
ITC¹ ASSESSMENT REGULATIONS
FOR COURSES LEADING TO A
MASTER OF SCIENCE (MSc) DEGREE²
OR
POSTGRADUATE DIPLOMA

- September 2011 -

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These ITC Assessment Regulations for the Master of Science (MSc) degree and Postgraduate Diploma courses were approved by the Examination Board on 1 September 2011 and by the Dean on 22 September 2011.

¹ ITC in this document stands for the Faculty of Geo-Information Science and Earth Observation of the University of Twente.

² The WHW (Dutch law on Higher Education) requires that every MSc degree course has an OER (Education and Assessment rules). The OER of the ITC MSc courses is the combination of these ITC Assessment Regulations and the objectives, structure, teaching approach and main contents of the course as described in the Study guide.

1. Range of application

- 1.1 These assessment regulations apply to all courses that are offered by the Faculty ITC of the University of Twente and are leading to a Master of Science (MSc) degree or a Postgraduate Diploma (PGD) starting from September 2011 onwards and replace all previous ITC Assessment Regulations for Master of Science Degree Courses and ITC Assessment Regulations for Postgraduate Diploma courses.
- 1.2 The MSc and Postgraduate Diploma course can be an ITC course only (fully taught at the Faculty ITC of the University of Twente) or a joint course (partly taught by one or more of ITC's partners and partly by ITC). The course can be taught fully face-to-face or be a combination of face-to-face and distance components. In all cases, ITC monitors and assures the quality of the whole course.
- 1.3 In most cases where the MSc / Postgraduate Diploma course is taught in conjunction with a partner, the two institutes will agree upon new procedures which may take precedence over these 'ITC Assessment Regulations for courses leading to a Master of Science degree or Postgraduate Diploma'. The Course Director of the course concerned will inform the participants which assessment regulations and procedures apply.
- 1.4 Any changes made in the management of education of ITC during the course will be incorporated in these assessment regulations.

Decisions taken at central level of the University of Twente during the course may overrule these ITC Assessment Regulations.

- 1.5 In all cases that are not dealt with in these rules, the Course Director of the course concerned will decide upon an appropriate course of action.
Disputes about the interpretation of these regulations shall be referred to the Dean of ITC, who will determine the interpretation and action that should be taken.
- 1.6 In exceptional circumstances, the Portfolio-holder Education, Head Education and/or Course Director may deviate from these assessment regulations, but only with the approval of Examination Board of ITC.

2. Management, structure and organization of the MSc and Postgraduate Diploma course

- 2.1 The MSc course is organized into four blocks with a total of 23 modules³ and three additional weeks for introduction and catch-up activities and graduation ceremonies.
Block 1: modules 1-3
Block 2: modules 4-10
Block 3: modules 11-15
Block 4: modules 16-23
The first year of three blocks and 15 modules consists of coursework. The last 6 months (block 4; 8 modules) focus on individual research.

The sequence of modules is fixed. The rules for deviations are described in section 3.

The Postgraduate Diploma course consists of the first two blocks (10 modules) of the MSc course, one or two introduction weeks and a Final Assignment of four weeks duration.

The MSc and Postgraduate Diploma courses are taught in English.

³ A module consists of related subjects and has duration of 3 weeks. Courses may contain elements of two or more combined modules.

- 2.2 The duration of the MSc course is 18 months fulltime. The duration of the Postgraduate Diploma course is nine months fulltime. Participants in both courses may spread the modules over a maximum of five years.
- 2.3 The study load per module is 5 ECTS⁴ credit points . The total study load of the MSc course is 118 ECTS credit points. The total study load of the Postgraduate Diploma course is 62 ECTS credit points.
- 2.4 The formal curriculum of the MSc course and the Postgraduate Diploma course has been approved by the Dean. Responsibility for detailed development and implementation of the approved course rests with Head Education, who delegates this responsibility to the Course Director. Responsibility for quality assurance of the course rests with the Portfolio-holder Education.
The Examination Board decides on the eligibility of the MSc participant to receive the MSc Degree and whether the participant in the Postgraduate Diploma course will receive the Postgraduate Diploma.
(See also the appendix 'Bodies and persons involved in management and quality assurance of ITC's MSc and Postgraduate Diploma courses').
- 2.5 During and at the end of the course, a participant's competence in the field of study will be assessed through tests, examinations and/or assignments (in written, oral and/or practical form) and/or based on participation. Assessments will be used to:
- Provide feedback to participants so that they may improve their performance (formative assessment), or,
 - Grade participants' work with a mark or quality description on a scale which indicates their competence in the field of study (summative assessment).
- Before any assessment, participants shall be told which of the above two functions applies. These regulations describe the conditions and procedures concerning summative assessments.
- 2.6 At the beginning of the MSc and Postgraduate Diploma course each participant shall receive a study guide that contains:
- Descriptions of the course objectives and content of the course and modules
 - The name of the MSc degree / Postgraduate Diploma to be received on successful completion of the course
 - The course-specific conditions relating to that MSc degree / Postgraduate Diploma
 - Which module assessments will result in a mark and which modules in 'completed/fail'.
- 2.7 The relationship between mark ranges, 'completed/fail' and grades is as follows:
- | | |
|----------|-----------|
| Mark: | Grade: |
| 90 – 100 | Excellent |
| 80 – 89 | Very good |
| 70 – 79 | Good |
| 60 – 69 | Pass |
| 0 – 59 | Fail |
- 'completed' Pass or higher
'fail' Fail

3. Admission to the course and individual changes in the curriculum

- 3.1 Applicants that meet the entry requirements for the MSc / Postgraduate Diploma course, as stipulated in the current course brochure, may be registered for the MSc / Postgraduate Diploma course at the discretion of the Course Director.

