

# Project Management (PM)

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## Courses

### PM A401 Project Management Fundamentals 3 Credits

Develops fundamentals of project management to initiate, plan, execute, monitor, control and close projects in different organizational and industry contexts. Alignment with strategic and operational objectives and stakeholder requirements. Hands-on application of tools and methodologies. Interactive and collaborative learning environment emphasizes communication, leadership, teamwork and professionalism.

**Special Note:** Not available for credit to students who have completed PM A601.

**Registration Restrictions:** Junior or senior standing or department approval

**May Be Stacked With:** PM A601

### PM A402 Application of Project Management Processes 3 Credits

Applies project management processes from project inception through closeout. Integrates project management processes through use of hands-on, end-to-end project case studies. Covers project leadership, project requirements definition, stakeholder management, change control, schedule management, risk management, professional responsibility, effective communication, and teamwork.

**Special Note:** Not available for credit to students who have completed PM A602.

**May Be Stacked With:** PM A602

**Prerequisites:** PM A401 with a minimum grade of C or concurrent enrollment.

### PM A412 Advanced Project Time Management 3 Credits

Introduce, adapt and apply advanced project scheduling and time management processes to effectively achieve on-time project completion. Processes include defining project activity sequencing, estimating activity effort and duration, project schedule development and control. Utilizes project management applications for scheduling, scope definition and activity sequencing will be utilized in these processes.

**Special Note:** Not available for credit to students who have completed PM A612.

**May Be Stacked With:** PM A612

**Prerequisites:** PM A401 with a minimum grade of C and PM A402 with a minimum grade of C.

### PM A423 Stakeholder Engagement and Collaboration 3 Credits

Covers theory, case studies and hands-on application of tools to ensure effective identification, engagement, collaboration and alignment with and among stakeholders from project inception through planning, execution, closure and successful operational integration.

**Special Note:** Not available for credit to students who have completed PM A623.

**May Be Stacked With:** PM A623

**Prerequisites:** PM A401 with a minimum grade of C.

### PM A424 Advanced Project Risk Management 3 Credits

Examines methods and processes of planning for, identifying, assessing, prioritizing, monitoring and responding to project threats and opportunities. Qualitative and quantitative risk analysis processes, including risk modeling and simulation, risk ranking, and risk mitigation and response techniques.

**Special Note:** Not available for credit to students who have completed PM A624.

**May Be Stacked With:** PM A624

**Prerequisites:** PM A401 with a minimum grade of C and PM A402 with a minimum grade of C and (STAT A200 with a minimum grade of C or STAT A253 with a minimum grade of C or STAT A2Q with a minimum grade of C).

### PM A432 Advanced Project Controls 3 Credits

Covers advanced principles of project control and analysis, including the development and integration of work breakdown structure, risk analysis, resource performance, task and project metrics, and cost, with schedule and risk management tracing.

**Special Note:** Not available for credit to students who have completed PM A632.

**May Be Stacked With:** PM A632

**Prerequisites:** PM A401 with a minimum grade of C and PM A402 with a minimum grade of C.

### PM A440 Organizational Project Maturity and Improvement 3 Credits

Explores the application of the project management maturity model to the assessment and improvement of organizational project management performance.

**Special Note:** This course is not available to students who have completed PM A640.

**Registration Restrictions:** Junior or senior standing or department approval

**May Be Stacked With:** PM A640

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

### PM A441 Lean Six Sigma Green Belt 3 Credits

Fundamentals of Lean Six Sigma (LSS) necessary to prepare individuals to implement principles and practices of LSS using fact-based and data-driven methodologies to improve the customer experience, reduce waste, and add unique value. Develop and apply leadership to produce tangible results in support aligned with strategic and operational objectives of organizations. Hands-on application of LSS and project management processes, tools and techniques to case studies and real projects will prime individuals to lead and facilitate process improvement projects. Interactive and collaborative learning environment emphasizes communication, cross-functional teamwork and professionalism.

**Special Note:** Not available for credit to students who have completed PM A641.

**Registration Restrictions:** Junior or senior standing or department approval

**May Be Stacked With:** PM A641

**PM A450 Advanced Information Technology Project Management 3 Credits**

Addresses the unique challenges that IT project managers face. Focuses on the characteristics of a changing IT environment, software methodologies (with an emphasis on Agile) and their interdependence. **Special Note:** Not available for credit to students who have completed PM A650.

**May Be Stacked With:** PM A650

**PM A601 Project Management Fundamentals 3 Credits**

Fundamentals of project management to initiate, plan, execute, monitor, control and close projects in different organizational and industry contexts. Alignment with strategic and operational objectives and stakeholder requirements. Hands-on application of tools and methodologies. Interactive and collaborative learning environment emphasizes communication, leadership, teamwork and professionalism. **Special Note:** Not available for credit to students who have completed PM A401.

