

**Teaching and Examination Regulation**  
**2013 - 2014**  
**for the**  
**Human Media Interaction**  
**Master of Science programmes**  
**University of Twente**  
**(Section 7.13 of the Higher Education and Research Act)**

**The dean of the faculty authorizes,**

**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 Board of Studies, as well as the approval by, or advice of, the Faculty Council.**

**Enschede, DATE**

## **Table of Contents**

Definition of terms.....	5
Paragraph 1 - Applicability and validity .....	6
Article 1 - Contravening the regulations .....	6
Article 2 - Amendments to the regulations .....	6
Article 3 - Transitional arrangements .....	6
Article 4 - Publication of the regulations .....	6
Article 5 - Appeal to decisions by the Board of Examiners .....	6
Article 6 - Appeal to decisions by the Dean.....	6
Article 7 - Entry into force .....	6
Paragraph 2 - General.....	7
Article 8 - Study load .....	7
Article 9 - Organization of the programme .....	7
Article 10 - Language .....	7
Paragraph 3 - Attainment levels .....	7
Article 11 - <i>Requirements on the programme's final attainment levels</i> .....	7
Article 12 - The final attainment levels .....	7
Paragraph 4 - Master's programme .....	9
Article 13 - Composition of the programme.....	9
Article 14 – Mandatory courses.....	9
Article 15 - Course programme details.....	10
Article 16 - Free Programme .....	12
Article 17 - Earning two diploma's with a single (extended) programme .....	12
Article 18 - Earning the diploma by a special programme.....	12
Paragraph 6 - Organizational issues .....	13
Article 19 - Course programme approval. ....	13
Article 20 - Approval of Free programme choice.....	13
Article 21 - (Research) Traineeship, research topics, graduation work .....	13
Article 22 - Organization of practicals.....	14
Paragraph 7 - Courses .....	14
Article 23 - Assessment and marking.....	14
Paragraph 8 - Student support and monitoring .....	15
Article 24 - Student support and guidance .....	15
Article 25 - Monitoring academic progress .....	15
Paragraph 9 - Organizational aspects of examinations and audit.....	16
Article 26 - Number, times and frequency of interim examinations.....	16
Article 27 - The order of and the conditions for admission to units of study, interim examinations and practicals.....	16
Article 28 - The times and the frequency of the degree audit .....	16

Article 29 - Validity of interim examinations.....	16
Article 30 - Provisions for students with a handicap.....	16
Article 31 - Oral interim examinations .....	16
Article 32 - Determining and announcing the results .....	17
Article 33 - The right to inspect the results .....	17
Article 34 - Subsequent discussion of interim examination results .....	17
Article 35 - Exemption from interim examinations or practicals .....	18
A. Admissions appendix to the Teaching and Examination Regulations of the Master's programme Human Media Interaction.....	19
Introduction.....	19
Article A.1 - Admission to the programme.....	19
Article A.2 - Admission to the programme pursuant to a regulation.....	20
Article A.3 - Admission to the Master's programmes after individual assessment.....	20
Article A.4 - Variations in admission decisions.....	21
B. Transitional Arrangements appendix to the Teaching and Examination Regulations of the Master's programme Human Media Interaction .....	23
Introduction.....	23
Article B.1 - Transitional arrangements.....	23
C. Special course programmes appendix to the Teaching and Examination Regulations of the Master's programme Human Media Interaction .....	25
Introduction.....	25
Article C.1 - graduate research programmes .....	25
Article C.2. - graduate research programme Human-centered Interaction Technologies intermediate leading to the diploma .....	25
Article C.3. EIT ICT Labs Master School programme leading to the diploma.....	25
Article C.4. Trento double degree programme leading to the diploma.....	26

## Definition of terms

Terms taken from the Higher Education and Research Act maintain the meaning established in the Act.

In this Education and Examination Regulation, the following terms are understood to mean:

- a. WHW:  
Higher Education and Research Act (Wet op het Hoger onderwijs en Wetenschappelijk onderzoek) in effect since 1 September 2002, including all applicable amendments;
- b. dean:  
head of the faculty appointed by the Executive Board in accordance with Section 9.12, subsection 1, and Section 9.13, subsection 1, of the WHW;
- c. faculty council:  
advisory board of the Faculty of EEMCS, the authorities of which are outlined in (referentie)Sections 9.37, 9.38, 9.38a and 9.38b of the WHW;
- d. (referentie)programme committee:  
a committee instituted in accordance with Section 9.18 of the WHW which has an advisory role regarding matters of education in the programme;
- e. Board of Examiners:  
the Board of Examiners of the programme established in accordance with Section 7.12 of the WHW;
- f. study adviser:  
member of staff appointed or nominated by the dean to support students with all general study issues not directly related to their specific field of study;
- g. graduation supervisor:  
examiner for the final project of an individual student; also the person who organizes the daily supervision of the graduation work;
- h. programme mentor:  
individual appointed by the Board of Examiners to approve course programmes
- i. EC  
abbreviation of European Credit, according to the European Credit Transfer System (ECTS). In these regulations, EC is an equivalent of credit (see below)
- j. credit:  
unit used to measure a student's study load; one credit is equal to 28 hours of study in accordance with Section 7.4, subsection 1, of the WHW;
- k. Admissions Board.  
The Admissions Board is appointed by the Dean with the power to act in matters of admission to the programme

## Paragraph 1 - Applicability and validity

### Article 1 - Contravening the regulations

If the study guide and/or any other regulations relating to the study programme and/or the interim examination programme prove to contravene these Regulations and the accompanying appendices, precedence will be given to the provisions of these Regulations with which the appendices form an integral whole.

### Article 2 - Amendments to the regulations

1. Any amendments to these regulations will be made by special resolution of the Dean.
2. No amendments will affect the current academic year unless it is reasonable to suppose that the interests of students will not be adversely affected.
3. Amendments to these regulations may not retroactively affect a decision by the Board of Examiners to the detriment of the student.

