

MN3001 – Management II

Subject Code	MN3001	Subject Title	Management II			
Credits	4.0	Total Hours	Lectures	45 h	Pre-Requisites	None
GPA/NGPA	GPA		Assignment	30 h		
Aim: To introduce a range of management experiences faced by engineering managers in the management, technical control and/or supervision of modern organizations including the aspects related to cost accounting, micro and macroeconomics, quality, marketing and operational management.						
Learning Outcomes On successful completion of this module, students are able to: LO1. Analyse and prepare budgets, and estimate cost products and manufacturing processes LO2. Explain principles of Marketing and utilize the tools of Marketing to both analyze and create a Marketing Plan. LO3. Value and appreciate how modern manufacturing operations and functions are organized and executed. LO4. Explain the importance of quality in managing organizations and apply quality assurance tools for the improvement of quality. LO5. Understand the basic concepts of Economics incorporating economic thinking into engineering. LO6. Understand Role of engineering in Economic growth and economic issues of a country with particular reference to Sri Lankan context.						
LO1.	Analyse and prepare budgets, and cost products and manufacturing processes. [8 h] Budgeting and budgetary control, cost accounting, cost elements, overheads absorption, costing methods (job and batch costing, process costing), cost behaviour (variable and fixed), use of marginal costing and absorption costing in decision making, variance analysis, breakeven analysis, profit-volume graphs, contribution, contribution to sales ratio.					
LO 2.	Explain principles of Marketing and utilize the tools of Marketing to both analyze and create a Marketing Plan. [8 h] Difference between selling and marketing, Basic concepts of Marketing, consumer behaviour, analysis and appraisal or markets and marketing, Marketing Mix (4 Ps, 4 Cs, and 4 Vs), product positioning and market segmentation, product life cycle, marketing information, promotion and advertising, packaging and labelling. Social Responsibility, Ethics, and the Marketing Environment. Structure of marketing management department, introduction to marketing research, product concept, developing and marketing products, service and non-profit organisation marketing, marketing channels, supply chain management, and retailing.					
LO 3.	Value and appreciate how modern manufacturing operations and functions are organized and executed. [8 h] From strategic to tactical and operational levels. Representative strategic issues include determining the size and location of manufacturing plants, deciding the structure of service, and designing technology supply chains. Tactical issues include plant layout and structure, project management methods, and equipment selection and replacement. Operational issues include production scheduling and control, inventory management, quality control and inspection, traffic and materials handling, and equipment maintenance policies. Introduction to MRP, MRPII, Enterprise Resources Planning (ERP), advanced schedulers, Optimised Production Technology, Modelling and Simulation in operations management. Software for Operations Management, Computerisations and issues of computerisation. Recent trends in operations management					
LO 4.	Explain the importance of quality in managing organizations and apply quality assurance tools for the improvement of quality. [7 h] Introduction to quality and quality management, Total Quality Management (TQM), quality as a factor of influencing continuous improvement; Quality measurement systems and cost quality concepts; Root cause identifications and corrective actions, Polya's four-step problem solving process; Employer and employee involvement and employee empowerment, supplier involvement; Statistical tools and concepts in quality control exercises, 6-sigma concept; Quality function deployment; Designing of experiments; product reliability and safety; control circles and ISO, International Standards on Quality, Quality awards, Quality audits, Japanese 5S method					
LO5	Understand the basic concepts of Economics incorporating economic thinking into engineering. [7 h] Principles of economics: Elements of economic theory, factors of production the fundamental problems of					

	economics (what, how to whom), economies of scale, elementary theory of demand and supply, theory of market price and market behaviour, elasticity of demand and supply, theory of market price and market behaviour, elasticity of demand (price and income), theory of firm, forms of business organization, measurements of costs (marginal vs. average), concept of opportunity cost, law of returns, theory of factor pricing, labour market situations.
LO 6.	Understand Role of engineering in Economic growth and economic issues of a country with particular reference to Sri Lankan context. [7 h] Basic features of an economy, circular flow of economic activity, National income, Gross Domestic product (GDP), Gross National Product (GNP), Net National product, measurement of National product, National income and national Expenditure, consumption, investments, government spending, Exports and imports, the relationship of these quantities, balance of payment, trade balance, budget deficit, current account, capital account, exchange rate, inflation, interest rate, economic growth rate, development policy for industrialization, definition of developing country, causes for under development, factors limiting economic growth, Globalization.
Tutorial Work: Five classes [5×2 h]	
Assignments: Five take home assignment [5×4 h]	
Assessment	
a	Assignments 30%
b	End of semester Written examination: 3 h test - 70%
Rec. Bks.	<ol style="list-style-type: none"> 1. Costing an Instructional Manual by Lucy 2. Marketing Management by Philip Kotler 3. Economics: A Self-Teaching Guide (Wiley Self-Teaching Guides) by Steve Slavin 4. Management for Engineers, Technologists and Scientists by Wilhelm Nel 5. Quality Control by Dale H. Besterfield