**Registration Restrictions:** Graduate standing or department approval  
**May Be Stacked With:** PM A401

**PM A602 Application of Project Management Processes 3 Credits**

Applies project management processes from project inception through closeout. Integration of project management processes through use of hands-on, end-to-end project case studies. Covers project leadership, project requirements definition, stakeholder management, change control, schedule management, risk management, professional responsibility, effective communication and teamwork. **Special Note:** Not available for credit to students who have completed PM A402.

**Registration Restrictions:** Graduate standing or department approval.  
**May Be Stacked With:** PM A402

**Prerequisites:** PM A401 with a minimum grade of B or concurrent enrollment or PM A601 with a minimum grade of B or concurrent enrollment.

**PM A603 Project Initiation and Planning 3 Credits**

Explore in depth Project Management (PM) Knowledge Areas, tools and techniques, and the necessary considerations when initiating and planning complex projects. Introduce tools, methods and critical issues associated with the initiation and planning of a project management plan. Students will function in teams and will be challenged with preparing and planning projects with real-world relevance.

**Registration Restrictions:** Graduate standing or department approval  
**Prerequisites:** (PM A401 with a minimum grade of B and PM A402 with a minimum grade of B) or (PM A601 with a minimum grade of B and PM A602 with a minimum grade of B).

**PM A604 Project Executing, Monitoring and Control 3 Credits**

Explore in depth Project Management (PM) Knowledge Areas, tools and techniques, and the necessary considerations when in the executing, monitoring and controlling phases of basic and complex projects. Introduce tools, methods and critical issues associated with the execution, monitoring and controlling of a project management plan. Students will function as teams and will be challenged with monitoring and controlling projects with real world relevance.

**Registration Restrictions:** Graduate standing or department approval  
**Prerequisites:** (PM A401 with a minimum grade of B and PM A402 with a minimum grade of B) or (PM A601 with a minimum grade of B and PM A602 with a minimum grade of B).

**PM A605 Operational Integration and Project Closure 3 Credits**

Explore in depth Project Management (PM) Knowledge Areas, tools and techniques, and the necessary considerations for operational integration and closure processes of complex projects. Introduce tools, methods and critical issues associated with the operation integration and closure processes of completing a project management plan. Students will function in teams and will be challenged with re-prioritizations and re-assignments projects across various industries with real-world relevance.

**Registration Restrictions:** Graduate standing or department approval  
**Prerequisites:** PM A603 with a minimum grade of B and PM A604 with a minimum grade of B.

**PM A612 Advanced Project Time Management 3 Credits**

Introduce, adapt and apply advanced project scheduling and time management processes to effectively achieve on-time project completion. Processes include defining project activity sequencing, estimating activity effort and duration, project schedule development and control. Utilizes project management applications for scheduling, scope definition and activity sequencing.

**Special Note:** Not available for credit to students who have completed PM A412.

**Registration Restrictions:** Graduate standing or department approval.  
**May Be Stacked With:** PM A412

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A623 Stakeholder Engagement and Collaboration 3 Credits**

Theory, case studies and hands-on application of tools to ensure effective identification, engagement, collaboration and alignment with and among stakeholders from project inception through planning, execution, closure and successful operational integration.

**Special Note:** Not available for credit to students who have completed PM A423.

**Registration Restrictions:** Graduate standing or department approval  
**May Be Stacked With:** PM A423

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A624 Advanced Project Risk Management 3 Credits**

Examines methods and processes of planning for, identifying, assessing, prioritizing, monitoring and responding to project threats and opportunities. Qualitative and quantitative risk analysis processes, including risk modeling and simulation, risk ranking, and risk mitigation and response techniques.

**Special Note:** Not available for credit to students who have completed PM A424.

**Registration Restrictions:** Graduate standing or department approval  
**May Be Stacked With:** PM A424

**Prerequisites:** (PM A401 with a minimum grade of B or PM A601 with a minimum grade of B) and (STAT A252 with a minimum grade of B or STAT A253 with a minimum grade of B).

**PM A626 Project Procurement Management 3 Credits**

Procurement management processes for project planning, solicitation, source selection, contract administration, and contract closeout are presented.

**Registration Restrictions:** Graduate standing or department approval

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A630 Systems Engineering Fundamentals 3 Credits**

Explores the systems engineering process from requirements to functional analysis and solution architecture. Analyzes and applies the process, methods and tools for the orchestration of work in multiple project disciplines and the integration of logistics throughout the entire project or product life cycle.

**Registration Restrictions:** Graduate standing or department approval

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A632 Advanced Project Controls 3 Credits**

Advanced principles of project control and analysis including the development and integration of work breakdown structure, risk analysis, resource performance, task and project metrics, and cost, with schedule and risk management tracing.

