

# Outcomes Based Learning Matrix

**Course: Statics ENGT 273**

**Department: ENGT**

Course Outcomes	Outcome Activities	Assessment Tools
<b>Students will be able to:</b>		
Demonstrate knowledge of the principles of Statics.	Be able to apply Static concepts and techniques to future mechanical problems.	Assignments, lab reports, exams
Construct free body diagrams to analyze force distribution.	Use free body vector diagrams to communicate force direction and magnitude.	Assignments, lab report, exams
Analyze the Static forces on trusses, frames, and machines.	Be able to apply the proper analytical techniques based on types of structures exposed to various static forces.	Assignments, lab report, exams
Understand the effect of internal forces in members.	Be able to apply additional concern to problems based on the types of materials used.	Assignments, lab report, exams
Ability to calculate centroids and moments of inertia.	Be able to apply the proper analytical techniques based on effects of inertia and centers of gravity.	Assignments, lab report, exams
Understand the laws of friction as they apply to Static forces.	Use of knowledge of friction of various materials and their impact on Static forces.	Assignments, lab report, exams