

Washtenaw Community College Comprehensive Report

CMG 125 Introduction to Engineering Design Technology Effective Term: Fall 2014

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: Construction Institute

Discipline: Construction Management

Course Number: 125

Org Number: 14725

Full Course Title: Introduction to Engineering Design Technology

Transcript Title: Intro. Engineering Design Tech

Is Consultation with other department(s) required: Yes

Please Explain:

WAF - Coley McLean welding layout and design GD - Kristine Willimann 3 d modeling INT - Tom Penird - CNC ASV- Allen Day - Automotive Design

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: New Course

Change Information:

Rationale: WCC does not offer classes open to any one covering production graphics and automated design.

Proposed Start Semester: Fall 2014

Course Description: In this course, students are introduced to various production and engineering drawings as well as modeling used in advanced technology fields such as automotive, manufacturing, prototyping and construction technology. Students will identify plan symbols and graphics and be introduced to several methods used in automated design software.

Course Credit Hours

Variable hours: No

Credits: 4

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 30 **Student:** 30

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 75 **Student:** 75

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Level 3

Requisites

General Education

Request Course Transfer

Proposed For:

Central Michigan University
Eastern Michigan University
Ferris State University
Kendall School of Design (Ferris)
Lawrence Tech
Michigan State University
Oakland University
University of Michigan
Wayne State University

Student Learning Outcomes

1. Interpret engineering-related drawings, symbols, scales and lines.

Assessment 1

Assessment Tool: Exam

Assessment Date: Winter 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: ALL

Number students to be assessed: ALL

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 75% of students will score 70% or higher.

Who will score and analyze the data: Core group of faculty who are working together on this course

2. Identify systems used to create computer-aided designs.

Assessment 1

Assessment Tool: Exam

Assessment Date: Winter 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: ALL

Number students to be assessed: ALL

How the assessment will be scored: Answer Key

Standard of success to be used for this assessment: 75% or more will score 70% or higher.

Who will score and analyze the data: Core group of faculty who are working together on this course

3. Create a 2D production drawing.

Assessment 1

Assessment Tool: Portfolio

Assessment Date: Winter 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: ALL

Number students to be assessed: ALL

How the assessment will be scored: Faculty-developed rubric

Standard of success to be used for this assessment: 75% or more will score 70% or higher.

Who will score and analyze the data: Core group of faculty who are working together on this course

4. Create a 3D model.

Assessment 1

Assessment Tool: Portfolio

Assessment Date: Winter 2015

Assessment Cycle: Every Three Years

Course section(s)/other population: ALL

Number students to be assessed: ALL

How the assessment will be scored: Faculty-developed rubric

Standard of success to be used for this assessment: 75% or more will score 70% or higher.

Who will score and analyze the data: Core group of faculty who are working together on this course

Course Objectives

1. Identify drawing standards.
Matched Outcomes
2. Identify various scales used for production drawings.
Matched Outcomes
3. Identify various lines used for production drawings.
Matched Outcomes
4. Determine which automated design software will be best fitted for student's final design.
Matched Outcomes
5. Describe and use basic drawing aids.
Matched Outcomes
6. Create and manage layers.
Matched Outcomes
7. Produce accurate geometric drawings.
Matched Outcomes
8. Modify existing drawings.
Matched Outcomes
9. Identify different types of drawings and explain the purpose of each.
Matched Outcomes
10. Assemble 3D parts.
Matched Outcomes

New Resources for Course

Software including: AutoCAD Inventor Google Sketch Up Revit Corel Draw V Carve Illustrator
Computer lab with minimum of 20 computers.
Plotter and Printer

Course Textbooks/Resources

Textbooks

TBD. *TBD*, ed. TBD, 2014

Manuals

Periodicals

Software

Equipment/Facilities

Level I classroom

Computer workstations/lab

Data projector/computer

Reviewer

Action

Date

Faculty Preparer:

Cristy Lindemann

Faculty Preparer

Nov 21, 2013

Department Chair/Area Director:

Cristy Lindemann

Recommend Approval

Nov 22, 2013

Dean:

Marilyn Donham

Recommend Approval

Nov 22, 2013

Vice President for Instruction:

Bill Abernethy

Approve

Dec 17, 2013