**Special Note:** Student should have successfully completed a statistics course that covers descriptive and inferential statistics before enrollment. Not available for credit to students who have completed PM A432.

**Registration Restrictions:** Graduate standing or department approval  
**May Be Stacked With:** PM A432

**Prerequisites:** PM A601 with a minimum grade of B and PM A602 with a minimum grade of B and (STAT A252 with a minimum grade of B or STAT A253 with a minimum grade of B).

**PM A640 Organizational Project Maturity and Improvement 3 Credits**

Explores the application of the project management maturity model to the assessment and improvement of organizational project management performance.

**Special Note:** Not available for credit to students who have completed PM A440.

**Registration Restrictions:** Graduate standing or department approval  
**May Be Stacked With:** PM A440

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A641 Lean Six Sigma Green Belt 3 Credits**

Fundamentals of Lean Six Sigma (LSS) necessary to prepare individuals to implement principles and practices of LSS using fact-based and data-driven methodologies to improve the customer experience, reduce waste and add unique value. Develop and apply leadership to produce tangible results in support aligned with strategic and operational objectives of organizations. Hands-on application of LSS and project management processes, tools and techniques to case studies and real projects will prime individuals to lead and facilitate process improvement projects. Interactive and collaborative learning environment emphasizes communication, cross-functional teamwork and professionalism.

**Special Note:** Not available for credit to students who have completed PM A441.

**Registration Restrictions:** Graduate standing or department approval  
**May Be Stacked With:** PM A441

**PM A650 Advanced Information Technology Project Management 3 Credits**

Addresses the unique challenges that IT project managers face.

Focuses on the characteristics of a changing IT environment, software methodologies (with an emphasis on Agile) and their interdependence.

**Special Note:** Not available for credit to students who have completed PM A450.

**Registration Restrictions:** Graduate standing or department approval  
**May Be Stacked With:** PM A450

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A651 Advanced Construction Project Management 3 Credits**

Advanced application of project management principles and processes used in the strategic selection, planning and management of construction and development projects from concept through operation. Identification, selection and application of field engineering systems and procedures to effectively meet construction project objectives.

**Registration Restrictions:** Graduate standing or department approval  
**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A652 Project Definition and Research Methods 3 Credits**

Explores the techniques used to identify customer requirements for proper definition of a project and describe tools and methods to conduct research projects in project management knowledge areas.

**Registration Restrictions:** Graduate standing or department approval  
**Prerequisites:** PM A401 with a minimum grade of B or concurrent enrollment or PM A601 with a minimum grade of B or concurrent enrollment.

**PM A653 Project Management Application Tools 3 Credits**

Explore widely-used tools in project management knowledge areas and apply them to practical problems. Includes software and non-software tools essential for dealing with unique and challenging problems in project management situations.

**Registration Restrictions:** Graduate standing or department approval  
**Prerequisites:** PM A401 with a minimum grade of B or concurrent enrollment or PM A601 with a minimum grade of B or concurrent enrollment.

**PM A686A Capstone Project: Initiating and Planning 3 Credits**

Initiating, planning and researching a sponsored, student-selected and faculty-approved capstone project undertaken to research and/or contribute new concepts, tools and capabilities to address relevant project management challenges. Demonstrates mastery of project management principles, processes, tools/techniques and cumulative knowledge gained from prior coursework as specifically applied to project initiating and planning processes.

**Registration Restrictions:** Graduate standing or department approval

**Prerequisites:** PM A603 with a minimum grade of B and PM A604 with a minimum grade of B.

**PM A686B Capstone Project: Executing, Controlling and Closing 3 Credits**

Executing, controlling and closing component of a sponsored, student-selected and faculty-approved capstone project undertaken to research and/or contribute new concepts, tools and capabilities to address relevant project management challenges.

**Registration Restrictions:** Graduate standing or department approval

**Prerequisites:** PM A686A with a minimum grade of B.

**PM A690 Selected Topics in Project Management 3 Credits**

Exploration of advanced issues, unique areas and specialized topics related to project management.

**Registration Restrictions:** Graduate standing or department approval

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A695 Project Management Internship 1-6 Credits**

Provides students with opportunities to practice project management skills in a professional environment. Professional work experience designed to provide students with the opportunity to investigate practical applications of project management tools and techniques within an organization. Assignments and projects arranged with cooperating organizations and agencies.

**Registration Restrictions:** Graduate standing or department approval

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.

**PM A698 Individual Research 3-6 Credits**

A project to be designed between the student and faculty members to allow the opportunity to pursue special advanced interests in project management. Students complete an applied research project that involves the conceptualization, design, implementation and dissemination of results and outcomes that demonstrate mastery of project management concepts and contribute to the project management body of knowledge and professional practice.

**Registration Restrictions:** Graduate standing or department approval

**Prerequisites:** PM A401 with a minimum grade of B or PM A601 with a minimum grade of B.