PJM 3000. Leading Agile Projects. 3 Hours.
Offers an overview of agile project methodologies. Introduces agile approaches, compares and contrasts these approaches to traditional project management, and considers how to tailor the two approaches to determine a project's best approach. Additionally, reviews agile-specific practices from an application perspective and investigates agile project management tools.

PJM 3100. Principles of Business Analysis Management. 3 Hours.
Offers a framework of business analysis and requirements management. Topics include the role of the business analyst in the current organizational environment, understanding the business need, working with key stakeholders to identify the benefits of the project, and strategies to lead the organizational change necessary to harvest that value. Offers students an opportunity to utilize case studies to focus on process improvement and writing requirements.
PJM 6025. Project Scheduling and Cost Planning. 3 Hours.
Builds on the project schedule to explore cost estimation methods, break-even analysis, and earned value management. Studies effective tools and techniques that can allow project managers to translate specifications to realistic project plans that lead to a resource-loaded schedule and baseline budget. These tools and techniques can be used to minimize bottlenecks and downtime, identify and plan for resource needs, develop contingencies, and manage risk and scope creep. Topics include schedule development, cost estimating, and cost and schedule management through earned value management. A well-thought-out and well-managed schedule is critical to successful project management and is integral to the efficient management of project costs. Offers students an opportunity to learn to manage the project budget, revise cost estimates, and develop confidence levels.

PJM 6075. Project Finance. 3 Hours.
Explores real-world cases of project finance across industry sectors (e.g., energy, resource recovery, and mining) to examine how organizations structure their capital to mitigate various project risks and to secure scarce resources in the business environment. Topics include capital structure, discounted cash flow, financial instruments, capital budgeting, cost of capital, risk and return, project agreements, project cost accumulation, project cost allocation, and project investment ranking. Offers students an opportunity to develop a profound understanding of the principles of project finance.

PJM 6125. Project Evaluation and Assessment. 3 Hours.
Offers students an opportunity to learn to develop metrics for determining and reporting project performance. Examines both quantitative and qualitative approaches of evaluation, with an emphasis on earned value management. Examines stakeholder analysis and techniques for reporting performance results.

PJM 6135. Project Quality Management. 3 Hours.
Designed to provide detailed instruction in Project Quality Management (PQM) processes, one of the nine knowledge areas outlined in the Project Management Institute’s Project Management Body of Knowledge. Discusses how to integrate PQM processes into the overall project plan and how to prepare a PQM plan. Encourages students to work together in a team environment to complete a PQM plan for a project.

PJM 6140. Managing Troubled Projects. 3 Hours.
Examines how to prevent failed and troubled projects, how to perform a project assessment/audit, how to develop a troubled project recovery plan, and how to develop a failed project shutdown plan. Includes team presentations of case study assignments to gain experience in managing and avoiding failed and troubled projects, one of the most significant assignments for a project manager.

PJM 6145. Global Project Management. 3 Hours.
Expands the detailed treatment of project management into the global areas of environmental factors, national differences, cultural differences, outsourcing, and virtual project management. The state of the art in project management has advanced to heavy use of global project management. Addresses the Project Management Institute’s Project Management Body of Knowledge practices as applied in the organization and the future of project management.

PJM 6175. Project Resource Management. 3 Hours.
Offers an overview of procurement management and human resource management and studies how these two knowledge areas are key to a project’s success. Describes the processes necessary to effectively purchase or acquire products, services, or results for a given project through the lens of the project manager and procurement office. Examines how to effectively acquire, develop, and manage human resources in various organizational settings.

PJM 6180. Project Stakeholder Management. 3 Hours.
Offers students an opportunity to learn the mechanisms necessary to effectively identify all stakeholders, including the people, groups, or organizations that are impacted or may have an impact on the project. Examines how to analyze stakeholder expectations and how to develop management strategies for effective stakeholder engagement throughout the project.

PJM 6205. Leading and Managing Technical Projects. 3 Hours.
Offers students an opportunity to learn about leadership and management skills and strategies needed to succeed in a demanding technical project environment. Many project managers understand the technical aspects of a particular project environment but lack these critical management and leadership skills. Topics covered include understanding the technical environment, managing and motivating team members, understanding organizational culture, interpersonal strategies, and developing a personal leadership approach.

