix.
2. For each programme, the common elements and the programme-specific appendix together form the Teaching and Examination Regulations for the applicable Master's programme.
3. The common elements and the programme-specific appendix of the Teaching and Examination Regulations are authorized by the Dean.
4. The Teaching and Examination Regulations (OER) apply to all students registered with the applicable programme.
5. A programme's Examination Board sets down the Examination Board Regulations for the execution of its tasks and powers in accordance with art. 7.12b of the WHW. These regulations are laid down in the Rules & Regulations of the Examination Boards.
6. The jurisdiction of the Examination Board of a program extends to all units of study that are part of the programme that the student is registered with.
7. The stipulations in this general section of the Teaching and Examination Regulations, in the programme-specific appendix of the Teaching and Examination Regulations and in the rules and regulations of the programme's Examination Board also apply to units of study taught by lecturers from other programmes or institutions.
8. Please read all qualifications such as him, her, he and she as gender neutral.

Section 1 - General

Article 1 – Terms and definitions

The terms used in these regulations should be interpreted as meaning the same as in the Higher Education and Scientific Research Act (WHW), insofar as they are defined in that Act.

Academic year: The term that starts on 1 September and ends on 31 August the following year. The academic year is 60 ECs or 1680 hours
Act: The Higher Education and Scientific Research Act (WHW), in the Dutch Bulletin of Acts, Orders and Decrees, number 593, and as amended since
Authorized proof of result A list or other written document initialled by or on behalf of an Examiner, or a result published via the Student Information System (SIS)
BOZ: The Educational Affairs Office
Blackboard: The electronic learning environment of the University of Twente
Cohort: Generation or group of students who started the same academic programme in the same year
Dean: Head of the Faculty (Article 9.12, WHW)
Degree programme The applicable curriculum of the programme as recorded in the programme-specific appendix
EB Executive Board of the University of Twente
EC: European Credit (EC), a credit point of 28 hours as described in the WHW and in accordance with the European Credits Transfer System: European agreements on a system for expressing student study load; the study load of an academic year is 60 European Credit points, or 1680 hours (see Article 7.4 of the WHW)
EEMCS: The Faculty of Electrical Engineering, Mathematics and Computer Science
Exam: An evaluation of the knowledge, insights and skills of the student, as well as the assessment of the results of that evaluation. An exam may consist of multiple components
Examination: An examination is deemed successfully completed if the exams required for the units of study of a programme have been successfully taken
Examination Board: The programme’s Examination Board is appointed by the Dean in accordance with Article 7.12 of the WHW
Examination programme: The specific combination of units of study that an individual student is to complete during the course of a programme, inclusive of any optional
(elective) programme components, as recorded in the Student Information System (SIS).

**Examiner:**
The individual who has been appointed by the Examination Board to hold exams and determine the results thereof in accordance with Article 7.12c of the WHW

**Institution:**
University of Twente

**MSc:**
Master of Science; degree granted to a person successfully completing a Master's programme with an "of Science" attachment (WHW, Article 7.19a).

**OER:**
Onderwijs- en Examenregeling; this is the Dutch name of the Teaching and Examination Regulations (TER)

**OLC:**
The programme committee (Article 9.18, WHW)

**OSIRIS:**
The Student Information System (SIS) of the University of Twente

**Programme:**
The Master's programme as described in the programme-specific appendix to the Teaching and Examination Regulations. A programme is a cohesive set of units of study focused on the achievement of clearly described objectives in terms of knowledge, comprehension and skills that the person completing the programme must possess (Article 7.3, paragraph 2, WHW)

**Programme committee:**
Committee (with both teaching staff members and student members) that advises a programme director on the OER and all academic matters (Article 9.18, WHW, and article 13, faculty regulations)

**Programme director:**
Person appointed by the Dean to manage the degree programme

**Programme management:**
The body appointed by the Dean to manage the degree programme. This may be one person, who then will be referred to as programme director programme (Article 9.17, par. 1 WHW)

**Practical exercise:**
A practical exercise, as described in Article 7.13, paragraph 2d of the WHW is a unit of study or part of a unit of study, whereby the emphasis is placed on the student's activities, such as:
1. carrying out literature research, an assignment or a preliminary design, writing a thesis, article or 'position paper', or giving a presentation in public;
2. carrying out a design or research assignment, doing tests and experiments, participating in practical sessions, practicing skills;
3. following an internship, taking part in fieldwork or an excursion;
4. participating in other educational activities deemed as necessary and aimed at achieving the required skills

**R&R:**
The rules and regulations of the Examination Board (WHW, Article 7.12, paragraph 4)

**SMG:**
The School of Management and Governance

**Student:**
Anyone registered with a programme in accordance with Article 7.34 and 7.37 of the WHW

**Student Information System (SIS):**
Application authorized by the Board of the university for registration and for providing information on all relevant data on the students and the university, as described in the WHW

**Study adviser:**
Person appointed by the Dean who acts as contact between the student and the university, and in this role represents the interests of the students, as well as fulfilling an advisory role

**Student counsellor:**
Person appointed by the Board of the University who acts as contact between the student and the university as described in Article 7.34, paragraph 1d of the WHW

**Study rate:**
Number of ECs achieved in a certain period divided by the number of ECs that can nominally be achieved in the period

**Unit of study:**
A unit of study in a programme as described in Article 7.3, paragraphs 2 and 3 of the WHW. Each unit of study is concluded with an exam. The units of study from which a programme is composed (also referred to as 'courses') are listed in the programme-specific appendix for that programme.

**UT:**
University of Twente

**WHW:**
The "Wet op het Hoger onderwijs en Wetenschappelijk onderzoek, in this
document also called the “Act” (see above)

Working day: Any days from Monday to Friday with the exception of official holidays and the pre-arranged ‘bridging days’ (brugdagen) on which the staff are free

**Article 2 – Programme content**

1 The items as described in Article 7.13, paragraph 2, a to e, j, l, s and t of the WHW are laid out in the specific appendix of each programme. They include:

   a. the content of the programme and its examination (WHW, Article 7.13, paragraph 2a)
   b. content of the specializations (WHW, Article 7.13 paragraph 2b)
   c. the qualifications as for the knowledge, insight and skills that a student must have acquired after having finished the programme (Article 7.13, paragraph 2c of the WHW)
   d. content of practical exercises (Article 7.13, paragraph 2d of the WHW)
   e. study load of the programme and of all study units that comprise the programme (article 7.13 paragraph 2e of the WHW)
   f. number and sequence of exams and practical exercises (Article 7.13, paragraph 2h of the WHW)
   g. programme format: full-time, part-time, sandwich, according to the CROHO registration (Central Register of Higher Education Study Programmes) (Article 7.13 paragraph 2i of the WHW)
   h. format of the exams: oral, written, individual, group etc. (Article 7.13, paragraph 2i of the WHW)
   i. required sequence of exams: whether or not passing certain exams is a condition for admission to participation in teaching activities or other exams; admission standards and participation requirements for practical exercises (Article 7.13 paragraph 2s, t of the WHW)

In addition the programme-specific appendix also includes descriptions of the following:

   j. requirements related to electives and students’ individual choices
   k. transitional arrangements, as referred to in Article 24 of the OER
   l. language to be used for teaching and exams (Article 7.2 of the WHW)

**Article 3 – Final attainment targets of the programme** *(WHW, Article 7.13 par. 2c)*

The goals and final attainment targets (Article 7.13 paragraph 2 sub c of the WHW) are described in the specific programme appendices.

The final attainment targets of the Master’s programme either fit the internationally recognised level descriptions of the so-called Dublin Descriptors, or are in accordance with the equivalent Criteria for Academic Bachelor and Master Programmes agreed upon by the 3TU.

