

**Curriculum Structure and
Course Contents of
M. Tech. –TQM
(Total Quality Management)
As per QCI**

From academic year 2015-16

Course/Credits Distribution of M. Tech.–TQM (Total Quality Management)

Sr. No.	Courses	Credit Structure	
		No. of Courses	Credits
1	Program Core	04	12 (3 each)
2	Open core	02	06 (3 each)
3	Program elective	03	09 (3 each)
4	Open Elective	01	03
5	Program Lab	02	04 (2 each)
6	Case Histories and industry Experiences	01	01
7	Seminar and Term paper(Technical Writing)	01	01
8	Project/ Industry based Project	02	12+18=30
Total Credits			66

Program Core

Course Code	Course Name	L T P	Credits
TQMN 501	Program Core-I : TOTAL QUALITY MANAGEMENT & QUALITY TOOLS	3-0-0	3
TQMN 502	Program Core-II : QUALITY MANAGEMENT SYSTEMS	3-0-0	3
TQMN 503	Program Core-III : STATISTICAL PROCEDURES	3-0-0	3
TQMN 504	Program Core IV: STATISTICAL QUALITY CONTROL & ASSURANCE	3-0-0	3
Total			12

Open Core

Course Code	Course Name	L T P	Credits
TQMN 507	Open Core I: LEAN & SIX SIGMA QUALITY MANAGEMENT	3-0-0	3
TQMN 508	Open Core II: DESIGN OF EXPERIMENTS AND RESEARCH METHODOLOGY	3-0-0	3
Total			06

Program elective-I , II and III (Any three)

Course Code	Course Name	L T P	Credits
TQMN 505	STATISTICAL APPLICATIONS RELIABILITY, MAINTAINABILITY and AVAILABILITY	3-0-0	3
TQMN 506	QUALITY IMPROVEMENT TECHNIQUES: TOOLS AND METHODS	3-0-0	3
TQMN 509	MEASUREMENT SYSTEM & ANALYSIS	3-0-0	3
TQMN 510	INFORMATION SECURITY SYSTEMS & MANAGEMENT	3-0-0	3
TQMN 511	PERFORMANCE MANAGEMENT & SYSTEMS	3-0-0	3
TQMN 512	SOFTWARE QUALITY PLANNING AND ASSURANCE	3-0-0	3
Total		9-0-0	09

Open Elective (Any One)*

Course Code	Course Name	L T P	Credits
TQMN 507	LEAN & SIX SIGMA QUALITY MANAGEMENT	3-0-0	3
TQMN 501	TOTAL QUALITY MANAGEMENT & QUALITY TOOLS	3-0-0	3
Total			03

*This course is offered as an open elective by M. Tech. – (TQM) to another ME students of PEC

Program Lab

Course Code	Course Name	L T P	Credits
TQMN 520	TQM Lab - I (Deming –PDCA)	0-0-3	2
TQMN 530	TQM Lab – II (Six Sigma)	0-0-3	2
Total			04

Case Histories and industry Experiences

Course Code	Course Name	L T P	Credits
TQMN 540	Case Histories and Industry Experiences	0-0-2	1
Total			01

Seminar and Term Paper

Course Code	Course Name	L T P	Credits
TQMN 550	Seminar and Term Paper (Technical Writing)	0-0-2	1
Total			01

Project/ Industry based Project

Course Code	Course Name	L T P	Credits
TQMN 560	Project/ Industry based Project –I	0-0-24	12
TQMN 570	Project/ Industry-based Project -II	0-0-36	18
Total			30

Curriculum Structure of M. Tech. – TQM (Total Quality Management)
For 4 semesters

1st Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.	TQMN 501	Program Core-I : TOTAL QUALITY MANAGEMENT & QUALITY TOOLS	3	0	0	3
2.	TQMN 502	Program Core-II : QUALITY MANAGEMENT SYSTEMS	3	0	0	3
3.	TQMN 503	Program Core-III : STATISTICAL PROCEDURES	3	0	0	3
4.		Elective I	3	0	0	3
5.		Elective II	3	0	0	3
6.	TQMN 520	TQM Lab - I (Deming –PDCA).	0	0	3	2
Total						17

2nd Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.	TQMN 508	Open Core I: DESIGN OF EXPERIMENTS AND RESEARCH METHODOLOGY	3	0	0	3
2.	TQMN 507	Open Core II: LEAN & SIX SIGMA QUALITY MANAGEMENT	3	0	0	3
3.	TQMN 504	Program Core IV: STATISTICAL QUALITY CONTROL & ASSURANCE	3	0	0	3
4.		Elective III	3	0	0	3
5.		Open Elective*	3	0	0	3
6.	TQMN 530	TQM Lab – II (Six Sigma)	0	0	3	2
Total						17

* It could be intra/inter department ME course

3rd Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.	TQMN 540	Case Histories and Industry Experiences [#]	0	0	2	1
2.	TQMN 550	Seminar and Term paper(Technical Writing)	0	0	2	1
3.	TQMN 560	Project/Industry-based Project – I	0	0	24	12
Total						14

[#] to include 4 to 5 invited lectures from industrial experts.

