



# Engineering and Technology Management

## COURSE SYLLABUS

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**Course Number:** E M 596

**Course Name:** Corporate Finance for Technical Managers

**Instructor:** Tim Cobb

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**Semester Credits:** 3

**Prerequisites:** None

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### Course Description and Objectives:

Corporate Finance for Technical Managers focuses on “big picture” financial management at the corporate level. The course covers essential corporate finance topics, including raising funds through stock and bond offerings, investing in new ventures, and mergers & acquisitions. Additionally, the course will address working capital management, cash flow, and dividend policy. Risk management and international financial exposure will also be covered in the course.

Technical Managers must grasp the critical linkage between engineering, finance, and strategy, in order to lead organizations to achieve goals. A solid understanding of finance, beyond the department/project level, enables engineering and technology managers to contribute to strategic resource allocation and high-level corporate decision making.

The objective of this course is for students to acquire essential corporate finance knowledge. Ultimately, the goal of this course is to equip current and future technical managers with the skills required to communicate and collaborate with the C-suite (CFO, COO, CEO) regarding strategic financial planning and decision-making that creates corporate value.

### Course Topics:

- Financial Statement Analysis and Financial Ratio Analysis
- Financial/Capital Markets
- Stock and Bond Valuation
- Capital Structure and Cost of Capital
- Valuation Modeling of Investments and Companies
- Discounted Cash Flow (DCF) analysis / Return on Investment (ROI)
- Net Present Value (NPV)/Internal Rate of Return (IRR)/Profitability Index (PI)/Payback Period
- Capital Investment Decisions
- Strategic Resource Allocation
- Strategic Financial Planning and Capital Budgeting
- Cash Flow and Working Capital Management
- Dividend Policy
- Risk and Return
- Mergers & Acquisitions (M&A)
- International Managerial Finance

### Grading:

Participation: 10%, Homework: 30%, Team Project: 20%, Mid-term Exam: 20%, Final Exam: 20%