

**Subject Code: 01GS0301**

**Subject Name: Engineering Management**

**B.Tech. Year - II**

**Objective:**

A major purpose of Engineering Management is to enhance the knowledge of individual for management and finance and overall to understand market movement and factors influencing them.

**Credits Earned:** 2 Credits

**Course Outcomes:**

After learning the course the students should be able:

1. To understand the globe trade and market
2. Importance of Quality
3. People management
4. Support of Technology for Industries development
5. Review the financial market
6. Understanding the marketing and concepts

**Pre-requisite of course:** NA.

**Teaching and Examination Scheme**

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Marks	Practical	Total Marks
Theory	Tutorial	Practical		ESE (E)	Mid Sem (M)	Internal (I)	Viva (V)	Term work (TW)	
2	0	0	2	50	30	20	0	0	100

**Contents:**

Sr. No.	Topics	Hours	Module Weightage
1.	Introduction to Engineering Management, Leadership & Organizations Management	02	10%
2.	Global Trade & International Operations, Operations Management, Lean Systems	03	10%
3.	Intellectual Property, Legal Issues In Engineering Management, Principal Ethics For Engineering Managers	03	10%
4.	Human resource planning and management, selection, recruitment, training, retraining, skill development, competence development, promotion and career development, participative management, trade unions, and collective bargaining, Management of Physical Resources.	04	15%
5.	Plant: site selection procedures, factors affecting selection. Layout-types and relative merits and demerits,  Material : Functions, objectives, planning and control including inventory models with or without storage costs, price break. Different classes of inventory. Material Requirement Planning (MRP).  Project : Project Planning – Risk identification, Assessment & Response Planning	04	15%
6.	Management of Technology: Information technology and management. Role of information, management information system and decision support system, introduction to e-business, ecommerce and integration tools like enterprise resource planning (ERP).	04	12%
7.	Financial management: Introduction to standard forms of financial statements, ie., balance-sheet, profit and loss, and income statement. Fixed and current asset items. Fixed and current liability items. Funds flow statement. Financial ratios and their implications.	04	13%
8.	Quality management: Quality definition, quality planning, quality control and quality management, Total quality management, ISO 9000 systems, simple quality control	03	10%

	techniques like control charts and acceptance sampling.		
9.	Marketing management : Consumer behavior, market research, product design and development pricing and promotion.	02	5%

**References:**

- G Dieter, Engineering Design, McGraw-Hill International.
- E S Buffa. Modern Production/Operations Management. New Age International (P) Ltd., New Delhi.
- A K Gupta and J K Sharma. Management of Systems. Macmillan India Ltd., New Delhi

**Suggested Theory distribution:**

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
30%	20%	10%	15%	20%	5%