

# Geoscience Syllabus Checklist for Self-Evaluation

This Geoscience Syllabus Should be Used as a Guide and May Be Subject to Change \*\*Please note a course can only be used ONCE on the checklist\*\*

Name:	System ID#:

Number	Description	Applicant's Self-Evaluation Course Equivalent	For Office Use Only
Common t	o All Geoscientists - (	06-GeoCom – Fundamental Science	e (3 of 4 Required)
FS-A1	Calculus (2 semesters)		
FS-A2	Physics (2 semesters)		
FS-A3	Chemistry (2 semesters)		
FS-A4	Biology (2 semesters)		
Common t	o All Geoscientists -	06-GeoCom - Compulsory	
COM-A1	Introduction to Mineralogy/ Petrology*		
COM-A2	Introduction to Sedimentation & Stratigraphy*		
COM-A3	Introduction to Structure & Tectonics*		
Common t	o All Geoscientists –	06-GeoCom - Electives (3 of 8 Requ	uired)
COM-B1	Intermediate Mathematics		
COM-B2	Intermediate Chemistry		
COM-B3	Intermediate Physics		
COM-B4	Introduction or Intermediate Biology*		
COM-B5	Introduction to Computing*		
COM-B6	Economics*		
COM-B7	Probability and Statistics		
COM-B8	Technical Writing		

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Number	Description	Applicant's Self-Evaluation Course Equivalent	For Office Use Only	
Specific to	Specific to Environmental Geoscience - 06-EG - Compulsory (6 of 7 Required)			
EG-A1	Introduction to Geomorphology			
EG-A2	Introduction to Geochemistry			
EG-A3	Introduction to Hydrology			
EG-A4	Quaternary Geology			
EG-A5	Introduction to Soil Science			
EG-A6	Introduction to Applied Geophysics			
EG-A7	Hydrogeology			
Specific to	Environmental Geosc	ience - 06-EG - Compulsory (1 of 1	Required)	
EG-B1	Field Work			
Specific to	<b>Environmental Geosc</b>	ience - 06-EG -Electives (9 of 25 R	equired)	
EG-C1	Advanced Geomorphology I			
EG-C2	Advanced Geomorphology II			
EG-C3	Applied Geomorphology			
EG-C4	Analytical Geochemistry			
EG-C5	Analytical Hydrology			
EG-C6	Groundwater Contamination			
EG-C7	Fluid Mechanics			
EG-C9	Rock Mechanics			
EG-C10	Engineering Geology			
Specific to Environmental Geoscience - 06-EG -Electives (9 of 25 Required)				
EG-C11	Palaeontology Interpretation Methods			
EG-C12	Sedimentology			

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Number	Description	Applicant's Self-Evaluation Course Equivalent	For Office Use Only
EG-C13	Advanced Mineralogy		
EG-C14	Advanced Geophysics		
EG-C15	Geophysical Hazard Evaluation		
EG-C16	Introduction to Ecosystems		
EG-C17	Weather and Climate		
EG-C18	Geoscience Computer Applications		
EG-C19	Geographic/ Spatial Analysis		
EG-C20	Remote Sensing of the Earth's Surface		
EG-C21	Aerial Photo Interpretation		
EG-C22	Advanced Course in Geoscience		
EG-C23	Advanced Course in Geoscience		
EG-C24	Thesis in Geoscience – Topic must be geoscience, bioscience or chemistry		
EG-C25**	EG-A1, A2, A3, A4, A5, A6, A7 not used above		
Specific to Geology - 06-GL - Compulsory (6 of 7 Required)			
GL-A1	Introduction to Geomorphology		
GL-A2	Introduction to Geochemistry		
GL-A3	Introduction to Applied Geophysics		

