

EMGT 7199. Dissertation.

This course includes original research and writing in engineering management, to be accomplished under direct supervision of the PhD research advisor. While conducting dissertation research and writing, students must be continuously enrolled each long semester.

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Credit/No Credit

EMGT 7299. Dissertation.

This course includes original research and writing in engineering management, to be accomplished under direct supervision of the dissertation advisor. While conducting dissertation research and writing, students must be continuously enrolled each long semester.

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Credit/No Credit

EMGT 7300. Research Methods.

This course will provide students with the essential knowledge and practical skills to conduct rigorous and systematic applied research in the field of engineering management. Through a combination of theoretical discussions and hands-on exercises, students will gain a comprehensive understanding of the systematic research process in the context of engineering management applications. Specific topics covered are problem formulation, literature search, research methods, data analysis, data management, data privacy, statistical approaches to analyze data, technical writing, academic integrity, presenting, and publishing.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

EMGT 7310. Risk Management and Resiliency Analysis.

This course will provide the students with the necessary knowledge and skills to identify and understand various types of risks faced by organizations, manage and mitigate risk, and conduct resiliency analysis based on various quantitative methods. Specific topics covered includes risk identification, response, monitoring and control through the use of good data input, and systematic approach and quantitative risk and resilience evaluation.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

EMGT 7315. Industrial Sustainability and Circular Economy.

This course will provide students with the knowledge and skills needed to manage and grow a sustainable business by incorporating circular economy principles and strategies. The course will use systems thinking to understand the technological, economic and policy implications of circular economy transitions. The focus of the course will be on real-world applications of sustainable management with the objective of achieving zero waste and circular outcomes in various industries.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

EMGT 7320. Engineering Data Analytics.

This course will provide the students with the knowledge and practical skills required to leverage data analytics in decision-making and problem-solving processes. Emphasis will be placed on real-world applications and use cases across various engineering management areas. The topics include data preprocessing and cleaning, exploratory data analysis, descriptive statistics for decision making, predictive modeling techniques, and supervised and unsupervised machine learning.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

EMGT 7325. Decision Making Under Uncertainty.

This course will provide students with the essential skills and knowledge to effectively handle and quantify uncertainty in engineering projects and decision-making processes. In addition to theoretical foundations for decision-making under uncertainty, practical techniques for uncertainty analysis will be extensively covered and industrial case studies will be discussed. Specific topics covered include sources and types of uncertainties in engineering systems, uncertainty propagation, robustness analysis, uncertainty reduction, reliability analysis, and design optimization with uncertainty.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

EMGT 7399. Dissertation.

This course includes original research and writing in engineering management, to be accomplished under direct supervision of the dissertation advisor. While conducting dissertation research and writing, students must be continuously enrolled each long semester.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Credit/No Credit

EMGT 7599. Dissertation.

This course includes original research and writing in engineering management, to be accomplished under direct supervision of the dissertation advisor. While conducting dissertation research and writing, students must be continuously enrolled each long semester.

5 Credit Hours. 5 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Credit/No Credit

EMGT 7699. Dissertation.

This course includes original research and writing in engineering management, to be accomplished under direct supervision of the dissertation advisor. While conducting dissertation research and writing, students must be continuously enrolled each long semester.

6 Credit Hours. 6 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Credit/No Credit

EMGT 7999. Dissertation.

This course includes original research and writing in engineering management, to be accomplished under direct supervision of the dissertation advisor. While conducting dissertation research and writing, students must be continuously enrolled each long semester.

9 Credit Hours. 9 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Credit/No Credit