









# Master of Geosciences / Mineralogy-Petrology

Mandatory Modules   
 Core Modules Min/Pet   
 Specialisation Modules   
 Elective Modules 

Y1	<b>GEW-MM01</b> <b>Topics in Earth System Science (6)</b>	<b>GEW-MC08</b> <b>Advanced Mineral.-Petro (6)</b> Thermodynamics/Kinetics Adv. Geochemistry	<b>GEW-MC09</b> <b>Methods Mineral. &amp; Petro. (6)</b> Micro-Analytics, Powder X-ray Diffraction, Data Analysis	<b>GEW-MF21</b> <b>Advanced Petro. &amp; Age determin. (6)</b> Advanced Petro.	<b>GEW-ME07</b> <b>Special Topics in Geosciences (6)</b> Petrology and Evolution of the Continental Crust
	<b>GEW-MF23</b> <b>Special Topics Mineral. &amp; Petro. (6)</b> Ore-forming processes Dating volcanic processes	<b>GEW-MC08</b> <b>Advanced Mineralogy-Petrology (6)</b> Geol. Appl. Crystal chem. Geol. Appl. Thermodyn. & Kinetics	<b>GEW-MC09</b> <b>Methods Mineral. &amp; Petro. (6)</b> Crystalline Field Petrology	<b>GEW-MF21</b> <b>Advanced Petrology and Age determination (6)</b> Age determination	<b>GEW-MF22</b> <b>Physicochemical Mineralogy-Petrology(6)</b> Mineral Physics
Y2	<b>GEW-MF23</b> <b>Special Topics Mineral. &amp; Petro. (6)</b> Geofluids Clay Mineralogy	<b>GEW-MM02</b> <b>Project Practical or Research Internship (12)</b>		<b>GEW-ME02</b> <b>Geosciences across scales (6)</b> Organic Geochemistry	<b>GEW-MF22</b> <b>Physicochem. Mineral-Petro (6)</b> Experimental Petro.-Mineral.
	<b>Master Project and Thesis (30)</b>				

Study Plan for people interested in properties of *minerals AND field petrology*





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Y1	<b>GEW-MM01</b> Topics in Earth System Science (6)	<b>GEW-MC08</b> Advanced Mineral.-Petro (6) Thermodynamics/Kinetics Adv. Geochemistry	<b>GEW-MC09</b> Methods Mineral. & Petro. (6) Micro-Analytics, Powder X-ray Diffraction, Data Analysis	<b>GEW-MF03</b> Numerical Analysis & Modelling. (6) Remote Sensing of the Environment	<b>GEW-ME07</b> Special Topics in Geosciences (6) Applied Mineralogy and Cultural Heritage
	<b>GEW-MF23</b> Special Topics Mineral. & Petro. (6) Ore-forming processes Dating volcanic processes	<b>GEW-MC08</b> Advanced Mineralogy-Petrology (6) Geol. Appl. Crystal chem. Geol. Appl. Thermodyn. & Kinetics	<b>GEW-MC09</b> Methods Mineral. & Petro. (6) Advanced Lab methods	<b>GEW-MF03</b> Numerical Analysis & Modelling. (6) Spatial analysis with numerical methods	<b>GEW-MF22</b> Physicochemical Mineralogy- Petrology (6) Mineral Physics
Y2	<b>GEW-MF23</b> Special Topics Mineral. & Petro. (6) Geofluids Clay Mineralogy	<b>GEW-MM02</b> Project Practical or Research Internship (12)		<b>GEW-ME08</b> Monitoring techniques & data analysis in Geosciences (6) Planetary Remote Sensing	<b>GEW-MF22</b> Physicochem. Mineral-Petro (6) Experimental Petro.-Mineral.
	<b>Master Project and Thesis (30)</b>				

Study Plan for people interested in *analytical/numerical methods and physico-chemical properties of minerals, rocks and materials*