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Number         Description         Applicant's Self-Evaluation Course Equivalent         For Office Use Only           GL-A4         Introduction to Paleontology         Introduction to Paleontology         Introduction to Paleontology           GL-A8         Any two of Igneous Petrology OR Metamorphic Petrology OR Metamorphic Petrology         Introduction to Petrology           GL-A8         Regional Geology         Introduction to Petrology           GL-B1         Field Work         Introduction to Petrology           Specific to Geology - 06-GL - Electives (9 of 31 Required)         Introduction to Petrology           GL-C1         Advanced Mineralogy         Igneous Geology           GL-C2         Igneous Geology         Igneous Geology           GL-C3         Metamorphic Geology         Introduction to Petrology           GL-C4         Sedimentary Geology         Introduction to Petrology           GL-C3         Advanced Advanced Geomorphology         Introduction to Petrology           GL-C4         Advanced Geophysics         Introduction to Petrology           GL-C10         Mineral Deposits         Introduction to Petrology           GL-C12         Mining Evaluation         Introduction to Petrology           GL-C14         Reservoir Evaluation		**Please note a course can only be used ONCE on the checklist**			
Paleontology   Paleontology   Paleontology   Paleontology   Patrology   Patrology   Petrology   Petr	Number	Description		For Office Use Only	
A5/A6/A7   Ignéous Petrology OR Metamorphic Petrology OR Sedimentary OR	GL-A4				
Specific to Geology - 06-GL - Compulsory (1 of 1 Required) GL-B1 Field Work  Specific to Geology - 06-GL - Electives (9 of 31 Required) GL-C1 Advanced Mineralogy GL-C2 Igneous Geology GL-C3 Metamorphic Geology GL-C4 Sedimentary Geology GL-C5 Advanced Structure & Tectonics GL-C6 Advanced Geomorphology GL-C7 Advanced Geomorphology GL-C7 Advanced Geochemistry GL-C8 Advanced Geochemistry GL-C9 Advanced Geochemistry GL-C9 Advanced Geochemistry GL-C10 Mineral Deposits GL-C11 Ore Petrology GL-C12 Mining Evaluation GL-C13 Petroleum Geology GL-C14 Reservoir		Igneous Petrology OR Metamorphic Petrology OR Sedimentary			
GL-B1 Field Work  Specific to Geology - 06-GL - Electives (9 of 31 Required)  GL-C1 Advanced Mineralogy  GL-C2 Igneous Geology  GL-C3 Metamorphic Geology  GL-C4 Sedimentary Geology  GL-C5 Advanced Structure & Tectonics  GL-C6 Advanced Geomorphology  GL-C7 Advanced Paleontology  GL-C8 Advanced Geochemistry  GL-C9 Advanced Geochemistry  GL-C9 Advanced Geochemistry  GL-C9 Advanced Geophysics  GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-A8	Regional Geology			
Specific to Geology - 06-GL - Electives (9 of 31 Required)  GL-C1 Advanced Mineralogy  GL-C2 Igneous Geology  GL-C3 Metamorphic Geology  GL-C4 Sedimentary Geology  GL-C5 Advanced Structure & Tectonics  GL-C6 Advanced Geomorphology  GL-C7 Advanced Paleontology  GL-C8 Advanced Geochemistry  GL-C9 Advanced Geophysics  GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	Specific to	Geology - 06-GL - Co	empulsory (1 of 1 Required)		
GL-C1 Advanced Mineralogy  GL-C2 Igneous Geology  GL-C3 Metamorphic Geology  GL-C4 Sedimentary Geology  GL-C5 Advanced Structure & Tectonics  GL-C6 Advanced Geomorphology  GL-C7 Advanced Paleontology  GL-C8 Advanced Geochemistry  GL-C9 Advanced Geophysics  GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-B1	Field Work			
Mineralogy GL-C2 Igneous Geology GL-C3 Metamorphic Geology GL-C4 Sedimentary Geology GL-C5 Advanced Structure & Tectonics GL-C6 Advanced Geomorphology GL-C7 Advanced Paleontology GL-C8 Advanced Geochemistry GL-C9 Advanced Geophysics GL-C10 Mineral Deposits GL-C11 Ore Petrology GL-C13 Petroleum Geology GL-C14 Reservoir	Specific to	Geology - 06-GL - Ele	ectives (9 of 31 Required)		
GL-C3 Metamorphic Geology GL-C4 Sedimentary Geology GL-C5 Advanced Structure & Tectonics  GL-C6 Advanced Geomorphology GL-C7 Advanced Paleontology GL-C8 Advanced Geochemistry GL-C9 Advanced Geophysics GL-C10 Mineral Deposits GL-C11 Ore Petrology GL-C12 Mining Evaluation GL-C13 Petroleum Geology GL-C14 Reservoir	GL-C1				
Geology GL-C4 Sedimentary Geology GL-C5 Advanced Structure & Tectonics  GL-C6 Advanced Geomorphology GL-C7 Advanced Paleontology GL-C8 Advanced Geochemistry GL-C9 Advanced Geophysics GL-C10 Mineral Deposits GL-C11 Ore Petrology GL-C12 Mining Evaluation GL-C13 Petroleum Geology GL-C14 Reservoir	GL-C2	Igneous Geology			
Geology  GL-C5 Advanced Structure & Tectonics  GL-C6 Advanced Geomorphology  GL-C7 Advanced Paleontology  GL-C8 Advanced Geochemistry  GL-C9 Advanced Geophysics  GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-C3				
Structure & Tectonics  GL-C6 Advanced Geomorphology  GL-C7 Advanced Paleontology  GL-C8 Advanced Geochemistry  GL-C9 Advanced Geophysics  GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-C4				
Geomorphology GL-C7 Advanced Paleontology GL-C8 Advanced Geochemistry GL-C9 Advanced Geophysics GL-C10 Mineral Deposits GL-C11 Ore Petrology GL-C12 Mining Evaluation GL-C13 Petroleum Geology GL-C14 Reservoir	GL-C5	Structure &			
Paleontology  GL-C8 Advanced Geochemistry  GL-C9 Advanced Geophysics  GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-C6				
GL-C9 Advanced Geophysics  GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-C7				
GL-C10 Mineral Deposits  GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-C8				
GL-C11 Ore Petrology  GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-C9				
GL-C12 Mining Evaluation  GL-C13 Petroleum Geology  GL-C14 Reservoir	GL-C10	Mineral Deposits			
GL-C13 Petroleum Geology GL-C14 Reservoir	GL-C11	Ore Petrology	-		
Geology  GL-C14 Reservoir	GL-C12	Mining Evaluation	-		
	GL-C13				
	GL-C14				

