

MBG5082 TOTAL QUALITY MANAGEMENT

Course Code	MBG5082	Semester	IV
Course Title	TOTAL QUALITY MANAGEMENT		
Credits	3	Type	Specialization

A skill based course that focus on Statistical analysis and decision making skills pertaining to quality management and continuous improvement

Course Description

The course provides insights on the concepts and functions of quality, designing quality, sampling, assurance and ISO

Course Outcome

Knowledge Gained:

- Understand the concepts of managing quality in manufacturing and services
- Knowledge on quality design and quality measurement tools and its application

Skills Gained:

- Error measurement through sampling procedures and ensuring accuracy reducing risks
- Understanding on quality management models

Competency Gained:

- Familiarity on concepts of quality auditing and reporting including Six Sigma and ISO standards

Module I

Introduction to Quality, Definitions – Basic concepts – Quality function – Managing for quality – Quality planning – Organization for quality – Developing a quality culture – Control of quality and quality improvement.

Module II

Designing for quality – Quality measurement in manufacturing – Statistical process control – Control chart for variables – X bar and R Chart – Control chart for attributes – P and C charts.

Module III

Inspection planning – Accuracy – Errors of measurement – Acceptance sampling plans – Producer Risk – Consumer Risk – The operating characteristics curves.

Module IV

Reliability and life testing – Hazard models – Constant Hazard - Linearly increasing Hazard – Weibull model – MTTF System reliability – Series and parallel.

Module V

Quality Assurance- Six Sigma-concept – quality auditing – Audit Reporting – Quality survey. Total Quality Management, ISO concepts.

Testing & Evaluation (if any)

- Assignments
- Case analysis/ Problems

- Seminar/Project
- Discussions/ Group activity
- Internal Test

References:

1. Besterfield Dale H. , Besterfield Carol , Besterfield Glen H., Besterfield Mary, Urdhwareshe Hemant & Urdhwareshe Rashmi (2018). Total Quality Management (TQM). Pearson Education India, Fifth edition.
2. Poornima M. Charantimath (2017). Total Quality Management Paperback. Pearson Education, Third edition.
3. https://onlinecourses.nptel.ac.in/noc20_mg34/preview