Technology and Operations Management (TOMS)

Technology Management (TOMS) Courses

TOMS 5301 [0.25 credit]
Prescriptive Analytics
Quantitative models focusing on optimization, decision analysis, and simulation for decision-making with less risk and better outcomes. Data integration, model formulation, implementation, result analysis, managerial insights, and applications across various business functions.
Prerequisite(s): BUSI 5801, ITIS 5431.

TOMS 5302 [0.25 credit]
Operations Management
The provision of services and goods to customers, with focus on efficiency, effectiveness, and productivity. Planning and control of processes involving products, workers, equipment, suppliers, and customers. Effects of variation and uncertainty on lead time, inventory, quality, and customer service.
Prerequisite(s): BUSI 5801.

TOMS 5303 [0.25 credit]
Managing Projects
Foundations and core principles of managing projects with an emphasis on supporting techniques, practices, and methods as means for structuring, analyzing, scoping, planning, executing, monitoring, controlling, and reporting.

TOMS 5305 [0.25 credit]
International Development Projects Preparation and Formulation
Processes, assessment methodologies and tools, and practices for designing international development projects, developing funding proposals, managing calls for proposals, organizing procurement, and evaluating the implementation of the project's activities.

TOMS 5311 [0.25 credit]
Quality Management
Defining quality, quality improvement, six sigma, lean enterprise, benchmarking and control charts; quality audits, ISO 9000, ISO 20000 and the progressive excellence program; role of quality assurance in service and product development; Process management and performance excellence.
Prerequisite(s): BUSI 5801.

TOMS 5312 [0.25 credit]
Technology Development
Transformation of knowledge and ideas into products, processes and services. Development/innovation process models, successful and efficient integrated product/process/service development, cross functional teams, quality function deployment, lead-user approach, open innovations paradigm, disruptive innovations, and intellectual property management.

TOMS 5313 [0.25 credit]
Technology Adoption for Services
Adoption and implementation of technology- driven products and processes for enhanced services. Technology forecasting and scanning; transfer of technologies including technology sourcing, pricing, transfer modes, and success factors; selection of appropriate technology, its vendor and consultant; risk management; managing change.

TOMS 5314 [0.25 credit]
Supply Chain Management
Organizational, strategic and operational aspects of managing supply chain from domestic and international perspectives. Outsourcing strategies, supplier relationship and information sharing, supplier networks, contracting and procurement management, logistic integration, role of information technology, and supply chain performance and metrics.