

Washtenaw Community College Comprehensive Report

EGT 100 Introduction to Engineering Product Design Effective Term: Fall 2022

Course Cover

College: Math, Science and Engineering Tech

Division: Math, Science and Engineering Tech

Department: Math & Engineering Studies

Discipline: Engineering Technology

Course Number: 100

Org Number: 12200

Full Course Title: Introduction to Engineering Product Design

Transcript Title: Intro to Engineering Design

Is Consultation with other department(s) required: No

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

Reason for Submission: Three Year Review / Assessment Report

Change Information:

Course title

Course description

Outcomes/Assessment

Objectives/Evaluation

Rationale: The current master syllabus does not have student learning outcomes or assessment tools outlined. Also, the title of course has been revised.

Proposed Start Semester: Fall 2022

Course Description: In this course, students will focus on product design history and the journey to product development. Students will explore how to research topics such as engineering specifications of components, materials and their applications, and the design development process. Students will also design, present and modify a conceptual product using a user-centered design process. The title of this course was previously Introduction to Product Design.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 Student: 45

Lab: Instructor: 0 Student: 0

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 45 Student: 45

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:

Eastern Michigan University
Ferris State University
Grand Valley State University
Kendall School of Design (Ferris)
Lawrence Tech
Michigan State University
Oakland University
University of Michigan
Wayne State University
Western Michigan University

Student Learning Outcomes

1. Explain the process of engineering design development.

Assessment 1

Assessment Tool: Short answer questions on the midterm exam
Assessment Date: Fall 2022
Assessment Cycle: Every Two Years
Course section(s)/other population: All sections
Number students to be assessed: All students
How the assessment will be scored: Departmentally-developed rubric
Standard of success to be used for this assessment: 70% of students will score 75% or higher.
Who will score and analyze the data: Departmental faculty

2. Develop an original conceptual product (widget) for production.

Assessment 1

Assessment Tool: Design work portfolio
Assessment Date: Fall 2022
Assessment Cycle: Every Two Years
Course section(s)/other population: All sections
Number students to be assessed: All students
How the assessment will be scored: Departmentally-developed rubric
Standard of success to be used for this assessment: 70% of the students will score 75% or higher.
Who will score and analyze the data: Departmental faculty

3. Present, orally, an original conceptual product (widget) using industry standard best practices.

Assessment 1

Assessment Tool: Presentation of design work
Assessment Date: Fall 2022
Assessment Cycle: Every Two Years
Course section(s)/other population: All sections
Number students to be assessed: All students
How the assessment will be scored: Departmentally-developed rubric
Standard of success to be used for this assessment: 70% of the students will score 75% or higher.
Who will score and analyze the data: Departmental faculty

Course Objectives

1. Describe the history of engineering product design.
2. Research existing widgets.
3. Articulate the importance of materials in design.
4. Identify user needs during the design process of an original product.
5. Describe the product design process.
6. Develop a conceptual product.
7. Describe the importance of sketching in design.
8. Develop a portfolio describing the conceptual product.
9. Sketch a basic two-dimensional drawing of a widget concept.
10. Develop oral presentations of the conceptual product.
11. Present the widget concept in an oral presentation to classmates.
12. Evaluate and provide feedback to classmate presentations.
13. Utilize effective presentation strategies.

New Resources for Course**Course Textbooks/Resources**

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Tracy Schwab</i>	<i>Faculty Preparer</i>	<i>Dec 20, 2021</i>
Department Chair/Area Director: <i>Lawrence David</i>	<i>Recommend Approval</i>	<i>Feb 07, 2022</i>
Dean: <i>Victor Vega</i>	<i>Recommend Approval</i>	<i>Feb 08, 2022</i>
Curriculum Committee Chair: <i>Randy Van Wagnen</i>	<i>Recommend Approval</i>	<i>Mar 22, 2022</i>
Assessment Committee Chair: <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Mar 28, 2022</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Apr 05, 2022</i>

Washtenaw Community College Comprehensive Report

EGT 100 Introduction to Product Design Conditional Approval Effective Term: Fall 2014

Course Cover

Division: Advanced Technologies and Public Service Careers

Department: Construction Institute

Discipline: Engineering Technology

Course Number: 100

Org Number: 14725

Full Course Title: Introduction to Product Design

Transcript Title: Intro to Product Design

Is Consultation with other department(s) required: No

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

Reason for Submission: New Course

Change Information:

Rationale: New course needed for new certificate

Proposed Start Semester: Fall 2014

Course Description: In this course, students will focus on the history of product design and the journey to product development. Students will generate concepts by designing a physical product for production by establishing engineering specifications using media investigation and material application. Students will focus on user centric design processes and critique design details and assemblies.

Course Credit Hours

Variable hours: No

Credits: 3

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

Lab: Instructor: 0 **Student:** 0

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

Total Contact Hours: Instructor: 45 **Student:** 45

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

College for Creative Studies

Eastern Michigan University
Ferris State University
Grand Valley State University
Kendall School of Design (Ferris)
Lawrence Tech
Michigan State University
Oakland University
University of Michigan
Wayne State University
Western Michigan University

Student Learning Outcomes

1. Requesting conditional Approval

Assessment 1

Assessment Tool: Requesting conditional approval

Assessment Date: Fall 2014

Assessment Cycle: Every Three Years

Course section(s)/other population:

Number students to be assessed: All

How the assessment will be scored:

Standard of success to be used for this assessment:

Who will score and analyze the data:

Course Objectives

1. Requesting conditional approval

Matched Outcomes

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Reviewer

Faculty Preparer:

Cristy Lindemann

Department Chair/Area Director:

Cristy Lindemann

Dean:

Marilyn Donham

Vice President for Instruction:

Bill Abernethy

Action

Faculty Preparer

Recommend Approval

Recommend Approval

Conditional Approval

Date

Mar 03, 2014

Mar 05, 2014

Mar 19, 2014

Mar 20, 2014