

TCMT - TECHNICAL MANAGEMENT

TCMT 610 Engineering Personal Leadership

Credits 2. 2 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 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 613 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 619 Personal Leadership Coaching

Credit 1. 1 Lecture Hour. Engage in experiential learning, work one-on-one with a professional coach and develop a comprehensive leadership development plan based on the findings and insights from individual EQ-i 2.0 assessment report; series of interactive and reflective one-on-one sessions to understand personal emotional competencies and identify areas of improvement. **Prerequisites:** TCMT 610.

TCMT 623 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 624 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 630 Organizational Leadership for Senior Technical Leaders

Credits 2. 2 Lecture Hours. Exploration of key components and skills necessary to make transition from industry technical management to C-level management; combination of lectures, scenarios, reflections and practical application of learning beyond the classroom. **Prerequisites:** 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 634 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 635 Technology Commercialization

Credits 3. 3 Lecture Hours. Overview of the technology commercialization process; opportunities to assess technologies for commercial potential; understanding the technology commercialization process; practicum in technology assessment and commercialization; centers on getting ideas, innovations, or discoveries into the marketplace in the form of products or services, or into the value chain at any step, to increase the competitive advantage of the enterprise. **Prerequisites:** Admission to the Master of Engineering Technical Management program.

TCMT 636 Persuasive Communications for Technical Managers

Credit 1. 1 Lecture Hour. Emphasis on the importance of effective communication with a focus on executive interactions, working with senior and mid-level managers, and communication with team members or direct report employees; study of tools, techniques and practice in these approaches. **Prerequisites:** Admission to the Master of Engineering Technical Management program.

TCMT 639 Team Leadership Coaching

Credit 1. 1 Lecture Hour. Develop individual emotional intelligence and lead emotionally intelligent teams; deliver and receive feedback from team members on how to develop individual emotional intelligence in a team context and support behaviors for building trust, team identity and team efficacy. **Prerequisites:** TCMT 610; TCMT 619; 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 643 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 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.