# INDUSTRIAL DESIGN ENGINEERING - LEVEL III (CERTIFICATE T0328)

### Technology and Health Division Certificate T0328

This program is designed to prepare the student for a career in a wide range of industries including product and industrial design firms and fabrication and manufacturing companies. Students are introduced to product development from design through prototyping and fabrication for manufacturing. Portfolio or prototype development is required on each of the semester levels. In the Level Three certificate, this will culminate in a final "senior project," which is a portfolio that includes two and three-dimensional design, documentation (accountability measures), presentation, and fabrication. This project will demonstrate the student's mastery of the concepts and methodologies learned during the program.

### **Required Courses**

**Recommended Electives** 

**Course Name** 

**Physics** 

Elementary Algebra

Electronic Circuits - Direct Current (DC)

Laboratory Studies in Electronics Technology

Course Prefix

ELEC 50A

ELEC 81 MATH 51

PHYS 1

Course Prefix	Course Name	Units
Completion of the	Industrial Design Engineering - Level I coursework	18
PLUS		
Completion of the	Industrial Design Engineering - Level II coursework	9
PLUS		
Completion of the Industrial Design Engineering - Level III coursework		9
Total Units		36
Course Prefix	Course Name	Units
Industrial Design Engineering - Level I Coursework		
IDE 110	Design Foundation-Visual Literacy	3
IDE 120	Introduction to CAD	3
IDE 130	Introduction to Shop Processes	3
IDE 150	Design Foundation II	3
IDE 160	Intermediate CAD	3
IDE 170	Introduction to Prototyping	3
Total Units		18
Course Prefix	Course Name	Units
Industrial Design Engineering - Level II Coursework		
IDE 210	Advanced Media	3
IDE 220	Advanced CAD	3
IDE 230	Introduction to Mechanical Principles	3
Total Units		9
Course Prefix	Course Name	Units
Industrial Design Engineering - Level III Coursework		
IDE 250	Product Design and Viability	6
IDE 270	Manufacturing Processes and Materials	3
Total Units		9

Units

4

1-2

4

## WELD 30 Metal Sculpture 2 WELD 40 Introduction to Welding 2

#### **Program Learning Outcomes**

Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html) for this program.