

# MANAGEMENT OF TECHNOLOGY (MOT)

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## Management of Technology (MOT) Courses

### **MOT 5053. Technology Commercialization. (3-0) 3 Credit Hours.**

Prerequisite: MKT 5023 or consent of instructor. Examines the process of bringing technological innovation to the marketplace. Key factors are considered, including, but not limited to, the following four: intellectual property; perceived value; competitive positioning; and supply chains. Emphasis is on managing change to develop enterprise opportunities and competitive advantage. The concepts and tools covered aim to make the tasks of innovation and product portfolio management more understandable and controllable. This course has Differential Tuition.

### **MOT 5163. Management of Technology. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Examines a broad range of topics and issues involved in the management of technology, including the international research and development environment and infrastructure; government, industry, and university roles in technology development; managing the research and development function; technology forecasting and assessment; and new product development. This course has Differential Tuition.

### **MOT 5173. Technology Transfer: The Theory and Practice of Knowledge Utilization. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Examines the organizational, behavioral, and communication challenges involved in transferring technology from the research laboratory to the marketplace. Key factors related to licensing technology that others have patented, and the nuances of licensing one's own technology to create a revenue stream are considered. Emphasis is on valuing technology in diverse areas: for example, information systems, energy systems, and biotechnology. The concepts and tools covered aim to make the task of negotiating the acquisition and protection of intellectual property more understandable. This course has Differential Tuition.

### **MOT 5213. Organizational Systems for Management of Technology. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Focuses on organizational systems commonly found in modern organizations dealing with technology, innovation, and creativity. Considers alternative organizing concepts, interfacing and integrating considerations, and decision-making and control systems. This course has Differential Tuition.

### **MOT 5223. Management of Professional Personnel. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. The study of behavior in professional and technical organizations. Focuses on the characteristics of professional and technical personnel, status and role systems within the professional organization, communication and conflict within and among professional groups, and implications for leadership. This course has Differential Tuition.

### **MOT 5233. Advanced Topics in Project Management. (3-0) 3 Credit Hours.**

Prerequisite: MOT 5243. An advanced course that examines contemporary issues in project management. Includes topics such as the value of project management, organizational project management maturity, project selection models, enterprise project management, and project office implementation. Synthesis and evaluation are emphasized. A basic understanding of project management required. This course has Differential Tuition.

### **MOT 5243. Essentials of Project Management. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. This course addresses concepts and techniques for project management. It includes topics such as the project life cycle, project planning, project scheduling, project cost estimating, project risk analysis, project control techniques, earned value management, project organizations and functions, project manager responsibilities, and team building. This course has Differential Tuition.

### **MOT 5253. Starting the High-Tech Firm. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. A review of the steps and processes involved in starting a technology-based economic endeavor. The focus is built around the steps of identifying a problem area, identifying potential technological solutions to the identified need, and developing a proposed business entity to commercialize the technology solution. This course has Differential Tuition.

### **MOT 5263. Project Management Certification. (3-0) 3 Credit Hours.**

Prerequisite: MOT 5243 and IS 6083 or consent of the instructor. This course is designed to give students the opportunity to prepare for the Project Management Professional (PMP) or the Certified Associate in Project Management (CAPM) certification exams. The course is structured around the Project Management Institute Body of Knowledge, including the process groups: initiation, planning, execution, monitoring and controlling, and closing. The course focuses on the inputs, tools, techniques, and outputs associated with the core project management processes. Students will also complete diagnostics exam instruments and practice exams. This course has Differential Tuition.

### **MOT 5313. Emerging Technologies. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Examines science-based innovations with the potential to either create or transform a constellation: emerging technologies may involve either a single discovery or a bundle of innovations that converge to create a new technological system. This course focuses on the emergence of technology from basic research to implementation. Seminar format, case-study preparation, presentation, and cooperative learning are defining characteristics of this course. This course has Differential Tuition.

### **MOT 5333. Technological Drivers of Globalization. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. A study of technological factors contributing to the globalization of business, economic, political, and social systems. Emphasis is on identifying positive as well as negative consequences of technology-driven globalization and studying possible disruptions to globalization caused by economic or resource limitations. This course has Differential Tuition.

### **MOT 5343. Financial Aspects of Management of Technology. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Examines the financial impacts on the enterprise through value creating ideas, goods, and services. The course presents a financial management view of enterprise operation, considering risk and growth scenarios, capital and cash needs, and means of financing innovation, development, and marketing opportunities. This course has Differential Tuition.

### **MOT 6203. Strategic Management of Technology. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Development of a conceptual framework for strategy, its definition, elements, and relationships to the basic functions of management of technology. Considers the impact of technology and environmental forces on strategic management of the organization. (Formerly MOT 5203. Same as IS 6813. Credit can be earned for only one of the following: MOT 6203, MOT 5203, or IS 6813.) This course has Differential Tuition.

**MOT 6923. Directed Research in Management of Technology. (3-0) 3 Credit Hours.**

Prerequisite: Completion of 18 semester credit hours of required Management of Technology (MOT) or Entrepreneurship (ENT) courses and consent of the Graduate Advisor of Record. A directed research course in which students complete a faculty directed research project that addresses a contemporary management of technology issue or problem. Students will also develop an appreciation and understanding of contemporary management of technology research as published in leading management of technology journals. This course has Differential Tuition.

**MOT 6933. Management of Technology Professional Report. (0-0) 3 Credit Hours.**

Prerequisite: MOT 6923 and consent of instructor. Research and preparation of an in-depth study of a complex problem in management of technology. Credit is awarded upon completion of the project, thesis, conference paper, or publishable article. The grade report for the course is either "CR" (satisfactory performance) or "NC" (unsatisfactory performance). This course has Differential Tuition.

**MOT 6943. Management of Technology Internship. (0-0) 3 Credit Hours.**

Prerequisite: Graduate standing, 15 semester credit hours of graduate work, and consent of instructor. Internship must be approved in advance by the internship coordinator and the student's Graduate Advisor of Record. Supervised full- or part-time off-campus work experience and training in management of technology. Individual conferences and written reports are required. This course has Differential Tuition.

**MOT 6953. Independent Study. (0-0) 3 Credit Hours.**

Prerequisite: Graduate standing and permission in writing (form available) of the instructor and the student's Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree. This course has Differential Tuition.

**MOT 6961. Comprehensive Examination. (0-0) 1 Credit Hour.**

Prerequisite: Approval of the Graduate Advisor of Record to take the Comprehensive Examination. Independent study course for the purpose of taking the Comprehensive Examination. May be repeated as many times as approved by the ETM Graduate Programs Committee. Enrollment is required each term in which the Comprehensive Examination is taken if no other courses are being taken that term. The grade report for the course is either "CR" (satisfactory performance on the Comprehensive Examination) or "NC" (unsatisfactory performance on the Comprehensive Examination). This course has Differential Tuition.

**MOT 6971. Special Problems. (1-0) 1 Credit Hour.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a Master's degree. This course has Differential Tuition.

**MOT 6973. Special Problems. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to a Master's degree. This course has Differential Tuition.