

# 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-I (SDM-1);  
Statistical Process Control (SPC);  
Project Management;  
Reliability, Maintainability and Safety-I (RMS-1);  
**Total Quality Management;**  
Operations Research-I (OR-1).

### Semester II:

Statistics for decision Making-II (SDM-2);  
Advanced Statistical Process Control (ASPC);  
Reliability, Maintainability and Safety-II (RMS-2);  
**Multivariate Data Analysis;**  
Operations Research-II (OR-2);  
Elective (any one of the following):  
Game Theory; Capability Maturity Models; Marketing Research;  
Data Base Management; Pattern Recognition; Neural Network;  
**Trouble Shooting & Problem Solving for Quality Improvement (TS);**  
**Measuring Customer Satisfaction; Software Reliability;**  
Human Factors in Continuous Improvement; Markov Analysis and Modelling.

### Semester III:

Six Sigma – Business Excellence Strategy & Problem Solving Framework (SS); **Applied Regression Analysis; Non-linear Programming (NLP - OR-3);**  
**Industrial Experimentation (IE);**  
Elective (any one of the following):

Quality Audit; Supply Chain Management (SCM).

Dissertation.

### Semester IV:

Project Work.

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

**Link: ISI Prospectus** <http://www.isical.ac.in/~admission/IsiAdmission2014/ISIProspectus2014.pdf>