The *Dublin Descriptors* are:

   a. Knowledge and insight
   b. Application of knowledge and comprehension
   c. Critical thinking
   d. Communications
   e. Learning skills

The *3TU Criteria for Academic Bachelor and Master Programmes* are:

1. Expertise in one or more academic disciplines
2. Research competence
3. Design competence
4. A scientific approach
5. Basic intellectual skills
6. Competence in cooperation and communication
7. Awareness of temporal and social context

**Article 4 - Admission to the programme**
1. Admission requirements for the Master's programme are set out in the programme-specific appendices. Admission to a Master of Science degree programme is granted if one of the prior education requirements for admission to university education, in accordance with Articles 7.30 a, b and c of the WHW is met.

2. The rules for the furnishing of proof of admission (in accordance with Article 7.30 a of the WHW) are set out by the Dean in Article 21 of the Faculty Regulations (see WHW, Article 9.15, paragraph 1h).

**Article 4a - Language**

1. Master's programmes at SMG and EEMCS are taught and examined in English (including papers and other assignments written by students), in accordance with the Code of Conduct Languages of Instruction of the University of Twente.

2. The final thesis is written and defended in English. Students are free to make a translation or summary in Dutch once this is necessary for the dissemination of the research results, but the final grade will be based on the original version in English.

2a In case writing the final thesis in English is infeasible or impracticable considering the research subject or the organization under research, the examination board may allow for a deviation of this rule. Permission to write the thesis in Dutch will only be granted on the condition that the student also writes a short version of the report in English of 4500-5500 words, based on the thesis and the thesis work. To establish the final grade, both the thesis and the short version in English will be subject to assessment.

3. In specific cases related to the nature of the programme, the examination board may decide that a complete programme or track can be taught and examined in Dutch.

4. Programme-specific additions to this article, as well as the way the programme guarantees that the conditions as stated in article 3 of the Code of Conduct Languages of Instruction will be satisfied, are described in the programme-specific appendix.

**Section 2 – Student guidance**

(Article 5 – this article has been abolished)

**Article 6 – Student guidance** (Article 7.13 paragraph 2u of the WHW)

1. The Dean is responsible for student guidance, among others to inform the student of study opportunities within and without the programme. The Dean has given a mandate to the Programme Director of the programme to execute the tasks of student guidance.

2. Each student is appointed a study adviser.

3. The study adviser supervises the student and offers advice on study-related matters, as well as personal problems if the student so desires.

4. (not applicable)

5. (not applicable)

6. If a student wishes to make use of his/her right to specific guidance or facilities, they must contact the study adviser. The study adviser records the agreements with the student, from which agreements rights may be derived. The following applies to special facilities:

   a. Students who fall behind in their studies through demonstrable circumstances beyond their control or personal circumstances have the right to special agreements on guidance.

   b. The right to the aforementioned agreements concerns the right to additional individual student guidance. This includes dispensation from participation in programme components and/or the use of special facilities, if necessary and possible. Such dispensation and special facilities can only be granted by the Examination Board.
**Article 7 - Studying with a disability (Article 7.13, paragraph m of the WHW)**

1. A disability is a protracted physical, sensory or other functional disorder that might limit the student’s academic progress.
2. The extra facilities considered most effective for the student in question are discussed in an interview with the study adviser. The extra facilities are intended to safeguard the student’s achievement of the final attainment targets.
3. On the basis of the interview described in paragraph 2, the student submits a written application for the facilities in consultation with the study adviser.
4. The application is submitted to the Dean of the faculty, preferably three months before the student is to participate in classes, exams and practical exercises for which the facilities are required.
5. The application is supported by documents that can reasonably be requested in support of the application (such as a doctor’s or psychologist’s letter or, in case of dyslexia for example, a report by a testing bureau registered with BIF, NIB or NVO).
6. The Dean of the faculty makes a decision, within 20 working days of receipt of the application, or as earlier as the urgency of the application necessitates it, on the validity of the application as described in paragraph 3, and informs the student and the study adviser of his/her informed decision.
7. The study Adviser ensures that the relevant parties are notified in due time of the facilities granted to the student with a disability.
8. Should the Dean of the faculty turn down the application in full or in part, the Dean will inform the student of the justification for this rejection and the possibilities for making an objection and an appeal. An objection must be submitted in writing to the Student Services’ Complaints Desk within six weeks of notice of the decision.
9. Should extra facilities be granted, it will be stated for what period this grant will apply. The applicant and the study adviser will evaluate the facilities before the end of this period. During this evaluation parties will discuss the effectiveness of the facilities provided and whether they should be continued.
10. The dean has charged the processing of the applications in paragraphs 2 to 8 to the programme director.

**Section 3 - Exams**

**Article 8 – Frequency, periods, registration and withdrawing registration** (Article 7.13, paragraph 2j of the WHW)

1. There will be an opportunity at least twice a year to sit written or oral exams. Practical exercises can be completed at least once per year.
1a. Study units offered more than once per academic year may offer more than two exam opportunities per year. In these cases, too, the student is authorized to sit a maximum of two exam sessions.
2. There is in any case at least one opportunity to sit an exam at the end of the period in which the applicable unit of study had been taught.
3. (cancelled)
4. (not applicable)
5. In contradiction with that determined in paragraph 1 of this article, an opportunity to take an exam for a unit of study that is part of the degree programme, but which was not taught during that particular academic year, shall be offered at least once per academic year.
6. Exceptionally the Examination Board can deviate from the number of times and the manner in which exams can be taken.
6a. In individual cases, the Examination Board will always consult a study adviser on this decision.
7. At least one month before the start of the semester the exam timetable for that semester is published with the dates and times of the exams. The exam timetable is recorded in the SIS (Osiris) and can a.o. be consulted through the Student Portal, under ‘UT – course test schedule’.
8. An exam can only be moved to another time slot than indicated in the exam timetable with the permission of the Programme Director. Students will be informed of the change. The Programme
Director must inform the Examination Board at the first meeting of the Board taking place after his decision to move the exam.

9. The student is required to register for written exams via the SIS. The exam timetable provides information about the registration opening and closing dates for written exams and tests.

10. Should the student fail to register before the close of registration, he will lose the right to take that particular exam.

11. The student can deregister for an exam no later than the day prior to the exam in question\(^2\).

12. Should a student fail to appear for an exam for which he registered via the SIS, and for which he failed to deregister on time, in accordance with par. 11, this is recorded in the SIS as equal to a ‘fail’.

**Article 8a – Types of exams and information about the exams**

1. A unit of study is completed with an exam. An exam can comprise one of the following types:
   - a written test
   - an oral test
   - a series of tests
   - the assessment of practical exercises as meant in Article 1 (Glossary)
   - a combination of the above.

2. No later than two weeks before the start of the teaching period of a unit of study the responsible examiner will publish the following details about the exam:
   - the exam requirements (in any case which course material is to be tested)
   - further information concerning the method of examination
   - in case of a series of tests or a combination of exam types as referred to in par. 1, the weight to be attributed to each of the constituent elements in determining the exam’s final result.

3. The information referred to in par. 2 is in any case published in the electronic learning environment (the Blackboard site) of the unit of study in question.

4. The student has the right to view model exam questions or practice exams or representative past exams including the corresponding model answers and assessment standard.

**Article 8b – Master’s project**

1. The Master’s project (or thesis) constitutes a special form of practical exercise as meant in art. 1 (Glossary). Its duration is formally limited by the number of ECs reserved for the project in the respective Master’s programme, translated into a corresponding number of weeks (1 EC= 28 hours). At the end of the period thus established, the project is evaluated using a special Master’s thesis evaluation form. The project is concluded by a colloquium, where the student presents and defends the results.

2. At the start of the project the student draws up a time schedule for his individual project, based on the maximum duration as indicated in par. 1. This schedule has to be approved by the primary supervisor (and examiner) of the project. The start of the project is indicated on the registration form of the project in the university’s Student Mobility System (SMS).

