Sinclair Community College
444 E. Third St.
Dayton, OH 45402

Master Syllabus

MET 2201 - Statics

Division: Science, Mathematics and Engineering

Department: Mechanical Engineering Technology

Credit Hour Total: 3.0 **Lecture Hrs:** 2.0 **Lab Hrs:** 3.0

Prerequisite(s): MET 1111AND MET 1161AND MAT 1290OR MAT 1570OR MAT 1580

Date Revised: January 2015

Course Description:

Analysis of various types of two and three dimensional force systems, analysis of trusses, frames, friction, center of gravity and moment of inertia. Two classroom, three lab hours per week.

General Education Outcomes:

- Written Communication Competency
- Critical Thinking/Problem Solving Competency
- Computer Literacy Competency
- Information Literacy Competency

Course Outcomes:

Force and Moment Equilibrium
Solve planar and non-planar concurrent, parallel and non-concurrent problems using force and moment equilibrium analysis.

Assessment Method: Locally developed exams
Performance Criteria:

70% correct on exams

Friction
Solve statics problems where friction is considered.

Assessment Method: Locally developed exams
Performance Criteria:

70% correct on exams

Force System Resultants
Define the resultant of two and three dimensional force systems.

Assessment Method: Locally developed exams
Performance Criteria:

70% correct on exams

Centroid and Moment of Inertia
Determine centroid and moment of inertia of areas.

Assessment Method: Locally developed exams
Performance Criteria:

70% correct on exams

Forces in Trusses
Determine the forces acting in the members of trusses.

Assessment Method: Locally developed exams
Performance Criteria:

70% correct on exams

Outline:

Interactions Between Bodies

Effects of Forces

Free Body Diagram

Equilibrium

2DCouples and Resultants

Forces in 3-Dimensions

Trusses and Frames

Friction

Centroid and Moment of Inertia