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Number	Description	course can only be used ONCE on to Applicant's Self-Evaluation Course Equivalent	For Office Use Only
GL-C15	Coal Geology	·	
GL-C16	Industrial Materials		
GL-C17	Quaternary Geology		
GL-C18	Hydrogeology		
GL-C19	Groundwater Contamination		
GL-C20	Marine Geology		
GL-C21	Introduction to Soil Science		
GL-C22	Engineering Geology		
GL-C23	Environmental Geology		
GL-C24	Geoscience Computer Applications		
GL-C25	Geographic - Spatial Data Analysis		
Specific to	Geology - 06-GL - Ele	ectives (9 of 31 Required)	
GL-C26	Remote Sensing of the Earth's Surface		
GL-C27	Aerial Photo Interpretation		
GL-C28	Advanced Course in Geoscience		
GL-C29	Advanced Course in Geoscience		
GL-C30	Thesis in Geoscience		
GL-C31	GL-A1, A2, A3, A4, A5, A6, A7, A8 not used above		

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Number	Description	Applicant's Self-Evaluation Course Equivalent	For Office Use Only
Specific to	Geochemistry - 06-G	C- Compulsory (6 of 7 required)	
GC-A1	Introduction to Geochemistry		
GC-A2	Exploration Geochemistry <b>OR</b> Applied Geochemistry		
GC-A3	Analytical Geochemistry		
GC-A4	Hydrogeology		
GC-A5	Introduction to Geomorphology		
GC-A6	Introduction to Applied Geophysics		
GC-A7	Introduction to Soil Science		
Specific to	Geochemistry – 06-G	C- Compulsory (1 of 1 Required)	
GC-B1	Field Work		
Specific to	Geochemistry - 06-G	C- Electives (9 of 21 Required)	
GC-C1	Igneous Petrology		
GC-C2	Metamorphic Petrology		
GC-C3	Sedimentary Petrology		
GC-C4	Mineral Deposits		
GC-C5	Ore Petrology		
GC-C6	Advanced Mineralogy		
GC-C7	Statistical Interpretation of Geochemical Data		
GC-C8	Quaternary Geology		
GC-C9	Physical Hydrology		

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Specific to Geochemistry - 06-GC - Electives (9 of 21 required)			
GC-C10	Groundwater Contamination		
GC-C11	Applied Geomorphology		
GC-C12	Pedology		
GC-C13	Geographic – Spatial Data Analysis		
GC-C14	Remote Sensing of the Earth's Surface		
GC-C15	Air Photo Interpretation		
GC-C16	Advanced Course in Geochemistry		
GC-C17	Advanced Course in Geochemistry		
GC-C18	Advanced Course in Geoscience		
GC-C19	Advanced Course in Geoscience		
GC-C20	Thesis in Geoscience		
GC-C21**	GC-A1, A2, A3, A4, A5, A6, A7, A8 not used in GC-COM		
Specific to	Geophysics - 06-GP	- Compulsory (6 of 7 Required)	
GP-A1	Exploration Geophysics		
GP-A2	Physics of the Earth		
GP-A3	Electricity & Magnetism		
GP-A4	Potential Field Theory		
GP-A5	Physical Properties of Geological Materials		

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GP-A6	Seismology		
GP-A7	Time Series Analysis		
Specific to 0	Geophysics - 06-GP-	Compulsory (1 of 1 required)	
GP-B1	Field Work		
Specific to 0	Geophysics - 06-GP-	Electives (10 of 22 required)	
GP-C1	Electronics		
GP-C2	Mechanics		
GP-C3	Heat and Thermodynamics		
GP-C4	Electromagnetic Theory		
GP-C5	Applied Mathematics		
GP-C6	Numerical Methods Computing		
GP-C7	Advanced Applied Exploration Geophysics		
GP-C8	Geomagnetism, Paleomagnetism and Rock Magnetism		
GP-C9	Geophysical Interpretation		
Specific to	Geophysics - 06-GP	- Electives (10 of 22 Required)	
GP-C10	Advanced Seismology		
GP-C11	Advanced Earth Physics		
GP-C12	Nuclear Physics		
GP-C13	Marine Geophysics		
GP-C14	Remote Sensing of the Earth's Surface		
GP-C15	Geophysical Hazard Evaluation		

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GP-C16	Groundwater Contamination	
GP-C17	Hydrogeology	
GP-C18	Advanced Course in Geophysics	
GP-C19	Advanced Course in Geoscience	
GP-C20	Advanced Course in Geoscience	
GP-C21	Thesis in Geoscience	
GP-C22**	GP-A2, A3, A6, A7 not used above	