MANUFACTURING (MANF)

MANF1000 MANUFACTURING PROCESSES
This course is designed to provide a basic understanding of present-day manufacturing processes. Through lectures, demonstrations, and practical applications, the student will be introduced to various manufacturing processes. Topics will include machine tools, welding, casting, sheet metal, and an introduction to numerical control programming. (4 credits)

MANF1500 INTRODUCTION TO ADDITIVE MANUFACTURING
This course introduces the student to the fundamental principles involved in a variety of Additive Manufacturing technologies. Each student will be required to design and 3D print a working mechanism using knowledge learned during this course. Topics include: Overview of Additive Manufacturing, Introduction to several 3D Printing technologies, Industries and Applications of Additive Manufacturing, Design Tips, Software Tutorials, Material Properties, Post-processing Techniques, Part Orientation, 3D Printer Machine Terminology, and hands-on experience with 3D Printing. ***Prerequisite:*** *MECH2300 (4 credits)*

MANF2000 COMPUTER AIDED MANUFACTURING
Students will utilize PC based industrial CAM software and Computer Numerical Control machines to produce machine tool programs and parts. ***Prerequisite:*** *MANF1000 (3 credits)*

MANF3000 MANUFACTURING ENGINEERING
Topics in lean manufacturing, six-sigma, group technologies, automated systems, visual controls (5s) and production processes and planning will be covered. ***Prerequisite:*** *MANF1000 and MANF2000 (3 credits)*