

<b>Semester</b>	6		
<b>Course Code:</b>	MA5610		
<b>Course Name:</b>	Corporate Finance and Accounting for Engineers		
<b>Credit Value</b>	3 (Notional hours: 150)		
<b>Pre-requisites</b>	None		
<b>Core /Optional</b>	Optional		
<b>Hourly Breakdown</b>	Lecture (hrs)	Small-Group Discussions (hrs)	Independent Learning (hrs)
	15	30	105

**Aim(s):** To introduce corporate finance and accounting concepts for engineering managers to function effectively in the industry.

**Intended Learning Outcomes:**

On completion of the course, students should be able to:

- **appreciate** the role of an engineer in the financial goals of a firm.
- **apply** the costing and budgeting technique for engineering projects and products.
- **appraise** investment decisions for engineering projects, products and services.
- **analyze** financing decisions for engineering projects and products.
- **appreciate** the role of financial statement analysis in the value creation of the firm.

**Course content:**

- **Introduction to Branches of Corporate Finance and Accounting:** Financial goals of a firm: survive in business, avoid financial distress and bankruptcy, beat the competition, maximize sales or market share, minimize costs, maximize profits, and maintain steady earnings growth; the engineer's role in the financial goals of a firm; fundamental financial concepts: time value of money; risk and return.
- **Costing and Budgeting Techniques for Decision-Making:** Types and nature of costs; project costing: analogous estimation, bottom-up estimation, parametric estimation, three-point estimation, cost of quality, reverse analysis and vendor bid analysis, project management estimating software and expert judgment; services and product costing: activity-based costing vs traditional costing.
- **Investment Decisions:** Process of capital budgeting; capital budgeting techniques – ARR, payback, NPV, IRR; effect of risk; inflation and tax on investment decisions; lifecycle costing; cost-volume-profit (break-even) analysis and decision making.
- **Financing Decision:** Financing requirements of a business; sources of finance and different classifications; life cycle financing; capital structure and cost of capital; operating budgets and cash budgets; working capital management: profitability vs liquidity.
- **Financial Statements and Analysis:** Basic accounting concepts; accounting statements - balance Sheet; income statement; cash-flow statement; statement of retained earnings; key financial ratios; ratio analysis.

<b>Teaching/Learning Methods:</b> Lectures Student Based Activities			
<b>Assessment Strategy</b>			
<b>Continuous Assessments</b> 50%		<b>Final Assessment</b> 50%	
Small Group Activities 30%	Quizzes 20%	<b>Theory</b> 50%	<b>Practical</b> - <b>Other</b> -
<b>Recommended Reading:</b>			
➤ Lawrence J. G. (2006). <i>Managerial Finance</i> (11 <sup>th</sup> Edition). Pearson Education. SBN: 13: 978-0-13-354640-8.			
➤ Stephen R., Westerfield, R., Jordan, B. (2021). <i>Fundamentals of Corporate Finance</i> . 13 <sup>th</sup> Edition. McGraw-Hill Education. ISBN: 1265553602,9781265553609.			
➤ Weetman, P. (2016). <i>Financial and management accounting: an introduction</i> (7 <sup>th</sup> Edition). Pearson Education, England, New York. ISBN 978-0-273-71845-1.			