

Outcomes Based Learning Matrix

Course: ENGT 272 Engineering Materials Department: ENGT

Course Outcomes	Outcome Activities	Assessment Tools
Students will be able to:		
Identify and classify different modern materials.	Lectures and class participation	Lab Reports, Assignments, exams
Identify and characterize the fundamental crystal cell units, its planes and directions.	Lectures and research	Assignments, exams
Determine the effect of atomic motion through diffusion and its application to specific industrial uses.	Lectures and research	Lab reports, assignments, exams
Analyze phase diagrams in order to predict phases present and their chemical compositions under specific conditions.	Lectures and class participation	Assignments, exams
Identify the effect of deformation, solute atoms and phase transformation in hardening materials during heat treatments.	Lectures and research	Labs, assignments, exams
Evaluate the application of different engineering materials to obtain a basic understanding of material selection.	Lectures and research	Labs, assignments, exams
Distinguish among different corrosion mechanisms and prevention techniques.	Lectures, research and class participation	Assignments, exams
Determine materials electrical properties based on energy band models.	Lectures.	Assignments, exams