3. In case of major problems or unsatisfactory performance by the student or the supervisors during the project, the programme director will decide on the continuation of the project. The student can contest the programme director’s decision by lodging an objection with the Examination Board.

4. Should the student, in spite of a demonstrably adequate level and quality of the supervision received, not succeed in completing the final thesis within the agreed period of time, he will be granted extra time to do so. The extra time to be granted will be bound by a limit of 50% of the maximum duration of the project as indicated in par. 1. The project’s supervisors will give clear indications of the elements of the student’s work that need to be remediated and the lines along which this may be done.

5. The programme director will terminate the Master’s project if, after the extra time conceded, the student has not yet successfully completed the final thesis or no ‘green light’ has been given by the supervisors for the colloquium that rounds off the project.

\(^2\) i.e., until midnight (24:00) of the day before the day of the exam
6. After termination of the project as meant in par. 5, the student must file a motivated request to the Examination Board if he wants to start a new Master’s project.

Article 9 - Oral exams (Article 7.13 paragraph 2n of the WHW)

1. Oral exams are taken in public, unless the Examination Board decides otherwise due to extraordinary circumstances.
2. A student or examiner who wishes third parties to be present during an oral exam, must inform the Examination Board at least 10 working days prior to this exam.
2a. Master’s colloquia are exempted from this rule.
3. If the Examination Board has determined that members of the Examination Board or an observer representing the Examination Board is to be present during an oral exam, the examiner and the student will be informed by the Examination Board at least one working day prior to the exam.

Article 10 - Validity of exams (Article 7.13 paragraph 2k of the WHW)

1. A successfully completed unit of study is valid for a term of 4 years.
2. The student can submit a request to the Examination Board to have the validity of a result as meant in paragraph 1 extended.
3. If an exam is composed of a series or combination of tests or formats, the validity of test results of the individual components does not exceed the academic year in which they are achieved. The examiner of the unit of study may determine an alternative arrangement. In this case the examiner will inform the Examination Board. The alternative arrangement must be made known via the electronic learning environment (the Blackboard site) of the unit of study in question.

Article 11 – Confirmation and publication of the results (Article 7.13 paragraph 2o of the WHW)

1. The result of a written exam or practical exercise is published via the SIS within 20 working days. The publication will be done by BOZ (Office of Educational Affairs).
1a. The examiner will determine the result of a written exam within 15 working days after the exam and notify BOZ of the result.
1b. No rights can be derived from exam results that have been published via Blackboard or any other medium not being the SIS.
2. The result of an oral exam is made known to the student within one working day in the form of an authorized proof of result provided by the examiner.
3. The provisions of paragraph 2 do not apply if the oral exam is part of a series of oral exams of the same study unit, which take place on more than one day. In that case, the examiner determines the result within one working day after conclusion of the series of oral exams.
4. If the result for a unit of study is based on the completion of one or more assignments, or on writing a paper or thesis, then the date of submission of the final assignment, paper or thesis will count as the exam date.
5. Should the examiner not be able to meet the term as described in paragraphs 1 and 2 due to extraordinary circumstances, he/she reports this with reasons to the Examination Board. The student is informed of the delay as soon as possible by the Examination Board, whereby the new term within which the result will be made known is also communicated. If the Examination Board is of the opinion that the examiner has not met his/her obligations, it may appoint another examiner to ascertain the result of the exam.
6. If a second exam is planned shortly after the first, the results of the first exam will be published at least ten working days prior to the second exam.
7. The student can request a certified study progress overview from the Student Services desk in the Vrijhof if required.
8. If a student receives more than one authorized result for one and the same unit of study, the highest result will apply.
Article 12 - Right of inspection and justification (Article 7.13 paragraph 2p of the WHW)

1. The student has the right to hear a justification of the results of an exam from the examiner at a post-hoc discussion. If no collective discussion is held, the student may submit a request for an individual discussion to the examiner within 10 working days of publication of the exam results. This discussion, or a collective discussion, must be held within five weeks of publication of the exam results, by the examiner or a substitute mandated by him.
2. The examiner responsible for the assessment of a student’s written exam is also responsible for ensuring that this work is kept on file in the administration of the relevant chair or department for two years following publication of the results. The student has the right of inspection of his work during this term.
3. The Examination Board may permit deviations from the provisions of paragraphs 1 and 2.

Article 13 – Administrative errors

If, following the publication of an exam result, a marks sheet, or an overview of a student’s progress, an alleged 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 with rectification of the error.

Article 14 – Exemption from an exam or practical exercise (Article 7.13 paragraph 2 r+t of the WHW)

1. The Examination Board can, at a student’s request, grant that student exemption from an exam or practical exercise. If applicable, the examiner in question may be consulted first.
2. The grounds under which the Examination Board can grant exemption from a specific exam pertain solely to the level, content and quality of exams or tests previously taken by the student, or knowledge, insight and skills acquired by the student outside of the sphere of university education.
3. Students may also be exempted from assignments or practical exercises by the Examination Board if they can demonstrate that a specific assignment or practical exercise, or the execution of such assignment or exercise, will likely place them before a moral dilemma. In such a case the Examination Board decides whether the practical exercise or assignment can be carried out in another manner, to be determined by the Board.
4. The rules enforced by the Examination Board for granting exemptions are set out in article 12 of the R&R (part C, students’ charter).

Section 4 - Examinations

Article 15 - Flexible programme (Article 7.3 d of the WHW)

The Examination Board of the programme decides on requests for permission to take a flexible programme as described in article 7.3d of the WHW. The Examination Board assesses whether a flexible programme is appropriate and consistent within the domain of the programme and whether the level is high enough in light of the final attainment targets of the programme (see also article 13 of the R&R).

Article 16 – Programme examinations (Articles 7.10 and 7.13 paragraph 2a of the WHW)

1. The programme has a Master’s examination.
2. The last unit for this Master programme is the Master’s project (or ‘Master’s assignment’ or ‘Master’s thesis’). A colloquium is part of the final exam.
3. The result of the evaluation of the last study unit, the Master’s project, will not be confirmed until all other units contributing to the master examination have been passed successfully.
Article 17 – Periods, frequency of examinations and issuing of certificates and statements (Article 7.13 paragraph 2j of the WHW)

1. In accordance with Article 7.10 paragraph 2 of the WHW, the Master’s examination is deemed successfully completed if the exams in the Master’s phase have been taken successfully.

2. The Examination Board declares the student to have successfully completed the Master’s examination if he meets the examination requirements, and invites the student to accept the relevant certificate and marks sheet or supplement. The date recorded on the certificate - the examination date - is the date on which the student successfully completed the last remaining unit of study.

3. The student may submit a motivated request in writing to the Examination Board to postpone declaring the examination as ‘successfully completed’ and also to postpone the presentation of the certificate. The student must indicate the length of postponement he desires in this request.

4. The Examination Board will include the details of the stipulation in paragraph 3 in the Rules and Regulations of the Examination Boards.

5. If the student has requested postponement on the basis of paragraph 3, the examination date will be the date following postponement on which the Examination Board has decided to declare the student to have successfully completed the examination.

6. A student who has successfully completed more than one exam and to whom a certificate as referred to in paragraph 2 cannot be issued may, upon request, be given a statement to be issued by the Examination Board in which, at a minimum, the successfully completed exams are listed.

Article 18 – Degree (Article 7.19 of the WHW)

Participants who have successfully met all requirements of this Master programme are awarded a Master of Science (MSc) degree.

Section 5 - Appeal and objections

Article 19 - Individual appeals and objections (Article 7.61 of the WHW)

An appeal against a decision made by the Examination Board or an examiner, and objections to decisions made by the Dean on the basis of these regulations, must be submitted in writing to the Student Services’ Complaints Desk, within six weeks of notice of the decision.

Section 6 - Conflicts, amendments and implementation

Article 20 - Conflict with the regulations

If other additional regulations and/or provisions pertaining to teaching and/or examinations conflict with these Teaching and Examination Regulations, the present Teaching and Examination Regulations take precedence.