⁴ European Credit Transfer System. In ECTS, 60 credit points represent the study load of one academic year. In ITC 29 hours of study are needed for 1 ECTS credit point.

- 3.2 Because of the contents of the MSc / Postgraduate Diploma course, applicants with visual or physical disabilities may only be registered when the handicap is not a major obstacle for meeting the course objectives.

At the start of the course the Course Director and the handicapped participant will discuss what and how course activities and assessments will be adapted for this participant in such a way that the handicap of the participant is not an obstacle for meeting the course requirements.

- 3.3 Participants in the Postgraduate Diploma course who wish to take the whole MSc course have to re-apply for the (second part of the) MSc course. In such cases the maximum time between the starting date of the Postgraduate Diploma course and the graduation date of the MSc course is five years (see rules 2.2 and 3.4).

- 3.4 Participants may be given exemption for a module of the course when they have shown they have already mastered the content of the module. An exemption for a module may lead to direct admission to the next module or to exchange of the module for a module in another ITC course. Exemptions are subject to the approval of the Examination Board and, in case of exchange for a module in another course, approval of the Course Director of that course.

- 3.5 Exemption for a module will be given when this module was successfully completed by the participant:

- (1) As part of another course in the same ITC domain as the MSc / Postgraduate Diploma course and
- (2) No longer ago than five years before the participant is expected to complete the MSc / Postgraduate Diploma course (see rule 2.2).

At least 50% of the MSc / Postgraduate Diploma course has to be taken to be eligible for the MSc degree / Postgraduate Diploma. Therefore, exemption can be given for a maximum of 11 modules of the MSc course and for a maximum of five modules of the Postgraduate Diploma course.

Requests for exemption that do not meet these conditions will be considered on an individual basis, at the discretion of the Examination Board. In such cases, exemption can be given for a maximum of eight modules in the MSc course and four modules in the Postgraduate Diploma course.

Exemption can never be given for (part of) the thesis research work in the MSc course.

- 3.6 In exceptional cases, a participant may also exchange a module of which the content has not been mastered for a module given in another ITC course, provided that the Course Director of that course approves. Such an exchange is up to a maximum of two modules and subject to the approval of the Examination Board.
- 3.7 Any change in sequence of modules that is not described yet in 3.3 to 3.5 requires the approval of the Examination Board.
- 3.8 Rules 3.3, 3.4, 3.5 and 3.6 concerning exemptions do not apply to joint courses and other cases where ITC has an agreement with a partner institute that participants who have successfully completed a specific curriculum in the partner institute can be given direct admission to a later part of the MSc or Postgraduate Diploma course.

4. Assessment of modules (excluding research period and final assignment)

- 4.1 Organization of module assessment

4.1.1 Each module will be assessed by means of a test, examination, assignment and/or based on participation. More than one assessment per module is allowed but must result in a single module mark (0 - 100) or 'completed / fail'. For combined modules (e.g. core modules, thesis), one overall assessment is allowed.

Up to three of the first 11 modules in the MSc course may be assessed by 'completed/fail'. The other module assessments must result in a mark.

The assessment of modules 12 and 13 may not be based on participation only and must result in a mark.

- 4.1.2 In case of more assessments per module, participants shall be informed before the first assessment of:
- the weight of each assessment in the overall module mark;
 - the required minimum mark per assessment
- 4.1.3 For admission to the research part (see rule 5.4.1) and for the calculation of the average of all modules (see rule 7.3); the result obtained for combined modules will be given to each separate module.
- 4.1.4 Participants shall be informed of the date, subject, objectives and form of the assessment (practical, written, oral or computer-based, open or closed book), at least one week before an assessment.
- 4.1.5 The maximum duration of each assessment shall be as follows:
- | | |
|------------------------------------|-----------------------------------|
| Written theoretical exam | 3 hours |
| Computer-based theoretical exam | 2 hours |
| Practical assignment | determined by the Course Director |
| Oral theoretical or practical exam | 45 minutes |

Participants shall be informed at the start of each assessment of:

- the duration of the assessment;
- if there is a choice, the number of questions to be answered;
- the weight of each question;
- whether books and/or notes may be used.

Two staff members must be present at an oral assessment.

4.2 Feedback to participants and re-sits

- 4.2.1 Participants shall be informed, individually, of the results of an assessment by the staff responsible for the assessment or by the Course Secretary, within two weeks of an assessment. The marks awarded for each question or assignment shall be made known to each participant.
- 4.2.2 Marked scripts shall be shown to participants so that they may know the strengths and weaknesses of their answers. Answers to questions and results of assignments shall be reviewed in a class session, through the distribution of answer sheets or through comments on scripts. Staff responsible for the assessment is required to give an explanation of the marks awarded.

Scripts will be retained for at least two years after the results are officially recorded.

4.2.3 The following rules apply to re-sits:

- (1) Only those participants who fail an assessment at the first attempt (i.e. who achieve a mark less than 60 or 'fail') may re-sit that assessment. Only one re-sit per assessment is allowed.
In case of two or more assessments in a module, the option to re-sit an assessment does not exist when the overall module mark is at least 60 or 'completed'. The module coordinator may deviate from this rule, provided the new rule is communicated in writing before the first assessment takes place.
- (2) Participants who re-sit an assessment may obtain only a maximum mark of 69 (or PASS grade) or 'completed' for that assessment.
- (3) The previous mark or 'fail' will only be superseded when participants achieve a higher mark or 'completed' in the re-sit.
- (4) Only the final module mark or grade will be shown in the MSc Diploma Supplement or on the Course Record, without any indication whether the final mark or grade was obtained through a re-sit or not.
- (5) Participants who have failed due to serious circumstances (at the discretion of the Course Director) can apply for a new assessment, provided they have reported their circumstances in writing to the module coordinator or staff member responsible for the assessment before the scheduled assessment time.

