## THE IMPLEMENTATION REGULATIONS

### 2013-2014

## MASTER OF SCIENCE APPLIED EARTH SCIENCES

## **DELFT UNIVERSITY OF TECHNOLOGY**



Implementation Regulations MSc AES 2013-2014, June 27, 2013 1

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### Chapter 1 – Compiling the study programme

#### Article 1 – The study load

The study load for the Master's degree course is 120 credits. None of the components of the course may have formed part of the Bachelor's degree course in Applied Earth Sciences ("Technische Aardwetenschappen").

#### Article 2 – Tracks, specialisations and profiles

- 1. The course comprises the following tracks:
- Petroleum Engineering and Geosciences, as laid down in Article 4
  - specialisations:
  - Petroleum Engineering
  - Reservoir Geology
- Geo-Engineering, as laid down in Article 5A
- Geoscience and Remote Sensing, as laid down in Article 5B
- Applied Geophysics, as laid down in Article 6
- Resource Engineering, as laid down in Article 7
  - specialisations:
  - European Mineral Engineering Course (EMEC)
  - European Mining Course (EMC)
  - European Geotechnical and Environmental Course (EGEC).

2. Within a track or within a specialisation the student may opt for the annotations, mentioned in Articles 8 and 9:

- Technology in Sustainable Development
- Entrepreneurship.

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

1. When students register for the Master's degree course, they need to indicate their track and specialisation of interest.

2. At the start of the programme the students need to determine their examination programme in cooperation with the relevant graduation coordinator.

3. Prior to the start of the Final Thesis students need to present to the Board of Examiners their examination programme together with the title, a short abstract, a time schedule and the chairman and members of the assessment committee of the Final Thesis for approval.

4. Any amendments made to the approved examination programme should be presented to the Board of Examiners for approval.

5. Students who opt for the annotations Technology in Sustainable Development or Entrepreneurship need the approval of their examination programme from the referee of the chosen annotation prior to presenting their examination programme to the Board of Examiners.

#### Article 4 – The Petroleum Engineering and Geosciences track

1. The study programme of the Petroleum and Geosciences track is compiled in the following way:

- track-linked compulsory core programme: 44 credits, laid down in subsection 2
- specialisation-linked subjects:

66 credits for the specialisation Petroleum Engineering, laid down in subsection 3 67 credits for the specialisation Reservoir Geology, laid down in subsection 4 - electives:

10 credits for the specialisation Petroleum Engineering, as laid down in subsection 5 9 credits for the specialisation Reservoir Geology.

2. Compulsory core programme Petroleum Engineering and Geosciences track:

code     AES0102     AES1011     AES1300     AES1310-10     AES1320     AES1340     AES1510     AES1520     AES1802     AES1802     AES1890     AES1920     AES1930     AES2009	subject Image Analysis Matlab / Programming Properties of Hydrocarbons and Oilfield Fluids Rock Fluid Physics Modelling of fluid Flow in porous Media Reservoir Engineering Geologic Interpretation of Seismic Data Log Evaluation Geological Fieldwork Reservoir Characterisation and Development Sedimentary Systems Geostatistics Quantification of Rock Reservoir Images Petroleum Geology Field Development Project	ECs 1 2 3 3 2 3 2 3 4 3 2 1 3 9
3. Subjects linked to the <u>code</u> AES1303 AES1304 AES1330 AES1350 AES1360 AES1500 WI4012TA AESM2006	e specialisation Petroleum Engineering: <u>subject</u> Company Visits Introduction to Petroleum Engineering and NAM Visit Drilling and Production Engineering Reservoir Simulation Production Optimization Fundamentals of Borehole Logging Mathematics, Special Subjects Final Thesis Petroleum Engineering	ECs 1 3 4 2 3 4 4 4 5
4. Subjects linked to the <u>code</u> AES1800 AES1830 AES1840 AES1850 AES1860-05 AES1902 AESM2006	e specialisation Reservoir Geology: <u>subject</u> Exploration Geology Reservoir Sedimentology Advanced Structural Geology Geological Modelling Analysis of Sedimentological Data Reservoir Geological Fieldwork Final Thesis Reservoir Geology	ECs 3 3 4 3 6 45
5. The following optiona code AES1370-12 3AES1460 AES1470 AES1490 WM096TA	al electives are offered within the specialisation Petroleum Engineering: <u>subject</u> Non-Thermal Enhanced and Improved Oil Recovery Heavy Oil Geothermics Advanced Reservoir Simulation Special Topics in Geosciences and Sustainable Development	<u>ECs</u> 3 2 2 2 3

