

1. **Course Number and Name:** ET 217 “Manufacturing Process”

2. **Credits and Contact hours**

ET217 Course 3 credits -45 Contact hours for class //ET 217 Lab 1 credit- 38 contact hours

3. **Course Instructor:** Anthony Hyde,- ahyde@nmsu.edu

**Lab Instructor-** Charlie Park- [cpark@nmsu.edu](mailto:cpark@nmsu.edu)

4. **Required Textbook-** “*Processes of Manufacturing*”- T. R. Wright Goodheart-Wilcox. Industrial Press Inc.1<sup>st</sup> Edition, (copyright 2004)

5. a.**Course Description-** Course will provide a technical overview of the many different types of manufacturing processes commonly found in industry with a focus on casting, machining and forming processes and how they relate to everyday products people use. Course will also provide students with a global, historical, and regional perspective on manufacturing. Course is accompanied by a “hands-on” laboratory.

b.**Prerequisite:** Sophomore standing – including math 190

c. Required Course

6 . **Specific Goals for Course**

a. Outcomes of Instruction

- Understanding of historical, global and regional manufacturing issues.
- Expose students to how and why things are made the way they are.
- Technical knowledge of casting, machining and forming process.
- General knowledge of Conditioning, Assembling and Finishing Process.
- Working knowledge industrial materials.
- Ability to determine cost effective methods of producing goods.
- Gain “hands-on” experience in a manufacturing and shop environment

b. Abet Outcomes addressed in this course

- develop an ability to identify, analyze and solve technical problems,
- develop an ability to apply creativity in the design of systems, components or processes appropriate to program objectives,
- develop an ability to gain a respect for diversity and a knowledge of contemporary professional, societal and global issues, and
- develop a commitment to quality, timeliness and continuous improvement

7. **Topics covered in class**

- *Introduction to Material Processing*
- *Casting and Molding*
- *Forming*
- *Separating*
- *Conditioning*
- *Assembling*
- *Finishing*
- *Process Design and Control*