4.2.4 In the case of practical assignments of long duration (practical exercises, a case study with fieldwork) the possibility of repetition can be considered only in exceptional circumstances and subject to approval by the Course Director.

4.2.5 A participant not attending a scheduled assessment, not completing an assignment or not presenting the required work within the specified time, will be considered as having failed. The participant will be given a 'fail' or a mark of 0 (zero). If an acceptable reason (at the discretion of the Course Director) can be offered, the participant can apply in writing for a new assessment or extension of the deadline for submission of the assignment.

4.2.6 In case of plagiarism or other types of fraud, the participant(s) concerned will be considered to have failed and a mark 0 (zero) will be given (see also rules 9.3 and 9.5).

4.2.7 The grade sheets managed by the Course Secretary are the official record of the results of assessments. In case of discrepancies between this official record and marks and grades presented to participants in other ways, the marks and grades in the official record apply.

5. Research orientation and research period (MSc course)

5.1 Research orientation (block 3)

5.1.1 At a specified date before the start of Module 11 participants must submit:

- (1) The research theme they will join,
- (2) A motivated choice of modules 12 and 13, and
- (3) The preliminary title of the individual MSc research topic and its main thrust.

The choices will be assessed by the Course Director and the research theme leader concerned (or delegate).

Approval of these choices leads to admission to the research theme and two MSc supervisors will be appointed (see rule 5.3.1).

5.1.2 The final MSc research proposal (approximately 8 pages) must be presented in module 15.

5.1.3 Participants have freedom to choose from the advanced subjects on offer in modules 12 and 13, with the limitation that modules will only be given when sufficient participants will participate.

5.2 The individual research period and thesis (block 4)

- 5.2.1 The MSc research period focuses on individual research. The research requires that the MSc participant carries out the research and reports on progress to the supervisors according to an agreed schedule for the research and preparation of the thesis.
- 5.2.2 The research work will be assessed on three occasions:
- (1) The detailed research proposal and presentation, leading to admission / no admission to the research period (end of module 15).
 - (2) The mid-term presentation. No mark is given. The participant receives feedback from the research theme leader (or delegate) and at least one of the supervisors. In the case of weak performance, the participant will receive a written warning from the Course Director (see rule 9.1).
 - (3) The assessment and oral examination of the thesis.
- In addition to these formal assessments, the participant will receive feedback on his/her performance from the supervisors throughout the research period.
- 5.2.3 A participant not presenting the (draft) research proposal, not making the mid-term presentation, not submitting the thesis or not attending the final oral examination within the specified time, will be considered to have failed. Only in exceptional cases, and for reasons beyond the control of the participant (at the discretion of the Course Director), the participant may apply in writing for a new opportunity to meet the above requirements.
- 5.2.4 The thesis, approximately 50 pages of text (approximately 350 words per page and presented in the standard ITC format for theses), excluding appendices, shall constitute an ordered, logical and critical description of the research and should afford evidence of reasoning power, critical attitude, competence in the scientific discipline (application and/or development of knowledge and skills), and knowledge of relevant literature.
- 5.2.5 The thesis may describe work done in conjunction with a supervisor or any other person, but the extent of the participant's personal contribution must be certified by the supervisor concerned.
- 5.2.6 With the explicit approval of the supervisor, a participant may be permitted to incorporate in his/her thesis a limited amount of unpublished work undertaken by the participant prior to the start of the research. A participant may not incorporate in his/her thesis material which has been submitted for achieving the award of a degree from any other educational institution.
- 5.2.7 The source of any photograph, map, or other illustration shall be indicated, as shall the source, published or unpublished, of any material not resulting from the participant's own work.
If material from other work is incorporated verbatim, without proper acknowledgement of the source (plagiarism), the Thesis Assessment Board will decide not to assess the thesis. This means that the MSc degree cannot be awarded (see also rule 9.3 and 9.5).

5.3 Supervision of the proposal phase and the research work

- 5.3.1 In module 11, in consultation with the research theme leader and the MSc participant, the Course Director shall recommend a primary and secondary supervisor to the supervisor's department(s). PhD students and AiO's may be involved in the supervision as advisor and support the work of the supervisors. Supervisors and advisors are appointed by the management team of the department.
- 5.3.2 The two supervisors and, if applicable, the advisor shall divide the supervision tasks and make a supervision plan and meeting schedule with the participant.
- 5.3.3 Supervisor(s) shall:

- (1) Guide the MSc participant in the formulation of a detailed research proposal.
 - (2) Establish a schedule of regular supervisory meetings with the MSc participant (on an average once per fortnight). Additional meetings may be arranged by agreement.
 - (3) Provide general advice and guidance on the execution of the research.
 - (4) Provide feedback on draft written work, normally within 10 days of receipt.
 - (5) Where appropriate, forward any comments on the performance of the participant to the Course Director.
 - (6) Inform the Course Director when the progress of a participant gives cause for concern so that action can be taken in accordance with these regulations (see rules 9.1 and 9.2).
- 5.3.4 If an MSc participant considers that he/she is not receiving the quality of supervision required in the regulations, the participant should report this to the Course Director.
- 5.3.5 Replacement of a supervisor may be considered if the research is found to be outside a supervisor's area of expertise, or at the request of the supervisor and/or of the participant.
- 5.4 Admission to the research period
- 5.4.1 For admission to the research part of the course, at least all but two of the previous modules (see rule 7.3 to see which modules are to be included) must have been successfully completed and no mark below 50 is allowed.
The second requirement for admission to the research part, which is as important as the marks obtained in previous modules, is the ability to undertake independent research. This ability will be developed and assessed during the first 15 modules and finally assessed on the basis of the detailed, written and orally presented, research proposal (end of module 15).
- 5.4.2 The Course Director will nominate, and the Examination Board will appoint, a Thesis Admission Committee. This Committee will assess the proposal and the presentation by the participant. The Thesis Admission Committee is accountable, via the Course Director, to the Examination Board.
- 5.4.3 Each Thesis Admission Committee has 3 members: the research theme leader or delegate (chair), the first supervisor and the second supervisor or delegate. The Course Director and involved PhD students or AiO's (see 5.3.1) may be present as advisors.
- 5.4.4 The research proposal will be assessed based on the written proposal, a presentation and oral defence. The presentation and oral defence have duration of a half hour. The participant will receive the result and remarks in writing.
- 5.4.5 The oral defence of the research proposal is open and will be announced as such. In exceptional cases the Course Director can decide to have the oral defence of individual participants closed to observers other than ITC staff.
- 5.4.6 When the Thesis Admission Committee is of the opinion that the research proposal is not of a level required for the start of the individual research period, the participant will receive feedback and will have a second opportunity to defend a revised proposal within two weeks. In case the second proposal presentation is not satisfactory, the candidate will not be admitted to the individual research period.
- 5.4.7 A participant who is not eligible for admission to the individual research period of the course but has completed modules 1 to 14 of the MSc course successfully (see rule 8.1) will receive a Postgraduate Diploma.
- 5.5 Submission of the thesis
- 5.5.1 The participant must submit a well-organized copy of all digital files associated with the research work on DVD, and a hard-copy of graphic output, at least two weeks before the examination date or as specified by the Course Director.