<sup>1</sup> Not if AES3820 has been completed in the Bachelor's fase

#### Article 5A – The Geo-Engineering track

1. The study programme for the Geo-Engineering track consists of:

- a common compulsory Geo-Engineering block of 72 credits and Geo-Engineering electives adding up to a total of 100 track-linked credits, as laid down in subsections 2 and 3

- convergence subjects and/or electives, 20 credits, as laid down in subsection 4.

#### 2. Common compulsory block Geo-Engineering

All students opting for the track Geo-Engineering must complete the following subjects adding up to 72 credits:

<u>code</u> CIE4361 CIE4365-13 CIE4366 CIE4395 CIE5320 AES1630	<u>subject</u> Behaviour of Soils and Rocks Coupled Processes in Subsurface Numerical Modelling in Geo-Engineering Risk and Variability in Geo-Engineering Site Characterisation, Testing and Physical Modelling Engineering Geology	<u>ECs</u> 6 6 4 6 4
AESM2606	Final Thesis Geo-Engineering	40

#### 3. Geo-Engineering electives

Students are required to complete a selection of the following subjects adding up to a total of 100 track-linked credits.

code   AES1501   AES1640-11   AES1720-11   CIE4353   CIE4362   CIE4363   CIE4367   CIE4390   CIE5305   CIE5340   CIE5741   OE4624	subjectMethods of Exploration GeophysicsEnvironmental GeotechnicsRock Mechanics ApplicationsContinuum MechanicsSoil-structure InteractionFoundation and Deep ExcavationsEmbankments and GeosyntheticsGeo-risk ManagementUnderground Space Technology: Special TopicsBored and Immersed TunnelsSoil DynamicsTrenchless TechnologiesOffshore Soil Mechanics	ECs 3 4 5 6 3 4 4 3 4 3 4 3 4 4 3 4 4
AESM2901	Geoscience & Engineering Fieldwork	6

#### 4. Convergence subjects and electives

Convergence subjects

Depending on their individual background, students will be told which convergence subjects, 16 credits maximum, out of the convergence course profile, in short CCP, they have to take at the expense of the electives listed below:

CCP-5 Geology, Geomechanics and Ethics

code	subject	<u>ECs</u>
CIE4420 AES1730 choose one out of two: CIE 4510	Geology1: Basics Self Study Geohydrology Introduction to Geotechnical Engineering Climate Change: Science and Ethics Philosophy, Technology Assessment and Ethics	2 4 3 4 4

<sup>2</sup> Not compulsory

<u>Electives</u> Choose two out of: Code AES0404-10	subject Traineeship	ECs 10
AES4011-10	Additional MSc Thesis	10
CIE4061-09	Multi-disciplinary project	10
Any Master's degree co	urse subject Applied Earth Sciences or Civil Engineering 10	
Free Master of Science	electives 10	

#### Article 5B – The Geoscience and Remote Sensing track

1. The study programme for the Geoscience and Remote Sensing track consists of:

- a common compulsory Geoscience and Remote Sensing block of 58 credits and Geoscience and Remote Sensing electives adding up to a total of 100 track-linked credits, as laid down in subsections 2 and 3

- electives, 20 credits, as laid down in subsection 4.

2. Common compulsory block Geoscience and Remote Sensing

All students opting for the track Geoscience and Remote Sensing must complete the following subjects adding up to 58 credits:

