

Legal and Ethical Issues in Engineering Management

MEM 123

Semester: Second

Credit Hr: 3

General objectives:

- To develop the general understanding of law governing the engineering projects,
- To make the students conceive the ethical issues, professional ethics and liability in managing engineering projects,
- To make the students understand the basic concept of contract and tort.

Specific objectives:

Specific objectives of this subject are:

- to provide the basic knowledge to the students about law (general, tort and contract) and its scope in engineering activities,
- to enhance knowledge of students about profession, ethics and liability in engineering profession,
- to provide the knowledge of contract and its type suitable for different engineering projects,
- to develop the skill of administration of contract for engineering projects in relation to prevailing procurement act and regulations,
- to familiarize the students with various forms of contractual issues,
- to provide the basic concept on company and corporations.

Course contents

Unit 1: Introduction to law

2 hrs

Definition Scope of law in engineering activities, Crime, Tort, Law of contract

Unit 2: Basic concept of ethics

2 hrs

Definition of Ethics, Professional and Ethical issues in engineering profession, Dilemma in making managerial decisions for an engineer

Unit 3: Profession

4 hrs

Introduction to engineering profession, professional duty and liability of an engineer, Limitation of liability, Duties and Liability of the Engineers for the professional conduct and negligence

Unit 4: Tort and Negligence

4 hrs

Definition and kinds of tort, Negligence and Element of negligence, Vicarious liability

- Unit 5: Contract** **6 hrs**
Introduction and Definition of a contract, Kinds of contracts, Void and Voidable agreements, Essential elements of contracts: Offer, Acceptance, Consideration
- Unit 6: Performance and breach of Contract** **3hrs**
Performance of contracts, Discharge of contract, Breach and Remedies for Breach of contract
- Unit 7: Insurance, Contract of indemnity and Guarantee** **6 hrs**
Basic concept: Nature and principles of contract of Insurance: - fundamental principles of Insurance contract (policy). Reinsurance, Contractor's All Risk Policy (CAR - Insurance) Guarantee and Surety, Extent of surety's liability, continuing Guarantee, Discharge of surety from liability,
- Unit 8: Government contract and Public Procurement laws** **3 hrs**
Objective of public procurement law, Procurement work, goods and services
- Unit 9: Dispute Resolution Mechanism** **6 hrs**
In the Engineering / Business activities Court litigation, Arbitration, Differentiating between litigation and Arbitration: the law of Arbitration, Adjudication, Dispute Adjudication Board, (DAB), and Dispute Review Board (DRB).
- Unit 10: Introduction to Construction Project Management** **6 hrs**
Introduction and essential features of a project, project life cycle, Basic project management activities various stake holders and their roles in the Project
- Unit 11: Corporate Management, Patent, Trademark and Company law** **3hrs**
Concept of legal (Corporate) personality, features, registration and formation of Companies. the Law of Patent, Design and Trade Mark, Protection of Techno-commercial information. Basic concept of property and ownership, distinction between property and ownership.