

Engineering Management (ENM)

ENM 380E Topics in Management of People, Processes, Projects, and Organizations 3 Hours

Explore engineering management processes and how these processes are used by administrators and managers.

ENM 380E.1 Managing People and Organizations 3 Hours

Introduction to frameworks from the social sciences that are useful for understanding what effective leaders do when working with others.

ENM 380E.2 Engineering Project Management 3 Hours

Explore methods for organizing, coordinating, and controlling resources to minimize risk and conflict, and to maintain budgets and schedules. Discuss the evaluation of competing alternatives, organization of a project, scheduling of tasks and resources, and the role of management.

ENM 381E Topics in Business Foundations 3 Hours

Survey important topics and foundational ideas in business, as applied within an engineering environment.

ENM 381E.1 Marketing and Negotiation 3 Hours

Explore major marketing concepts and variables, their interrelationships, and their implications for policy making, problem solving, and strategy formulation. Examine the development of sophisticated strategies and tactics to pursue mutually beneficial solutions.

ENM 381E.2 Legal Issues and Technology Management 3 Hours

Examine legal considerations in the practice of engineering management. Explore management disciplines to create maximum value from technology.

ENM 381E.3 Finance and Accounting for Engineering Managers 3 Hours

Introduction to fundamental concepts in finance and accounting with application. Explore how to evaluate investment and financing opportunities in a corporation.

ENM 382E Topics in Decision Making 3 Hours

Explore methods to make high-quality decisions in an engineering environment.

ENM 382E.1 Analytics for Engineering Managers 3 Hours

Explore theory and tools that allow the engineering manager to draw correct inferences from data and include those inferences in the decision-making process. Examine descriptive, predictive, and prescriptive analytics and statistics.

ENM 382E.2 Strategic Decision and Risk Analysis 3 Hours

Explore tools and methods for making high-quality decisions in the face of uncertainty, applied within an engineering context. Learn how to frame and analyze major decisions and how to overcome the biases that can degrade these decisions.

ENM 382E.3 Engineering Operations Management 3 Hours

Examine methods to improve the efficiency of an organization's operations. Explore management of production systems, inventory management, logistics, and supply-chain management.

ENM 385C Projects in Engineering Management I 3 Hours

First course in a two-semester sequence that concludes with Engineering Management 385D. Independent project carried out under the supervision of an engineering management faculty member.

ENM 385D Projects in Engineering Management II 3 Hours

Continuation of Engineering Management 385C or 397P. Independent project carried out under the supervision of an engineering management faculty member.

ENM 185K, 285K, 385K Special Topics in Engineering Management 1-3 Hours

Explore special topics in engineering management.

ENM 286 Marketing in an Engineering Environment 2 Hours

Explore major marketing concepts and variables, their interrelationships, and their implications for policy making, problem solving, and strategy formulation.

ENM 187 Art and Science of Negotiations 1 Hour

Examine the development of sophisticated strategies and tactics to pursue mutually beneficial solutions.

ENM 188 Legal Issues for Engineering Managers 1 Hour

Examine legal considerations in the practice of engineering management.

ENM 289 Management of Technology 2 Hours

Explore management disciplines to create maximum value from technology.

ENM 390 Systems Engineering 3 Hours

Utilize systems-thinking principles to organize how to design, integrate, and manage complex systems over their life cycles.

ENM 391 Lean Systems and Processes 3 Hours

ENM 397K Engineering Management Seminar 3 Hours
Current topics in engineering management.

ENM 397P Projects in Engineering Management 3 Hours

Independent project carried out under the supervision of an engineering management faculty member.