



EFFECTIVE: May 21, 2021

Addition of general elective course offerings and course descriptions for the Advanced Manufacturing Engineering Design – AAS program.

2020-2021 College Catalog

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Area V: General Electives

ADM103 Introduction to Computer Integrated Manufacturing (CIM) Materials and Processes 3

ADM161 Specialized Software Techniques 3

ADM208 Intermediate 3D Modeling 3

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ADM103 - INTRODUCTION TO COMPUTER INTEGRATED MANUFACTURING (CIM) MATERIALS AND PROCESSES – (3 cr. hrs.)

This course provides an overview of the materials and processes used in advanced manufacturing. In addition, this course is a basic introduction to concepts related to the computer integrated manufacturing (CIM) process. The student will be exposed to the theory behind the complete automation of a manufacturing plant with all processes functioning under computer control and digital information tying them together. The technician's role in the process improvement of not only the cell but the full CIM system, related safety, and inspection and process adjustment are also covered

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ADM161 - SPECIALIZED SOFTWARE TECHNIQUES (3 cr. hrs.)

In this class students will learn techniques to design for 3D printing using a 3D modeling program. Students will also be able to manipulate STL files after receiving instruction on a software program such as "Materialize."

ADM208 - INTERMEDIATE 3D MODELING - (3 cr. hrs.)

In this course students will receive instruction on intermediate 3D modeling concepts, such as sheet metal modeling, intermediate assemblies, 3D sketching and weldments. Students will explore an introduction to prototyping and design concepts in a 3D environment. 3D software will be utilized to produce properly detailed construction drawings, using multi-views, section views, and auxiliary views. Proper, industry standard dimensioning with basic tolerances will be discussed and applied to parts. Emphasis will be placed on the theory as well as the mechanics of concepts using 3D and 2D applications. Upon completion, student will produce 3D models in a CAD environment, simple prototype models and working drawings based on proper industry standards.

PREREQUISITE: DDT 111 & ADM 108.

Note: This course is a suitable substitute for DDT 124.

Program: ADVANCED MANUFACTURING – ENGINEERING DESIGN - AAS