### Article 3 - Transitional arrangements

1. If the composition of the study programme undergoes intrinsic changes or if these regulations are amended, the Dean will draw up transitional regulations *to prevent students who started their studies before the change of the regulations from any harm that might result from the changes*. The transitional arrangements are incorporated in the transitional arrangements appendix of these Regulations.
2. If and when appropriate, such transitional regulations are required to include:
  - a. a provision concerning the exemptions that can be given on the basis of the interim examinations already passed;
  - b. a provision specifying the term of validity of the transitional regulations.

### Article 4 - Publication of the regulations

The Teaching and Examination Regulations and the appendices, which form an integral whole with the Regulations, shall be published on the institution's website.

### Article 5 - Appeal to decisions by the Board of Examiners

Decisions by the Board of Examiners based on these regulations may be appealed within four weeks after the announcement of the decision to the student in question. Appeals should be lodged with the Examination Appeals Board.

### Article 6 - Appeal to decisions by the Dean

Decisions by the Dean based on these regulations may be appealed within six weeks after the announcement of the decision to the student in question. Objections are to be lodged with the Dean.

### Article 7 - Entry into force

The date of commencement of these regulations is September 1st, 2013. They replace the regulations of September 1st, 2012.

## Paragraph 2 - General

### Article 8 - Study load

The Master's degree audit for the *Human Media Interaction programme* has a study load of 120 credits. These 120 credits *cannot* include any credits which constituted part of a previously passed Bachelor's audit.

### Article 9 - Organization of the programme

1. The programme will be taught in full-time.
2. The full programme name is Human Media Interaction; the short programme name is HMI.

### Article 10 - Language

1. The language of the Master's programme is English. This applies to teaching and examination.
2. The Examination Board can grant permission to conduct interim examination in another language. Permission can be granted only if it serves the quality of the assessment.
3. The dean issues a regulation concerning the assessment of English language proficiency of staff members who teach courses in the programme, and of the support staff for the programme. All staff involved must meet the language requirements of the regulation. Courses to improve English proficiency of staff members are provided.

## Paragraph 3 - Attainment levels

### Article 11 - *Requirements on the programme's final attainment levels*

The final attainment levels of the programme are in line with the Dublin descriptors:

- a. Knowledge and understanding:  
The graduates have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;
- b. Application of knowledge and understanding:  
The graduates can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study
- c. Formulate judgement:  
The graduates have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;
- d. Communication:  
The graduates can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;
- e. Learning skills:  
The graduates have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

### Article 12 - The final attainment levels

1. The degree programme has the following general scientific attainment levels

- a. Graduates have an extensive knowledge of and understand the issues relevant to their specific field of study (i.e. programme-specific attainment targets) as described in this article under 2 below.
  - b. Graduates can contribute to scientific research, and independently design, conduct and present the results of small-scale research.
  - c. Graduates can provide an original contribution to the development and/or application of the field of study. 'Original' is understood to mean 'demonstrative of a creative contribution'.
  - d. Graduates can analyse complex problems (change problems) relevant to the field of study and obtain the required knowledge and information.
  - e. Graduates can design, validate and implement solutions/systems in their operational context; identify and apply relevant advanced knowledge, methods and techniques from their field of study.
  - f. Graduates can assess solutions/systems and their applications according to their properties and potential to solve problems even if they are new to or unfamiliar with the situation or lack information and/or reliable information; they can use their assessment as a basis for (substantiation of) decisions.
  - g. Graduates understand the ethical, social, cultural and public aspects of problems and solutions in their field of study; apply this insight in their international role as scholar.
  - h. Graduates can work as part of and play a leading role in a team; manage and plan a development process; document development and research processes.
  - j. Graduates can substantiate research results, designs and applications in writing and verbally; critically assess and participate in debates regarding the same.
  - k. Graduates can independently acquire new knowledge and skills; reflect on trends in their field of study, responsibilities and roles and use this insight as a guide for and integrate it into their own personal development.
  - l. Graduates can integrate information from other disciplines into their own work if necessary.
  - m. Graduates take a critical approach to reading, incorporating information presented in and participating in debates regarding international scientific literature relevant to their field of study.
2. The degree programme has the following subject specific scientific attainment levels (elaborating 12.1.a above)
- a. Graduates have a thorough knowledge and understanding of each of the sub-fields listed below
    - methodology of user-oriented design, including the drafting of user requirements, user studies and usability engineering;
    - forms of natural interaction, including natural language and speech recognition technology, multimodal interaction and interaction via dialogue systems and conversational agents;
    - intelligent interaction employing techniques taken from artificial intelligence, e.g. intelligent multi-agent systems and learning systems;
  - b. Graduates can design, both independently and as part of a team, sophisticated applications involving digital media and interactive systems and geared to the needs of users.
  - c. Graduates can use state-of-the-art techniques, methods and design and development tools in developing sophisticated applications make an informed selection of and contribute to the further development of these methods, techniques and tools.



- d. Graduates have knowledge of and gain practical experience with interaction design methods.
- e. Graduates have knowledge of and understand various aspects of the user context of digital media and interactive systems and, based on this, communicate effectively and efficiently with users during the various phases of the development process.
- f. Graduates have knowledge of and understand basic questions and research methods into human behavior (psychology and philosophy) and grasp the relevance of these fields of study to the design of interactive systems.
- g. Graduates can draft, transfer, document and communicate to technical designers specifications on the basis of a knowledge and understanding of the technical aspects of digital media and interactive systems..
- h. Graduates can assess systems for human media interaction according to their technical and operational aspects, incorporating a thorough knowledge and understanding of mathematics.

HMI graduates have specialist knowledge of one or more of the four Human Media Interaction sub-fields outlined above and practical experience conducting, reporting about and applying the results of scientific research in developing innovative interactive systems and the relevant techniques and methods.

## Paragraph 4 - Master's programme

### Article 13 - Composition of the programme

1. The composition of the course programme is as follows:
  - a. Core units, 40 – 80 credits, as described in Article 15.1,
  - b. Elective units, 0-40 credits, as described in Article 15.2,
  - c. Optional traineeship, as described in Article 15.3
  - d. Research topics, 10 credits, as described in Article 15.4
  - e. Graduation work, 30 credits, as described in Article 15.5.
2. Students whose admission to the HMI programme is derived from, or constitutes a part of, their admission to a special programme (HCIT, HCID or TDD, see Article 18) may have a course programme which deviates from the requirements of 13.1 above.  
Regulations regarding the course programme for these students are in the Special Course Programmes appendix of these regulations.
3. A choice of units becomes a course programme once it has been laid down, with the approval of the programme mentor. See Article 19.  
The programme mentor has the authority to refuse his approval even if the choice of units is within the limitations of these Regulations.