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Y1	<b>GEW-MM01</b> <b>Topics in Earth System Science (6)</b>	<b>GEW-MC08</b> <b>Advanced Mineral.-Petrol (6)</b> Thermodynamics/Kinetics Adv. Geochemistry	<b>GEW-MC09</b> <b>Methods Mineral. &amp; Petrol. (6)</b> Micro-Analytics, Powder X-ray Diffraction, Data Analysis	<b>GEW-MC06</b> <b>Geophysical Inversion &amp; Data Anal. (6)</b> Geophysical Inversion	<b>GEW-MC05</b> <b>Theoretical Geophysics (6)</b>
	<b>GEW-MF23</b> <b>Special Topics Mineral. &amp; Petrol. (6)</b> Ore-forming processes Dating volcanic processes	<b>GEW-MC08</b> <b>Advanced Mineralogy-Petrology (6)</b> Geol. Appl. Crystal chem. Geol. Appl. Thermodyn. & Kinetics	<b>GEW-MC09</b> <b>Methods Mineral. &amp; Petrol. (6)</b> Advanced Lab methods	<b>GEW-MC06</b> <b>Geophysical Inversion &amp; Data Anal. (6)</b> Data Analytics and Interpretation	<b>GEW-MF22</b> <b>Physicochemical Mineralogy-Petrology (6)</b> Mineral Physics
Y2	<b>GEW-MF23</b> <b>Special Topics Mineral. &amp; Petrol. (6)</b> Geofluids Clay Mineralogy	<b>GEW-MM02</b> <b>Project Practical or Research Internship (12)</b>		<b>GEW-ME02</b> <b>Geosciences across scales (6)</b> Geothermie	<b>GEW-MF22</b> <b>Physicochemical Mineralogy-Petrology (6)</b> Experimental Petrol.-Mineral.
	<b>Master Project and Thesis (30)</b>				

Study Plan for people interested in properties of *minerals, rocks and their role for large-scale geophysical properties and processes*

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Y1	<b>GEW-MM01</b> <b>Topics in Earth System Science (6)</b>	<b>GEW-MC08</b> <b>Advanced Mineral.-Petro (6)</b> Thermodynamics/Kinetics Adv. Geochemistry	<b>GEW-MC09</b> <b>Methods Mineral. &amp; Petro. (6)</b> Micro-Analytics, Powder X-ray Diffraction, Data Analysis	<b>GEW-MF21</b> <b>Advanced Petro. &amp; Age determin. (6)</b> Advanced Petro.	<b>GEW-ME02 Geosciences across scales (6)</b> Stress Field of the Earth
	<b>GEW-MF23</b> <b>Special Topics Mineral. &amp; Petro. (6)</b> Ore-forming processes Dating volcanic processes	<b>GEW-MC08</b> <b>Advanced Mineralogy-Petrology (6)</b> Geol. Appl. Crystal chem. Geol. Appl. Thermodyn. & Kinetics	<b>GEW-MC09</b> <b>Methods Mineral. &amp; Petro. (6)</b> Crystalline Field Petrology	<b>GEW-MF21</b> <b>Advanced Petro. &amp; Age determin. (6)</b> Age Determination	<b>GEW-MF03</b> <b>Numerical Analysis &amp; Modelling (6)</b> Modelling Tectonic and Surface Processes
Y2	<b>GEW-MF23</b> <b>Special Topics Mineral. &amp; Petro. (6)</b> Geofluids Clay Mineralogy	<b>GEW-MM02</b> <b>Project Practical or Research Internship (12)</b>		<b>GEW-MC02</b> <b>Tectonics and Geodynamics (6)</b>	<b>GEW-MF03</b> <b>Numerical Analysis &amp; Modelling (6)</b> Advanced Subsurface Modelling/ Geoenery
	<b>Master Project and Thesis (30)</b>				

Study Plan for people focussing on *petrology and geodynamic processes*