

# ENGINEERING MANAGEMENT (EGMT)

## EGMT 510 Emerging Technologies 3 Hours

Discovery of powerfully disruptive technologies, evaluating them accurately and implementing change for profitability.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: spring 2022; summer 2024*

## EGMT 520 Resource Management 3 Hours

A comprehensive study of efficient allocation of materials and money. Includes a review of basic decision-making techniques, cost-benefit ratio analysis, depreciation, salvage value of equipment, and time value of money.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: fall 2022; fall 2023*

## EGMT 530 Automated Data Collection Systems 3 Hours

Information systems for industry; collecting and analyzing real time data to make production decisions regarding profitability and quality.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: None*

## EGMT 535 Workforce Development 3 Hours

Strategies for developing educational opportunities for personnel in industry and appropriate appraisal techniques for program improvement. Includes those topics crucial to developing the nation's workforce, including sociological foundations of workforce education, career development theory, needs assessment, developing objectives, performance assessment and private sector providers of workforce education programs.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: None*

## EGMT 540 Theory of Constraints 3 Hours

Concepts of theory of constraints (TOC) pertaining to drum-buffer-rope, operations analysis, cost management, decision making and related areas. TOC management strategies and thinking processes applied to business problems.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: spring 2022; spring 2023; spring 2024*

## EGMT 571 Research Methods in Technology Management 3 Hours

A comprehensive study of research methods and experimental design applicable to industrial and technical operations. This course includes a review of basic statistics, quality control techniques, and quality assurance.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: fall 2022; fall 2023; fall 2024*

## EGMT 580 Six Sigma Quality 3 Hours

Management and application of six sigma methodologies including the DMAIC process and data-driven decision making. Advanced quality concepts and statistical process control.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: spring 2022; spring 2023; spring 2024*

## EGMT 588 Product Development 3 Hours

Basic elements of marketing, design, and prototyping for innovation. Study of the multidisciplinary interrelationships involved in the development of commercial products.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: winter 2023*

## EGMT 590 Operations Leadership 3 Hours

Provides technical professionals with leadership and management skills needed to be effective throughout their career.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: fall 2022; fall 2024*

## EGMT 594 Lean Systems 3 Hours

Analysis of lean concepts and process improvement in business value streams, production, and distribution. Pull systems, flow control, inventory reduction, waste elimination, and value creation.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: fall 2022; fall 2023; fall 2024*

## EGMT 599 Thesis Research and Writing 1-6 Hours (repeatable max of 6 hrs)

Thesis research and writing directed by faculty committee.

*Recent Term(s) Offered: spring 2022; fall 2022; spring 2023; spring 2024*

## EGMT 600 Maintaining Matriculation 1-6 Hours (repeatable max of 6 hrs)

Continued enrollment for thesis completion.

*Recent Term(s) Offered: spring 2022; summer 2022; fall 2022; summer 2023; fall 2023; spring 2024; fall 2024*

## EGMT 630 Legal and Ethical Issues in Technology 3 Hours

A study of ethics and social responsibility, international and contemporary legal issues in business and industry, and e-commerce.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: summer 2022; summer 2023*

## EGMT 650 Supply Chain Management 3 Hours

An integrated and comprehensive treatment of operations and supply chain issues. Students study how firms link with their supply chain partners to gain a market advantage and competitiveness.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: spring 2023; fall 2024*

**EGMT 655 Project Management 3 Hours**

Concepts of project management as applicable to a wide range of business and technical situations. Focus on behavioral organizational aspects, quantitative methods, and automated tools.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: spring 2022; spring 2024*

**EGMT 671 Quality Management 3 Hours**

An examination of philosophies, concepts, tools and techniques used in continuous quality improvement programs.

**Restriction(s):** Enrollment is limited to students in Engineering Management (0447) or Lean Sigma (0452)

*Recent Term(s) Offered: fall 2023*

**EGMT 690 Graduate Project 1-6 Hours (repeatable max of 6 hrs)**

An applied research project, using standard procedures of problem identification, possible solutions, and a final report. Can be either field or laboratory based and must be approved by a graduate faculty committee.

*Recent Term(s) Offered: spring 2023; spring 2024*