### Article 14 – Mandatory courses

*Replaces “Academic and Organizational skills”*

All students have to take the following courses in their course programme:

191612680 Computer Ethics; study load 5 credits; counts as a core unit

192166100 HMI project<sup>1</sup>; study load 10 credits; counts as a core unit

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<sup>1</sup> It is possible to have more than one instance of a unit of study (e.g. HMI project, Capita Selecta) in a course programme. Of course the approval of the programme mentor is needed. The difference between the two must be clear to all parties.

## Article15 - Course programme details

Replaces "Course Programmes"

### 1. Core Units

Core units are the units of study in five different areas, listed in 15.1.a – 15.1.e;

Students must choose core units with a study load of at least 40 EC in accordance with the provisions of 15.1.a – 15.1.e.

- a. The core units in the student's course programme must include units in the area Human Computer Interaction with a study load of at least 10 EC in total. Since this area includes the mandatory 10 EC subject HMI project, the choice of additional units in this area is entirely optional. The units in this area are

192166100 HMI project	10 EC
201000113 User Centred Design of New Media	5 EC
201000076 User studies in human media interaction	5 EC

- b. The core units in the student's course programme must include units in the area Natural Interaction with a study load of at least 5 EC in total. The units in this area are

192166310 Speech and language processing 1	5 EC
192166320 Speech and language processing 2	5 EC
192166370 Conversational agents	10 EC
201000078 Brain Computer Interfacing	10 EC

- c. The core units in the student's course programme must include units in the area Artificial Intelligence with a study load of at least 5 EC in total. The units in this area are<sup>2</sup>

192320601 Multi agent systems	5 EC
192166420 Machine learning	10 EC

- d. The core units in the student's course programme must include units in the area Man, Media and Society<sup>3</sup> with a study load of at least 10 EC and at most 15 EC in total. Since the mandatory 5 EC subject Computer Ethics is included in this area, an additional free choice of units with a study load of at least 5 and at most 10 EC is required. The units in this area are.

191612680 Computer Ethics	5 EC
201200063 Philosophy of technology	5 EC
192165201 KMT Mediatechnologie	5 EC
201100126 Human Computer Interaction	5 EC
20130-New Resilience Engineering	5 EC
192934090 Human Error	5 EC
201200123 Intelligent Systems	5 EC

- e. The core units in the student's course programme may include units in the area Media Technology. There are neither minimum nor maximum requirements for the study load of units in this area. The units in this area are<sup>4</sup>.

19121091 Image processing and computer vision	5 EC
192166400 Advanced graphics	10 EC
192160400 Information retrieval	10 EC

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<sup>2</sup> For the status of 192160200 Knowledge Representation see Appendix B, Article B.1, Regulation 4.

<sup>3</sup> The list of MMS units has been subject to changes. For course programmes which were designed before September 1, 2012 please consult Appendix B, Article B.1 Regulation 6.

<sup>4</sup> For the status of 192110371 Graphics & virtual reality see Appendix B, Article B.1, Regulation 5.

- f. The choice of core units in the student's course programme is restrained by the condition that the study load of introductory units may not exceed 30 EC. The introductory units are:
- |  |      |
|--|------|
| 192165201 KMT Mediatechnologie             | 5 EC |
| 201200123 Intelligent Systems              | 5 EC |
| 192166310 Speech and language processing 1 | 5 EC |

2. Elective subjects:

Elective subjects are all units in the student's course programme which are not core units, as listed in 15.1.a – 15.1.e. The choice of electives in the student's course programme is restrained by the following conditions.

- The total study load of electives in the student's course programme may not exceed 40 EC.
- Traineeship (see 13.4), Research Topics (see 13.5) and Graduation Project (see 13.6) do not count as elective units for these Regulations.
- Students can suggest elective units for their course programme; the programme mentor may give the student directives for the choice of electives; in any case the approval of the programme mentor for the choice of electives is necessary.
- In some cases the admissions board may issue a certificate of admission with additional requirements. See the admissions appendix. Students must use the space for elective subjects in their course programme to meet these additional requirements, usually called 'homologation'. Homologation requirements limit the space the student has for electives in the student's course programme.

3. Traineeship

All students may take a 20 EC traineeship in their course programme.<sup>5</sup>

4. Research Topics

All students must take a 10 EC Research topics subject in their course programme.<sup>6</sup>

5. Final Project

All students must carry out graduation work under the supervision of a staff member of the HMI chair. The following requirements must be met:<sup>7</sup>

- Students complete graduation work worth 30 credits.
- Graduation work consists of a graduation project, a graduation report, a summary of the report, and a presentation. Generally the Research topics of 13.5 above immediately precede the graduation work, and serve as a preparation for the graduation work.
- Students may start graduation work only if they have completed all of the remaining components of the study programme.
- The HMI chair takes responsibility for supervision and assessment of graduation work.
- The graduation project description is written down as an agreement, signed by both the student and the supervisor. The supervisor signs on behalf of the Examination Board.<sup>8</sup>

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<sup>5</sup> Organisational procedures are found on:  
<http://www.utwente.nl/csc/programmeinformation/traineeship.doc/>

<sup>6</sup> Organisational procedures are found on:  
<http://www.utwente.nl/csc/programmeinformation/final%20project/>

<sup>7</sup> Organizational procedures are found on:  
<http://www.utwente.nl/csc/programmeinformation/final%20project/>

<sup>8</sup> Forms to be found on: [http://www.utwente.nl/csc/programmeinformation/rules\\_documents/](http://www.utwente.nl/csc/programmeinformation/rules_documents/)

## Article 16 - Free Programme

1. Students can compile their own programme, with an associated degree audit. The programme requires prior approval by the Board of Examiners. The Board of Examiners draws up a regulation for approval of free programmes.
2. When applying to the Board of Examiners for the prior approval referred to in paragraph 1, students must provide details of their reasons for making this request.

