

## **MSE-382 Design Standards & Quality Assurance**

**Credit Hours:** 3-0

**Pre-requisites:** None

### **Course Objectives**

Following are the major objectives of the course:-

- To create Quality Conscious Culture among the students at each stage.
- To realize execute and implement different quality standards.
- Importance of Quality at designing stage by Material engineers.
- Quality awareness models and standards at international levels.

### **Course Contents**

- Operation Analysis
- Work design
- Workplace, equipment and tool design
- Work environment design, time study
- Performance rating, allowances
- Predetermined time systems, work sampling
- Quality Basics
- Teams and understanding quality improvement
- Customer supplier relationships, incremental and breakthrough improvement, improvement cycles

### **Course Outcome**

After studying this course students are expected to know about following:-

- Importance of Quality at all levels.
- Importance of TQM in design parameters.
- International Quality Standards and award models.
- Importance of TQM as material Engineer.

### **Suggested Books**

- Benjamin Niebel and Andris Freivalds, *Methods, Standards, & Work Design, 11<sup>th</sup> Edition, 2003, McGraw Hill Publications.*
- John E., Ed. Bauer, G. L. Duffy, R. T. Westcott, *Quality Improvement Handbook, 2<sup>nd</sup> Edition, American Society for Quality, 2006.*