ET 415 -*"MANUFACTURING MANAGEMENT AND PRODUCTIVITY-* ***Fall 2010***

3 credits- 45 contact hours

(MWF 9:30-10:20, ECIII 137)- **Professor**: Anthony M. Hyde

Course Description- Projects incorporating concurrent engineering, total quality management, design for manufacturability/assembly, and other contemporary topics in manufacturing **.** This course will provide students an insight into the importance of management and quality in manufacturing along with important manufacturing concepts currently used around the world. The course will focus on organizational structure, management, productivity, quality and effectiveness issues. Course will also use Blackboard for online homework and quizzes.

Office: EC3 RM 284 **Office Hours** MW 2:30-5:00pm, TTh 9:00 -11:00am
Phone: # 646-5029 **Email** - (ahyde@nmsu.edu)

Prerequisites: Senior Standing in ET

Required Textbook: *"Quality Inspired Management" –the Key to Sustainability* by C. Harold Aikens. Prentice Hall- copyright 2011

OUTCOMES OF INSTRUCTION: 1. Students gain a thorough understanding management quality tools and techniques important to industry. 2. To develop an understanding of technical strategies, statistics communication, teamwork and other industrial practices needed to be effective working in a manufacturing environment. 3. To provide students with both an intuitive along with hands-on manufacturing experience in the form of a simulated manufacturing project.

ABET OUTCOMES Addressed in this course

1. develop an ability to communicate effectively,
2. develop an ability to function effectively on teams,
3. develop an ability to identify, analyze and solve technical problems,
4. develop an ability to apply creativity in the design of systems, components or processes appropriate to program objectives,
5. develop an ability to gain a respect for diversity and a knowledge of contemporary professional, societal and global issues, and
6. develop a commitment to quality, timeliness and continuous improvement

Course Structure and Grading

- Homework assignments must be typed to be accepted for grading.
- 'Absolutely -No late homework or missed will be accepted or allowed to be made up.
- Instructors policy- Attendance will be taken and students missing more than 3 classes will be dropped or withdraw from course.
- Portions of the courses will be done on line using the Blackboard Portal.

Grading

12 Homework Assignments	50pts ea. - 600 total
6 Quizzes	25 pts ea - 150 total
3 Semester Exams	100 pts ea - 300 total
Comprehensive Final Exam	100 total
Class Project	150 total
	Total 1300 pts.

A=90-100%, B=80-89%, C=70-79%, D=60-69%, F= below 60%

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BRIEF LIST OF TOPICES TO BE COVERED

Topics	**Chapters**
Introduction to 415 course	
Quality Overview-the history of manufacturing and quality	**1**
Quality as a Strategic Imperative	**2**
People the most valuable assets.	**3**
Specifications and Production implications.	**4**
PART 2.	
Quality of Design	**5**
Systems Maintenance and reliability	**6**
Understanding Process behavior	**7**
Understanding process behavior	**7**
PART 3	
Class Project	
Class Project 2	
Statistical Process Controls by Variables	**8**
Issues relevant to Statistic process control	**9**
Process Improvement in Production Environments	**11**
PART. 4	
Control of Processes in Service Industries.	**12**