MASTER OF SCIENCE
IN
QUALITY MANAGEMENT SCIENCE
[MS (QMS)]

Scope

This is a **two-year** programme in Quality Management and its applications with a special emphasis on Quantitative Methods. It also includes Dissertation in the third semester and a live Project work in the fourth semester under the direct guidance of the faculty.

The course offers a flexible format for those who want to meet specific educational and career objectives. Students aspiring to undertake this programme will enhance their career options by gaining the contemporary knowledge and perspective required of Quality Analysts, Quality Managers and those who are responsible for one or more aspects of quality improvement.

The first two semesters will be offered at **Bengaluru** whereas the third semester will be at **Hyderabad**. The fourth semester, the Project work, will be at **respective locations**.

Eligibility

A candidate seeking admission to this course should have at least a three-year Bachelor's Degree with Mathematics as a subject.

Selection Procedure

Selection of candidates to this programme, including the sponsored ones, will be based on performance in written tests and subsequent interview. Academic record may also be taken into consideration. The written admission tests will comprise of multiple-choice and/or short-answer type questions in **Mathematics at the undergraduate level**.

*There is, however, a provision for **sponsorship** by government, semi-government, public sector undertakings, autonomous institutions and commercial/industrial organizations, which can sponsor candidates from their establishments, provided they satisfy the eligibility requirements. The Institute, at its discretion, may apply a different criterion for such candidates. A candidate would be considered sponsored only if the employer gives him/her leave and full salary for the entire duration of the programme. Sponsored candidates will not receive any stipend and their sponsors will have to pay a tuition fee of Rs. 20,000/- per year.*

Brief Description

This two-year programme consists of
15 compulsory courses, 2 elective courses and a dissertation in the first three semesters; and
a **live project work** during the fourth semester.

The **semester-wise list of courses** is as follows:

Semester I:
   Statistics for decision Making--1 (SDM-1);
   Statistical Process Control (SPC);
   Project Management;
   Reliability, Maintainability and Safety–1 (RMS-1);
   Management Information System (MIS);
   Operations Research –1 (OR-1).

Semester II:
   Statistics for decision Making–2 (SDM-2);
   Advanced Statistical Process Control (ASPC);
   Industrial Experimentation (IE);
   Reliability, Maintainability and Safety–2 (RMS-2);
   Operations Research –2 (OR-2).
   Elective (any one of the following):
      Game Theory; Capability Maturity Models; Applied Regression Analysis; Marketing Research; Data Base Management; Pattern Recognition; Neural Network; Multivariate Data Analysis; Markov Analysis and Modelling.

Semester III:
   Trouble Shooting & Problem Solving for Quality Improvement (TS);
   Six Sigma – Business Excellence Strategy & Problem Solving Framework (SS);
   Supply Chain Management (SCM);
   Operations Research – 3 (OR-3);
   Elective (any one of the following):
      Total Quality Management; Quality Audit; Measuring Customer Satisfaction; Software Reliability; Human Factors in Continuous Improvement.
   Dissertation.

Semester IV:
   Project Work.

[Offering of an elective course will depend on students' interest and availability of teachers.]