Article 21 - Amendments to the regulations

1. Amendments to these Teaching and Examination Regulations are determined, in principle, by the Dean in a separate decree.
2. In principle, 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.

3. Amendments to these regulations have no effect on earlier decisions of the Examination Board.

**Article 22 - Transitional arrangements**

1. In case of amendment of the Teaching and Examination Regulations, the Dean may decide on a transitional arrangement with a predetermined term of validity.

2. The transitional arrangement will be published on the applicable programme’s website.

3. Points of departure for a transitional arrangement if a degree programme is changed:
   a) changes to a study programme are published before the start of the academic year in which they are to apply
   b) no guarantee can be given that all the units of study of a programme, as these were defined upon a student’s registration with the programme, will actually be taught in the degree programme. The degree programme as most recently authorized by the Dean is taken as the basis for establishing the results of the Master's examination.

4. The transitional arrangements shall at all events include:
   a. which lapsed units of study are equivalent to which units of study, or part thereof, in the changed degree programme as recorded in the programme-specific appendix;
   b. that if a unit of study that does not involve a practical exercise is deleted from a programme, then students are to be given at least two opportunities in the following academic year to take the relevant exam, either orally or in writing, or to undergo another form of assessment;
   c. that if a unit of study that involves practical exercises is deleted from a programme, and during that academic year no opportunities are offered to carry out these practical exercises, at least one unit of study is designated to replace the lapsed unit of study;
   d. the term of validity of the transitional arrangements.

5. The stipulations in paragraph 4 of a transitional arrangement must be approved by the Examination Board

6. In exceptional cases, and if this is to the student’s advantage, the Examination Board may allow a deviation from the number of times and the way in which exams for a lapsed unit of study may be taken.

**Article 22a - Review of the Teaching and Examination Regulations**

1. The Dean is responsible for the regular review of the Teaching and Examination Regulations and takes into account the resultant study load for the students to enable this to be monitored and adjusted if necessary.

2. In accordance with article 9.18 of the WHW, the Programme Committee is responsible for issuing an advice on the Teaching and Examination Regulations as well as the annual assessment of the manner in which the Teaching and Examination Regulations are executed.

**Article 23 - Publication**

The Teaching and Examination Regulations (OER) and the rules and regulations of the Examination Boards are published via the website of the programme in question.

**Article 25 – Date of commencement**

The date of commencement of these regulations is 1 September 2013
Programme-specific appendix to the OER 2013-2014

for the Master of Science programme of

Business Information Technology (MBI)
B: Programme-specific appendix to the OER 2013-2014

For the Master of Science programme of

Business Information Technology (MBI)

1. Objectives (subject 1 NVAO accreditation system)
   1a Profile of the programme
   1b Final attainment targets of the programme (OER, art. 3)
   1c Level of the programme (facet 2 NVAO accreditation system; OER, art. 3)

2. Composition of the programme
   - The content of the programme and its associated examination (OER, article 2.1a)
   - Nature of the programme (OER, Article 2.1g)
   - Study load of the programme and of each of the study units making up the programme (OER, article 2.1e)
   - The exam formats (OER, article 2.1h)
   - Number and sequence of exams and practical exercises (OER, article 2.1f)
   - Required sequence of exams (OER, article 2.1i)

3 Coherence and didactic concept (facet 6 NVAO accreditation system)
   3a Coherence
   3b Didactic concept

4. Electives and practical exercises
   4a Content of the specializations (OER, Article 2.1b)
   4b Requirements related to electives and student's individual choices (OER, 2.1j)
   4c Content of practical exercises (OER, article 2.1d)

5. General information
   5a Admission to the programme (OER Article 4)
   5b Language of teaching and exams (OER article 2.1l)
   5c International cooperation
   5c Programme committee (OLC) and Examination Board

6. Transitional arrangements (OER, article 2.1k; OER, article 22)
1. Objectives

1a. Profile of the programme

1. The primary goal of the Master's programme is to provide graduates with a combination of academic perspectives and specialized technical knowledge that will enable them to analyse, design, validate and implement advanced ICT systems in their context of use. The students are trained to participate in and contribute to research in the field and international developments in and related to the field in scientifically, ethically and socially sound ways.

The Master's programme offers a stimulating and challenging research-oriented environment in which the following secondary goals are achieved.

a. Students acquire comprehensive knowledge and insight and develop their professional and academic perspectives based on initiative and personal responsibility for the learning process.

b. Students develop an investigative and reflective attitude.

c. Students acquire an understanding of and gain experience in methods and techniques to be able to model and describe systems and their properties.

d. Students acquire knowledge of, insight into and experience with cataloguing technical requirements, design, validation and the implementation of ICT systems. They learn to use this knowledge, insight and experience in their search for meaningful and promising alternatives and for making well-considered choices.

e. Students acquire knowledge of, insight into and experience with cataloguing technical requirements, design, validation and implementation of business networks. They learn to use this knowledge, insight and experience in their search for meaningful and promising alternatives and for making well-considered choices.

f. Students develop an attitude that promotes constructive criticism whereby choices are substantiated and discussed.

g. Students produce, in cooperation with others, a contribution to the application and/or development of theory, methods, technologies and tools relating to the development of ICT systems in relation to the context of use.

h. Students gain experience to function in complex dynamic situations in which the relevant information is not always immediately and fully available.

i. To further activate their education (with cases, research assignments and discussion of the research, developments and literature in the field), students are encouraged to follow developments in the field and can direct and independently coordinate their personal progress towards these developments.

The goal of the Master's programme is to enable the graduates with the aptitude and proven talent for academic research so that they can continue their education with doctoral research.

2. The Master's programme in Business Information Technology has a particular emphasis on innovative developments and the integration and optimization of business processes and ICT. The programme focuses on comprehensive knowledge and insight, as well as gaining experience in the integrated development of organizations and their business processes and ICT systems, and related theories and concepts. Methods and technologies, as well as the analysis, evaluation and modelling of both functional and qualitative properties are important aspects of the programme. Based on solid knowledge and an understanding of the life cycle of ICT systems in their business context, the Master's students develop the skills and insight required to manage innovative development processes in an architectural framework and in an environment of internationally oriented business networks. Insight into current research in this area is promoted in a number of different ways. Students in the Master's programme develop a constructive critical and reflective attitude by analysing research and design activities, both their own and that of others.
1b. Final attainment targets of the programme

The Master of Science programme Business Information Technology prepares students for a leading position in the field of Information Systems (IS). Knowledge in the field of management and IT is the very core of their preparation. Students are capable of integrating and applying this knowledge in the broad context of organizational practice. Also, the MSc specialist in Information Systems have at their disposal well developed skills in communication, interpersonal relations and group work. Finally, the Master’s graduates have at their disposition the special skills needed for a successful career future, for example a knowledge of IT and organizations, a critical attitude and a disposition towards lifelong learning and innovation.

Table 1 below shows the final attainment targets of the programme. The third column shows the relation of each to the secondary goals which are mentioned above.

