TCMT - TECHNICAL MANAGEMENT

TCMT 610 Engineering Personal Leadership
Credits 3.3 Lecture Hours.
Development of cognitive, emotional, behavioral capabilities; identification and exploration of Emotional Intelligence (EQ) competencies; focuses on both the art and science of emotional EQ.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 611 Financial Decision Making
Credits 3.3 Lecture Hours.
Addresses application of financial concepts in engineering decision making; exploration of analysis of labor and material expenses, accounting methods and forecasting; combines scenario discussions, reflections, group exercises, and practical application learning.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 612 Technical Management Decision Making
Credits 3.3 Lecture Hours.
Key business concepts, practical processes and analytical tools to make value-driven decisions; focuses on linkage between managerial decisions and the performance of business enterprises; introduction to business strategy, financial principles, organization processes and people skills managers must weigh when making executable judgement calls; analytical tools to evaluate decisions and communicate desired outcomes with different professionals; use of business cases and real-world projects to help master practical knowledge and apply immediately.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 621 Technical Project Management
Credits 3.3 Lecture Hours.
Introduction to project management; emphasis on technical skills needed to manage complex projects and soft skills needed to communicate and manage the project team within a corporate structure.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 622 Value Chain Management
Credits 3.3 Lecture Hours.
Selected topics for the quantitative management an optimal operation of a supply-chain; emphasis on the interdependencies among supply-chain processes, integration of engineering, operational and financial metrics, supply-chain capability and asset management.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 631 Capstone I
Credits 3.3 Lecture Hours.
Addresses managing individual or collaborative engineering programs in complex dynamic business environments; provides tools and techniques to execute projects, programs and product enhancement initiatives that yield desired business results; learn through deductive, inductive and abductive analytical methods how to document and manage engineering program activities.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 632 Developing New Products
Credits 3.3 Lecture Hours.
Provides a technical background and understanding into the expectations, interactions, dependencies, deliverables and key components necessary to position new product within industry and utilizing the New Product and Service Development process (NPSD); relevant for managers of innovation interested in exploring new products and services as an asset class and underpin market success; based around five key areas underpinning NPSD; introduction to real life examples and opportunities to utilize the entire NPSD process to develop a mock product.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 633 Contract and Risk Management
Credits 3.3 Lecture Hours.
Basic legal issues and terms commonly encountered by engineering businesses of all sizes; greater overall understanding of the company itself and allow technical professionals to more knowledgeably, efficiently and effectively lead their business; overview of relevant legal aspects of managing an engineering company with emphasis on contracts and intellectual property management; understanding of contract terms and clauses; identification and mitigation of areas of potential legal liability through contract negotiation; how to manage and commercialize intellectual property.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 641 Capstone II
Credits 3.3 Lecture Hours.
Research project for firm or the Global Supply Chain Laboratory under the guidance of the instructor, other faculty and researchers in the lab; development of a problem statement, proposal, mid-term update, final report, and presentation for management.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 642 Managing Technical Teams
Credits 3.3 Lecture Hours.
Offers background, tools and basic understanding into the skills, traits, expectations and interactions of a manager or leader of a technical or professional team; compilation of tacit knowledge; focuses on eight key elements central and fundamental to successful technical leadership and management; introduction to a series of case examples or scenarios and appropriate readings and discussions to support concepts.
Prerequisite: Admission to the Master of Engineering Technical Management program.

TCMT 689 Special Topics In...
Credits 1 to 4.1 to 4 Other Hours.
Selected topics in an identified area of engineering technical management. May be repeated for credit.
Prerequisite: Admission to the Master of Engineering Technical Management program.