

**IMPLEMENTATION REGULATIONS**

**MASTER'S DEGREE PROGRAMME  
AEROSPACE ENGINEERING**

**DELFT UNIVERSITY OF TECHNOLOGY**

**2016-2017**

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## **Section 1 – Master’s degree programme**

### **Article 1 – The study load**

The study load for the Master’s degree programme is 120 credits. The Master's study programme can not include courses from a student's BSc programme.

### **Article 2 – Composition of the Master’s degree programme**

1. The Master's Degree Programme has 5 tracks: (and EWEM MSc)
  1. Aerodynamics & Wind Energy
  2. Control & Operations
  3. Spaceflight
  4. Aerospace Structures and Materials
  5. Flight Performance & Propulsion

Detailed information about the content of the programme can be found in the MSc Study Guide of the current academic year ([www.studyguide.tudelft.nl](http://www.studyguide.tudelft.nl)).

2. Within a track or within a specialisation, students may opt for the additional graduation profile "Technology in Sustainable Development" mentioned in Article 4.

### **Article 3 – Registering the tracks and compiling the examination programme**

1. When students register for the MSc programme, they need to indicate their track and specialisation of interest.
2. At the start of the programme, students need to determine their examination programme in consultation with the relevant track coordinator. This is called the Student’s progress review in Osiris.
3. No amendments can be made to the track core courses in the study programme. Any amendments made to the profile core courses and elective courses in the study programme should be approved by the relevant track coordinator and the Board of Examiners and then passed on to the Service Desk for processing.
4. Prior to the start of the Final Thesis, students need to present the title, a time schedule and the name(s) of the supervisor(s) of the Final Thesis to the Board of Examiners for approval.
5. Students who opt for the additional graduation profile "Technology in Sustainable Development" or "Entrepreneurship" need to present their progress overview to the referee of this profile and the Board of Examiners for approval.

### **Article 4a – The annotation "Technology in Sustainable Development"**

1. The examination programme for students who have opted for the additional annotation "Technology in Sustainable Development" must at least include the following:
  - a. the course Engineering for Sustainable Development of 5 credits (WM0939TU)
  - b. elective courses adding up to a total of at least 10 credits. A maximum of 4 credits can be included in the curriculum as elective courses; the remaining credits (minimum 6 credits) are in addition to the regular curriculum. A complete list of courses can be found at [www.tbm.tudelft.nl](http://www.tbm.tudelft.nl).

- c. an extra sustainable focus within the graduation project. Specific to their own disciplines, students are asked to incorporate sustainability issues in their graduation project. Within faculties so-called 'SD referents' with specific expertise will assess the project, at the start and at the end, on the way SD has been tackled in the problem definition, the actual work and the conclusion of the project. The extra workload required is 6-8 credits on top of the standard 42 MSc thesis credits.
2. If the student has met all the requirements listed above, the annotation "Technology in Sustainable Development" will be listed on the degree certificate.

#### **Article 4b – The annotation "Entrepreneurship"**

1. The examination programme for students who have opted for the additional annotation "Entrepreneurship" must at least include the following:
  - a. the courses Basic Entrepreneurship Course (MoT9610), 5 credits and Business Development Lab Short (MoT9612), 5 credits
  - b. entrepreneurship-related elective courses adding up to a total of at least 5 credits. A maximum of 4 credits can be included in the curriculum as elective courses; the remaining credit (minimum 1 credit) is in addition to the regular curriculum.
  - c. an Annotation Entrepreneurship Final Thesis of 6-8 credits (WM4003TU). This thesis must be related to the student's regular Aerospace Engineering MSc thesis subject. The entrepreneurship thesis work is in addition to the standard 42 MSc thesis credits and will be assessed by the faculty representative for entrepreneurship
2. If the student has met all the requirements listed above, the annotation "Entrepreneurship" will be listed on the degree certificate.

#### **Article 5 – Honours Programme Master**

1. Students who complete their BSc programme with a weighed averaged mark of 7.5 or higher within four years are eligible for a special individual programme of 20 credits on top of the Master's degree course: an Honours Programme Master. Master courses completed in period 1 have to be completed with a weighted average of at least 7.5.
2. The Honours Programme Master has to be completed within a period of time not exceeding 30 months. The starting date of the MSc programme is the first MSc interim examination result date. The date of completion of the MSc programme is the MSc Thesis defence date. A student who started the HPM before September 1, 2014, the HPM has to be completed within 36 months.
3. A student who has successfully completed the Honours Programme Master will receive a special certificate from the university with their degree certificate.
4. A students who fulfils, or will fulfil, the requirements laid down in paragraph 1, and is interested in an Honours Programme Master can send his application to the Director of Education for approval. The content of the Honours Programme Master should be thematically consistent.

