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 leverage 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 mangers 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.