- 5.5.2 ITC will produce sufficient printed copies of the thesis, including two for the participant. The participant must bring one of his/her copies of the thesis to the oral examination.
- 5.5.3 One copy of the thesis will be sent to each member of the Thesis Assessment Board. The Institute will retain two bound copies if a degree is awarded, one of the copies being lodged with the Institute Librarian and the second copy in the course archive.
- 5.5.4 When work has been done in cooperation with others, the supervisor must submit a written statement to the Thesis Assessment Board indicating the part of the work done by the participant.
- 5.5.5 Postponement of the submission date of the thesis (which results in extension to the research period) can be given when:
- (1) The main cause of the unsatisfactory level of the thesis has been beyond the control of the participant (at the discretion of the Course Director),
 - (2) The extension could lead to an acceptable thesis and examination (at the discretion of the supervisors),
 - (3) Financing for the extension is available,
 - (4) The request is made before the thesis is submitted.
- The participant will take the initiative and apply in writing for extension to the Course Director. If the Course Director is of the opinion that all conditions are met, he/she will forward the request to Head Education for decision.
- 5.5.6 The maximum total duration of extensions to the research period is three months. Extensions are allowed only when the participant stays at ITC or, in the case of a joint course, at the partner institute.

Participants who study part-time are allowed to work on the thesis in the home organization. Since the MSc course may be spread over a period of maximum five years (see rule 2.2) they may work on the thesis until about a month before the end of the five year period. In such cases, no extensions are possible.

5.6 Thesis examination

- 5.6.1 For the thesis examination, the Course Director nominates and the Examination Board appoints a separate Thesis Assessment Board for each participant. The Thesis Assessment Board is, via the Course Director, accountable to the Examination Board.

Each Thesis Assessment Board has 3 to 5 members: one or both supervisor(s), an ITC professor or associate professor in a relevant discipline (who cannot be one of the supervisors), an external examiner and, if necessary, other staff members of the ITC. The involved AiO or PhD student (see 5.3.1) and the Course Director may be present as advisors.

In many cases, the external member comes from outside the Faculty ITC, preferably being an academic staff member of a university or a knowledge institute. In the remaining cases, the external member comes from a scientific department of ITC that has not played a major role in the course and research theme.

The Thesis Assessment Board is chaired by the ITC (associate) professor. In exceptional cases one of the other members, but not (one of) the supervisor(s), can be the chair.

- 5.6.2 The thesis examination consists of the assessment of the thesis and the oral examination that includes a presentation and defence. The oral examination has duration of one hour.
- 5.6.3 The Course Director assigns a date for an oral examination and informs the participant at least one month in advance of this date.

- 5.6.4 All members of the Thesis Assessment Board shall read and assess the quality of the thesis as an ordered, logical and critical exposition of research work in the approved field. A minimum of three members of the Thesis Assessment Board must be present at the oral examination. (In case the ITC (associate) professor cannot attend, Head Education will appoint another ITC (associate) professor to replace him or her.) These members of the Thesis Assessment Board will assess the participant's reasoning power, critical attitude, competence in the scientific discipline, and knowledge of the relevant literature, will raise questions concerning the thesis and will decide on the mark.
- 5.6.5 The oral examination is open and will be announced as such. In exceptional cases the Course Director can decide to have the defence of individual participants closed to observers other than ITC staff.
- 5.6.6 On the basis of the assessment of the participant the Thesis Assessment Board shall take one of the following decisions:
- (1) The thesis is satisfactory. One single mark is given.
 - (2) Subject to minor corrections (that can be implemented within three working days and implemented before the official end of the course) in the thesis, the thesis is satisfactory. One single mark is given, subject to the corrections in the thesis being made.
 - (3) The written thesis is not satisfactory and a FAIL grade is given. However, the presentation and defence have shown that the participant is capable of performing principal research tasks. Subject to major changes, the participant may re-submit the written work within three months and a new oral examination will be scheduled.
 - (4) The thesis is not satisfactory and is given the FAIL grade.
- 5.6.7 No changes may be made in the thesis after submission for the thesis examination, only an errata list may be added. If the Thesis Assessment Board requires minor corrections to the thesis, these, and only these, corrections must be made and must be checked and approved by one of the supervisors. In all other cases changes can only be made when the thesis is to be re-examined by the Thesis Assessment Board.
- 5.6.8 Participants who are eligible to re-submit (5.6.6 option 3) are allowed to complete the thesis outside ITC. There is no right to supervision. The maximum mark for the thesis after the re-examination will be 60. Extension to the three-month period in which the participant has to re-submit is not possible.