#### **Article 6 –European Wind Energy Master, Rotor Design Track**

1. Students in the Erasmus Mundus master's Programme in European Wind Energy Master (EWEM) follow the programme required by Erasmus Mundus. This programme requires that students attend at least two of the four partner-universities during the two years. At least two universities must be represented by full professors or associate professors of the involved departments of these universities in the committee in charge of the examination of the thesis.

2. For the EWEM Rotor Design track students can choose one of the following elective profiles:
  - a. Aerodynamics
  - b. Structures and Composites
3. An individual study programme of students in the EWEM Rotor Design track of both profiles in their first year consist of:
  - a. Core courses
  - b. Elective courses
4. The courses are followed at the University of Technology Denmark (DTU) the first and the third semester, and at Delft University of Technology (TUD) the second semester.
5. For information about the core courses for all elective profiles: see [studyguide.tudelft.nl](http://studyguide.tudelft.nl)
6. An individual study programme of all students in the EWEM Rotor Design track, independent of their elective profile, in their second year consists of:
  - a. The thesis project
  - b. Core courses
  - c. Elective courses

The courses are followed at the University of Technology Denmark (DTU) in the first semester (third semester of the programme), and at any (associate) partner institution as chosen by the student and approved by the track coordinators from AE and DTU in the second semester (fourth semester of the programme).
7. The thesis project is the final study unit of the programme and serves to prove that the student acquired the academic competences of a Master of Science. The project involves a research or design task with sufficient academic level. The project may be executed within a research programme at one of the partner universities involved in this track, or in a suitable research institute or company, as approved by the EWEM Examinations Board. The project must be executed with a systematic approach and should include all phases of a research or design project: analysis, modelling, implementation/construction and validation/evaluation. The student executes the thesis project independently, with guidance of at least two supervisors, one of them from the scientific staff of TU Delft, and one from the scientific staff of DTU.
8. Language and Communication skills (between 3 and 5 EC) can be chosen in any of the semesters at any of the participating partner universities. An internship (up to 6 EC) can also be chosen in any of the semesters in an industry.
9. In addition to the recommended electives, students can choose other courses from the total available list of the four EWEM partner universities, in agreement with the local academic EWEM coordinator.
10. The TU Delft Aerospace Engineering degree will be awarded if a student has earned for all study units of his or her individual study programme of the EWEM programme at TU Delft a mark that is greater than or equal to 6, and has passed all study units of the EWEM programme at DTU.

## **Section 2 Interim examinations and practicals**

### **Article 7 – Practical and/or exercises**

1. The programme teaching takes the form of lectures, practicals and/or exercises.

2. Some practicals and/or exercises must be completed before students participate in the interim examination. This will be indicated in the study guide pertaining to that particular subject.

### **Article 8 – The types of examinations**

1. The interim examinations linked to the different subjects are to be completed as laid down in the study guide pertaining to the subject in question.
2. Interim examinations pertaining to subjects given by other programmes are to be completed in the way stipulated by or on behalf of the Teaching and Examination Regulations laid down by the relevant programme.

### **Article 9 – The frequencies, times and sequences of the interim examinations**

1. Written and oral interim examinations are to be completed at the end of the semester or term in which the subject was taught. A resit interim examination opportunity is offered later during the same academic year. For AE4ASM517, there is no resit possibility. Some courses have a different assessment method (weekly tests or written exams during the period). For more information see [studyguide.tudelft.nl](http://studyguide.tudelft.nl).
2. Practical and/or exercises may be completed in the way laid down in the relevant timetables.

## **Section 3 Entrance Requirements**

### **Article 10 – Entrance requirements for the units of study**

1. If students have to meet a specific requirement before starting a unit of study, this requirement shall be published in the digital study guide.
2. A candidate may not start the final graduation phase (thesis project) before having successfully completed the BSc programme and the first year of the MSc programme. Deviation from the second requirement is possible in exceptional circumstances, but only if approved by the thesis supervisor and track coordinator.

## **Section 4 Transitional ruling**

### **Article 11 – Interim examinations for old study programmes**

If a new study programme is drawn up for a certain year of study, then interim examinations for the units of study of the old programme that are discontinued will be set at least once in the academic year following the year in which the units were taught for the last time.

#### *Transition ruling 2009-2010*

Starting September 2009, new grading rules will go into effect: all Aerospace Engineering subjects are rounded off to whole marks. For details, see article 17.5 of the MSc Rules and Guidelines.

#### *Transition ruling 2010-2011*

Starting September 2010, a new MSc curriculum will be introduced. See MSc study guide for details. Starting September 1, 2010, new grading rules will go into effect: a final mark for a subject will be expressed in a whole mark or a half mark. For details, see article 17.5 of the MSc Rules and Guidelines.