FACULTY OF ENGINEERING & TECHNOLOGY

Effective from Academic Batch: 2025-26

Programme: **Bachelor of Technology (Information Technology)**

Semester: **III**

Course Code: **102003409**

Course Title: **Economics and Management**

Course Group: **Humanities and Social Science**

Course Objectives: This course introduces engineering students to the fundamentals of economics and business management, blending classical theories with modern AI-driven applications. It equips learners with managerial, financial, and economic insights essential for technology-driven industries. Through case studies, simulations, and practical exposure, students will develop analytical, entrepreneurial, and ethical decision-making skills. The curriculum emphasizes both conceptual understanding and applied problem-solving in organizational and production contexts. By the end, learners will be prepared to integrate management principles into engineering practice.

Teaching & Examination Scheme:

Contact hours per week			Course Credits	Examination Marks (Maximum / Passing)				
				Theory		J/V/P*		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
3	0	0	3	50 / 18	50/18	-	-	100 / 36

* **J**: Jury; **V**: Viva; **P**: Practical

Detailed Syllabus:

Sr.	Contents	Hours
-	**Course Introduction**	01

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1	**Introduction to Management:** Meaning, scope, and importance of management Roles of managers (Mintzberg's roles) Managerial skills (technical, human, conceptual) Levels of management (top, middle, supervisory) Classical theories – Scientific Management, General Administrative Theory (Taylor, Fayol) Modern theories (Systems approach, Contingency approach) Functions of management (Planning, Organizing, Leading, Controlling)	**07**
2	**Human Resource Management:** HRM definition, scope, and importance Recruitment and selection process Performance appraisal methods Motivation theories: Maslow's hierarchy, McGregor's Theory X & Y, Herzberg's Two-factor theory Ethical Issues and Challenges in workplace	**07**
3	**Financial Management:** Basics of accounting (journal, ledger, trial balance) Financial statements (P&L, Balance Sheet) Ratio analysis (liquidity, profitability, solvency ratios) Costing methods (job costing, process costing) Depreciation methods (straight line, reducing balance) Capital budgeting basics Agentic AI in Financial Services: Opportunities, Risks, Implementation	**08**
4	**Introduction to Economics:** Definition and scope of economics Four fundamental concerns of economics: (production, distribution, consumption, growth) Microeconomics vs Macroeconomics Positive vs Normative economics Wants and scarcity Law of demand and law of supply Consumer equilibrium (intersection of demand & supply) Elasticity: price, income, cross, supply elasticity Exceptional cases of demand and supply	**07**
5	**Theory of Production:** Meaning and scope of production Factors of production: land, labor, capital, entrepreneur Cost concepts: fixed, variable, total, average, marginal, opportunity cost Short run vs long run cost curves Break-even analysis (numerical examples) Producer's equilibrium and loss analysis Information asymmetry in production decisions	**08**

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6	**Markets and Competition:** Meaning and importance of markets Types of markets: Perfect competition, Monopoly, Monopolistic competition, Oligopoly Characteristics of each market type Real-world examples of each structure	**07**
	Total	**45**

Reference Books:

1	Management 14th Edition_ Robbins & Coulter - Global Business Textbook
2	Human Resource Management Gary Dasseler Textbook 16th Edition
3	Management Accounting Text, Problems and Cases
4	Principles of Management Textbook Pravin Durai
5	Agentic AI in Financial Services_ Opportunities, Risks, Implementation
6	Introduction to Human Resource Management Textbook 3rd Edition
7	Human Resource Management Textbook by R.S. Dwivedi
8	Principles of Microeconomics Textbook, 8th Edition
9	Macroeconomics Theory and Policy Textbook
10	Principles of Management Textbook Pravin Durai
11	Managerial Economics, 3rd Edition Geetika, Piyali and Purab Chaudhary

Supplementary learning Material:	
1	NPTEL Course: Economics of Business Management
2	NPTEL Course: Entrepreneurship and AI Applications
3	Microsoft AI Business School (free online modules)
4	Google AI for Entrepreneurs (case studies & tools)
5	Case studies from Indian AI-enabled startups (Flipkart, Ola, Zomato)

Pedagogy:

- Direct classroom teaching
- Audio Visual presentations/demonstrations
- Assignments/Quiz
- Interactive methods
- Seminar/Poster presentation
- Industrial/ Field visits
- Course Projects

Internal Evaluation: The internal evaluation comprised of written exam (50% weightage) along with combination of various components such as certification courses such as ELT, Assignments,

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Model making, Case study, Group activity, Poster Presentation, Unit test/Quiz, Class Participation, Attendance etc. where individual component weightage should not exceed 20%.

Suggested Specification table with Marks (Theory) (Revised Bloom's Taxonomy):

Distribution of Theory Marks in %						**R**: Remembering; **U**: Understanding; **A**: Applying. **N**: Analyzing; **E**: Evaluating; **C**: Creating
R	**U**	**A**	**N**	**E**	**C**	
15%	25%	25%	20%	10%	5%	

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Student Learning Outcomes (SLOs):

Sr. No.	Course Outcome Statements	%weightage
SLO-1	Students will be able to explain managerial roles, apply classical and modern theories, and demonstrate planning, organizing, leading, and controlling in engineering contexts.	**15%**
SLO-2	Students will analyze recruitment, appraisal, and motivation strategies, applying CSR principles in organizational settings.	**15%**
SLO-3	Students will prepare and interpret financial statements, apply costing methods, and evaluate investment decisions using basic financial tools.	**20%**
SLO-4	Students will distinguish between micro and macroeconomics, analyze consumer equilibrium, and apply elasticity in real-world scenarios.	**15%**
SLO-5	Students will calculate breakeven points, analyze cost curves, and evaluate producer decisions under information asymmetry.	**20%**
SLO-6	Students will compare perfect competition, monopoly, monopolistic competition, and oligopoly, identifying real-world examples and implications.	**15%**

Curriculum Revision:	
Version:	3.0
Drafted on (Month-Year):	March-2026
Last Reviewed on (Month-Year):	-
Next Review on (Month-Year):	April-2029

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