

THE IMPLEMENTATION REGULATIONS

2012-2013

**MASTER OF SCIENCE
APPLIED EARTH SCIENCES**

DELFT UNIVERSITY OF TECHNOLOGY

Inhoud

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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 Geo Sciences, as laid down in Article 4 specialisations:
 - Petroleum Engineering
 - Reservoir Geology
 - Geo-Engineering, as laid down in Article 5A
 - Geoscience and Remote Scensing, 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 Geo Sciences track

1. The study programme of the Petroleum and Geo Sciences track is compiled in the following way:
 - convergence subjects, to a maximum of 6 credits, laid down in subsection 2
 - track-linked compulsory core programme: 89 credits, laid down in subsection 3
 - specialisation-linked subjects:
 - 21 credits for the specialisation Petroleum Engineering, laid down in subsection 4
 - 22 credits for the specialisation Reservoir Geology, laid down in subsection 5
 - electives, depending on the total of convergence subjects:
 - 10 credits for the specialisation Petroleum Engineering, convergence subjects included if applicable, as laid down in subsection 6
 - 9 credits for the specialisation Reservoir Geology, convergence subjects included if applicable, as laid down in subsection 6.

2. Depending on their individual background, students will be told which convergence course profile, in short CCP, they have to take:

CCP-1 Geology

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES1020	Geological Excursion	0
AES1910-09	Introduction to Geology	2
AES3520	Introduction to Reflection Seismics	1

CCP-3 Geology and Engineering

AES1020	Geological Excursion	0
AES1030-11	Thermodynamics	1
AES1760	Introduction to Log Evaluation	1
AES3520	Introduction to Reflection Seismics	1

3. Compulsory core programme Petroleum Engineering and Geo Sciences track:

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES0102	Image Analysis	1
AES1011	Matlab / Programming	2
AES1300	Properties of Hydrocarbons and Oilfield Fluids	3
AES1310-10	Rock Fluid Physics	3
AES1320	Modelling of fluid Flow in porous Media	3
AES1340	Reservoir Engineering	2
AES1510	Geologic Interpretation of Seismic Data	3
AES1520	Log Evaluation	2
AES1802	Geological Fieldwork	3
AES1820-09	Reservoir Characterisation and Development	4
AES1890	Sedimentary Systems	3
AES1920	Geostatistics	2
AES1930	Quantification of Rock Reservoir Images	1
AES3820	Petroleum Engineering	3
AES2009	Field Development Project	9
AES2005	Colloquium	1
AES2006	Final Thesis	44

4. Subjects linked to the specialisation Petroleum Engineering:

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES1303	Company Visits	1
AES1304	Introduction to Petroleum Engineering and NAM Visit	3
AES1330	Drilling and Production Engineering	4
AES1350	Reservoir Engineering	2
AES1360	Production Optimization	3
AES1500	Fundamentals of Borehole Logging	4
WI4012TA	Mathematics, special Subjects	4

5. Subjects linked to the specialisation Reservoir Geology:

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES1800	Exploration Geology	3
AES1830	Reservoir Sedimentology	3
AES1840	Advanced Structural Geology	3
AES1850	Geological Modelling	4
AES1860-05	Analysis of Sedimentological Data	3
AES1902	Reservoir Geological Fieldwork	6

6. The following optional electives are offered within the specialisation Petroleum Engineering:

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES1370-12	Non-Thermal Enhanced and Improved Oil Recovery	3

AES1380	Petroleum Engineering Special Topics	3
AES1460	Heavy Oil	2
AES1470	Geothermics	2
AES1490	Advanced Reservoir Simulation	2
AES1545	Geodesy and Remote Sensing for Applied Earth Sciences	4

Article 5A – The Geo-Engineering track

- The study programme for the Geo-Engineering track consists of:
 - a common compulsory Geo-Engineering block of 66 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.

- Common compulsory block Geo-Engineering

All students opting for the track Geo-Engineering must complete the following subjects adding up to 66 credits:

<u>code</u>	<u>subject</u>	<u>ECs</u>
CIE4361	Behaviour of Soils and Rocks	6
CIE4365	Coupled Processes in Subsurface	4
CIE4366	Numerical Modelling in Geo-Engineering	6
CIE4395	Risk and Variability in Geo-Engineering	4
CIE5320	Site Characterisation, Testing and Physical Modelling	6
AES2606-40	Final Thesis	40