## Article 17 - Earning two diploma's with a single (extended) programme

In some cases, student can take the final assessment for two Master's programmes on the basis of a combined course programme satisfying the requirements of each individual programme.

The following conditions must be met to be eligible for a combined final assessment:

1. Composition of a combined programme:
  - a. The student's course programme can be described as the amalgamation of two (not necessarily) disjunctive) course programmes satisfying the requirements of both programmes.
  - b. The two sub-course programmes referred to in 1. have no more than 30 credits in common outside of a possible combined graduation assignment. This not only includes units of study included in both course programmes, but also units of study for which an exemption was granted for one course programme on the basis of a result earned as part of the other course programme.
  - c. If a single graduation assignment is included in the intersection of both course programmes as referred to in 1., the assignment must involve a study load which is higher than what the individual programmes require. The study load of a combined graduation assignment is at least 75% of the combined study load of two individual graduation assignments (one for each programme).
2. Passing the final assessment for a combined programme

Students with an extended course programme for two diploma's, which meets the requirements of 17.1, will successfully take both diploma's if their results would result in passing the final assessment of each programme separately in accordance with the applicable regulations. The Examination Boards of both programmes involved must decide that the student passes the final assessment.

## Article 18 - Earning the diploma by a special programme

*Replaces "Earning the diploma within graduate research programmes".*

Students whose admission to the HMI programme is derived from, or constitutes a part of, their admission to one of the following

- a. the Human Computer Interaction and Design (HCID) programme of the EIT ICT Labs Master School,
- b. the Human Centred Interaction Technologies (HCIT) programme of the Twente Graduate School,
- c. the Trento Double Degree programme,

may earn their diploma based on a course programme which deviates from the requirements of articles 13 – 15 above. Regulations regarding the course programme for these students are in the Special Course Programmes appendix of these regulations.

## Paragraph 6 - Organizational issues

### Article 19 - Course programme approval.

The student must complete the following steps to obtain course programme approval:

1. Contacting the programme mentor and laying down the course programme.  
Students may complete subjects and sit interim examinations up to a maximum of 15 credits in a specialization before contacting the programme mentor<sup>9</sup>. At this point, permission from the programme mentor is required for complete programme of 120 credits. Criteria for approval of elective subjects to be followed by the student are contained in the Rules and Regulations of the Board of Examiners. The programme is written down as an agreement on the content of the course programme, signed by both the student and the programme mentor<sup>10</sup>. The programme mentor signs on behalf of the Examination Board.
2. Alterations and renewed approval of entire course programme  
The course programme laid down in phase 2 can be altered during executing the master's programme, by laying down revised course programmes. This can be done until research topics and final project are started by the student. At that time the study adviser should have approved the 120-credit course programme in its entirety. At this point it is clear which chair/chairs will bear responsibility for the student's graduation supervision.
3. The completed and signed form listing the course programme must be included in the student's file at S&O (the Student & Education service centre). In principle, the student will earn the programme diploma if he/she completes the units of study listed in the course programme and earns results in line with the guidelines for passing the final assessment.
4. If the course programme listed on a signed form does not satisfy the regulations described in this programme appendix and/or does not satisfy the conditions imposed by the admissions board, the Examination Board is authorised to impose additional diploma eligibility requirements.
5. Requirements apply to each course programme to ensure basic knowledge in the field of study and the track selected. The admissions board may adjust these programme requirements on the basis of the student's prior education and training. Such an adjustment will never entail an intensification of the requirements, the programme will always have a studyload of 120 credits. The Master's programme final assessment cannot be passed if the course programme does not satisfy the basic knowledge requirements. The only exception to this rule is when the admissions board lowers the basic knowledge requirements.
6. The total number of credits completed at the UT or at another university or research institute approved by the study adviser, must be at least 90. The Examination Board may permit a student to deviate from this rule.

### Article 20 - Approval of Free programme choice

The Board of Examiners shall decide on motivated requests from students for free programme choice as referred to in Article 7.3c of the Act. Conditions related to this matter are to be specified in the Rules and Regulations of the Board of Examiners.

### Article 21 - (Research) Traineeship, research topics, graduation work

*Deleted, see article 13, items 3, 4 and 5*

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<sup>9</sup> It is strongly recommended for students to contact the study adviser immediately at the start of the master's study.

<sup>10</sup> Forms to be found on: [http://www.utwente.nl/csc/programmeinformation/rules\\_documents/](http://www.utwente.nl/csc/programmeinformation/rules_documents/)

## Article 22 - Organization of practicals

There are no specific regulations for the organisation of practicals.

## Paragraph 7 - Courses

### Article 23 - Assessment and marking

The table shows how assessments for the units of study are organised.

The 'Assessment method' columns use the following codes:

- S written interim examination
- O written assignment: detailed exercises, a report, an essay or other written document reviewed and assessed by the examiner, but not in the presence of the student
- M oral assessment: a meeting involving the student and the examiner or other individual, during which the student's knowledge is assessed
- P practical assignment: a functioning product prepared and submitted by the student to be assessed in terms of behaviour, operation and/or use (e.g. a simple programme or a larger, functioning prototype)
- Pj project: group activities as part of which the resulting group work and the student's participation are assessed

Pre presentation: information presented by the student before an audience, usually other students

These codes are used to give a general indication of the assessment method of each unit of study, not outline the exact rules governing the form of assessment.

	study load in EC	teaching activities	assessment <sup>11</sup>	prerequisites <sup>12</sup>
192320601 Multi agent systems	5		S, O	
192166420 Machine learning	10		O	
192166100 HMI project	10		O, Pre	
201000113 User Centred Design of New Media	5			
201000076 User studies in human media interaction	5		O	
191612680 Computer Ethics	5		S, O	
201200063 Philosophy of technology	5		S, O	
192165201 KMT Mediatechnologie	5		O	
201100126 Human Computer Interaction	5		S	
20130-New Resilience Engineering	5			
201200123 Intelligent Systems	5			
19121091 Image processing and computer vision	5		O	
192166400 Advanced graphics	10		O	
192160400 Information retrieval	10		S, O	
192166310 Speech and language processing 1	5		S, O	
192166320 Speech and language processing 2	5		S, O	1
192166370 Conversational agents	10		O	
201000078 Brain Computer Interfacing	10		O,Pre	
192166200 Capita selecta HMI	5		O, Pre	
192110322 Seminar HMI	5		O, Pre	

1. To be eligible for 192166320 Speech and language processing 2 the student must have successfully completed 192166310 Speech and language processing 1.

