

GG Department Matrix of Student Learning Objectives (SLO) for MS and PhD degrees in Geology & Geophysics, *approved May 2013*

MS Degree - X = a measurement point for that SLO	courses	Thesis proposal	Oral defense	Written defense	Publications/Conferences
1. Technical knowledge					
Geology and Geophysics Fundamentals: theory, laboratory methods, field methods, computer applications, and supporting disciplines	X	X			
2. Scientific method (effective and ethical practice)					
a) construct scientific hypotheses	X	X			
b) define research in a timely manner		X			
c) carry out research in a timely and ethical manner			X	X	
d) analyze and synthesize research results			X	X	X
e) derive conclusions			X	X	X
3. Communicate geological knowledge					
communicate general geological knowledge	X	X			X
communicate the findings of their research			X	X	X
4. Employability/Contributions Post-Graduation					
Professional knowledge and skills needed to pursue employment or other			X	X	X

PhD Degree - X = a measurement point for that SLO	courses	Qual. exam	Comps exam	Dis. proposal	Oral defense	Written defense	Publications/Conferences
1. Technical knowledge							
Geology and Geophysics Fundamentals: theory, laboratory methods, field methods, computer applications, and supporting disciplines	X	X	X				
2. Expertise in a sub-discipline							
comprehensively synthesize, evaluate, and interpret relevant fundamental knowledge	(X)		X				
3. Scientific method (effective and ethical practice)							
a) construct scientific hypotheses	X	X		X			
b) design research in a timely manner		X		X			
c) carry out research in a timely and ethical manner	X			(X)	X	X	
d) analyze and synthesize research results					X	X	X
e) derive conclusions					X	X	X
4. Communicate geological knowledge							
communicate general geological knowledge	X		X				X
communicate the findings of their research			(X)		X	X	X
5. Employability/Contributions Post-Graduation							
Professional knowledge and skills needed to pursue employment or other					X	X	X

(X) informal assessment point.