5.7 Access to the thesis

- 5.7.1 The primary function of the Institute is the development and dissemination of knowledge. Theses are lodged with the Institute Librarian and shall be made available for consultation, inter-library loan and photocopying. Theses that meet the following criteria will also be made available in digital format at the ITC website:
- (1) Have been awarded a mark of 75 or more.
 - (2) Contain no material of which the copyright rests with third parties
 - (3) Contain no confidential data or information.
- 5.7.2 Any staff member who publishes results from MSc research work or the related thesis is obliged to make a proper reference to the MSc participant's work.

6. Final Assignment (Postgraduate Diploma course)

6.1 The Final Assignment and result

- 6.1.1 The Final Assignment period focuses on the application of knowledge, methods and techniques in the subject of the course to the task performed or to the topic investigated. Depending on the course, the Final Assignment will be done individually or in small groups.

- (1) At the start of the Final Assignment period, participants will receive terms of reference from supervising and coordinating staff.
- (2) Subsequently, participants will have to plan and carry out the assignment according to the terms of reference.
- (3) Part of the output of the assignment will be a final report and a documented database.
- (4) The output of the assignment will be presented and discussed in public.

6.1.2 A participant or group not completing the Final Assignment within the specified time will be considered to have failed. Only in exceptional cases and for reasons beyond the control of the participant/group (at the discretion of the Course Director), the participant/group may apply in writing for a new opportunity to meet the above requirements.

6.1.3 A participant or group may not incorporate material that has been submitted for achieving certification from any other educational institution, in the Final Assignment result.

6.1.4 The source of any photograph, map, or other illustration shall be indicated, as shall the source, published or unpublished, of any material not resulting from the participant/group's own work.
If material from other work is incorporated verbatim, without proper acknowledgement of the source (plagiarism), the Course Director may decide that the Final Assignment will not be assessed. This means that the Postgraduate Diploma cannot be awarded.

6.2 Supervision of the Final Assignment

6.2.1 The coordinator of the Final Assignment period, in consultation with the Course Director, will set up a scheme indicating which staff is available for consultation and supervision throughout the Final Assignment period. The supervising staff has to be appointed by the management team of their department.

6.2.2 The supervising staff shall:

- (1) Provide the participant/group with clear terms of reference.
- (2) Establish a schedule of supervisory meetings with the participant/group.
- (3) Provide general advice and guidance on the execution of the Final Assignment.
- (4) Provide feedback on work, normally within three days of submission.
- (5) Forward, where appropriate, any comments on the performance of the participant(s) to the Course Director.
- (6) Advise the Course Director when the progress of a participant gives cause for concern so that action can be taken in accordance with these regulations (see 9.1 and 9.2).

6.2.3 If a participant/group considers that he/she is not receiving the quality of supervision required in the regulations, the participant/group should seek action from the Course Director.

6.3 Submission of the Final Assignment result

6.3.1 The participant/group must submit a well-organized copy of all digital files associated with the Final Assignment work on DVD, and copies of hard-copy graphic output, to the supervising staff on the date of the Final Assignment assessment or as specified by the coordinator of the Final Assignment period in consultation with the Course Director.

6.3.2 Where the Final Assignment has been executed in groups or where individual Final Assignment work submitted has been executed in cooperation with others, the supervisor(s) must provide a written statement, indicating the extent of the share of the work that each participant has done.

6.4 Assessment of the Final Assignment

- 6.4.1 Participants will be assessed individually based on the output of and the presentation of the Final Assignment.
- 6.4.2 The Course Director assigns a date for the Final Assignment assessment and informs the participant/group of this date at least two weeks in advance.
- 6.4.3 Criteria for the assessment of the Final Assignment will be provided at the start of the Final Assignment period, i.e. at the time of providing the participants with the terms of reference for the Final Assignment.
- 6.4.4 The Final Assignment result will be assessed by a committee of two or three staff members: at least one staff member holding a PhD in a relevant discipline and at least one staff member who has been involved in the supervision during the execution of the Final Assignment. One examiner will be asked as chair; this will not be (one of) the supervisor(s).

At least two examiners must be present at the oral examination.

- 6.4.5 The presentation of the Final Assignment is open and will be announced as such. In exceptional cases the Course Director can decide to have the presentation of individual participants closed to observers other than ITC staff.
- 6.4.6 On the basis of the assessment of the participant(s) the assessing committee shall take one of the following decisions:
 - (1) That the Final Assignment is satisfactory. One single mark is given.
 - (2) That subject to minor corrections (that can be implemented within three working days and implemented before the official end of the course) in the Final Assignment result, the Final Assignment is satisfactory. One single mark is given, subject to the corrections in the Final Assignment result being made.
 - (3) The Final Assignment is not satisfactory and is given the FAIL grade.
- 6.4.7 In exceptional cases extension may be given for the Final Assignment work, but only before the Final Assignment assessment and only when:
 - (1) Financing for the extension is available, and
 - (2) The main cause of the unsatisfactory level of the Final Assignment has been beyond the control of the participant/group, at the discretion of the Course Director.The participant will take the initiative and apply in writing for extension. If the Course Director is of the opinion that condition 2 is met he/she will forward the request to Head Education for decision.
- 6.4.8 Extensions have a maximum duration of 50% of the standard duration of the Final Assignment. Extensions are only allowed when the participant/group stays at ITC.

This rule does not apply to participants who study part-time. They are allowed to work on the Final Assignment in the home organization until the end of the period of five years counting from the official starting date of the course (see rule 2.2). In such cases, no extensions are possible.

