

MANUFACTURING ENGINEERING TECHNOLOGY - MECHANICAL DESIGN MAJOR, ASSOCIATE OF APPLIED SCIENCE

Curriculum Code #6212

Effective May 2024

Division of Engineering, Business and Information Technologies (<http://catalog.lorainccc.edu/academic-programs/engineering-business-information-technologies/>)

The mechanical design major is designed to provide students with the knowledge and cognitive skills necessary for the competent performance as an entry-level mechanical drafter/designer or CAD operator. Employment opportunities exist in a variety of manufacturing companies such as automotive, steel, plastics and others. Lorain County Community College has articulation agreements with colleges and universities including programs offered by LCCC's University Partnership.

First Year

Fall Semester		Hours
CADD 111	INTRODUCTION TO COMPUTER AIDED DRAFTING ¹	2
MTHM 155	TECHNICAL MATHEMATICS I	4
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ³	1
TECN 111	TECHNICAL PROBLEM SOLVING	3
TECN 115	INDUSTRIAL BLUEPRINT READING	2
TECN 131	MANUFACTURING PROCESSES I ¹	3
Hours		15

Spring Semester

CADD 235	DETAILING AND DIMENSIONING ²	3
CAMM 111 or ELCT 111	INTRODUCTION TO COMPUTER NUMERICAL CONTROL ² or ELECTRICAL CIRCUITS I	2-3
EMCH 111	STATICS FOR TECHNOLOGY ²	3
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 156	TECHNICAL MATHEMATICS II ²	4
TECN 132	MANUFACTURING PROCESSES II ²	3
Hours		18-19

Second Year

Fall Semester		Hours
EMCH 211	STRENGTH OF MATERIALS ²	4
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS ²	3
PHYC 150	GENERAL PHYSICS I ²	4
QLTY 122 or TECN 121	BASIC QUALITY TOOLS AND APPLICATIONS ⁴ or FLUID POWER SYSTEMS	3

Arts and Humanities Elective ⁵	3	
Hours		17
Spring Semester		
Select one of the following:	3	
CADD 212	INTRODUCTION TO CREO PARAMETRIC (PRO/ENGINEER) ²	
CADD 213	INTRODUCTION TO SOLIDWORKS ²	
CADD 214	INTRODUCTION TO INVENTOR ²	
EMCH 221	MACHINE DESIGN ²	3
TECN 245	GEOMETRIC DIMENSIONING AND TOLERANCING ²	2
Social Sciences Elective ⁶	3	
Hours		11
Total Hours		61-62

1

Indicates that this course has a prerequisite or may be taken concurrently.

2

Indicates that this course requires a prerequisite.

3

A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 13 or more credit hours.

4

Indicates that a student may substitute work-based learning (CADD 287, CADD 288, and/or CADD 289) for the equivalent number of credit hours for this course.

5

Select any Arts and Humanities Ohio Transfer 36 (<http://catalog.lorainccc.edu/academic-information/transfer-module-requirements/>) course.

6

Select any Social Science Ohio Transfer 36 (<http://catalog.lorainccc.edu/academic-information/transfer-module-requirements/>) course.

Program Contact(s):

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For information about admissions, enrollment, transfer, graduation and other general questions, please contact your advising team (<https://www.lorainccc.edu/admissions-and-enrollment/advising-and-counseling/>).

More program information can be found on our website. (<https://www.lorainccc.edu/engineering/manufacturing-engineering/associate-of-applied-science-in-manufacturing-engineering-technology-computer-aided-design/>)

Credit for Prior Learning (PLA) options may be available for your program.

For more information, please visit our website: www.lorainccc.edu/PLA (<http://www.lorainccc.edu/PLA/>)

Program Learning Outcomes

1. Demonstrate the ability to use appropriate ET/mechanical design applications.
2. Demonstrate the ability to problem solve and make recommendations for improvement, both orally and through written technical reports.
3. Demonstrate ability to explore multiple options to achieve design goals.