<u>code</u> CIE4601 CIE4606 CIE4611 CIE4615	<u>subject</u> Physics of the Earth and Atmosphere Geodesy and Remote Sensing Geo-measurement Processing GRS Fieldwork	<u>ECs</u> 5 5 5 3
AESM2640	Final Thesis Geoscience and Remote Sensing	40
3. Geoscience and Rem Students are required to c	ote Sensing electives complete a selection of the following subjects adding up to a total of 42 credits.	
Choose at least 10 crec		
<u>code</u>	<u>subject</u>	<u>ECs</u>
CIE4613 <sup>3</sup>	Climate Change: Science and Ethics	5 5 5
CIE4603	Geo-signal Analysis	5
CIE4604	Simulation and Visualization	5
Choose at least 12 cred	lits out of:	
<u>code</u>	subject	<u>ECs</u>
CIE4602	Observation of Land-surface Processes	4
CIE4605	Atmospheric Science	4
CIE4607	Oceans, Sea-level and Bathymetry	4
CIE4608	Atmospheric Observation	4
CIE4609	Geodesy and Natural Hazards	4
CIE4610	Mass Transport in the Earth's System	4
CIE4614	Land Surveying and Civil Infrastructure	4
Choose at least 20 crec CIE4612 CIE5601 CIE5602	Research Seminar Geoscience and Remote Sensing II Advanced Topics in Geoscience and Remote Sensing	1 3 1
CIE5603	Research Seminar Geoscience and Remote Sensing I Advanced project on GRS	3

<sup>3</sup> Compulsory If the Bachelor's phase did not include WM0325TA, Technics and Responsibility

Choose two out of:		
AES0404-10	Traineeship	10
AES4011-09	Additional thesis	10
CIE4061-09	Multi-disciplinary project	10
Any Master's degree	course subject Applied Earth Sciences or Civil Engineering	10
Free Master of Scien	ce electives	10

#### **Article 6 – The Applied Geophysics track**

The Applied Geophysics programme is taught at three partner universities:

- TU Delft
- ETH Zürich
- RWTH Aachen

The study programme is compiled in the following way:

<u>First year</u>

<u>Delft</u>

A minimum of 25 credits should be passed from TU Delft subjects, whereby two of the following three blocks must be passed:

- Geology and Interpretation: AES1510 and AES1890 and AES3820

- Electromagnetic Methods: AES1540-11

- Seismic Wave Propagation and Imaging: AES1560.

<u>code</u>	subject	<u>ECs</u>
AES1011	Matlab / Programming	2
AES1501	Methods of Exploration Geophysics	3
AES1510	Geologic Interpretation of Seismic Data	3
AES1540-11	Electromagnetic Exploration Methods	6
AES1550-06	Geophysics Special Subjects	6
AES1560	Advanced Reflection Seismology and Seismic Imaging	6
AES1590-12	Seismic Resolution	5
AES1890	Sedimentary Systems	3
AES3520	Introduction to Reflection Seismics	1
AES3820	Petroleum Geology	3
CIE4606	Geodesy and Remote Sensing	5

<u>Zürich</u>

A minimum of 25 credits should be passed from the ETH Zürich subjects, whereby two of the following three blocks must be passed:

- Processing: 651-4079-00L

- Field Course: 651-4089-00L and 651-4104-00L

- Modelling and Inversion: 651-4094-00L and 651-4096-00L.

<u>code</u>	subject	<u>ECs</u>
651-4079-00L	Reflection Seismology Processing	6
651-4081-00L	Groundwater II	6
651-4087-01L	Case Studies in Engineering and Environmental Geophysics	4
651-4089-00L	Geophysical Field Work and Processing	7
651-4094-00L	Modelling for Applied Geophysicists	3
651-4096-00L	Inverse Theory for Applied Geophysicists	3
651-4099-01L	Soil Mechanics for Geophysics	4
651-4104-00L	Field Work Methods	2

Second year Aachen A minimum of 25 credits should be passed from the RWTH Aachen subjects, whereby three of the following four blocks must be passed:

- Special Methods: RWTH1101 and RWTH1102
- Logging and Interpretation: RWTH1103
- Geothermal: RWTH1104

- Hydrogeophysics and Data Analysis: RWTH1105 and RWTH1106

and whereby at least two of the following four blocks must be passed:

- Mineral Exploration and Project Management: RWTH1109 and choose RWTH1107 or RWTH1108
- Petroleum Systems: RWTH1110
- Engineering Geophysics and Remote Sensing: RWTH1111 and RWTH1112
- Geological Planning and Development: RWTH1113.