PJM 6210. Communication Skills for Project Managers. 3 Hours.
Offers students an opportunity to learn strategies for communicating technical concepts in a clear, concise, and appropriate manner for both written and oral communication media. In all project environments, communication is critical for project success. The ability to craft project reports and to communicate with customers, clients, team members, and company executives is critical for anyone leading technical projects. Often, the project manager needs to communicate technical data to a nontechnical audience. Explores various communication models and approaches with a focus on applying those models in a real-world context.

PJM 6215. Leading Remote Project Teams. 3 Hours.
Offers students an opportunity to learn strategies for creating a cohesive, high-performing project team in a remote project environment. The challenges of leading a remote project team are apparent to anyone who has attempted it. The technological challenges are complicated by the reality that most teams have participants located around the world. Therefore, we face not only the standard fare of interpersonal challenges but also cultural challenges as well.

PJM 6220. Planning and Scheduling Technical Projects. 3 Hours.
Offers students an opportunity to learn to plan and schedule projects using a variety of techniques, such as agile, critical chain, and other appropriate methodologies. Technical projects can present unique challenges and opportunities. To meet these challenges and capitalize on the opportunities, a variety of planning and scheduling techniques can be applied. Students practice applying a variety of planning and scheduling techniques through the use of case studies and applied project assignments.

PJM 6610. Foundations of Project Business Analysis. 3 Hours.
Offers a framework of business analysis. Topics include the role of the business analyst in the current organizational environment, understanding the business need, working with key stakeholders to identify the benefits of the project, and strategies to lead the organizational change necessary to harvest value.

PJM 6620. Project Business Analysis: Needs Assessment. 3 Hours.
Focuses on specific approaches to understand the needs of customers who receive project solutions. Discusses techniques for uncovering and confirming the product scope that result in meeting project goals. Applies analytical thinking techniques to ensure solutions meet customer needs.
**PJM 6630. Project Business Analysis: Requirements Planning and Analysis. 3 Hours.**
Explores tools and techniques to convert customer needs into solution designs. Beginning with the current and future state of the project's product, applies tools and techniques to create, review, and prioritize requirements.

**PJM 6640. Leadership Strategies for the Business Analyst. 3 Hours.**
Introduces the techniques applied by the business analyst to work with stakeholders in the requirements process. Emphasizes the processes of facilitation, communication, problem solving, consensus building, and negotiation. A central part of the course requires students to participate in and evaluate facilitated simulations.

**PJM 6705. Portfolio Management in the Enterprise Environment. 3 Hours.**
Defines the strategies, processes, methods of information, analysis, and preferred deliverables of an effective portfolio management approach. An ever-increasing number of project managers are being asked to manage multiple, sometimes interrelated, complex projects. This is now a cornerstone skill for a senior project manager. Offers students an opportunity to learn how to identify, select, and de-select in order to develop a balanced and desirable mix of projects to nurture by means of project termination decisions and management, as well as to attain a knowledge of the components, significance, and challenges of implementing enterprise-level project portfolio management (PPM) based upon the organization's strategic business goals.

**PJM 6710. Introduction to Program and Portfolio Management. 3 Hours.**
Examines project, program, and portfolio management with a primary focus on the similarities and distinctions between program management and portfolio management. Offers students an opportunity to develop and evidence a foundational understanding of program and portfolio management and the critical role these play within today's global environment.

**PJM 6715. Advanced Program Management. 3 Hours.**
Offers students an opportunity to develop a deep understanding of program management and the program management life cycle. Covers best practices for developing and managing a program that is consistently aligned with the strategic direction of the organization, ensuring that stated benefits are realized. Uses case studies and real-world examples throughout to engage students in an experiential and applied manner.

**PJM 6720. Advanced Portfolio Management. 3 Hours.**
Offers students an opportunity to develop a mature understanding of portfolio management topics, techniques, and tools. Emphasizes learning to identify, prioritize, and oversee a portfolio of programs and projects that deliver value aligned with the strategic direction of the organization. Applied exercises and case studies used throughout the course are designed to ensure students are able to understand how to apply these competencies in a workplace-ready manner.