Table 1: Final attainment targets of the MBI programme

<table>
<thead>
<tr>
<th>Nr</th>
<th>Final attainment target</th>
<th>Match with sec. goals</th>
<th>Match with Dublin Descr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The graduate has comprehensive knowledge of and insight into the field as specified in the programme-specific final attainment targets, which are described under 1a, 1b, etc. below.</td>
<td>a</td>
<td>1</td>
</tr>
<tr>
<td>1a</td>
<td>The graduate will be capable of making connections between areas such as business strategy and business processes on the one hand and the architecture of ICT systems and IT infrastructure on the other, based on comprehensive knowledge and understanding of the life cycle of ICT systems in an organizational context. The graduate will also be able to utilize and further these connections.</td>
<td>d</td>
<td>2, 3</td>
</tr>
<tr>
<td>1b</td>
<td>The graduate will be capable of understanding and developing the business strategy, business information system strategy and the operationalisations in an architectural framework. He/she will understand their short and long-term impact, and their impact on both the effectiveness and the efficiency of technology and the changes in business processes.</td>
<td>g,h</td>
<td>3</td>
</tr>
<tr>
<td>1c</td>
<td>The graduate will be capable of contributing to the integrated development of business processes and business information systems, and assessing, conducting and managing the process underlying this development, including aspects such as requirements analysis, resource management &amp; planning, architectural design, implementation and administration.</td>
<td>g,h</td>
<td>3</td>
</tr>
<tr>
<td>1d</td>
<td>The graduate will have a sound knowledge of, an insight into and experience with the process and available methods and technologies to be able to plan, manage and carry out system development and change processes for business information systems and business processes.</td>
<td>c</td>
<td>2</td>
</tr>
<tr>
<td>1e</td>
<td>The graduate will be capable of applying methods and technologies for integrated development of business processes and business information systems, by making a reasoned selection, by communicating the principles and by contributing to the further development.</td>
<td>c,d,e</td>
<td>2</td>
</tr>
<tr>
<td>1f</td>
<td>The graduate will have knowledge and understanding of a range of aspects of business information systems, such as user-friendliness, adaptability, security and administration, and the graduate will be able to apply this knowledge.</td>
<td>d,h</td>
<td>1, 2</td>
</tr>
<tr>
<td>1g</td>
<td>The graduate will have knowledge of and insight into developments within the field and the concept of innovation, as well as the interaction between technological innovations and innovations in business processes and business organization.</td>
<td>i</td>
<td>1</td>
</tr>
<tr>
<td>1h</td>
<td>The graduate will have knowledge and understanding of the opportunities and threats to cooperation and relations management transgressing the organizational boundaries, as well as the role of information systems herein.</td>
<td>d,h</td>
<td>1</td>
</tr>
</tbody>
</table>
The graduate will be capable of overseeing and optimizing the impact of developments within the field and their effect on multiple parties, such as in business networks.

The graduate of the Master's programme in Business Information Technology will have specialized knowledge in a sub-area of the field of business information technology. He/she will have gained experience in academic research, and will be able to contribute to the body of research in the field and apply the results in an organizational context.

The graduate is capable of making a contribution to scientific research and is able to independently design and perform a research project of limited scope and present the results.

The graduate is capable of making an original contribution to the development and/or application of the field.

The graduate is capable of analysing complex problems and change issues in the field, and knows how to acquire the knowledge and information required for this analysis.

The graduate is capable of designing, validating and implementing solutions/systems for their use in the environment, and is able to select and utilize advanced disciplinary knowledge, methods and techniques when doing so.

The graduate is capable of evaluating the features and problem-solving potential of solutions/systems and implementations, even when confronted with a new and/or unfamiliar situation and with incomplete information or uncertain properties. Graduates can also make and defend choices based on these evaluations.

The graduate has insight into ethical, social, cultural and societal aspects of problems and solutions in the field and can use these insights in their functioning as an academic at the international level.

The graduate is capable of working in a team, and can take on a leadership position in that team. He knows how to manage and plan a development process and is capable of documenting a development or research process.

The graduate is capable of justifying and presenting (both orally and in writing) research results, designs and implementations, and can analyse and debate on the presented justification.

The graduate is capable of independently assimilating new knowledge and skills and on reflection can organize and coordinate his/her personal development towards developments in the field.

The graduate is capable of involving other disciplines in his work where necessary.

The graduate is capable of critically reading, using and debating on international academic literature in the field.

<table>
<thead>
<tr>
<th>Level of the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>As can be seen from table 1 in the fourth column, the final attainment targets of the Master BIT programme are comparable and compatible to the Dublin Descriptors for Master's programmes.</td>
</tr>
</tbody>
</table>

The word 'original' in final attainment level #3 is used in the narrow sense of 'attesting to an individual creative contribution,' rather than in the broader sense of 'pioneering.'
2. **Composition of the programme**

The Business Information Technology program offers two career tracks: the Enterprise Architecture Career Track and the IT Management Career Track. Tables 2 to 4 exhibit the academic programme 2013-2014, showing quartile/course code/course name/study load in EC/exam format and obligatory prior knowledge respectively. Within each quartile, the sequence of the study units (courses) is according to their course code and therefore is not in chronological order.

**Key to exam formats:**
- **S** written exam (‘Schriftelijk tentamen’)
- **M** oral exam
- **PGI** practical group exercise coupled with a written report of the exercise, and (insofar as possible) an individual assessment of the way in which each student participated in the group
- **PS** individual practical exercise with a written report
- **PSS** practical exercises or assignments, with a written and/or an oral report thereof, and a written exam. The exam may only be sat if the practical exercises have been performed and the report of the practical exercises has been evaluated and has been passed.
- **PSM** as PSS, but generally with an oral exam
- **BAM** in accordance with the rules as set out in the regulations for the Master's assignment.

More specific details are available via OSIRIS and/or will be made known in a timely manner by the examiner in accordance with the provisions of article 4, “Rules & Regulations of the Examination Board” (section C of this Charter).
**2a. Track Enterprise Architecture**

In today’s global and competitive world, businesses that work together seamlessly to offer leading services thrive. This specialization gives you the knowledge and theories to design and implement business and IT architectures that enable businesses and business networks to work effectively. You understand how the IT infrastructure and software systems can be configured to support business processes and service innovations. The methods for specification, design and implementation of information systems are part of your toolbox. You can analyse current enterprise architectures and their limitations (e.g. lack of flexibility, lack of support for ecommerce and social media, limited security,...). Using the latest theories and modeling languages you are able to design a goal architecture and assess the optimal change process. Through alignment of strategy, business process and IT architecture you will learn how to make IT work. A special focus is put on the use of IT to integrate business in a “value net”, in other words, and agile business network (one of the research themes of the research groups involved).

*Table 2: Curriculum 2013-2014 MSc Business Information Technology – Enterprise Architecture Career Track*

<table>
<thead>
<tr>
<th>Code</th>
<th>Course name</th>
<th>EC</th>
<th>Exam format</th>
<th>Prior Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>192350200</td>
<td>E-strategizing</td>
<td>5</td>
<td>PGI</td>
<td></td>
</tr>
<tr>
<td>192376500</td>
<td>Business Process Integration Lab</td>
<td>5</td>
<td>PSS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>192320820</td>
<td>Design Science Methodology</td>
<td>5</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>192330301</td>
<td>Specification of Information Systems</td>
<td>5</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>192320501</td>
<td>Electronic Commerce</td>
<td>5</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>192340101</td>
<td>Implementation of IT in Organizations</td>
<td>5</td>
<td>PSM</td>
<td></td>
</tr>
<tr>
<td>192360021</td>
<td>ICT Management</td>
<td>5</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>192320111</td>
<td>Architecture of Information Systems</td>
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<td>PSS</td>
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<tr>
<td>192340041</td>
<td>Software Management</td>
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<td>S</td>
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<td></td>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1/Q3</td>
<td>Elective</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2/Q4</td>
<td>Elective</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1 or S2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>192399979</td>
<td>Final Project</td>
<td>30</td>
<td>BAM</td>
<td>80EC</td>
</tr>
</tbody>
</table>
The student must select at least one research elective (RE) from the electives shown in the table below.