## Paragraph 8 - Student support and monitoring

### Article 24 - Student support and guidance

Responsibility for student support and guidance lies with the Dean. This includes informing students about study options within the programme or elsewhere. One or more study advisers may be appointed for this purpose.

### Article 25 - Monitoring academic progress

1. The Dean is responsible for the registration and timely publication of the exam results of individual students in the institution's virtual learning system.

<sup>11</sup> The abbreviations under teaching activities and assessment are explained in Article 23.

<sup>12</sup> Numbers in the prerequisites column refer to the text following the table.

2. The Dean is responsible for facilitating discussion of the results between the student and the study adviser, when appropriate.
3. Each year, all students will receive at least one update in writing, outlining their study progress in the last period.

## Paragraph 9 - Organizational aspects of examinations and audit

### Article 26 - Number, times and frequency of interim examinations

1. There are at least two opportunities in each academic year for sitting interim examinations.
2. A timetable of all opportunities for sitting written interim examinations is drawn up on an annual basis and details are published before the start of the academic year.
3. Notwithstanding the provisions of paragraph 1, there will be at least one opportunity in a year to sit interim examinations relating to subjects not taught in that academic year.
4. If a subject is removed from the study programme, two opportunities to sit an interim examination in this subject will be granted after the last classes in this subject have been taught: an interim examination following the last of the classes, and one resit in the same academic year. In the following academic year there will be two subsequent resits.
5. In exceptional cases, the Board of Examiners may permit a deviation from the standard number of times and the way in which certain interim examinations may be administered.

### Article 27 - The order of and the conditions for admission to units of study, interim examinations and practicals.

To participate in a unit of study it is mandatory for a student to register as a participant. Registration is possible in the periods published in the rosters. To sit (interim) examinations, registration is mandatory also. Periods for registration are published in the roster. Admission to units of study and interim examinations can be denied to students who did not register.

Additional conditions of admission to the units of study and to interim examinations are in sections g (for traineeship) and h (for graduation work).

### Article 28 - The times and the frequency of the degree audit

There shall be an opportunity to undergo the Master's degree audit at least twice a year. The dates set by the Board of Examiners are to be published before the start of the academic year.

### Article 29 - Validity of interim examinations

1. The result of an interim examination is valid for an unlimited period.
2. However, in cases where the interim examination result dates from over six years ago, the Board of Examiners may impose an additional or substitute interim examination.

### Article 30 - Provisions for students with a handicap

Students with a physical or sensory handicap will be given the opportunity to sit interim examinations and complete practical exercises in a manner appropriate to their ability. This can be achieved by, for instance, adjusting the type or duration of the interim examinations or providing practical tools, tailored to the student's situation. Students wishing to invoke these regulations should contact their study adviser or, in cases of dyslexia, the Educational Affairs Office.

### Article 31 - Oral interim examinations

1. The examiner may conduct oral examinations involving more than one student at a time, unless one of the students involved objects to this.



2. Oral interim examinations are open to the public, except in special cases when the Board of Examiners has decided otherwise.
3. If the student or the examiner wants the presence of a third person during the oral examination, the Board of Examiners must be informed about it at least 10 days before the day of the oral examination.
4. If the Board of Examiners wants the presence of one of her members or an observer on behalf of her during the oral examination, the student and the examiner must be notified about it at least one day in advance of the oral examination.

### Article 32 - Determining and announcing the results

1. The examiner is required to determine the result of an oral interim examination as soon as it is finished and to supply the student with a written statement of the result.
2. In the case of written interim examinations, the examiner is required to determine the result as soon as possible after the interim examination but within 15 working days at most. Taking due account of the student's right to privacy, the student administration then ensures that the results are registered and published within 20 working days of the interim examination date. If the examiner is unable to meet these criteria due to extenuating circumstances, the examiner must inform the Board of Examiners, stating reasons for the delay. The Board of Examiners will then pass this information on to the student or students without delay, and a new date for announcing exam results will simultaneously be made known.
3. Regarding any interim examinations that are not taken orally or in writing, the Board of Examiners will determine beforehand precisely how and within what period of time the student will be notified of the results.
4. When receiving the result of an interim examination, the student will be made aware of his or her right to inspect the results as referred to in Article 10, the opportunity for a subsequent discussion as referred to in Article 11 and the opportunity to lodge an appeal with the Examination Appeals Board.

### Article 33 - The right to inspect the results

1. For a period of at least 20 working days after notification of the results of any written interim examination, the student has the right to inspect his or her marked work, on request. If a student intends to lodge an appeal regarding the marking of his or her written work, he or she will be supplied with a copy of the marked work at cost price.
2. During the period referred to in paragraph 1, all interested individuals may acquaint themselves with the questions and assignments set in the interim examination in question, as well as with the criteria used for marking.
3. The Board of Examiners may determine that the right to inspection as referred to in paragraphs 1 and 2 will be exercised at a location specified beforehand and at no less than two specific times, also to be decided in advance.  
If the student can prove that he/she is or was unable to be present at the location at the set time due to circumstances beyond his or her control, then another opportunity will be provided, if possible within the period stated in paragraph 1.  
The location and times mentioned in the first sentence will be announced within five working days.

### Article 34 - Subsequent discussion of interim examination results

1. As soon as possible after the results of an oral interim examination have been announced, an opportunity will be arranged for the examiner to discuss the results with the student, if so requested by the student or at the instigation of the examiner. At this meeting, the reasons behind the marks awarded will be explained.