**PJM 6725. Program and Portfolio Leadership. 3 Hours.**
Discusses the leadership challenges and opportunities present to those who work in program and portfolio management roles, including engaging stakeholders effectively, communicating with senior-level executives, and managing the competing priorities associated with creating successful programs and a balanced and benefits-oriented portfolio. The ability to meet the leadership challenges inherent to program and portfolio management is essential for success in managing the dynamics of project management programs and portfolios.

**PJM 6730. Program and Portfolio Evaluation. 3 Hours.**
Offers students an opportunity to learn the skills and tools they need to evaluate and measure performance at the program and portfolio level with attention given to identifying and measuring benefits and their continued value to accomplishing the strategic goals of the organization. A key benefit of effective and impactful program and portfolio management is the ability to develop and utilize meaningful qualitative and quantitative metrics at the project, program, and portfolio level.

**PJM 6735. Program and Portfolio Management Capstone. 3 Hours.**
Offers students an opportunity to complete a capstone project that illustrates their mastery of competencies taught throughout the program. Capstone projects should evidence a student's ability to apply their learning in an experiential manner to solve a real-world challenge faced by program and portfolio managers.

**PJM 6740. Managing Program and Portfolio Risk and Complexity. 3 Hours.**
Examines program and portfolio management with a primary focus on the development of risk-management plans and risk-response plans at the program and portfolio levels. Explores techniques to recognize and address complexity factors as well as developed enterprise-level risk-management challenges and opportunities.

**PJM 6750. Strategic Management and Decision Making for Program and Project Portfolio Managers. 3 Hours.**
Explores strategic management frameworks and decision-making models that can be applied to the creation and management of programs and portfolios. Program and portfolio managers are challenged to ensure that their collection of projects and programs optimizes realization of organizational strategies. Emphasizes the role of globalization and virtualization, as well as working in increasingly dynamic strategic environments. Topics include environmental analysis; analysis of strengths, weaknesses, opportunities, and threats (SWOT); strategy formulation; development of business cases; and strategy implementation.

**PJM 6810. Principles of Agile Project Management. 3 Hours.**
Provides an overview of the fundamentals of agile project management. Topics include agile vs. traditional approaches, the agile manifesto, and the development of agile as a value-added business practice. Introduces key agile project management practices, including communication management planning and risk-management planning. Reviews agile-specific practices and method tailoring from an application perspective. Investigates agile project management tools.

**PJM 6815. Advanced Agile Project Management. 3 Hours.**
Constitutes an advanced offering focusing on specific approaches to executing projects in an agile environment. Seeks to provide the student with a firm grounding and an applied, experiential understanding of specific agile approaches. Offers students an opportunity to engage in real-world-oriented case studies to evidence a strong understanding of the methodologies in a practical, experiential manner by planning and simulating an agile project using a methodology taught in the course.

**PJM 6820. Agile Implementation and Governance. 3 Hours.**
Explores the implementation of agile within an organization and the governance structure to support agile projects. Studies the use of change management techniques to address stakeholder needs as the organization moves from a traditional to agile or blended approach to projects. Reviews and applies advanced topics in program/ portfolio management in agile environments. Offers students an opportunity to develop an implementation strategy and governance plan.
**PJM 6825. Agile Lean Product Development. 3 Hours.**
Offers a practical overview of modern lean/agile product exposure based on contemporary industry practice. To win in today's competitive market requires giving your business the ability to deliver highly profitable products faster than the competition. Covers the complete life cycle of product management, from identifying customers and users through to sales, marketing, and managing teams. Covers how to minimize investment and output while maximizing the information discovered in order to support effective decision making.

**PJM 6910. Capstone. 3 Hours.**
Offers students an opportunity to utilize all of the project management skills they have acquired in this master's certificate program to evaluate project processes and outcomes of a single project throughout the entire project life cycle. Examines both quantitative and qualitative methodologies, with an emphasis on tactical approaches and earned value management. Also examines stakeholder analysis and practical techniques for reporting performance results. Intended to be the final course in the project management curriculum after successful completion of all other courses.

**PJM 6962. Elective. 1-4 Hours.**
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**PJM 6983. Topics. 1-4 Hours.**
Covers special topics in project management. May be repeated without limit.