<table>
<thead>
<tr>
<th>Ccode</th>
<th>Course name</th>
<th>Type of Elective</th>
<th>EC</th>
<th>Exam format</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>201300058</td>
<td>Research Topics BIT</td>
<td>RE</td>
<td>10</td>
<td>PS</td>
<td>ALL YEAR</td>
</tr>
<tr>
<td>201300059</td>
<td>Internship BIT</td>
<td>E</td>
<td>20</td>
<td>PS</td>
<td>ALL YEAR</td>
</tr>
<tr>
<td>191863960</td>
<td>Foundations of Information Systems</td>
<td>RE</td>
<td>5</td>
<td>S</td>
<td>Q1</td>
</tr>
<tr>
<td>192111332</td>
<td>Design of Software Architectures</td>
<td>CE</td>
<td>5</td>
<td>PSM</td>
<td>Q1</td>
</tr>
<tr>
<td>192135450</td>
<td>ADSA: Model Driven Engineering</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q1</td>
</tr>
<tr>
<td>192320220</td>
<td>Advanced Architecture of Information Systems</td>
<td>RE</td>
<td>5</td>
<td>PS</td>
<td>Q1+Q2</td>
</tr>
<tr>
<td>192320601</td>
<td>Multi agent systems</td>
<td>CE</td>
<td>5</td>
<td>PSS</td>
<td>Q1</td>
</tr>
<tr>
<td>194108040</td>
<td>Business Development in Network Perspectives</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q1</td>
</tr>
<tr>
<td>201200180</td>
<td>Seminar Digital Society 2020</td>
<td>RE</td>
<td>5</td>
<td>PGI</td>
<td>Q1</td>
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<tr>
<td>191612680</td>
<td>Computer Ethics</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q2</td>
</tr>
<tr>
<td>192320201</td>
<td>Data warehousing &amp; data mining</td>
<td>CE</td>
<td>5</td>
<td>S</td>
<td>Q2</td>
</tr>
<tr>
<td>192340070</td>
<td>Computer Supported Cooperative Work</td>
<td>E</td>
<td>5</td>
<td>PSM</td>
<td>Q2</td>
</tr>
<tr>
<td>201100051</td>
<td>Information Services</td>
<td>RE</td>
<td>5</td>
<td>PSS</td>
<td>Q2</td>
</tr>
<tr>
<td>201100052</td>
<td>Global Project Management</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q2 or Q4</td>
</tr>
<tr>
<td>192110280</td>
<td>Advanced Programming Concepts</td>
<td>E</td>
<td>5</td>
<td>PS</td>
<td>Q3</td>
</tr>
<tr>
<td>194111500</td>
<td>Innovation &amp; Technology Dynamics</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q3</td>
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<tr>
<td>194120130</td>
<td>Transformation of the HR function with IT</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q3</td>
</tr>
<tr>
<td>201200008</td>
<td>Accounting &amp; Financial Management</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q3</td>
</tr>
<tr>
<td>192320850</td>
<td>Advanced Requirements Engineering <strong>OR</strong></td>
<td>RE</td>
<td>5</td>
<td>PS</td>
<td>Q4</td>
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<tr>
<td>201200153</td>
<td>Capita Selecta Requirements Engineering</td>
<td>RE</td>
<td>10</td>
<td>PS</td>
<td>Q4</td>
</tr>
<tr>
<td>192360501</td>
<td>E-health strategies</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q4</td>
</tr>
<tr>
<td>192376000</td>
<td>Business Case Development for IT-projects</td>
<td>E</td>
<td>5</td>
<td>PS</td>
<td>Q4</td>
</tr>
<tr>
<td>194105070</td>
<td>Inform.Syst f/t Fin. Services Industry</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q4</td>
</tr>
</tbody>
</table>
2b. Track IT Management

For both SME’s and large corporations, Information has become a key asset. Many IT specialists are employed or contracted in sourcing arrangements with IT companies. How can the IT function deliver a high quality service set to the business? What software systems should be installed to support business processes and services. How can the web presence and social media usage of the company be designed and implemented? These questions have become key in modern companies. Without a professional management of IT modern organizations will not survive. The IT management role requires knowledge of business processes and IT as an enabler of innovation and change. You will learn how strategies can be built using IT, how E-commerce is using IT to serve customers on the web. Using financial knowledge and techniques from economics, you will master how to design a business case for IT projects. You will study the pros and cons of sourcing IT globally and the challenges of managing IT projects.

*Table 4: Curriculum 2013-2014 MSc Business Information Technology – IT Management Career Track*

<table>
<thead>
<tr>
<th>Ccode</th>
<th>Course name</th>
<th>EC</th>
<th>Exam format</th>
<th>Prior Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>191863960</td>
<td>Foundations of Information Systems</td>
<td>5</td>
<td>S</td>
<td></td>
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<tr>
<td>192350200</td>
<td>E-strategizing</td>
<td>5</td>
<td>PGI</td>
<td></td>
</tr>
<tr>
<td>192376500</td>
<td>Business Process Integration Lab</td>
<td>5</td>
<td>PSS</td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201100051</td>
<td>Information Services</td>
<td>5</td>
<td>PSS</td>
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</tr>
<tr>
<td>Elective</td>
<td></td>
<td>5</td>
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<td>Elective</td>
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<td>Q3</td>
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<tr>
<td>192320501</td>
<td>Electronic Commerce</td>
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<tr>
<td>192340101</td>
<td>Implementation of IT in Organizations</td>
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<td>PSM</td>
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<tr>
<td>192360021</td>
<td>ICT Management</td>
<td>5</td>
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<td>Q4</td>
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<tr>
<td>192376000</td>
<td>Business Case Development for IT-projects</td>
<td>5</td>
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<tr>
<td>201100052</td>
<td>Global Project Management</td>
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</tr>
<tr>
<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Q1/Q3</td>
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</tr>
<tr>
<td>Elective</td>
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<tr>
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<tr>
<td>Elective</td>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2/Q4</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Elective</td>
<td></td>
<td>5</td>
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<tr>
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<tr>
<td>Elective</td>
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<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1 or S2</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>192399979</td>
<td>Final Project</td>
<td>30</td>
<td>BAM</td>
<td>80EC</td>
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</tbody>
</table>
Table 5: Electives IT Management Career Track

The student must select **at least one** research elective (RE) from the electives shown in the table below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course name</th>
<th>Type of Elective</th>
<th>EC</th>
<th>Exam format</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>201300058</td>
<td>Research Topics BIT</td>
<td>RE</td>
<td>10</td>
<td>PS</td>
<td>ALL YEAR</td>
</tr>
<tr>
<td>201300059</td>
<td>Internship BIT</td>
<td>E</td>
<td>20</td>
<td>PS</td>
<td>ALL YEAR</td>
</tr>
<tr>
<td>194108040</td>
<td>Business Development in Network Perspectives</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q1</td>
</tr>
<tr>
<td>195810200</td>
<td>Supply Chain Management &amp; ICT</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q1</td>
</tr>
<tr>
<td>201200180</td>
<td>Seminar Digital Society 2020</td>
<td>RE</td>
<td>5</td>
<td>PGI</td>
<td>Q1</td>
</tr>
<tr>
<td>191612680</td>
<td>Computer Ethics</td>
<td>CE</td>
<td>5</td>
<td>S</td>
<td>Q2</td>
</tr>
<tr>
<td>191800770</td>
<td>Empirical Research &amp; Data Analysis</td>
<td>RE</td>
<td>5</td>
<td>PSS</td>
<td>Q2</td>
</tr>
<tr>
<td>192320820</td>
<td>Design Science Methodology</td>
<td>RE</td>
<td>5</td>
<td>S</td>
<td>Q2</td>
</tr>
<tr>
<td>192340070</td>
<td>Computer Supported Cooperative Work</td>
<td>E</td>
<td>5</td>
<td>PSM</td>
<td>Q2</td>
</tr>
<tr>
<td>201200010</td>
<td>Global Strategy &amp; Marketing</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q2 or Q4</td>
</tr>
<tr>
<td>201300075</td>
<td>Management of Organizations, Operations and Technological Innovation</td>
<td>CE</td>
<td>5</td>
<td>PSS</td>
<td>Q2 or Q3</td>
</tr>
<tr>
<td>194111500</td>
<td>Innovation &amp; Technology Dynamics</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q3</td>
</tr>
<tr>
<td>194120130</td>
<td>Transformation of the HR function with IT</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q3</td>
</tr>
<tr>
<td>201100163</td>
<td>Management of Technology for PLM</td>
<td>E</td>
<td>5</td>
<td>PS</td>
<td>Q3</td>
</tr>
<tr>
<td>201200008</td>
<td>Accounting &amp; Financial Management</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q3</td>
</tr>
<tr>
<td>192340041</td>
<td>Software Management</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q4</td>
</tr>
<tr>
<td>192360501</td>
<td>E-health strategies</td>
<td>E</td>
<td>5</td>
<td>S</td>
<td>Q4</td>
</tr>
<tr>
<td>193140040</td>
<td>Design of Work Systems &amp; Employment Relations</td>
<td>E</td>
<td>5</td>
<td>PSS</td>
<td>Q4</td>
</tr>
<tr>
<td>194105070</td>
<td>Inform.Syst f/t Fin. Services Industry</td>
<td>CE</td>
<td>5</td>
<td>PSS</td>
<td>Q4</td>
</tr>
</tbody>
</table>
3. Coherence and didactic concept

