

Curriculum at a Glance

Introduction to Manufacturing

Grade 9-12

Unit Description	Content and/or Skills
Measuring, Marking-out, and Layout for Design	Synopsis: This unit will focus on the tools used for measurement. The skills learned or reviewed here will be applied throughout the course of study.
Design and Planning	Synopsis: In this unit, students will apply the knowledge acquired in Unit 1 Measurement for design and layout to create a 3 view working drawing of a structure. Students will perform a quantity take off to estimate the materials to complete the project.
Fabricating and Testing a Prototype	Synopsis: Students will use the plan created in the Design and Planning Unit to construct a scale model of a structure. At completion a force will be applied to the structure to determine the maximum load it will carry. A strength to cost ratio will be calculated to determine the most effective design.
Safety	Synopsis: Students will be instructed on the safety procedures used in the lab
Separating Processes	Synopsis: Students will use a variety of tools to perform a variety of separation tasks.
Assembly Processes	Synopsis: Students will use a variety of materials and processes to perform a variety of assembly operations.
Finishing Processes	Synopsis: Students will use a variety of materials and processes to perform a variety of finishing operations.