

**Montana State University College of Engineering**  
Learning Outcomes Assessment Plan (2012 draft)

Program: **College of Engineering**

Degree: **Chemical Engineering Program MS (Plan A - Thesis)**

<b>Program Learning Outcomes Students will be able to:</b>	<b>Performance Indicators (What would you see if the student has learned?)</b>	<b>Measures (What is the measure and where, how, and when is data collected?)</b>	<b>Use of the Information (Who collects and compiles, who reviews)</b>
Demonstrate technical expertise in emphasis area	Students successfully complete courses specified in program of study.  Students successfully defend their thesis and research work.	Annual % of Plan A grad students with GPA equal or above 3.0 in all courses in Program of Study.  Annual % of Plan A graduate students that successfully defend their thesis.	Department administrative assistant to collect data and maintain statistics.  Department head to review bi-annually (even years).
Effectively communicate research to a scientific audience	Students successfully communicate their research in writing through their thesis document.  Students successfully communicate their research work orally at the public MS thesis defense.	Annual % of Plan A graduate students submitting final signed thesis (by end of fifth semester).  Annual pass rate (% of students passing) of oral defense of MS thesis.	Department administrative assistant to collect data and maintain statistics.  Department head to review bi-annually (even years).
Perform quality original research	Students successfully defend the originality and quality of their research at the (oral) public final defense .	Annual pass rate (% of students passing) of oral defense of MS thesis.	Department administrative assistant to collect data and maintain statistics.  Department head to review bi-annually (even years).

Program: **College of Engineering**

Degree: **Chemical Engineering Program MS (Plan B – non-Thesis)**

<b>Program Learning Outcomes Students will be able to:</b>	<b>Performance Indicators (What would you see if the student has learned?)</b>	<b>Measures (What is the measure and where, how, and when is data collected?)</b>	<b>Use of the Information (Who collects and compiles, who reviews)</b>
Demonstrate technical expertise in emphasis area	Students successfully complete courses specified in program of study.	Annual % of Plan B graduate students with GPA equal or above 3.0 in all courses in Program of Study.	Department administrative assistant to collect data and maintain statistics. Department head to review bi-annually (even years).
Effectively communicate research to a scientific audience	Students successfully communicate their research in writing and orally through their professional paper.	Annual % of Plan B graduate students successfully passing the professional paper requirement.	Department administrative assistant to collect data and maintain statistics. Department head to review bi-annually (even years).