Please note: all courses of the current track Applied Geophysics indicated in blue will continue after 2022 and following years (expect from AESM1320), but will do so independently from the MSc AES. In 2022-2023 the track AGP and its courses will still be offered. The faculty plans and prepares for an independent MSc joint programme AGP as of 2023-2024.

Course code	Course name	ECTS	Language	Compulsary?	Education periods	Academic year 1				Academic year 2			
						Semester 1		Semester 2		Semester 3		Semester 4	
						Edu. Per.	Edu. Per.	Edu. Per.	Edu. Per.	Edu. Per.	Edu. Per.	Edu. Per.	Edu. Per.
Applied Geophysics track, first year													
AES1560	Advanced Reflection Seismology and Seismic Imaging	6	EN	see remarks	1								
AESM1511	Field Geophysics and Signal Analysis with exercises	6	EN	Y	1								
CIE4606	Geodesy and Remote Sensing	5	EN	N	1								
AES1540-11	Electromagnetic Exploration Methods	6	EN	see remarks	2								
AES1550-06	Geophysics Special Subjects	6	EN	N	2								
AESM1320	Geology for Geo-Energy	5	EN	see remarks	2								
AESM1590-18	Seismic Acquisition to Data Information Content	6	EN	N	2								
(ETH) 651-4079-00L	Reflection Seismology Processing	5	EN	Y	3,4								
(ETH) 651-4087-01L	Case Studies in Exploration and Environmental Geophysics	3	EN	N	3,4								
(ETH) 651-4094-00L	Numerical Modelling for Applied Geophysics	5	EN	Y	3,4								
(ETH) 651-4096-00L	Inverse Theory I: Basics	3	EN	Y	3,4								
(ETH) 651-4096-02L	Inverse Theory II: Applications	3	EN	N	3,4								
(ETH) 651-4104-00L	Geophysical Field Work & Processing: Methods	2	EN	Y	3,4								
(ETH) 651-4106-03L	Geophysical Field Work & Processing: Preparation & Field Work	7	EN	Y	3,4								
(ETH) 651-4109-00L	Geothermal Energy	3	EN	N	3,4								
(ETH) 651-4240-00L	Geofluids	6	EN	N	3,4								
(ETH) 701-0106-00L	Mathematics V: Applied Deepening fo Mathematics I-III	3	EN	N	3,4								
Applied Geophysics track, second year													
(RWTH) 12.53420	Machine Learning	6	EN	N	1,2								
(RWTH) 41.00220	Finite Elements in Fluids	6	EN	N	1,2								
(RWTH) 53.14570	Geophysical Logging and Log Interpretation	3	EN	see remarks	1,2								
(RWTH) 53.50132	Geophysical Logging and Log Interpretation	3	EN	see remarks	1,2								
(RWTH) 53.14584	Petrophysics	3	EN	see remarks	1,2								
(RWTH) 53.18482	Hydrogeophysics	3	EN	see remarks	1,2								
(RWTH) 53.26003	Laboratory Practicals: Applied Reservoir Petrophysics	3	EN	see remarks	1,2								
(RWTH) 53.23301	Sedimentary Basin Dynamics	3	EN	N	1,2								
(RWTH) 53.12002	Principles of Plate Tectonics	3	EN	N	1,2								
(RWTH) 53.26000	Application of Geophysical Prospecting Methods in Earth and Environmental Science	6	EN	see remarks	1,2								
(RWTH) 53.29469	Engineering geophysics	3	EN	see remarks	1,2								
(RWTH) 53.30255	Seismic Interpretation in Geology	3	EN	N	1,2								
(RWTH) 53.31439	Data analysis in geoscience	3	EN	N	1,2								
(RWTH) 53.32124	Petroleum System Modelling	3	EN	N	1,2								
(RWTH) 53.32383	Underground Excavation	6	EN	N	1,2								
(RWTH) 53.33690	Remote Sensing of Sedimentary Basins	3	EN	N	1,2								
(RWTH) 53.42487	Numerical Reservoir Engineering: Geophysical process simulation	3	EN	see remarks	1,2								
(RWTH) 53.45471	Portfolio Management and Prospect Evaluation	3	EN	N	1,2								
(RWTH) 53.12001	Plate Tectonics Seminar	3	EN	N	1,2								
(RWTH) 53.49932	Neotectonics and Earthquake Geology	3	EN	N	1,2								
(RWTH) 53.50028	Advanced Mathematical Modelling in Applied Geosciences	3	EN	see remarks	1,2								
(RWTH) 54.12000	Research Module in Applied Geophysics	6	EN	see remarks	1,2								
(RWTH) 54.24346	Energy Resource Management	3	EN	N	1,2								
(RWTH) 54.34827	Mineral Exploration	3	EN	N	1,2								
(RWTH) 81.18471	Economics of Technological Diffusion	6	EN	N	1,2								
(RWTH) 53.50132	Fieldwork: Geophysical Logging and Log Interpretation	0.5	EN		1,2								
(RWTH) 54.12000	Research Module in Applied Geophysics	6	EN		1,2								
(RWTH) 54.24346	Energy Resource Management	3	EN		1,2								
(RWTH) 54.34827	Mineral Exploration	3	EN		1,2								
(RWTH) 81.18471	Economics of Technological Diffusion	3	EN		1,2								
AESM2506	Final Thesis Applied Geophysics	30	EN	Y	3,4								