

**Second Year M. Tech Programme in Computer Science and Engineering
Semester-III**

Sr. No.	Course Code	Name of the Course	Group	Teaching Scheme				Credits	Audit
				Theory Hrs/Week	Tutorial Hrs/Week	Practical Hrs/Week	Total		
1	CSD601	Dissertation Phase-I	F	-	-	20	20	20	-
2	CSI602	Professional Management	C	-	2	-	2	-	2
Total				-	2	20	22	20	2

Group Details

A: Basic Science

B: Engineering Science

C: Humanities Social Science & Management

D: Professional Courses & Professional Elective

E: Open Elective F: Seminar/Training/ Project

Second Year M.Tech.Sem-III
CSD601: Dissertation Phase-I

Teaching Scheme	
Practical	20 Hrs. /Week
Total Credits	20

Evaluation Scheme	
CIE	100
SEE	100
Total	200

The objective of this course is to help the students to identify a specific topic for dissertation in the respective area. This consists of at least two seminar presentations and a first level thesis draft. The first level thesis draft shall be submitted towards the end of the 3rd semester and shall contain problem definition, a brief overview of literature, preliminary algorithms and their implementations, and elementary results on the investigations. The evaluation procedure shall be based on report and presentations.

Continuous Internal Evaluation (CIE) of the dissertation shall be carried out for 100 marks by M. Tech. dissertation committee formed by head of the department. Evaluation will be based on synopsis presentation and two progress report presentations.

There shall be semester end evaluation for 100 marks done by a board consisting of an External examiner, Head of the Department and the Internal Guide.

Second Year M.Tech.Sem-III
CSI602: Professional Management

Teaching Scheme	
Tutorials	2 Hrs. /Week
Total Audit Points	2

Evaluation Scheme	
CIE	50
Total	50

Course Objectives

1. To make the students learn basics of Marketing Management
2. To make the students learn basics of Financial Management
3. To make the students learn basics of Human Resource Management
4. To make the students learn professional ethics and Business Etiquettes

Course Outcomes

At the end of the course students will be able to

1. Understand basics of Marketing Management.
2. Understand basics of Financial Management
3. Understand basics of Human Resource Management
4. Understand and use professional ethics and Business Etiquettes

Unit
No.

Course Contents

Unit 1 Human Resource Management:

Meaning, Objectives, Importance, Scope of HRM, Nature of HRM, Functions-operative and managerial, Challenges. Qualifications and qualities of HR Manager, Personnel Management Vs. Human Resource Management, HR policies –need and advantages, Organization of HR department, HRP- Objectives and Process, Problems in HRP, Benefits of HRP, HRP at different levels, Job Analysis-Process, job description and job specification, Recruitment- policy, sources of recruitment, Selection-Selection Process. Induction of new employees. Compensation Management- objectives, Components. Training- Meaning, importance and process, Need for training.

7Hrs

Unit 2	Marketing Management Introduction, Definitions of market and marketing, Nature and scope of marketing, The Exchange Process, Elements of Marketing Concept, Functions of Marketing, the core concepts of marketing, Company orientation towards market place, Marketing environment: Micro and Macro marketing environment, Techniques used in environment analysis, Consumer Behaviour Analysis and Market Segmentation, Targeting & Positioning, Marketing Mix.	6Hrs
Unit 3	Financial Management Introduction, meaning, objectives, Scope of financial management, Finance functions, Structure of finance department, Emerging role of the finance manager, Profit maximization to wealth maximization approach. Sources of Funds: Short term sources, Long term sources, Techniques of Financial Statement Analysis, Nature and need of working capital, determinants of working capital estimation of working capital, financing of working capital.	7Hrs
Unit 4	Professional Ethics and Business Etiquettes Professional Ethics: Meaning of ethics, Purposes of engineering ethics, Professional code of conduct, Professional roles to be played by an engineer, Environmental ethics, Computer ethics, Case studies, NSPE Engineer's creed, Engineers as managers – consulting engineer, Engineers as expert witnesses and advisors. Business Etiquette: Developing a culture of excellence, principles of exceptional work behaviour, Role of Managers in Business Development. Guidelines for planning a meeting and conducting meeting. Guidelines for attending the meeting for the chairperson, for attendees and for presenters.	6Hrs

Reference Books

1. Marketing Management: A South Asian Perspective – Kotler, Keller, Koshy & Jha, 13/e, Pearson Education, 2012
2. Marketing Management – Rajan Saxena, Tata McGraw Hill
3. Financial Management - Khan and Jain
4. Financial Management - Prasanna Chanra
5. Human Resource Management- Text and Cases, K. Aswathappa, Tata McGraw Hill
6. Human Resource Management- P. Subba Rao, Himalaya Publications
7. Professional Ethics and Human Values by A. Alavudeen, R. Kalil Rehman, M. Jaykumar, University Science Press, Laxmi Publications Pvt. Ltd. Delhi
8. Business Etiquette: A Guide for the Indian Professional - Shital Kakkar Mehra.
9. <http://www.ieee.org/about/corporate/governance/p7-8.html>
10. <https://www.nspe.org/resources/ethics/code-ethics>
<https://www.nspe.org/resources/ethics/ethics-resources/engineering-ethics-videos>

**Second Year M. Tech Programme in Computer Science and Engineering
Semester-IV**

Sr. No.	Course Code	Name of the Course	Group	Teaching Scheme				Credits	Audit
				Theory Hrs/Week	Tutorial Hrs/Week	Practical Hrs/Week	Total		
1	CSD603	Dissertation Phase-II	F	-	-	24	24	24	-
Total				-	-	24	24	24	-

Group Details

A: Basic Science

B: Engineering Science

C: Humanities Social Science & Management

D: Professional Courses & Professional Elective

E: Open Elective F: Seminar/Training/ Project

Second Year M.Tech.Sem-IV
CSD603: Dissertation Phase-II

Teaching Scheme	
Practical	24 Hrs. /Week
Total Credits	24

Evaluation Scheme	
CIE	200
SEE	100
Total	300

The final dissertation work shall be continued from the work done in Dissertation Phase-I (CSD601). At least two technical papers are to be prepared for possible publication in Journals of good standard. The evaluation procedure shall be based on three progress reports and presentations.

Continuous Internal Evaluation (CIE) of the dissertation shall be carried out for 200 marks by M. Tech. dissertation committee formed by head of the department. Evaluation will be based on three progress report presentations.

There shall be semester end evaluation for 100 marks done by a board consisting of an External examiner, Head of the Department and the Internal Guide based on the thesis submitted and presentation.