ENGINEERING MANAGEMENT - MASTER OF ENGINEERING (ME) ONLINE

The Master of Engineering in Engineering Management (ME-EM) program hosted online through the Coursera platform offers stackable graduate-level courses, a graduate certificate, and a fully accredited master's degree in engineering management. ME-EM on Coursera students earn the same credentials as on-campus students. There are no online or Coursera designations on official CU transcripts or diplomas.

The ME-EM is an excellent alternative to an MBA for engineers, scientists and technical professionals who want to move into management. The ME-EM prepares individuals for leadership roles within technology-driven industries. This highly multidisciplinary program integrates contemporary concepts of authentic leadership, organizational management and quantitative analysis to provide students the specific tools and knowledge to succeed in today's rapidly evolving business environment. The program's core curriculum builds foundational skills in communication, project management, finance and leadership. Students then have the opportunity to dive deeper into subject of interest through a variety of elective courses including product development, technology entrepreneurship, systems engineering, innovation management, and more.

Program Policies

This specialized program does not align with standard campus policies. Please refer to the Special Online Programs (https://catalog.colorado.edu/specialized-programs/) section of the catalog for more information.

Program Requirements

The ME-EM on Coursera utilizes performance-based admissions for enrollment. There is no traditional application for admission to the degree. Students do not need to take the GRE or submit letters of recommendation or proof of language proficiency. Neither a prior degree nor university transcripts are required for admission. Because this is a purely online program, students do not need to complete a background check to enroll.

A student desiring admission to the ME-EM on Coursera must complete four required protocols:

1. Take one of the following two pathway specializations for credit:
   a. **Finance for Technical Managers (3 credit)**

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      Product Cost & Investment Cash Flow Analysis (1 credit)
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      Project Valuation and the Capital Budgeting Process (1 credit)
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      Financial Forecasting and Reporting (1 credit)
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   b. **Project Management (3 credits)**

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      Foundations and Initiation (1 credit)
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      Project Planning and Execution (1 credit)
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      Agile Project Management (1 credit)
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2. Achieve a computed pathway specialization grade-point average (GPA) of at least 3.00.
3. Have a cumulative GPA of at least 3.00 for all for-credit courses taken to date.
4. Declare their intent to seek the degree via the enrollment form, which they can do before, during, or after any work in a pathway specialization.

Upon completion of these four steps, the student is admitted to the ME-EM on Coursera. Students may successfully complete a designated pathway specialization and declare intent at any point in their academic journey. Completion of a pathway specialization is not required for students to begin earning academic credit, only to earn the degree.

Nondegree seeking students may enroll in for-credit courses. All courses attempted and/or completed for credit will appear on an official CU Boulder transcript (unless dropped by the drop deadline) and will count toward the cumulative GPA.

Prerequisites & Assumed Background Knowledge

There are no course prerequisites or corequisites for EMP courses on Coursera. Nevertheless, it is important that students are prepared for individual courses. Course descriptions will advise students of assumed incoming knowledge, and students are strongly encouraged to take course sequences in the order they are presented on the Coursera platform. *Students are also encouraged to take a non-credit version in some form before moving to the for-credit version to test whether they can succeed, especially if they are unsure whether they have the background knowledge required for a course.*

Course Requirements

The ME-EM on Coursera is a non-thesis degree that requires 30 credit hours of coursework. Students must complete the following 12 credits of core coursework and 18 credits hours of any elective courses listed below. Please note, 9 elective credit hours can be accepted from the MS-DS (https://www.colorado.edu/program/data-science/coursera-overview/) and MS-EE (https://www.colorado.edu/ecee/academics/online-programs/master-science-electrical-engineering/) programs.

Code	Title	Credit Hours
Core Courses		
EMEA 5016	Communication as a Technical Leader	
EMEA 5017	Technical Managerial Written Skills	
EMEA 5018	Speaking to a Technical Group	
EMEA 5021	Product Cost and Investment Cash Flow Analysis	
EMEA 5022	Project Valuation and the Capital Budgeting Process	
EMEA 5023	Financial Forecasting and Reporting	
EMEA 5031	Project Management: Foundations and Initiation	
EMEA 5032	Project Planning and Execution	
EMEA 5033	Agile Project Management	
EMEA 5051	Leading Oneself with Self-Knowledge	

EMEA 5052	Leading Oneself with Purpose and Meaning
EMEA 5053	Leading Oneself with Personal Excellence
Elective Courses	
EMEA 5401	Strategic Product Development
or EMEA 5091	Getting Started with Technology Startups
EMEA 5402	Managing the New Product Development Process
or EMEA 5092	Creating a Technology Startup Company
EMEA 5403	Product Innovation Management
or EMEA 5093	Forming, Funding, and Launching a Technology Startup Company
EMEA 5081	A Theoretical Origin of Ethics in Business and Tech Industry
EMEA 5082	Avoiding Ethical Pitfalls in the Tech Industry
EMEA 5083	Ethical Decision Making for Success in the Tech Industry
EMEA 5054	Leadership Style and Building a High-Performance Team
EMEA 5055	Accountability and Employee Engagement
EMEA 5056	Value Creation and Building Enduring Relationships
EMEA 5057	Your World and What Shapes It
EMEA 5058	Their World and How You Define It
EMEA 5059	Our World and How to Accept It
EMEA 5406	
EMEA 5407	
EMEA 5408	
EMEA 5095	Digital Media & Strategic Planning in Technology Markets
EMEA 5096	Building and Pitching Marketing Campaigns in Tech Industries
EMEA 5097	

Learning Outcomes

Upon completing the program, students will be able to:

- Identify, explain, and use engineering management concepts and theories.
- Analyze personal leadership awareness.
- Communicate effectively to technical and non-technical professionals.
- Evaluate the ethical and environmental implications of engineering and management practices.
- Analyze and design complex systems using multiple tools and systems.
- Interpret quantitative and qualitative data to make sound engineering and managerial decisions.
- Manage complex projects with a systems-approach.
- Understand the financial implications of engineering decisions.