4th Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.	TQMN 570	Project/Industry-based Project – II	0	0	36	18
Total						18

Program Elective-I, II and III (Any three)

Sr, No.	Course Code	Course Name	L T P	Credits
1	TQMN 505	STATISTICAL APPLICATIONS RELIABILITY, MAINTAINABILITY and AVAILABILITY	3-0-0	3
2	TQMN 506	QUALITY IMPROVEMENT TECHNIQUES: TOOLS AND METHODS	3-0-0	3
3	TQMN 509	MEASUREMENT SYSTEM & ANALYSIS	3-0-0	3
4	TQMN 510	INFORMATION SECURITY SYSTEMS & MANAGEMENT	3-0-0	3
5	TQMN 511	PERFORMANCE MANAGEMENT & SYSTEMS	3-0-0	3
6	TQMN 512	SOFTWARE PRODUCT QUALITY PLANNING AND ASSURANCE	3-0-0	3
	Total			09
	Program elective Total		15-0-0	09

Open Elective (Any One)

Sr. No.	Course Code	Course Name	L T P	Credits
1	TQMN 507	LEAN & SIX SIGMA QUALITY MANAGEMENT	3-0-0	3
2	TQMN 501	TOTAL QUALITY MANAGEMENT & QUALITY TOOLS	3-0-0	3
	Total			03

**Curriculum Structure of M. Tech.–TQM (Total Quality Management)
For 6 semesters**

1st Semester

S. No	Course Code	Course Name	L	T	P	Credits
1.	TQMN 501	Program Core-I : TOTAL QUALITY MANAGEMENT & QUALITY TOOLS	3	0	0	3
2.	TQMN 502	Program Core-II : QUALITY MANAGEMENT SYSTEMS	3	0	0	3
3.	TQMN 503	Program Core-III : STATISTICAL PROCEDURES	3	0	0	3
4.	TQMN 520	TQM Lab - I (Deming –PDCA).	0	0	3	2
Total						11

2nd Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.	TQMN 507	Open Core I: LEAN & SIX SIGMA QUALITY MANAGEMENT	3	0	0	3
2.	TQMN 508	Open Core II: DESIGN OF EXPERIMENTS AND RESEARCH METHODOLOGY	3	0	0	3
3.		Open Elective *	3	0	0	3
Total						9

* It could be intra/inter department ME course

3rd Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.		Elective I	3	0	0	3
2.		Elective II	3	0	0	3
3.	TQMN 540	Case Histories and Industry Experiences [#]	0	0	2	1
4.	TQMN 550	Seminar and Term paper(Technical Writing)	0	0	2	1
Total						8

4th Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.		Elective III	3	0	0	3
2.	TQMN 504	Program Core IV: STATISTICAL QUALITY CONTROL & ASSURANCE	3	0	0	3
3.	TQMN 530	TQM Lab – II (Six Sigma)	0	0	3	2
Total						8

5th Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.	TQMN 560	Project/Industry-based Project – I	0	0	24	12
Total						12

6th Semester

S. No.	Course Code	Course Name	L	T	P	Credits
1.	TQMN 570	Project/Industry-based Project – II	0	0	36	18
Total						18

Program elective-I , II and III (Any three)

Sr, No.	Course Code	Course Name	L T P	Credits
1	TQMN 505	STATISTICAL APPLICATIONS RELIABILITY, MAINTAINABILITY and AVAILABILITY	3-0-0	3
2	TQMN 506	QUALITY IMPROVEMENT TECHNIQUES: TOOLS AND METHODS	3-0-0	3
3	TQMN 509	MEASUREMENT SYSTEM & ANALYSIS	3-0-0	3
4	TQMN 510	INFORMATION SECURITY SYSTEMS & MANAGEMENT	3-0-0	3
5	TQMN 511	PERFORMANCE MANAGEMENT & SYSTEMS	3-0-0	3
6	TQMN 512	SOFTWARE PRODUCT QUALITY PLANNING AND ASSURANCE	3-0-0	3
Total				09
Program elective Total				15-0-0 09

Open Elective (Any One)

Sr. No.	Course Code	Course Name	L T P	Credits
1	TQMN 507	LEAN & SIX SIGMA QUALITY MANAGEMENT	3-0-0	3
2	TQMN 501	TOTAL QUALITY MANAGEMENT & QUALITY TOOLS	3-0-0	3
Total				03