**Intro to Manufacturing Processes**

**Course Code: IE 1103**

**Course Description**

The Intro to Manufacturing course provides an introduction to the subject of Industrial Engineering Technology. It gives and overview of the fundamentals of manufacturing and the equipment and programs found in modern manufacturing.

**Course Prerequisites**

None

**Competencies and Objectives**

The course introduces the student to the following areas

1. Safety
2. Electrical Principles
3. Materials and Manufacturing methods
4. Machine Tool and Blueprint reading
5. Measuring tools
6. Hydraulic circuits
7. Pneumatic circuits
8. Mechanical drives
9. Lubrication
10. Bearings, gears and belts
11. Continuous Improvement and Quality Programs

The objective of the Intro to Manufacturing course is to provide a foundation of knowledge for those entering the Industrial Engineering Technology degree program and to prepare students for the Manufacturing Skills Standards Council (MSSC) Certified Production Technician (CPT) exam.

**Technology**

All materials and equipment will be provided. Computer access to Moodle is recommended.

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| **Week** | **Subject** |
| 1 | Introductions and Review of Math |
| 2 | Industrial Safety |
| 3 | Industrial Safety |
| 4 | **Safety exam**  Quality Control, Process Improvement and Measurement Intro |
| 5 | Measurement |
| 6 | Quality Control |
| 7 | Process Improvement |
| 8 | Process Improvement |
| 9 | Process Improvement |
| 10 | Process Improvement |
| 11 | **Quality, Measurement and Process Improvement exam**  Machines and Processes, an intro to manufacturing |
| 12 | Machines and Processes, an intro to manufacturing |
| 13 | Plant Tour |
| 14 | Manufacturing Processes |
| 15 | Plant Tour |
| 16 | Maintenance Programs |
| Final | **Manufacturing and Maintenance** |