

Master Syllabus

MET 1201 - Introduction to Engineering Design using Inventor

Division: Science, Mathematics and Engineering

Department: Mechanical Engineering Tech

Credit Hour Total: 3.0

Lecture Hrs: 2.0 **Lab Hrs:** 2.0

Prerequisite(s): MAT 1270

Date Revised: May 2013

Course Description:

Applying the process of designing and developing designs, products and solutions to problems. Parametric 3D CAD modeling creating parts, assemblies and detail drawings with dimensions to effectively communicate ideas. Two classroom, two lab hours per week.

General Education Outcomes:

- ❑ Critical Thinking/Problem Solving
- ❑ Information Literacy
- ❑ Oral Communication
- ❑ Values/Citizenship/Community
- ❑ Computer Literacy

Course Outcomes:

Drawing development

Creating part assembly and detail drawings to communicate effectively.

Assessment Method: Portfolios

Performance Criteria:

70% or better score on the evaluation of the complete drawing submission set.

Design process

Apply the design process in the development of a problem solution or product design.

Assessment Method: Portfolios

Performance Criteria:

70% or better score on the evaluation of the complete drawing submission set.

Time management and teaming

Apply time management skills and teaming to complete projects.

Assessment Method: Portfolios

Performance Criteria:

70% or better score on the evaluation of the complete drawing submission set.

Ethical design

Use proper judgment and apply ethical design practices on projects.

Assessment Method: Portfolios

Performance Criteria:

70% or better score on the evaluation of the complete drawing submission set.

Outline:

The design process

Determining the best solution: cost, time, marketplace, customer

Patents, copyrights and trademarks

Parametric design introduction

Developing assemblies

Reverse engineering

Developing a complete design solution (presentation required)