<u>code</u> RWTH1101 RWTH1102 RWTH1103 RWTH1104 RWTH1105 RWTH1106 RWTH1106 RWTH1107 RWTH1108 RWTH1109 RWTH1110 RWTH1111 RWTH1111	subject Geophysics special Methods: NMR Geophysics Special Methods: Spectral IP Geophysical Logging and Log Interpretation Geothermics Hydrogeophysics Data Analysis in Geoscience Mineral Exploration Energy Resource Management Planning-Realization-Optimization in Georesource Management Petroleum System Modelling Engineering Geophysics Remote Sensing of Sedimentary Basins	ECs 3 5 5 3 3 3 3 6 3 3 3 3 3 3 3 3 3 3
RWTH1113	Portfolio Management	6
<u>Delft/Aachen/Zürich</u> <u>code</u> AESM2506-11	<u>subject</u> Final Thesis Applied Geophysics	<u>ECs</u> 30

#### Article 7 – The Resource Engineering track

1. The specialisation European Mining Course, as laid down in subsection 2, is taught at four partner universities:

- Helsinki University of Technology
- RWTH Aachen
- TU Delft

The specialisation European Mineral Engineering Course, as laid down in subsection 3, is taught at five partner universities:

- University of Wroclaw (Poland)
- Helsinki University of Technology
- TU Delft

- University of Miskolc (Hungary)

The specialisation European Geotechnical and Environmental Course, as laid down in subsection 4, is taught at four partner universities:

- University of Wroclaw (Poland)

- TU Delft

- University of Miskolc (Hungary)

2. The study programme of the specialisation European Mining Course (EMC) is compiled in the following way:

First year:		
<u>Helsinki</u>		
<u>code</u>	<u>subject</u>	<u>ECs</u>
H-AR	Applied Rock Mechanics for Hard Rock Mining	3

H-EX H-MA-04 H-ME-00 H-MM	Excursion Automation and Maintenance of Mining Equipment Mining Technology and Economics Numerical Mine Modelling	3 3 3 3
<u>Aachen</u> <u>code</u> A-EI-00 A-MV-04 A-OP-05	<u>subject</u> Environmental Issues Mine Ventilation Open Pit Mining	<u>ECs</u> 3 6 6
Delft code D-AL-13 D-CS-13 D-IM-00 D-ME-13 D-EG D-RR D-RR D-MP D-RM D-SH-13	subject Alluvial Mining and Marine Mining Case Study Industrial Minerals Mineral Economics Mineral Resources Definition Resource Modelling, Reserve Estimation and Reporting Codes Mine Planning and Optimization Applied Rock Mechanics for Mining Safety Course	ECs 2 9 2 3 2 4 2 4 2 4 2
Second year: <u>Delft</u> <u>code</u> AESM2008 3. The study programm following way:	<u>subject</u> Electives Final Thesis Resource Engineering ne of the specialisation <u>European Mineral Engineering Course (EMEC)</u> is co	ECs 15 45 ompiled in the
First year: Miskolc <u>code</u> M-MB M-CA M-PS M-SA	<u>subject</u> Mineral Processing Basics Comminution and Agglomeration Physical Separation Technology Sampling	<u>ECs</u> 6 4 4 2
<u>Wroclaw</u> <u>code</u> W-BM W-ME W-HY W-PM W-PR W-FL	<u>subject</u> Biomining Mineral Economics Hydrometallurgy Pyrometallurgy Plastic Recycling Flotation	<u>ECs</u> 2 4 4 3 3
<u>Helsinki</u> <u>code</u> A-RE H-PT H-PO H-PD-10 H-SS	<u>subject</u> Recycling Powder Technology and Process Dynamics Process Optimization Plant Design Special Subjects	<u>ECs</u> 6 3 7 7 3

subject	<u>ECs</u>
Electives and/or AES0404-15, Internship	
Final Thesis Resource Engineering	45
•	4-15, Internship

4. The study programme of the specialisation <u>European Geotechnical and Environmental Course (EGEC)</u> is compiled in the following way:

