

**Student Learning Objectives for the MGeo, UHM Dept. of Geology and Geophysics**

1. **Technical knowledge** MGeo graduates are proficient in applying technical knowledge of theory, laboratory methods, field methods, computer applications, and the supporting disciplines (math, physics, chemistry, biology) in solving societally relevant problems in the geosciences.
2. **Scientific method (effective and ethical practice)** MGeo graduates are able to (a) identify a problem and define set of project goals to address the problem, (b) define a strategy for meeting the goals, (c) successfully execute the strategy in a timely manner, (d) analyze and synthesize the results of their executed strategy, and (d) derive conclusions that help advance future related endeavors. The highest standards of ethical practice are emphasized.
3. **Communicate knowledge** MGeo graduates are able to effectively communicate the findings of their work in writing at a level comparable to that of a professional report, and defend it orally to the satisfaction of a scientific and professional audience. They are also able to communicate orally about geoscience related work though seminar or conference presentations.
4. **Employability/Contributions Post-Graduation** MGeo graduates have acquired the knowledge and skills needed to pursue employment or other activities in the geoscience related fields.

**Matrix of Student Learning Objectives (SLO) for MGeo Degree in the Department of Geology & Geophysics, approved May 2014**

<b>MGeo Degree - "X's" mark key measurement point(s) for that SLO</b>	<b>Courses</b>	<b>Project proposal</b>	<b>Oral Presentation</b>	<b>Written Presentation</b>	<b>Publications/Conferences</b>
<b>1. Technical knowledge</b>					
geoscience fundamentals: theory, laboratory methods, field methods, computer applications, and supporting disciplines	X		X	X	X
<b>2. Scientific method (effective and ethical practice)</b>					
a) identify a problem and define project goals	X	X			
b) define a strategy for meeting the goals		X			
c) execute strategy in timely and ethical manner			X	X	
d) analyze and synthesize results			X	X	X
e) derive conclusions			X	X	X
<b>3. Communicate knowledge and experience gained</b>					
communicate general geoscience knowledge		X	X	X	X
communicate the findings of work project			X	X	X
<b>4. Employability/Contributions Post-Graduation</b>					
professional knowledge and skills needed to pursue professional activities in geosciences			X	X	X