2. For a period of 20 working days after the results have been announced, students who have taken a written interim examination may submit a request to discuss the results with the relevant examiner. The discussion will take place within a reasonable time span and at a place and time determined by the examiner.
3. In cases where a collective discussion is organised by or on the instructions of the Board of Examiners, a student may only submit a request, as referred to in the preceding paragraph, if the student was present at the collective discussion and if the student provides a good reason for the request or if, due to circumstances beyond the student's control, the student was unable to attend the collective discussion.
4. The provisions of paragraph 3 are similarly applicable if either the Board of Examiners or the examiner first gives the student the opportunity to compare his/her answers with model answers.
5. The Board of Examiners may permit deviations from the provisions of paragraphs 2 and 3.

#### Article 35 - Exemption from interim examinations or practicals

1. After having been advised by the relevant examiner, the Board of Examiners may decide to exempt students from an interim examination or practical. Conditions for exemption are to be specified in the Rules and Regulations of the Board of Examiners.
2. The Board of Examiners may exempt a student from a specific interim examination only on the grounds of the content, level and quality of interim examinations successfully completed earlier or on the grounds of the student's prior knowledge, insights and skills developed outside of higher education.
3. Exemptions as referred to in Articles 35.1 and 35.2 cannot be granted on the basis of results from the Bachelor's programme, the diploma of which made the student eligible for admission.

# A. Admissions appendix to the Teaching and Examination Regulations of the Master's programme Human Media Interaction

## Introduction

The regulations in this appendix are an integral part of the teaching and examination regulations of the Master's programme Human Media Interaction of the Faculty of Electrical Engineering, Mathematics and Computer Science of the University of Twente. References to numbered articles in this appendix are references to the main text of the teaching and examination regulations.

Enrolment as a student is required to sit interim examinations and to be eligible to earn the Master's diploma. In order to be enrolled, students must demonstrate that they have been admitted to the Master's programme.

## Article A.1 - Admission to the programme

1. *deleted*
2. Students in possession of a diploma which shows that they have passed the final examination for the *Technische Informatica* (TU/e, TUD, UT), *Informatica* (RUG, UU, UvA, VU, UL, RU, OU), *Bedrijfsinformatietechnologie* (UT), *Creative Technology*, or *Technische Kunstmatige Intelligentie* Bachelor's programme will be eligible for admission to the programme.
3. Students who are not in possession of the diploma mentioned in paragraph 1 will require a certificate of admission issued by the Admissions Board. The Admissions Board is appointed by the Dean with the power to act in matters of admission to the programme. Admission involves an assessment of the student's eligibility for the Master's programme of his/her choice. If the admissions board positively assesses an application for admission, it issues a certificate of admission. Students with a certificate of admission are eligible for enrolment by the Central Student Administration. Enrolment will only take place if the other admission requirements maintained by the UT have also been satisfied.
4. Notwithstanding the provisions of paragraph 1, the Dean may under special circumstances admit a student to one or more interim examinations and/or practicals of the programme before the student has passed the Bachelor's examination. A limited period of validity may be set for such permission.
5. Admission of foreign students:
  - a. The student must submit a proof of sufficient command of English.  
Only the following three tests are accepted: IELTS, TOEFL internet based, and CPE. Scores required for admission are:  
IELTS: 6.5 or more;  
TOEFL internet based: 90 or more;  
CPE: C or higher;  
Exemption will be given by the admissions board if the applicant provides a proof that his or hers previous education on secondary school and bachelor was conducted in english.
  - b. The level of education in the country in which the student has completed his/her pre-university education: this must be more or less comparable with that in the Netherlands.
  - c. Level of knowledge: the student must have accumulated sufficient knowledge on the basis of the subjects he/she has studied abroad to be at a level comparable to that of Dutch students who are admitted to the Master's programme.

## Article A.2 - Admission to the programme pursuant to a regulation

The Dean has adopted the following provisions for certain students to be eligible for admission. (next to the ones mentioned in Art. A.1.2):

1. Applicants who satisfy the following three requirements are eligible for admission to the HMI Master's programme.
  - a. The applicant is holder of a diploma from Saxion Universities (Saxion Hogeschool Enschede) demonstrating that he has satisfied the requirements of the final assessment of the Computer Science (Informatica) Bachelor's programme or the Technical Computer Science (Technische Informatica) Bachelor's programme
  - b. The applicant has successfully completed the Advanced Algorithms elective module as part of his bachelor's course programme
  - c. The applicant, according to UT records, has sat the interim examination of either the subject 192140250 ADC plus or the subject 192140200 ADC while completing the Advanced Algorithms elective module and received a mark of 6, 7, 8, 9 or 10 or, if no mark is awarded, 'pass' ('G' in Dutch)
2. Applicants who satisfy the following requirements are eligible for admission to the HMI Master's programme.
  - a. The applicant is holder of a diploma from the University of Twente demonstrating that he or she has satisfied the requirements of the final assessment of the Advanced Technology Bachelor's programme.
  - b. The applicant has successfully completed the following electives as part of his or her bachelor's course programme
    - 192135000 - Programmeren 1
    - 192135050 - Programmeren 2
    - 192110741 - Gegevensbanken
    - 192140250 - Algoritmen, Datastructuren en Complexiteit plus
    - 192110452 - Besturingssystemen
  - b. The applicant has successfully completed the following electives as part of his or her bachelor's course programme
    - 192131102 - Computer Organisation
    - 192110542 - Computer Systems
    - 192110452 - Operating Systems

## Article A.3 - Admission to the Master's programmes after individual assessment

In all other instances than those mentioned in Article A.1 and A.2., the admissions board conducts a detailed assessment of the applicant's eligibility for admission. This assessment takes the following factors into account:

1. The highest diploma earned by the applicant: This must be at least a Bachelor's diploma from a recognised higher education institution. If such a diploma cannot be produced, the admissions board will ask for a statement attesting to the equivalency of the applicant's qualifications with the Bachelor's diploma required. The body issuing this statement must be authorised to do so.

2.
  - a. The nature of the degree course and the content of the course programme completed by the applicant;
  - b. the speed with which the course programme was completed and the marks earned;
 

The nature of the degree course, the content of the course programme and marks earned for the individual units of study must clearly demonstrate that the applicant has the fundamental academic skills and appropriate basic knowledge for the Master's programme or is able to compensate for any gaps in basic knowledge.
3. The student's motivation for applying for admission
4. The applicant's command of English: This only applies to international students. The threshold values for sufficient command of English are in Article A.1.5.

