# MANUFACTURING (MFG)

**MFG 131 Manufacturing Technology I (3 Credits)**
**Lecture:** 1, **Lab:** 4
Manufacturing Technology I (3) Manufacturing processes for industrial plastics, wood, and wood composite materials. Production methods, process equipment, tooling, jogs, and fixtures for plastics, wood, and wood composites used in manufacturing. One hour of lecture and four hours of laboratory per week.
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech

**MFG 231 Manufacturing Processes (3 Credits)**
**Lecture:** 3, **Lab:** 0
Manufacturing Processes (3) Study of engineering materials and processes as they pertain to the manufacture of industrial products. Three hours of lecture per week.
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech

**MFG 232 Appllied Statics (3 Credits)**
**Lecture:** 1, **Lab:** 4
Manufacturing Technology II (3) Manufacturing processes for ferrous and non-ferrous metals. Precision machine tool operations, including grinding, drilling, shaping, milling, and turning. One hour of lecture and four hours of laboratory per week. Prerequisite: MFG 131.
**Prerequisite(s):** MATH 134 or MATH 138 and MFG 232L and PHYS 237
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech

**MFG 331 CNC Computer Programming (3 Credits)**
**Lecture:** 1, **Lab:** 4
CNC Computer Programming (3) Theory of computer-aided parts programming. Methods of programming CNC machines; set up and operation with emphasis on two, three, and multiple axis machines, mills, lathes, and robots. One hour of lecture and four hours of laboratory per week. Prerequisite: Consent of the instructor.
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech

**MFG 332 Robotics Tech (3 Credits)**
**Lecture:** 1, **Lab:** 4
Robotics Technology (3) Automated technology through the use of industrial robots; theory of electromechanical, hydraulic, and pneumatic robots in manufacturing; robots for processing, assembly, and material handling. One hour of lecture and four hours of laboratory per week. Prerequisite: MFG 331.
**Prerequisite(s):** MFG 331
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech

**MFG 333 Strength Of Materials (3 Credits)**
**Lecture:** 1, **Lab:** 4
Strength of Materials (3) Study of the physical properties of a variety of industrial materials. One hour of lecture and four hours of laboratory per week. Prerequisite: Junior standing and consent of the instructor.
**Prerequisite(s):** (MATH 134 and PHYS 235)
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech

**MFG 432 Flexible Mfg Systems (3 Credits)**
**Lecture:** 1, **Lab:** 4
Flexible Manufacturing Systems (3) Introduction to computer integrated manufacturing and flexible manufacturing systems. Planning, organization, and management of automated computer controlled systems. One hour of lecture and four hours of laboratory per week. Prerequisite: MFG 331.
**Prerequisite(s):** MFG 331
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech

**MFG 433 Manufacturing Tec Problems (3 Credits)**
**Lecture:** 1, **Lab:** 4
Manufacturing Technology Problems (3) Individual study of problems in an industrial setting with regard to personnel, material, equipment, and facilities as they relate to manufacturing. One hour of lecture and four hours of laboratory per week. Prerequisites: Senior standing and consent of the instructor.
**College/School:** Col of Science, Engr & Tech
**Department:** Dept of Industrial Tech