

APPLIED GEOSCIENCE GRADUATE PROGRAM

FIRST YEAR

	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
Semester I					
Methods in mineralogy, petrology and geochemistry	14	24		6	4
Groundwater resource assessment	20	10			3
Methods of environmental samples collecting	10			20	3
Methods in structural geology	14	24			4
Polish Language Course (final exam) / *Contemporary problems in geological sciences (alternative course for native polish students)		60			5
<i>Facultative subjects - Module A</i>					11
					30
	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
<i>Facultative subjects - Module A</i>					
<i>Current problems in mineralogical sciences</i>			20		2
<i>Current problems in petrological sciences</i>			20		2
<i>New trends in stratigraphy</i>			20		2
<i>Informatics and geostatistics in geological sciences</i>	14	24			4
<i>Applied geophysics</i>	24	24			5
<i>Trace fossils</i>	14	14			3
	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
Applications of mineral sciences	30	15			4
Methods and applications in stratigraphy	15	30			4
Groundwater quality	30				3
Prospecting and evaluation of mineral reserves	30				4
MSc seminar I			30		2
<i>Facultative subjects - Module B</i>					7
<i>Facultative subjects - Module C</i>					6
					30
	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
<i>Facultative subjects - Module B</i>					
<i>Natural stone in architecture</i>	14	14		6	3
<i>New trends in tectonics and structural geology</i>			20		2
<i>New trends in economic geology</i>			20		2
<i>Groundwater exploitation</i>	14	24			4
<i>Environmentally sound technologies and renewable energy sources</i>	14			14	3
<i>Facultative subjects - Module C</i>					
<i>Applications of mineral sciences (field course)</i>				36	3
<i>Regional and economic geology (field course)</i>				36	3
<i>Hydrogeological mapping (field course)</i>				36	3

SECOND YEAR

Semester III	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
Environmental pollution	24	12		12	5
Isotope geology and geochemistry	28	14			4
Microtectonics and microstructural analysis	24	20			4
Groundwater Modelling	16	28			4
<i>Facultative subjects - Module D</i>					13
					30
	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
<i>Facultative subjects - Module D</i>					
<i>Geochemical evolution of the Earth</i>	14	24			4
<i>Limnology</i>	14				2
<i>Methods in reclamation and remediation</i>		14			2
<i>Stable isotopes forensics and food authenticity</i>	14				2
<i>Environmental geohazards</i>	24				3
<i>Mineral resources, economics and the environment</i>	24				3
<i>Environmental geochemistry in practice</i>	14	14		14	5

Semester IV	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
Legal aspects in geology and environmental management	24	24			5
Master's dissertation and exam					20
MSc seminar II			20		2
<i>Facultative subjects - Module E</i>					3
					30
	Teaching hours				ECTS credits
	lecture	laboratory class	seminar	field class	
<i>Facultative subjects - Module E</i>					
<i>Volcanology</i>	24				3
<i>Applications of Ground Penetrating Radar (GPR)</i>	8	8		8	3
<i>Biogeochemistry and geomicrobiology</i>	10	14			3