7. Assessment of MSc degree and Postgraduate Diploma

- 7.1 On the basis of the assessment results of the MSc course participant, the Examination Board decides whether the participant will be awarded the MSc Degree or, in case the MSc degree will not be awarded, whether the participant will be awarded a Postgraduate Diploma or Certificate.

On the basis of the assessment results of the PGD course participant, the Examination Board decides whether the participant will be awarded the Postgraduate Diploma or, in case the Postgraduate Diploma will not be awarded, whether the participant will be awarded a Certificate.

In case the Examination Board does not award any certification, the Course Director will decide whether the participant will be awarded a Certificate of Attendance.

- 7.2 At the end of the MSc course / Postgraduate Diploma course, after receipt of the assessment results of the thesis / final assignment, the Examination Board shall take one of the following decisions:
- (1) That the thesis / final assignment and overall course performance of the participant are satisfactory. The degree of MSc / Postgraduate Diploma shall be awarded.
 - (2) That the thesis / final assignment and overall course performance of the participant are such that the MSc degree / Postgraduate Diploma shall be awarded 'cum laude' (with distinction).
 - (3) That subject to minor corrections in the thesis / final assignment the thesis/ final assignment and overall course performance are satisfactory. The degree of MSc / Postgraduate Diploma shall be awarded subject to the corrections in the thesis / Final Assignment result being made before the official end of the course.
 - (4) For MSc candidates: That the research work / final assignment and/or overall course performance are not satisfactory. The degree of MSc shall not be awarded. The participant may receive a Postgraduate Diploma (see 8.1).
For Postgraduate Diploma course participants: That the final assignment and/or overall course performance are not satisfactory. The Postgraduate Diploma shall not be awarded. The participant may receive a Certificate (see 8.1).
- 7.3 The criteria for the award of an MSc degree and the award of a Postgraduate Diploma are:
- (1) The average of all final module marks must be at least 60.
When a module is assessed with 'completed' or 'fail': a 'completed' will not be included in the average, a 'fail' will be counted as a mark of 50.
In case of one overall assessment for combined modules, the overall mark will be given to each separate module, before calculation of the average.
 - (2) No more than two of the modules may have a mark below 60 or 'fail' and no module mark below 50 is allowed.
 - (3) The thesis (that counts for 8 module marks) in the MSc degree course must have a mark of at least 60. The final assignment in the Postgraduate Diploma course (that counts for 2 modules) must have a mark of at least 60.

Only results of modules that are part of the formal curriculum of the MSc or Postgraduate Diploma course are included in the calculation of the average and counted for the number of marks below 60 and below 50. Therefore results of a module that is taken in addition to the formal curriculum or in exchange for a module of the formal curriculum for which exemption was given, will not be included. However, a module that was taken in exchange because of a reason other than exemption (see rule 3.4), is (only for the application of this rule 7.3) considered as part of the formal curriculum.

If results of modules were obtained more than five years before the end of the course, then the validity of these modules must be confirmed by the Examination Board. (See rule 3.4.)

- 7.4 To be entitled to receive an MSc degree or Postgraduate Diploma 'cum laude' (with distinction) the average of all module assessments (see rule 7.3 which modules are to be included) must be 80 or above. The thesis or Final assignment must have a mark of 80 or above. No marks below 70 or 'fails' are allowed.

Participants who have made changes in the formal curriculum of their MSc or Postgraduate Diploma course (exemptions or exchanged modules) that affect more than four (MSc course) or two (PGD course) modules are not entitled to receive an MSc degree or Postgraduate Diploma 'cum laude'.

8. Awards and certification

- 8.1 A **Master of Science degree in Geo-information Science and Earth Observation** will be awarded to a participant who has been officially admitted to an MSc course (as approved by the Dean) and has fulfilled the assessment requirements of that course.

A **Postgraduate Diploma in Geo-information Science and Earth Observation** will be awarded to a participant who has been officially admitted to a PGD course (as approved by the Dean) and has fulfilled the assessment requirements of that course.

A Postgraduate Diploma ('cum laude' will not be possible in this case) and a Certificate for the remaining modules will also be awarded to a participant who (1) has been officially admitted to an MSc course, (2) has not been admitted to the research period or has failed the thesis, (3) has completed modules 1 to 14 of the MSc course successfully (average of all module marks is at least 60, not more than two marks between 50 and 60 and no marks below 50), and (4) has not received exemption for more than seven of the modules 1-14.

A **Certificate** will be awarded to a participant who (1) has been officially admitted to an MSc course or Postgraduate Diploma course but has not fulfilled all assessment requirements for that course, and (2) who has fulfilled the assessment requirements of at least one summatively assessed module of that MSc or Postgraduate Diploma course.

The Certificate will mention that the participant 'has followed individual modules in Geo-information Science and Earth Observation' and the course domain and/or stream.

A **Certificate of Attendance** will be given to participants who have been officially admitted to an MSc course or Postgraduate Diploma course, but have not fulfilled the assessment requirements of any summatively assessed module.

The Certificate of Attendance will mention that the participant 'has attended individual modules in Geo-information Science and Earth Observation', the course domain and/or stream and the period of study. Only the names of the modules in which the participant has participated for at least 80% will be mentioned on the Certificate of Attendance.

No qualification other than 'cum laude' will be indicated on any MSc degree or Postgraduate Diploma.

- 8.2 MSc Degrees, Postgraduate Diplomas and Certificates are issued under the responsibility of the Examination Board. Certificates of Attendance are issued under the responsibility of the Course Director.

- 8.3 MSc Degrees and Postgraduate Diplomas are signed by the Chair or Vice-Chair of the Examination Board. Certificates are signed by a member of the Examination Board. Certificates of Attendance are signed by the Course Director.