- Geo-Engineering electives

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

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES1501	Methods of Exploration Geophysics	3
AES1545	Geodesy and Remote Sensing for Applied Earth Sciences	4
AES1630	Engineering Geology of Soils and Rocks	4
AES1640-11	Environmental Geotechnics	4
AES1650-07-D2	Shallow Depth Geophysics (Fieldwork)	2
AES1710	GIS Applications in Environmental Engineering Geology	3
AES1720-11	Rock Mechanics Applications	5
CIE3300-09*	Use of Underground Space	4
CIE4353	Continuum Mechanics	6
CIE4362	Soil-structure Interaction	3
CIE4363	Foundation and Deep Excavations	4
CIE4367	Embankments and Geosynthetics	4
CIE4390	Geo-risk Management	3
CIE4780	Underground Space Technology: special topics	4
CIE5305	Bored and Immersed Tunnels	4
CIE5340	Soil Dynamics	3
CIE5360	Special Topics in Geo-Engineering	3
CIE5741	Trenchless Technologies	4
OE4624	Offshore Soil Mechanics	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:

* Not if CT3300-09 has been completed in the Bachelor's phase

CCP-5 Geology, Geomechanics and Ethics

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES1750-09	Geology for Engineers	4
CIE3325	Mechanics and Transport by Flow in porous Media	4
CIE4364	Soil Mechanics and Foundation Engineering Applications	4
choose one out of two:		
CIE 4510	Climate Change: Science and Ethics	4
WM0312CIE	Philosophy, Technology Assessment and Ethics	4

Electives

Choose two out of:

AES0404-10	Traineeship	10
AES2602*	Geo-Engineering Fieldwork	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 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 68 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 68 credits:

<u>code</u>	<u>subject</u>	<u>ECs</u>
CIE4601	Physics of the Earth and Atmosphere	5
CIE4603	Geo-signal Analysis and Interpretation	5
CIE4604	Simulation and Visualization	5
CIE4606	Geodesy and Remote Sensing	5
CIE4611	Geo-measurement Processing	5
CIE4615	GRS Fieldwork	3
AES2640	Final Thesis	40

3. Geoscience and Remote Sensing electives
Students are required to complete a selection of the following subjects adding up to a total of 32 credits.

If the Bachelor's phase did not include WM0325TA, Technics and Responsibility, the following subject is compulsory:

<u>code</u>	<u>subject</u>	<u>ECs</u>
CIE4613 [†]	Climate Change: Science and Ethics	5

Choose at least 12 credits out of:

<u>code</u>	<u>subject</u>	<u>ECs</u>
CIE4602	Observation of Land-surface Processes	4
CIE4605	Atmospheric Science	4
CIE4607	Oceans, Sea-level and Bathymetry	4

* Not combined with CIE4061-09

[†] Not combined with CIE4510

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

and choose adding up to a total of 32 credits out of:

CIE4612	Research Seminar Geoscience and Remote Sensing II	1
CIE5601	Advanced Topics in Geoscience and Remote Sensing	3
CIE5602	Research Seminar Geoscience and Remote Sensing I	1
Any Master's degree course subject Applied Earth Sciences or Civil Engineering		

4. Electives

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 Science 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:

First year

Delft

Depending on their individual background, students will be told which subjects out of the convergence course profile, in short CCP, they have to take:

CCP-1 Geology

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES1020	Geological Excursion	0
AES1910-09	Introduction to Geology	2
AES3520	Introduction to Reflection Seismics	1

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>	<u>subject</u>	<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
AES1545	Geodesy and Remote Sensing for Applied Earth Sciences	4
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

and
 Convergence subjects and/or
 electives offered in conjunction with the degree course 6

Zürich

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>	<u>subject</u>	<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>	<u>subject</u>	<u>ECs</u>
RWTH1101	Geophysics special Methods: NMR	3
RWTH1102	Geophysics Special Methods: Spectral IP	3
RWTH1103	Geophysical Logging and Log Interpretation	5
RWTH1104	Geothermics	5
RWTH1105	Hydrogeophysics	3
RWTH1106	Data Analysis in Geoscience	3
RWTH1107	Mineral Exploration	3
RWTH1108	Energy Resource Management	3
RWTH1109	Planning-Realization-Optimization in Georesource Managem.	3
RWTH1110	Petroleum System Modelling	6
RWTH1111	Engineering Geophysics	3
RWTH1112	Remote Sensing of Sedimentary Basins	3
RWTH1113	Portfolio Management	6

Delft/Aachen/Zürich

<u>code</u>	<u>subject</u>	<u>ECs</u>
AES2005	Colloquium	1
AES2506-11	Final Thesis	29

