

Technology Management Track Courses

TMGT 240 - Quality in Technology Management

Hours: 3

This course is designed to provide the student with tools for quality in technology management, including continuous improvement, quality measurement systems, problem solving, system failure analysis, and corrective actions. Some of the concepts that are addressed are Customer Satisfaction, Process and Quality Standards, and Quality Control Activities. These topics include advanced quality systems such as six sigma, ISO 9001 (manufacturing excellence), change management, regulatory affairs, industry specific quality standards (ISO 13485, ISO / IEC 17025, Food Safety), and Root Cause Analysis.

TMGT 303 - Technical Communications

Hours: 3

This course is a study and application of technical writing documents, letters, manuals and reports. Emphasis is also placed on presentations, team building, employee training, interviewing, business etiquette and professionalism. Prerequisites: Junior standing.

TMGT 311 - Environmental and Safety Management

Hours: 3

The main goal of this course is to study the history and application of OSHA and EPA regulations and regulatory effects on program management. Safety and environmental management and its organizational impact will be emphasized. Hazard assessment, prevention, and control will be other key points of the course. Prerequisites: Junior Standing.

TMGT 335 - Managing Sustainability

Hours: 3

This course is designed to provide the student with an inclusive understanding of the management of three aspects of sustainability: environmental, economic, and social impacts. It will emphasize the methods and techniques of incorporating sustainability factors into any management decision. It is the study of globally accepted green rating systems, green policies, and sustainably built environments. Prerequisites: TMGT 311.

TMGT 336 - Construction Cost Estimating

Hours: 3

Study of the principles and application of construction estimating including quantity takeoff, pricing of materials, classification of work, labor, overhead, specifications, bid procedures, and project scheduling. Prerequisites: MATH 142 or MATH 2312 with a minimum grade of C, or MATH 176 or MATH 1325 with a minimum grade of C.

TMGT 340 - Managerial Statistics

Hours: 3

Explores methods of collecting, analyzing and interpreting data for managerial decision making. Includes data presentation, measures of central tendency, dispersion, and skewness; discrete and continuous probability distributions; sampling methods and sampling distributions; and confidence interval estimation of parameters and tests of hypotheses. Prerequisites: TMGT 240.

TMGT 350 - Principles of Technology Management

Hours: 4

Study of leadership and management methodologies necessary to be successful and effective in contemporary technology intensive organizations. Prerequisites: TMGT 303.

TMGT 351 - Organizational Behavior

Hours: 3

This course is designed to provide the student with a better understanding of how individuals, teams, and organizations function effectively in technologically advanced and culturally diverse work environments. It will emphasize the role of leaders in organizations, best leadership practices, and future leadership trends and change management. Prerequisites: TMGT 303.

TMGT 352 - Principles of Cost Engineering

Hours: 3

Cost engineering is concerned with the application of scientific principles and techniques to problems of cost estimating, cost control, business planning and management science, profitability analysis, project management, and planning and scheduling. Prerequisites: ACCT 221 or 2301.

TMGT 358 - Essentials of Project Management

Hours: 3

This course develops a foundation of concepts and solutions that supports the planning, scheduling, controlling, resource allocation, and performance measurement activities required for successful completion of a project. Basic project management tools will be introduced. Prerequisites: Junior Standing.

TMGT 411 - Risk Management

Hours: 3

This course explores the management of risk including environmental, occupational, financial, security, disaster, risk to the corporate image, and other risks. Prevention, mitigation, and transference of risk are presented. Prerequisites: TMGT 311.

TMGT 439 - Construction Management

Hours: 3

Study of construction operations, project management and project planning. Includes scheduling, rough diagram preparation, calculating costs, presentations, and controlling. Prerequisites: TMGT 352 and senior standing.

TMGT 444 - Decision Theory

Hours: 3

Decision theory deals with methods for determining the optimal course of action when a number of alternatives are available and their consequences cannot be forecast with certainty. This course will use quantitative methods (models) for problem solving and decision making. Theories and models to be covered include probability theory, utility theory and game theory, linear programming models, nonlinear programming models, and integer programming models. Prerequisites: TMGT 340 or MGT 340 with a minimum of C or better and instructor approval.

TMGT 454 - Contracts & Specifications

Hours: 3

Principles and analysis of construction contracts and specifications. Additional aspects of construction management will be included. Prerequisites: MGT 301 with a minimum grade of C.

TMGT 455 - Project Planning & Scheduling

Hours: 3

Study of the concepts used in planning and scheduling of projects in both industrial and construction applications. Prerequisites: TMGT 352.

TMGT 456 - Value Chain Control & Management

Hours: 3

Value chain is a high-level management model of how businesses receive raw materials as input, add value to the raw materials through various processes, and sell finished products to customers. Prerequisites: TMGT 350.

TMGT 457 - Decision Making for Emerging Technologies

Hours: 3

This course will explore current breakthrough technologies and disruptive innovations that have emerged over the past few years. A close examination will be conducted to understand the importance of management strategy in navigating the rapid climate of changing technology to ensure a company's success. Prerequisites: Senior Standing. Instructor approval.

TMGT 458 - Project Management

Hours: 3

The course covers key components of project management including project integration, project scope management, project time and cost management, quality management, human resource considerations, communications, risk management, and procurement management. Corequisites: TMGT 471.

TMGT 471 - Technology Management Capstone Project

Hours: 4

This is the capstone course for the Technology Management Program. It provides the opportunity for students to demonstrate that they have learned the material from the program and can apply it in the real world. It should be taken during students' last semester. It provides students the opportunity to develop a plan to solve a problem dealing with technology management issues today. Prerequisites: BS-TMGT Majors only, senior standing, and final semester.

TMGT 489 - Independent Study

Hours: 1-4

Individualized instruction/research at an advance level in a specialized content area under the direction of a faculty member. May be repeated when the topic varies.

TMGT 497 - Special Topics

Hours: 1-3

Special Topics. One to four semester hours. Organized class. May be repeated when topics vary.