- 8.4 MSc degrees are accompanied by a Diploma Supplement, signed by the Chair or Vice-Chair of the Examination Board. The MSc Diploma Supplement describes the nature, level, context, content, study load (in ECTS credit points) and status of the MSc degree and MSc course and the names of and the marks or grades obtained for the modules and thesis. The assessments 'completed' or 'fail' will appear as such in the MSc Diploma Supplement.

- 8.5 Postgraduate Diplomas and Certificates are accompanied by a Course Record, signed by a member of the Examination Board. The Course Record will show the period of study, the names of and marks or grades obtained for the modules that have been finished successfully or that the participant has participated in for at least 80% but not finished successfully. The assessments 'completed' or 'fail' will appear as such in the Course Record. ECTS credit points will be mentioned for modules that have been finished successfully.

- 8.6 The names of the modules that are part of the formal curriculum of the course are mentioned in the MSc Diploma Supplement or on the Course Record. The marks or grades obtained or, in case of exemption, the word 'Exemption' will be added.

Only in case the Examination Board has approved that another ITC module could be taken in exchange of a module of the formal curriculum, the name of the new module will be mentioned.

The names of modules (and the results obtained) that are taken in addition to the formal curriculum of the course are also listed in the MSc Diploma Supplement or on the Course Record under the heading 'Extra'.

9. Early termination of the course

- 9.1 Where a Course Director and/or Head Education are/is of the opinion that a participant's progress gives cause for concern the participant shall be informed of the situation by the Course Director. Where a participant's performance is such that she/he is unlikely to obtain an MSc Degree / Postgraduate Diploma without a significant improvement in performance, the participant shall be advised in writing by the Course Director of the situation and the implications (Oral and/or written advice by the Course Director is not always given when the concern arises after the mid-term presentation of the thesis or after the approval of the Final Assignment plan.).

- 9.2 In cases of obvious non-performance, Head Education may decide at any time that a participant must discontinue his/her course. Such a decision will not be taken without consulting the Examination Board and the participant having received one written warning and being given time to improve performance.

In case of fraud during an exam or in assignments, the participant(s) concerned will be considered to have failed and a mark 0 (zero) will be given.

In case of plagiarism in the submitted thesis, the Thesis Assessment Board will decide not to assess the thesis. Extensions of the thesis period are then not possible. This means that the MSc degree cannot be awarded. The participant will get a Postgraduate Diploma or Certificate (see rule 8.1).

In case of plagiarism in the submitted final assignment of the Postgraduate Diploma course, the Course Director may decide that the final assignment will not be assessed. This will mean that the Postgraduate Diploma cannot be awarded; the participant will get a Certificate.

- 9.3 In case of severe or repeated fraud or plagiarism, Head Education, in consultation with the Examination Board, will decide that the participant is expelled from the course. Expulsion from the course means that the participant will not receive any certification.

- 9.4 ITC will use plagiarism detection software or other tools to detect fraud.

In submitting a text, the participant implicitly consents to the text being entered in the database of the detection software concerned.

- 9.5 In case of other types of misbehaviour, Head Education will consider expulsion from the course.

10. Student complaints and requests procedures

- 10.1 In case of problems of a general or structural nature in the course, the Student Association Board (SAB) may be consulted.

- 10.2 In the event that a participant disagrees with decisions taken by a staff member, examination committee or Thesis Assessment Board, he/she may present this decision for reconsideration to the Course Director.

Where a participant finds that he/she is not receiving the quality of thesis / final assignment

supervision required in the regulations, the participant should also seek action from the Course Director.

Requests for reconsideration must be made in writing. The Course Director will respond in writing.

- 10.3 If not satisfied with the decision of the Course Director, participants have a right of complaint/request with the Examination Board when the disagreement is related to an examination or with Head Education for all other issues. A complaint or request will only be accepted if:
- The previous steps of dealing with complaints and requests (complaint or request has been discussed with the lecturer, examination committee or Thesis Assessment Board and has been presented to the Course Director for reconsideration; see rule 10.2) have not led to agreement;
 - The complaint or request has been made before the official end of the course.
- Complaints and requests should be addressed in writing to the Chairman of the Examination Board/Head Education.
- 10.4 Where unequal treatment of participants is claimed, copies of all relevant scripts shall be made available for review by those investigating the complaint or request.
- 10.5 The Examination Board/Head Education may hear all parties involved (including the Course Director) for relevant information, before the final decision is taken and communicated in writing to the student. In case the complaint or request is supported, the Examination Board/Head Education will propose remedial actions, which may include extension of the fellowship. If the complaint or request of the participant is rejected, the reasons will be described.
- 10.6 The Examination Board/Head Education should deal with the case within two weeks of receipt of the complaint or request. If necessary the fellowship will be extended for the duration of the complaint/request procedure.
- 10.7 Support to a request for reconsideration or complaint concerning the assessment of the thesis cannot lead to overruling the assessment of the thesis, carried out by a Thesis Assessment Board that is composed according to these regulations. Acceptable remedial actions do include a re-sit for the oral part of the thesis examination (only when a reason beyond the control of the participant has caused underperformance in the oral part) or an extension to the research period (only when the main cause of unsatisfactory level of the thesis has been beyond the control of the participant) in combination with a full re-examination.

Support to a request for reconsideration or complaint concerning the assessment of the final assignment in the Postgraduate Diploma course cannot lead to overruling the assessment of the final assignment, carried out by an assessing committee that is composed according to these regulations. Acceptable remedial actions do include a re-examination (only when a reason beyond the control of the participant has caused underperformance in the oral part) by the same assessing committee or two other ITC staff members with sufficient expertise in the subject of the Final Assignment.

- 10.8 No further complaint or request within ITC will be possible.

If still not satisfied, students have the right to appeal to the central complaint desk of the University of Twente.