#### Article A.4 - Variations in admission decisions

##### 1. Issuing an unconditional certificate of admission

The admissions board may decide to admit applicants to the Master's programme after assessing their file. These applicants will be issued a (unconditional) certificate of admission.

##### 2. Issuing a conditional certificate of admission

The admissions board may not reach a final decision about admission, because it finds insufficient or formally incorrect evidence of the applicant's status in the application file. In such a case the board can decide to admit the applicant conditionally. The student can enrol at the UT on the condition he or she submits the evidence lacking in the original application file to the satisfaction of the admissions board. (A typical case of conditional admission is when the applicant's file shows no formal proof of sufficient proficiency in English.)

##### 3. Issuing a certificate of pre-Master admission

In some cases, the admissions board will issue applicants a certificate of pre-Master admission. While these individuals may enrol at the UT, they are not entitled to sit interim examinations or to have the final assessment conducted.

Pre-Master admission is associated with a pre-Master's programme, i.e. a list of units of study, the attainment targets and learning objectives of which are at the undergraduate level. Students in this category must first successfully complete this pre-Master's programme to be fully admitted to the Master's programme and become fully enrolled students with all the associated rights. Certificates of pre-Master admission are valid for a limited term (generally one year). Students who are not fully admitted during this term must re-apply for admission.

Completing a pre-Master's programme to convert a pre-Master admission to 'fully admitted' student status is often referred to as 'overcoming deficiencies'.

NB: While the results earned as part of an undergraduate-level pre-Master's programme do not count towards a Bachelor's degree, a certificate is awarded in recognition of the academic achievements during the pre-Master's programme.

4. Issuing a certificate of admission with additional requirements

The admissions board may attach additional requirements to a certificate of admission (also to conditional and pre-Master admissions). These additional requirements do not impact the right to enrol, sit interim examinations or have the final assessment conducted. They do, however, impact the regulations governing successful conclusion of the Master's programme final assessment. With this admission decision, the admissions board establishes additional requirements for the course programme to satisfy in order to successfully pass the Master's programme final assessment. Naturally, the additional requirements will be limited to the extent that the student will still be able to complete the programme with a study load of 120 credits. The additional requirements placed on the course programme are referred to as "homologation".

5. Issuing a certificate of admission with a requirements waiver

Article 35.3 stipulates that the Examination Board may not honour requests for exemptions based on results earned as part of a Bachelor's programme. However, the Examination Board may waive a requirement placed on the course programme in recognition of the results earned as part of a Bachelor's programme and, consequently, permit the student to successfully pass the Master's programme final assessment with a course programme that does not satisfy all the formal requirements. Students who wish to have a waiver for requirements placed on the course programme based on their undergraduate education should submit a request to the admissions board. The admissions board will render a decision on the request on behalf of the Examination Board. If granted, it will issue a certificate of admission with a waiver for requirements, thereby granting the student the right to have the Master's programme final assessment conducted without meeting all the formal requirements. Such a waiver will never affect the Master's programme study load. A study load requirement of less than 120 credits is not permitted.

## B. Transitional Arrangements appendix to the Teaching and Examination Regulations of the Master's programme Human Media Interaction

### Introduction

The regulations in this appendix are an integral part of the teaching and examination regulations of the Master's programme Human Media Interaction of the Faculty of Electrical Engineering, Mathematics and Computer Science of the University of Twente. References to numbered articles in this appendix are references to the main text of the teaching and examination regulations.

### Article B.1 - Transitional arrangements

1. *deleted*

2. Regulation 2008-2009 regarding Research topics

**Occasion:** This regulation is necessary because Research topics are a mandatory item in the course programmes of all HMI students, starting 1 September 2008.

**Term of validity:** until September 1, 2012.

**Contents of the regulation:** Students who have their course programme approved before 1 March 2009 can take the degree without a Research topics unit in their programme. Programmes submitted for approval after 1 March 2009, must contain a Research topics unit. After 1 March 2009, programmes without Research topics can be approved only if the student has explicit permission of the Examination Board.

3. Regulation 2010-2011 regarding Computer Ethics

**Occasion:** This regulation is necessary because Computer Ethics are a mandatory item in the course programmes of all HMI students, starting 1 September 2010.

**Term of validity:** until September 1, 2014.

**Contents of the regulation:** Students who have their course programme approved before 1 September 2010 can take the degree without 191612680 Computer Ethics in their programme. Programmes submitted for approval after 1 September 2010, must contain the mandatory Computer Ethics unit.

4. Regulation 2012-2013 regarding Knowledge representation

**Occasion:** This regulation is necessary because the Knowledge Representation course is no longer offered, and has disappeared from Article 15.1 as an AI unit, starting 1 September 2012.

**Term of validity:** until September 1, 2015.

**Contents of the regulation:** Students who have their course programme approved before 1 March 2013 can take the degree with 192160200 Knowledge Representation in their programme. Since the course is no longer offered, this option applies only to students who already sat the interim examination. Otherwise, the course programme must be adapted.

5. Regulation 2012-2013 regarding Graphics and Virtual Reality

**Occasion:** This regulation is necessary because the Graphics & Virtual Reality course is no longer offered as a Master's programme course, and has disappeared from Article 15.1 as an MT unit, starting 1 September 2012.

**Term of validity:** until September 1, 2015.

**Contents of the regulation:** Students who have their course programme approved before 1 March 2013 can take the degree with 192110371 Graphics & virtual reality in their programme.

6. Regulation 2012-2013 regarding MMS courses

*Deleted; contents of the regulation are incorporated in Regulation 7.*

7. Regulation 2013-2014 regarding MMS courses

**Occasion:** This regulation is necessary because the possibilities for HMI students to take MMS courses (as in Article 15.1) of the Behavioural Science faculty have been subject to changes.