3a. Coherence

Within the MBI curriculum the life cycle terminology of the Enterprise Unified Process (EUP) is applied. Once the strategy has been established, an idea will be worked out in the inception phase, and expanded further in the elaboration phase. The relative importance of the construction phase, which had previously received most of the attention, has diminished. The transitional phase on the other hand, receives both in the MBI Master’s programme and in the relevant field of work ever increasing attention. Professional experience has taught us the importance of the transition of the old situation to the new situation, presenting a big challenge which is only recently receiving the attention it deserves in scientific research. Interesting developments can also be distinguished in the production and retirement phases.

Inter-Organisational Enterprise Disciplines are of increasing importance. Off-shoring and globalization processes put an increasing emphasis on the relations with customers and providers. Dynamic markets, short product lifecycles and far-reaching specialization call for a close cooperation and integration in business networks at the process and system levels.

As an academic Master’s programme, MBI prepares the students for the junior researcher level by familiarizing them with the “design-sciences paradigm”. In the words of Heyner, March, Park & Ram (March 2004) this is a scientific paradigm which aims at increasing human and organizational capabilities through the creation of new and innovative artefacts. Within this paradigm, the building and application of the newly designed artifacts creates knowledge and understanding of the problem’s domain as well as of the ways of solving it.

3b. Didactic concept

The didactic concept of the BSc and MSc programmes in Business Information Technology is based on the three “O’s” that are characteristic of the University of Twente’s academic programmes: Research (“Onderzoeken”), Design (“Ontwerpen”) and Organisation (“Organiseren”). The University of Twente also advocates a multidisciplinary approach and provides ample room for internationalization and horizon-broadening through a Minor program. An entrepreneurial attitude and an emphasis on designing solutions for complex problems complete our University’s profile. As a consequence, the didactic concept that lies at the heart of the BSc and MSc programmes in Business Information Technology can be characterized as being a mixture of (1) knowledge development in the classical sense, (2) integration of this knowledge in project-based courses and (3) the weaving of several lines of learning between individual courses (see above, under ‘coherence’).
4. Electives and practical exercises

4a. Requirements related to electives and student’s individual choices
Tables 2 and 4 show the compulsory courses and three different types of electives (research, career and general electives) belonging to each track. Next to taking the compulsory courses, students have to take at least 10 EC of research electives as part of their electives. The career electives are advised electives.

4b. Content of practical exercises
A practical exercise is a study unit or a component of a study unit whereby the emphasis is on the student’s activity, such as:

- preparing a literature review, a paper or a design project, thesis, article, or position paper, or delivering a public presentation;
- a design or research assignment, tests and experiments, practical exercises, skills practice;
- work placement, fieldwork or excursions;
- participation in other required learning activities aimed at achieving the desired skills.

Practical exercises are generally part of a study unit for which there is a responsible examiner. The structure of the practical exercise(s) is described in general terms in OSIRIS, and in more detail on Blackboard at the beginning of the programme.

Master’s assignment
The Master’s assignment (or Master’s project or Master’s thesis) is not supervised by a single responsible instructor; instead, a Master’s committee is assembled for each assignment. The Master’s project is an individual project, and is evaluated on an individual basis. The Master’s project tests the student’s competence in the integrated application of the knowledge, comprehension and skills covered in the study units. The Examination Board prescribes an evaluation checklist to help ensure the quality of the evaluation. Further information on the Master’s assignment can be found in the Master’s thesis manual, which can be consulted through Blackboard.
5. General information

5a. Admission to the programme

A request to be admitted to the programme is assessed by an admission committee.

In addition to the general criteria, Business Information Technology distinguishes two types of (inter)national education:

1. Research Universities (primarily responsible for research-oriented programmes)
2. Universities (colleges) of professional education (prepares students particularly for more practical professions)

The admissions committee has specific requirements depending on the degree.

The assessment of all applicants’ skills is based on academic background. The regulations for the different educational backgrounds are:

- Dutch Research University Degree

1. A Bachelor’s degree in Business Information Technology or Information Sciences awarded by a Dutch university

   Applicants with a Bachelor’s degree in Business Information Technology or Information Sciences awarded by a Dutch university will be admitted to the program. With regard to proficiency in English, the admissions committee decides whether additional requirements should be set or a diagnostic test should be taken.

2. A Bachelor’s degree awarded by a Dutch university

   Applicants with a Bachelor’s degree other than Business Information Technology or Information Sciences in a related field awarded by a Dutch university will be admitted after completion of a pre-Master’s programme (1 EC is 28 hours). The admissions committee determines the content of the pre-Master’s programme. The applicant must have successfully completed the entire pre-Master’s programme within 12 months.¹

3. A different Bachelor’s degree awarded by the University of Twente

   a. Students who have completed a TI or TBK Bachelor’s have direct access to the MBI Master’s programme with equalization courses.

   b. Applicants with a Bachelor’s degree other than BIT, TI or TBK, awarded by the University of Twente may be admitted to the program after completion of their bachelor and a pre-Master’s programme. The admissions committee determines the content of the pre-Master’s programme. The applicant must have successfully completed the entire pre-Master’s program within 12 months.²

For information concerning admission go to http://www.utwente.nl/master/ut/doorstroom/.

¹ Per course of the pre-Master’s programme no more than two attempts are permitted to sit the corresponding exam. If the student fails to successfully complete the pre-Master’s programme on time, he/she will not be admitted to the Master’s Programme.
² Idem (as the previous note)
- Degree from a Dutch College for higher professional education (HBO)

1. A Bachelor's degree in a related field awarded by a Dutch University (college) for higher professional education

Students with a Bachelor’s degree in a related field awarded by a Dutch University (college) for higher professional education will be admitted if:

- they have successfully completed the pre-Master’s programme within a period of twelve months. The admissions committee determines the content of the pre-Master’s programme.

Students who have had a higher professional education (HBO) are assumed to be sufficiently proficient in the English language at the start of the Master’s phase. It is the responsibility of the student to attain this level of English.

The admissions committee determines whether or not a pre-Master is awarded, based on:

- Academic Record;
  - the content of the Bachelor’s programme and the institution.
  - Proficiency in Mathematics B at pre-university education level (Dutch: VWO)
- a CGPA of at least 70%
- Curriculum Vitae
- a letter of motivation;
- two letters of recommendation

The following degrees are currently considered to be degrees in a related field:

- Technische Informatica
- Informatica

For more information about the admission criteria for Bachelor’s degrees from Dutch universities for higher professional education see the [website](#).