Appendix

Bodies and persons⁵ involved in management and quality assurance of ITC's MSc and Postgraduate Diploma (PGD) courses

The mentioned tasks and responsibilities must be carried out in accordance with the 'ITC Assessment Regulations for courses leading to a Master of Science degree or Postgraduate Diploma'

Dean

The Dean⁶ is responsible for the overall management of the Faculty ITC and all its activities. This includes:

- Decision on Faculty Regulations for management and administration
- Decision on the degrees, diplomas and certificates that ITC offers
- Decision on the curricula of the degree, diploma and certificate courses including admission criteria and final examination criteria
- Decision on ITC's Education and Assessment Regulations (OER⁷)
- Monitoring of the implementation of the OER
- Appointment of the Faculty Council, Examination Board, Program Board, Portfolio-holder Education, Head Education and Course Director

Although the Dean has the overall responsibility for education and takes the final decisions, the daily coordination is delegated to the Portfolio-holder Education in the Management Team of the Faculty ITC. The Dean is accountable to the Executive Board ('College van Bestuur') of the University of Twente.

Portfolio-holder Education

The Portfolio-holder Education is responsible for:

- Monitoring of the implementation of ITC's programs and courses by Head Education
- Quality and quality assurance of ITC's degree, diploma and certificate courses including initiation of internal and external reviews
- Preparation of new policy on education

Faculty Council (FC)

The Faculty Council has the right to advise the Dean on any matter pertaining to the overall management of the Faculty ITC, including advice on regulations, procedures and policies regarding education.

Moreover, in many cases the Faculty Council has the right of approval:

- Approval of policy and strategic plans of the faculty, including those regarding education
- Approval of ITC's quality assurance system
- Approval of the program-specific part of the Students' Charter⁸
- Approval of the Faculty Regulations for management and administration including rules for appointment of the Program Board and Examination Board
- Approval of most aspects of the OER and advice on the remaining aspects (that mainly deal with objectives and contents of the programs)

The Faculty Council consists of 50 % staff and 50% students. Staff members are elected by all ITC staff and student members are elected by the ITC student community.

⁵ ITC will make changes in the management of education. The changes made during the course will be incorporated.

⁶ The Dean of the Faculty ITC will use the title 'Rector of ITC' outside the Netherlands.

⁷ Dutch law requires that every master-level course or program has an OER that describes the structure and contents of the course and the assessment regulations for that course. The OER of your course is the combination of these ITC Assessment Regulations and the objectives, structure, teaching approach and main contents of the course as described in the Study guide.

⁸ The Students' Charter of the University of Twente describes the services for and the rights and obligations of UT students. The program-specific part describes the ITC specific services for and rights and obligations of ITC students.

Program Board (PB)

The tasks of the Program Board are to give advice to the Dean and Head Education on any matter pertaining to ITC's master-level courses and non-degree courses that are implemented by Head Education. This includes:

- Advice on the curricula of the degree, diploma and certificate courses, including admission criteria and examination criteria for final assignment and thesis
- Advice on ITC's quality assurance system and course-specific elements of this system
- Advice on ITC's Education and Assessment Regulations (OER)
- Annual evaluation of the courses and the way in which the OER has been implemented
- Advice on education policy

The Program Board consists of 50% staff and 50% students enrolled in the courses. All members are selected and appointed by the Dean.

Examination Board (EB)

The Examination Board decides whether a student has all knowledge, skills and attitudes that are defined in the OER for award of the degree, diploma or certificate. This responsibility includes:

- Assures the quality of all examinations in the degree, diploma and certificate courses
- Appoints all assessors / examiners and examination committees like the Thesis Admission Committee and the Thesis Assessment Boards
- Establishes and approves all assessment regulations and instructions for examination committees
- Decides on and awards the degree (plus Diploma Supplement), diplomas and certificates to individual students
- Decides on deviation of the formal curriculum by individual students

The Examination Board consists of staff members that are experts in the field of the courses, have expertise in assessment and are involved as lecturer/supervisor in at least one of the courses. The members are selected and appointed by the Dean.

Academic Board (AB)

The Academic Board is an advisory board to the Dean, mainly on matters related to the development of the scientific fields of ITC and the contents of the education programs offered in these fields. This includes:

- Advice on the degrees, diplomas and certificates that ITC offers
- Advice on the curricula of the degree, diploma and certificate courses including admission criteria and examination criteria for final assignment and thesis
- Advice on policy and strategic plans, including those regarding education

The Academic Board consists of the Dean (chair) and all full and part-time professors of ITC.

Research theme leader

The Research Theme leader is responsible for all research carried out by the scientific staff and MSc participants connected to that theme. This responsibility includes:

- Admission of the MSc participant to the research theme
- Monitoring of the quality of the research supervision given to MSc participants under the theme

Research theme leaders are ITC (associate) professors.

Head Education (HE)

Head Education is responsible for implementation of the degree, diploma and certificate course curricula (as approved by the Dean), ITC's quality assurance system (as approved by the Faculty Council and the Dean) and ITC's educational policy (as approved by the Faculty Council and the Dean).

Head Education focuses mainly on supra-course and supra-domain aspects. The actual implementation per domain is done by the Course Director.

Course Director (CD)

The Course Director is responsible for:

- Implementation of the degree, diploma and certificate courses in his or her domain, ITC's quality assurance system and ITC's educational policy, as delegated by Head Education
- Implementation of decisions taken by Head Education
- Day-to-day co-ordination and execution of the course
- Counselling of participants in matters concerning their studies

Thesis Admission Committee (TAC)

The Thesis Admission Committee is responsible for assessment of the thesis proposal and admission to the research part of the MSc course.

The Thesis Admission Committee is appointed by the Examination Board.

Thesis Assessment Board (TAB)

The Thesis Assessment Board is responsible for assessment of the thesis and oral examination of the participant on completion of the research.

The Thesis Assessment Board is appointed by the Examination Board.