Article 7 – The Resource Engineering track

- The specialisation European Mining Course, as laid down in subsection 2, is taught at four partner universities:
 - Helsinki University of Technology
 - RWTH Aachen
 - University of Exeter in Cornwall (CSM)
 - TU Delft

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

- University of Exeter in Cornwall (CSM)
- University of Wroclaw (Poland)
- Helsinki University of Technology
- TU Delft

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 Exeter in Cornwall (CSM)
- University of Miskolc (Hungary)

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

First year:

Helsinki

<u>code</u>	<u>subject</u>	<u>ECs</u>
H-AR	Applied Rock Mechanics for Hard Rock Mining	3
H-EX	Excursion	3
H-MA-04	Automation and Maintenance of Mining Equipment	3
H-ME-00	Mining Technology and Economics	3
H-MM	Numerical Mine Modelling	3

Aachen

A-EI-00	Environmental Issues	3
A-MV-04	Mine Ventilation	6
A-OP-05	Open Pit Mining	6

Exeter

E-ED-07	Surface Excavation Design	7.5
E-PA-07	Project Management, Finance and Appraisal	7.5

Delft

D-AL-07	Alluvial Mining and Marine Mining	5
D-CS-07	Case Study	6
D-IM-00	Industrial Minerals	2
D-ME-06	Mineral Economics	2

Second year:

Delft

<u>code</u>	<u>subject</u>	<u>ECs</u>
Electives and/or AES0404-15, Internship and		15
AES2005	Colloquium	1
AES2006	Final Thesis	44

- The study programme of the specialisation European Mineral Engineering Course (EMEC) is compiled in the following way:

First year:

Exeter

<u>code</u>	<u>subject</u>	<u>ECs</u>
E-ES	Process Design and Equipment Selection	7.5
E-PS	Physical Separation Technology	7.5

Wroclaw

W-BM	Biomining	2
W-ME	Mineral Economics	2
W-HY	Hydrometallurgy	4
W-PM	Pyrometallurgy	4
W-PR	Plastic Recycling	3

Helsinki

A-RM-06	Recycling Metallurgy	7
A-MR	Metal Recycling	8
H-PO	Process Optimization	7
H-PD-10	Plant Design	8

Second year:

Delft

Electives and/or AES0404-15, Internship and		15
<u>code</u>	<u>subject</u>	<u>ECs</u>
AES2005	Colloquium	1
AES2006	Final Thesis	44

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

First year:

Wroclaw

<u>code</u>	<u>subject</u>	<u>ECs</u>
W-CM	Computer Aided Geological Modelling and Land Reclamation	3
W-GM-08	Theory and Practice in Geomechanics	4
W-GT-08	Geothermal Energy	4
W-UW-08	Underground Waste Management	3
W-HU	HSE and Underground Practice	2

Delft

AES1640-11	Environmental Geotechnics	4
CIE4361	Behaviour of Soils and Rocks	6
AES1720-11	Rock Mechanics Applications	5

Exeter

E-TU	Tunnel and Underground Excavation Design	7.5
E-ED	Surface Excavation Design	7.5

Miskolc

M-BP	Bioprocessing of Contaminated Soil, Air and Waste Water	4
M-EP	Environmental Geophysics	3,5
M-ER	Environmental Risk Assessment	3
M-EL	Environmental Geology	3,5

Second year:

Delft

Electives and/or AES0404-15, Internship and		15
<u>code</u>	<u>subject</u>	<u>ECs</u>

AES2005	Colloquium	1
AES2006	Final Thesis	44

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.

<u>code</u>	<u>subject</u>	<u>ECs</u>
TA1910-09	General Geology	4
TA2060	Data Analysis and Geostatistics	3
TA2920	Structural Geology	2
TN4120TA	Mechanics 2	4
WI1102CT	Probability Theory and Statistics	3
WI1708TH1	Analysis 1	3
WI1708TH2	Analysis 2	3
WI1708TH3	Analysis 3	3
WI1807TH1	Lineair Algebra (part 1)	3
WI1909TH	Differential Equations	3
WI3097TU	Numerical Methods for differential Equations	4

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

<u>code</u>	<u>subject</u>	<u>ECs</u>
TA3220	Fluid Flow, Heat and Mass Transfer	4
TA3515	Introduction to Reflection Seismics	2
CT3325	Mechanics and Transport by Flow in porous Media	4

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 Geo-Engineering Fieldwork

Students may not embark on the Geo-Engineering Fieldwork (AES2602) without a completed Bachelor of Science programme and until they have completed their convergence subjects and the subject Site Characterisation and Testing (CIE5320).

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 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.