**Term of validity:** until September 1, 2015.

**Contents of the regulation:** Students who have their course programme approved before the date indicated below, can take the degree with courses from the list of MMS courses of previous years. Since the courses are no longer available (c.q no longer open for HMI students) this provision applies only to students who have taken the course (and sat the interim examination) before September 1, 2013. Otherwise, their course programme must be adapted. The courses involved are:

192934110 Research methods C&M (approval before March 1, 2013)

201200202 Research in HFM (for HMI) (approval before March 1, 2014)

192165201 Media and technology (approval before March 1, 2013)

192934100 Media psychology (approval before March 1, 2013)

192934160 Ergonomical design (approval before March 1, 2013)

192934090 Human Error (approval before March 1, 2014)

192934050 Computer games studies (approval before March 1, 2013)

20130-New Resilience engineering is the designated replacement course for 192934090 Human Error.



## C. Special course programmes appendix to the Teaching and Examination Regulations of the Master's programme Human Media Interaction

### Introduction

The regulations in this appendix are an integral part of the teaching and examination regulations of the Master's programme Human Media Interaction of the Faculty of Electrical Engineering, Mathematics and Computer Science of the University of Twente. References to numbered articles in this appendix are references to the main text of the teaching and examination regulations.

### Article C.1 - graduate research programmes

*deleted*

### Article C.2. - graduate research programme Human-centered Interaction Technologies intermediate leading to the diploma

1. Students enrolled for the Human-centered Interaction Technologies (HCIT) programme of the Twente Graduate School (TGS) must complete a 120 EC course programme in Human Media Interaction, and will take the HMI diploma.
2. The HMI course programme of these students must satisfy the following constraints.
  - a. It meets the requirements of Article 14 on Mandatory Courses.
  - b. It meets the minimum conditions on core units of Article 15.1.
  - c. It meets the conditions on graduation work of Article 15.5
3. The programme mentor can give the student directions (in accordance with the HCIT Programme Leader) to take core units in the course programme which are not core units as specified in Article 15.1 of these regulations
4. The programme mentor can give the student directions (in accordance with the HCIT Programme Leader) to take specified electives in order to meet additional conditions imposed by the HCIT programme.
5. The course programme of a student in the HCIT programme will violate the conditions of Article 15.4 of these regulations, regarding Research Topics. The course programme of an HCIT student will contain a 15 EC Research Internship, which replaces the 10 EC Research Topics.

### Article C.3. EIT ICT Labs Master School programme leading to the diploma

1. Students enrolled for the Human Computer Interaction and Design (HCID) programme of the EIT ICT Labs Master School take a 60 EC course programme in Human Media Interaction, which is completed to a full 120 EC course programme at one of the other participating institutions.
  - a. First year HCID students in HMI take a 60 EC programme in HMI as outlined in item 2 below. These students continue with a second year specialization At KTH, Aalto University, UPS, TU Berlin, or UCL
  - b. Second year HCID students have completed 60 EC (a first year) at Aalto University, KTH, or UPS before they start their 60 EC programme in HMI as outlined in item 3 below.
  - c. Both first and second year HCID students will take a double degree, one of their diplomas is the HMI diploma.
2. The HMI course programme of the first year HCID students must satisfy the following constraints.

- a. It has courses in Innovation and Entrepreneurship constituting a minor programme with a study load of 30 EC.
- b. It has core courses to cover the following subjects: Human Computer Interaction, User-centered Design Methods, Programming of Interactive Systems, and Evaluation Techniques. These core courses are not necessarily core units in the sense of Article 15.1. The choice of core courses is made according to the directions of the programme mentor. The study load of the core courses is 20 EC.
- c. It has a 10 EC HCID driven design project + Business Development Lab.

Note that Article 14 regarding mandatory courses does not apply.

Article 15 containing regulations regarding core units, electives, traineeship, research topics and graduation work, doesn't apply either.

3. The HMI course programme of the second year HCID students must satisfy the following constraints.
  - a. It meets the requirement of Article 14 regarding the mandatory course HMI project (but not for Computer Ethics)
  - b. It meets the requirements of Articles 15.4 and 15.5 regarding Research Topics and graduation work.
  - c. It has elective courses to cover the specialization requirements of the HCID programme. The choice of elective courses is made according to the directions of the programme mentor.

Note that Article 14 regarding the mandatory course Computer Ethics does not apply.

The regulations of Article 15 regarding core units, electives, and traineeship don't apply either.

#### Article C.4. Trento double degree programme leading to the diploma

1. Students enrolled for the Trento Double Degree (TDD) programme take a 60 EC course programme in Human Media Interaction, which is completed to a full 120 EC course programme at the University of Trento (Italy) in the language and Multimodal Interaction (LMI) track of the Cognitive Science programme.
  - a. First year TDD students in HMI take a 60 EC programme in HMI as outlined in item 2 below. These students continue with a second year specialization in the LMI track at Trento.
  - b. Second year TDD students have completed 60 EC (a first year) in the LMI track at Trento before they start their 60 EC programme in HMI as outlined in item 3 below.
  - c. Both first and second year TDD students will take a double degree, one of their diplomas is the HMI diploma.
2. The HMI course programme of the first year HCID students must satisfy the following constraints.
  - a. It meets the requirements of Article 14 regarding mandatory units.
  - b. It meets the minimum requirements of Articles 15.1.a – 15.1.f regarding core units
  - c. It meets the requirements regarding electives of Articles 15.2; courses taken in the second year in the LMI programme are considered to be electives for the purposes of these regulations.
  - d. It contains the 6 EC Research Design course of the LMI track; this course replaces the Research Topics of Article 15.4.

The provision of Article 15.1 that the study load in core subjects should be 40 EC does not apply. Articles 15.4 and 15.5 containing regulations regarding research topics and graduation work do not apply (for Research topics see item d above; for graduation work the LMI regulations are applicable).

Supervision of graduation work will be a joint effort of HMI and LMI.

3. The HMI course programme of the second year TDD students must satisfy the following constraints.
  - a. It meets the requirement of Article 14 regarding mandatory courses
  - b. It meets the requirements of Articles 15.4 and 15.5 regarding Research Topics and graduation work; the supervision of the graduation will be a joint effort of HMI and LMI.
  - c. It has elective courses. The choice of elective courses is made according to the directions of the programme mentor.

The regulations of Article 15 regarding core units, electives, and traineeship don't apply.