<u>First year:</u> <u>Wroclaw</u> <u>code</u> EGEC-W/CM EGEC-W/GM-08 EGEC-W/GT-08 EGEC-W/UW-08 EGEC-W/UW-08 EGEC-W/OP EGEC-W/TU EGEC-W/TU	subject Computer Aided Geological Modelling & Land Reclamation Theory and Practice in Geomechanics Geothermal Energy Underground Waste Management Excavation Design in Open Pit Mining Tunnel and Underground Excavation Design Integrated Analysis Deformations in Geomechanical Engineering		<u>ECs</u> 3 4 3 5 5 5 5
<u>Delft</u> <u>code</u> AES1640-11 CIE4361 AES1720-11	<u>subject</u> Environmental Geotechnics Behaviour of Soils and Rocks Rock Mechanics Applications		<u>ECs</u> 4 6 5
<u>Miskolc</u> <u>code</u> EGEC-M/HU <u>EGEC-</u> M/BP <u>EGEC-</u> M/EP <u>EGEC-</u> M/ER <u>EGEC-</u> M/EL	<u>subject</u> HSE & Underground Practice Bioprocessing of Contamined Soil, Air and Waste Water Environmental Geophysics Environmental Risk Assessment Environmental Geology		<u>ECs</u> 2 4 3,5 3 3,5
Second year: <u>Delft</u> <u>code</u> Electives and/or AES04 and AESM2008	<u>subject</u> 04-15, Internship Final Thesis Resource Engineering	<u>ECs</u>	15 45

#### Article 8 – The Technology in Sustainable Development annotation

1. The examination programme for students who have opted for the annotation known as Technology in Sustainable Development must at least include the following:

a. A sustainable development colloquium totalling 5 credits: WM0939TU, Engineering for Sustainable Development, b. Subjects within or outside the realm of the programme adding up to a total of at least 10 credits to be selected from the two clusters:

- Design, Analysis and Tools

- Organisation and Society.

At least 3 credits should derive from each of the clusters.

Further information on the subjects to be selected and on the clusters is available from the programme coordinator, from the study guide and from the website of Delft University of Technology.

c. The Final Thesis must partly focus on the topic of sustainable development. The referent will test the hypothesis of the Final Thesis and the way in which it has been tackled against the extent to which sustainable development issues have been integrated into the project.

2. Students who complete the annotation successfully, receive an annotation Technology in Sustainable Development with their degree certificate.

#### Article 9 – The Entrepreneurship annotation

1. The examination programme for students who have opted for the annotation Entrepreneurship must at least include the following:

a. Electives related to entrepreneurship adding up to a total of 15 credits, 10 of which are extracurricular,

b. The Final Thesis must partly focusing on the topic of entrepreneurship.

2. The examination programme for the Entrepreneurship annotation needs the prior approval by the Programme director and a coordinator of Delft Centre for Entrepreneurship.

3. Students who complete the annotation successfully, receive an annotation Entrepreneurship with their degree certificate.

#### Article 10 – The free study programme

1. Students are free to compile examination programmes that are rounded off with a final exam. Such a programme needs prior approval by the Board of Examiners and it must consist entirely or mainly of subjects given in conjunction with the degree course but it can be complemented with subjects provided by or given in other courses.

2. The preliminary approval referred to in subsection 1 must be presented to the Board of Examiners by the student in the form of a justified request.

#### Article 11 – Honours Programme Master

1. Motivated students who have finished their Bachelor's degree course with a weighed averaged mark of 7.5 or higher, and students who have excelled during the first semester (no fails and a weighed average of 7.5 or higher) are eligible for a special individual programme of 30 credits on top of the Master's degree course: an Honours Programme Master.

2. The content of the Honours Programme Master should be thematically consistent. The subject WM0355HT, Critical Reflection on Technology, 5 credits, is compulsory to the Honours Programme

Master. The study goal is to develop competence in forming an independent, well-argued position with regard to ethical and methodological problems that concern the professional practice of engineers.

3. Students who fulfil, or will fulfil, the requirements laid down in subsection 1, and are interested in the Honours Programme Master can send their application to the Programme Director for approval together with an essay in English, containing their motivation and a proposal for the programme.

4. The Honours Programme Master has to be completed during the course of the student's Master's programme. None of the results may be lower than 6,0.

5. The various parts of the programme will be assessed by the respective examiner(s). The fulfilment of all criteria to the Honours Programme Master will be assessed by the Board of Examiners.

6. Students who have successfully completed the Honours Programme Master will receive a special certificate from the university with their degree certificate.

