

Outcomes Based Learning Matrix

Course: ENGT 140 Intro to Engineering

Department: ENGT

Course Outcomes	Outcome Activities	Assessment Tools
Students will be able to:		
Demonstrate the application of trigonometry for engineering problems. (QL, IL, CCT)	Class lectures on the use of trigonometry for vector algebra and its application to forces on an object for Static analysis.	Homework assignments are scheduled on a per chapter bases. Regularly scheduled exams are also use to assess a student's understanding.
Construct problem solving strategies for technical issues. (QL, IL, CCT)	Lectures and multiple examples for how engineering problem analysis and solutions are to be submitted. Students learn about free body diagrams, least squares linear regression and the presentation of graphs as well as a thorough review of unit conversions.	Homework assignments are scheduled on a per chapter bases. Regularly scheduled exams are also use to assess a student's understanding.
Explain the concept of engineering ethics. (IL, OC, CE, Int L, GL)	Class lectures covering engineering responsibility and impacts to environmental and public safety concerns	Research paper assigned to evaluate engineering problems in the past, how they occurred explain what ethic principles were violated.
Illustrate an understanding of Civil, Electrical, and Mechanical engineering (IL, OC, Int L)	Through lecture, learn the fundamental principles of different engineering fields and evaluate basic problems and applications.	Homework assignments are scheduled on a per chapter bases. Regularly scheduled exams are also use to assess a student's understanding.
Apply their knowledge of MatLab to model and perform engineering analysis (QL, IL, CCT)	Learn how to use MatLab for circuit analysis and linear system (matrix) analysis, vector analysis, and write scripts for future use.	Learning Matlab is the main laboratory subject throughout the course. Each Matlab session involves the completion of an assignment for assessment.