What is the CSUN Engineering Management Technology (EMT) Program?

The management of any technical business is just as important as the actual creation of the product being made by that company. Without proper management, the product made by an organization would not matter. For this reason, more than two-thirds of all engineering professionals invest a significant portion of their career in managing and administering a wide range of technical engineering and research projects and budgets. As the engineering profession evolves, an increasing need has emerged for entry-level engineering professionals who have both a broad engineering background and the knowledge and ability to interface between the business and technical functions within organizations.

The EMT program develops a well-rounded STEM graduate who is able to understand both the technical aspect as well as the business side of engineering projects—a winning combination for any technical organization, due to which the demand for engineering management technology majors has been increasing.

In today’s interconnected business world, the role of the engineer has changed from only focusing on the technical aspect to being involved with various integration aspects of the technology and business operations, which is the focus of the EMT program.

Businesses like Apple, Amazon, Boeing, BMW, Space X, and many other high tech firms, ALL need engineering management technology majors.

Industry Relevant Skillset Obtained from the EMT Program

- Internet Technologies
- Engineering Graphics
- Business Law
- Micro & Macro Economics
- Technical Innovation & Entrepreneurship in high tech firms
- Marketing
- Engineering Project Management
- Engineering Cost Analysis
- Lean Manufacturing & Supply Chain Management

Common Careers for Engineering Management Technology Majors

- Project Engineer
- Production Engineer
- Logistics & Supply Chain Professional
- Industrial Engineer
- Quality Engineer
- Business Analysts
- Manufacturing Engineer
### PROGRAM REQUIREMENTS

**Lower Division Required Courses (53 units)**

**Freshman Year**
- CHEM 100/L Principles of Chemistry & Lab (3/1)
- MATH 105 Pre-Calculus II (5)
- MATH 103 Mathematical Models for Business (3)
- MSE 101/L Introduction to Engineering & Lab (1/1)
- PHYS 100A/L General Physics I (3/1)
- ECON 160 Principles of Microeconomics (3)
- COMP 100 Computers: Their Impact and Use (3)
- CIT 160/L Internet Technologies (2/1)

**Sophomore Year**
- MATH 140 Introductory Statistics (4)
- PHYS 100B/L General Physics II (3/1)
- MSE 220/L Construction Materials & Lab (2/1)
- ACCT 220 Introduction to Financial Accounting (3)
- MSE 248/L Engineering CAD & Graphics & Lab (2/1)
- BLAW 280 Business Law (3)
- ENGL 215 Critical Thinking about Research Writing (3)
- ECON 161 Principles of Macroeconomics (3)

**Upper Division Required Courses (40 units)**

**Junior Year**
- MSE 303 Innovation, Invention, & Technology (3)
- MSE 300 Construction Technology Economy (3)
- MKT 304 Marketing Management (3)
- SOM 306 Operations Management (3)
- CM 340 Statics and Strength of Materials (3)

**Senior Year**
- MSE 401 Introduction to Engineering & Technology Management (3)
- MSE 402 Engineering Project Management (3)
- MSE 403CS Facilities Planning and Design (3)
- MSE 406 Engineering Cost Analysis (3)
- MSE 407 Production Systems (3)
- MSE 420 New Product Innovation & Technical Entrepreneurship for Engineers (3)
- MSE 488A MSEM Senior Design I (2)
- MSE 488BCS MSEM Senior Design II (2)
- MSE 507 Lean Manufacturing Systems (3)

**Total Units in Major:** 93  
**Total General Education Units:** 27  
**Total Units Required for B.S. EMT Degree:** 120

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**What Industries Recruit EMT Graduates?**

The EMT skillset is applicable across a wide variety of industries, thereby making it a major from which there are a wide range of employment opportunities:

- Consulting (Accenture)
- Utility Companies (Southern California Edison)
- Manufacturing (Ford, Boeing, Budweiser, Pepsi)
- Aerospace (Rocketdyne, Boeing, Lockheed Martin)
- Logistics (Amazon, UPS, FedEx)

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**For More Information**

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**To Apply to the EMT Program**

https://www2.calstate.edu/apply