#### **Chapter 2 – Transitional programme**

# Article 12 – Transitional programme for students with a Dutch higher vocational institute Bachelor degree

Students who want to be admitted to the Master's degree course on the basis of a relevant Dutch higher vocational institute Bachelor degree have to complete the following transitional programme first. code subject ECs

AESB1130Geology 1: Basics5TA2060Data Analysis and Geostatistics3TA2920Structural Geology2AESB1420Mechanics 25WI102CTProbability Theory and Statistics3WI1708TH1Analysis 13WI1708TH2Analysis 23WI1708TH3Analysis 33WI1807TH1Lineair Algebra (part 1)3WI1909THDifferential Equations3WI3097TUNumerical Methods for Differential Equations4	couc		
WI1102CTProbability Theory and Statistics3WI1708TH1Analysis 13WI1708TH2Analysis 23WI1708TH3Analysis 33WI1807TH1Lineair Algebra (part 1)3WI1909THDifferential Equations3	TA2060	Data Analysis and Geostatistics	-
	WI1102CT WI1708TH1 WI1708TH2 WI1708TH3 WI1807TH1 WI1909TH	Probability Theory and Statistics Analysis 1 Analysis 2 Analysis 3 Lineair Algebra (part 1)	3 3 3 3 3 3 3

In case students opt for the Petroleum Engineering and Geosciences track they also have to complete within their transitional programme:

<u>subject</u>	<u>ECs</u>
Fluid Flow, Heat and Mass Transfer	4
Introduction to Reflection Seismics	2
Flow in Rocks & Soils	4
	Fluid Flow, Heat and Mass Transfer Introduction to Reflection Seismics

### Chapter 3 – Examinations and practicals

#### Article 13 – Practicals and/or exercises

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

2. Practicals and/or exercises must be completed before students participate in the examination unless otherwise indicated in the study guide.

#### Article 14 – The types of examinations

1. The examinations linked to the different subjects are to be completed in the way laid down in the study guide pertaining to the subject in question.

2. 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 15 – The frequencies, times and sequences of the exams

1. Written or oral examinations are to be completed in principal at the end of the teaching period in which the subject was taught.

2. The resit periods for any of the written exams referred to in subsection 1 are at the end of the next teaching period. For subjects taught in the fourth teaching period the resit period is in August.

3. Practicals and/or exercises may be completed in the way laid down in the relevant timetables.

#### Chapter 4 – Access to Field Development Project, Engineering Geological Fieldwork, Company Visits and Final Thesis

#### Article 16 – Access to Field Development Project

Students may not embark on the Field Development Project (AES2009) without a completed Bachelor of Science programme and until they have completed the following subjects:

AES1300, Properties of Hydrocarbons AES1310 or AES 1310-10, Rock Fluid Interaction 1 AES1320, Rock Fluid Interaction 2 AES1340, Applied Reservoir Engineering and Simulation 1 AES1510, Geologic Interpretation of Seismic Data AES1520, Log Evaluation AES1820 or AES1820-09, Reservoir Characterisation and Development AES1870, Sequence Stratigraphy, or AES1890, Sedimentary Systems AES1920, Geostatistics.

Additionally, students with the specialisation Petroleum Engineering are advised to have completed the subjects: AES 1330, Drilling and Production AES 1360, Production Optimisation.

Students with a transitional programme as outlined in Article 12 have to fulfil the additional constraint that they cannot embark the Final Thesis before they have completed the subsidiary programme.

#### Article 17 – Access to Geoscience and Engineering Fieldwork

Students may not embark on the Geoscience and Engineering Fieldwork (AESM2606) without a completed Bachelor of Science programme and until they have completed their convergence subjects and the subject Site Characterisation and Testing (CIE5320).

#### Article 18 – Access to Company Visits

Students may not embark on the Company Visits (AES1303) without a completed Bachelor of Science programme. Students with a transitional programme as outlined in Article 12 have to fulfil the additional constraint that they cannot embark the Company Visits before they have completed the subsidiary programme.

#### Article 19 – Access to Final Thesis

1. Students may embark on the Final Thesis only when they have no more than 10 credits of uncompleted subjects of the Master's degree course from all their other subjects of the course and if they have completed the Bachelor of Science programme.

2. Students with a subsidiary programme as outlined in Article 12 have to fulfil the additional constraint that they cannot embark the Final Thesis before they have completed the subsidiary programme.

3. Students are only allowed to present their Final Thesis if they have successfully completed all other obligations.

### **Chapter 5 – Transition Rulings**

Article 20 – Transition Ruling Students who started the Master's degree course before September 1, 2008 and who have a delay in their study progress, have to request the coordinator of the track programme to define a contract in which is stated which new subjects replace former subjects. The contract needs the approval of the Board of Examiners.