- Non-Dutch University Degree

The admissions committee assesses international applicants with a Bachelor’s degree awarded by a non-Dutch Research University or University (college) for higher professional education on an individual basis. The assessment of the applicant's skills is based on:

- Academic record
  - a [NUFFIC credential evaluation](#);
  - content of the degree (field related)
- Quality of level of bachelor programme
- A cgpa of at least 70% (3.2 on a 4-scale)
- an IELTS score with an overall band score of 6.5 or higher, or a TOEFL internet-based (TOEFL-iBT) score of at least 90
- a letter of motivation;
- two letters of recommendation;
- any additional information required by the admissions committee.

For more information about the admission criteria for Bachelor’s degrees from non-Dutch universities see the [website](#).

---

3 Idem (as the previous note)

4 Their proficiency in the English language is at pre-university education level (Dutch: VWO) or at academic IELTS level with an overall band score of 6.5 or higher, or a TOEFL internet based (TOEFL-iBT) score of at least 90.
5b. Language of teaching and exams

The courses and the exams in the Master’s programme are all in English.

To safeguard the quality of teaching and examination in the English language, MG has taken the following measures:

- An assessment is made of all MG teaching staff and examiners as to their command of the English language. If their IELTS score is slightly below the established minimum level, they will be allowed a remediation period. Failing to meet the standard after this period will lead to exclusion from the English-language programme. Any newcomers will be assessed upon their entry.
- Inclusion of specific demands on their proficiency in the English language in the admission requirements for the MG English language programmes, wherever a sufficient command is not warranted by the candidates’ prior education.

5c. International cooperation

Many students spend a certain period of time abroad. In 2008, the programme sought options to standardize and facilitate these often individualized internships and graduation initiatives. In their search, the BIT staff visited and consulted WWU Münster regarding an exchange programme with that German university. Comparable initiatives were undertaken with Sabanci University (Turkey), the Helsinki School of Economics (Finland), the University of New South Wales (Australia) and the University of Wellington (New Zealand).

For the latest information, see:
http://www.mb.utwente.nl/onderwijs/Bachelor/bit/studieinformatie/studying_abroad_bit.doc/

5d. Programme Committee (OLC) and Examination Board

Members of the Examination Board and the Programme Committee (OLC) are appointed by the Dean of the faculty for one or two year terms (EEMCS faculty regulations article 17). The most up-to-date composition of these boards can be viewed on the website of the programme.
### 6. Transitional arrangements

For students who were registered prior to the academic year 2013/2014 the study programme below applies. The electives may be chosen from Tables 3 and 5 of the career tracks. Students who wish to switch to one of the career tracks need to send a request to the exam committee:

*Table 6: Curriculum 2012-2013 MSc Business Information Technology*

**Start per September Generation 2012, first year (M1)**

<table>
<thead>
<tr>
<th>CCode</th>
<th>Course name</th>
<th>EC</th>
<th>Exam format</th>
<th>Prior knowledge</th>
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</thead>
<tbody>
<tr>
<td>Q 1</td>
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<td></td>
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<tr>
<td>19211332</td>
<td>Design of Software Architecture</td>
<td>5</td>
<td>PSS</td>
<td></td>
</tr>
<tr>
<td>192350200</td>
<td>E-Strategizing</td>
<td>5</td>
<td>PGI</td>
<td></td>
</tr>
<tr>
<td>194108040</td>
<td>Business Development in Network Perspectives*</td>
<td>5</td>
<td>PSS</td>
<td></td>
</tr>
<tr>
<td>Q 2</td>
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</tr>
<tr>
<td>19220820</td>
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<td>PSS</td>
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<td>192303031</td>
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<td>192340070</td>
<td>Computer Supported Cooperative Work</td>
<td>5</td>
<td>PSM</td>
<td></td>
</tr>
<tr>
<td>Q 3</td>
<td></td>
<td></td>
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<tr>
<td>1923400101</td>
<td>Implementation of IT in Organizations</td>
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<td>ICT Management</td>
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<td>E-Commerce</td>
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<tr>
<td>Q 4</td>
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<tr>
<td>192320111</td>
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<td>S/M</td>
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</tr>
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<td>Business Case Development for IT-Projects</td>
<td>5</td>
<td>PGI</td>
<td></td>
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<tr>
<td>192340041</td>
<td>Software Management</td>
<td>5</td>
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**Start per September Generation 2012, second year (M2)**

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<td>19276020</td>
<td>Business Process Integration Lab</td>
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<tr>
<td>Research Elective</td>
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<td>S2</td>
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<td></td>
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<td>192399979</td>
<td>Final Project</td>
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<td>BAM</td>
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### Start per February Generation 2012, first year (M1)

<table>
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<td>192340101</td>
<td>Implementation of IT in Organizations</td>
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<td>ICT Management</td>
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<td>Q 4</td>
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<td>192320111</td>
<td>Architecture of Information Systems</td>
<td>5</td>
<td>S/M</td>
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<td>192376000</td>
<td>Business Case Development for IT-Projects</td>
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<td>PGI</td>
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<td>Software Management</td>
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<td>Q 1</td>
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<tr>
<td>192111332</td>
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<td>192376500</td>
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<td>Q 2</td>
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<td>Design Science Methodology</td>
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<td>PSS</td>
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<td>192340070</td>
<td>Computer Supported Cooperative Work</td>
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<td>Total</td>
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### Start per February Generation 2012, second year (M2)

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<th>Exam format</th>
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<td>Q 3</td>
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<td>2011100052</td>
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<td>Elective</td>
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<td>192399979</td>
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<td>BAM</td>
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<tr>
<td>Total</td>
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<td>60</td>
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</tbody>
</table>

*Flexible Option

The course Business Development in Network Perspectives (Q1) may be exchanged for the course Global Project Management (Q4) and vice versa.
Key to exam formats:

S  written exam
M  oral exam
PGI practical group exercise coupled with a written report of the exercise, and (insofar as possible) an individual assessment of the way in which each student participated in the group
PS  individual practical exercise with a written report
PSS practical exercises or assignments, with a written and/or an oral report thereof, and a written exam. The exam may only be sat if the practical exercises have been performed and the report of the practical exercises has been evaluated and has been passed.
PSM as PSS, but generally with an oral exam
BAM in accordance with the rules as set out in the regulations for the Master's assignment.

More specific details are available via OSIRIS and/or will be made known in a timely manner by the examiner in accordance with the provisions of article 4, “Rules & Regulations of the Examination Board”.

6a. Transitional arrangement regarding the period of exam validity
For students who were registered for the Bachelor's programme prior to the academic year 2008/2009, the following system applies:
1. Evaluations of exams in the programme are valid for an unlimited period of time, barring the provisions of points 2, 3 and 4 below.
2. The Examination Board may require a student to re-sit an exam if the board is of the opinion that a previously attained result has lost its value due to changes in the field since the result.
3. abolished
4. If the student has to take a number of exams to obtain an evaluation for the academic unit, and these exams are evaluated individually, the examiner will determine the period of validity of any sub-results earned. If no decision on the term of validity of sub-results is recorded, the validity expires upon the start of the following academic year.

6b. Transitional arrangement on graduating with distinction
Students registered between September 2003 and 2008 will obtain a distinction in the Master's programme if they meet the following conditions.
1. The student has passed the examination according to the applicable rules.
2. The exemptions used to pass do not exceed a course load of 20 study credits.
3. The average of the evaluations (for relevant components) in the student's file is 8 or higher. When determining the relevant average, pass evaluations ('G') may be disregarded. Evaluations that are not necessary for the examination requirements may also be disregarded when determining the relevant average.
4. The student must have earned an evaluation of 8 or higher on the thesis.

6c. Transitional arrangement regarding parallel Master's for Bachelor's students
Bachelor's students who were registered on the Bachelor's programme prior to the academic year 2009/2010 may apply to the Examination Board for permission to pursue the Bachelor's in parallel with the Master's as soon as they have completed 135 EC's.

6d. Transitional arrangement regarding flexible option
For students who were registered prior to the academic year 2011/2012 the following system applies: The course Business Development in Network Perspectives (Q1) may be exchanged for the course Global Project Management (Q4).