
NORTHEASTERN UNIVERSITY

COLLEGE OF PROFESSIONAL STUDIES

PROJECT MANAGEMENT PROGRAM COURSES

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REV. 3

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1.0 MASTER OF SCIENCE IN PROJECT MANAGEMENT WITH SPECIALIZATION – 42 TO 44 QH

1.1 Core Courses

1.1.1 Required – 21 qh

- **PJM6000 (PM3200) 3 qh Project Management Practices**
This course provides an overview of the project management process with specific emphasis on project definition, identification of project scope, project lifecycle, and project planning. Case studies will be used to examine best practices and common project management pitfalls.
Prerequisite for PJM6125 (PM3225), PJM6705 (PM3205), and Core Electives.
- **PJM6125 (PM3225) 3 qh Project Evaluation and Assessment**
Students in this course will learn to develop metrics for determining and reporting project performance. Both quantitative and qualitative approaches of evaluation will be examined, with an emphasis on Earned Value Management. Stakeholder analysis and techniques for reporting performance results will also be examined.
- **PJM6705 (PM3205) 3 qh Portfolio Management in the Enterprise Environment**
An ever-increasing number of project managers are being asked to manage multiple, sometimes inter-related, complex projects. The ability to manage multiple projects and their resources, and to manage inter-project relationships is now a cornerstone skill for a senior project manager. This course defines the strategies, processes, methods of information, analysis, and preferred deliverables of an effective portfolio management approach. Students learn how to identify, select, and de-select in order to develop a balanced and desirable mix of projects to nurture by means project termination decisions and management. Effective portfolio management improves the speed and quantity of multi-project flow through the organization by minimizing unnecessary multi-tasking and shifting of priorities. The course provides students with the opportunity 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.

Choose Four – 12 qh

- **PJM6010 (PM3210) 3 qh Project Planning and Scheduling**
A well-thought-out and well-managed schedule is critical to successful project management. Students will learn effective operations research tools and techniques that will allow project managers to translate specifications to realistic project plans, minimizing bottlenecks and downtime. Students will also learn to identify and plan for resource needs, develop contingencies, and manage risk and scope creep.
- **PJM6015 (PM3215) 3 qh Risk Management**
The accurate identification of risks, and understanding of how to account for the potential impact of risks, can greatly impact the likelihood of project success. Quantitative techniques for risk assessment and decision making will be examined, as will the steps and elements of a risk management plan, including the ongoing monitoring of risk factors.
- **PJM6020 (PM3220) 3 qh Cost and Budget Management**
This course explores cost estimation methods, break-even analysis, earned value management, and developing confidence levels. Students will also learn to manage the project budget and revise cost estimates. Other topics covered include outsourcing decisions and management, vendor selection and negotiation, and general cost containment.

Project Management Program Courses

- **ITC6035 (IT3035) 3 qh Software Project Management**
Covers the tools and techniques used to manage small, medium, and large programming efforts. Topics include project planning, project management tools (i.e., PERT/CPM/GANTT), estimating, and human resources management. Discusses all phases of software projects from proposal writing through post-release maintenance issues. Plan and develop a project of your choice that provides a practical application of the topics covered in class.
- **PJM6130 (PM3230) 3 qh Organizational and Financial Views of Projects**
This course is designed to provide project managers with a basic understanding of the core financial concepts driving project management. This course focuses on the use and application of financial techniques in managerial decision-making. Topics include financial statements, project costs and value, risk and return, and capital budgeting and financial strategy.
- **PJM6135 3 qh Project Quality Management**
Project Quality Management is one of the 9 Project Management Knowledge Areas outlined in PMI's Project Management Book of Knowledge and is a required study area for PMI Project Management Professional (PMP) certification. It is introduced to the student in PM3200 (Project Management Practices). This follow up course to PM3200 on Project Quality Management (PQM) provides a detailed instruction in PQM processes, how to integrate PQM processes into the overall project plan, and how to prepare a Project Quality Management Plan. The course includes students working together in a team environment to complete a PQM plan for a project of their choice. The course also addresses implementation of processes necessary to comply with the requirements of the Sarbanes-Oxley Act.
- **PJM6140 3 qh Managing Troubled Projects**
One of the most significant assignments for a project manager is the management of a troubled project. This course deals with 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. The course includes team presentations of case study assignments to gain experience in managing and avoiding failed and troubled projects; and utilizes a Harvard Business Course Pack customized for this course.
- **PJM6145 3 qh Global Project Management**
The state-of-the-art in project management has advanced to heavy use of global project management. This course expands the detailed treatment of project management into the global areas of environmental factors, national differences, cultural differences, outsourcing and virtual project management . In addition, it addresses PMBOK practices as applied in the organization and the future of project management. The course includes team presentations of case study assignments and utilizes a Harvard Business Course Pack customized for this course.

Choose one of the following – 3 qh

- **CMN6060 (CMN3060) 3 qh Negotiation, Mediation, and Facilitation**
This course introduces students to the techniques of dispute resolution. The curriculum pays particular attention to the processes of mediation, facilitation, and negotiation. Students will examine techniques suggested by practitioners and researchers regarding best practices for effective negotiation. A central part of the course requires students to participate in and evaluate negotiation simulations.
- **CMN6110 (CMN3110) 3 qh Group Dynamics and Interpersonal Conflict: Meeting Management**
Meetings are pervasive in organizational contexts. This course examines common problems with organization meetings and intervention techniques that can be employed to reduce the tensions associated with such interaction. Methods used for evaluating individual members in meeting contexts will be discussed. A central part of the course involves participation in and evaluation of meeting interaction.
- **LDR6110 (LDR3310) 3 qh Leading Teams**
The team is the unit of an organization where most leaders begin to develop influence skills. A team can be defined as a group of individuals whom you directly manage or those whom you influence on a project basis. Leading teams involves managing different personalities, cultures, conflicting political agendas, and

varying skill levels. Through participating in and observing team dynamics, students will determine the principles of building highly effective teams. The pragmatic approach used in this course combines learning through classic case situations with experiences in leading team-based activities.

1.2 Specialized Legal/Regulatory – Choose One – 3 – 4 qh:

- **CMG6405 (CM3405) 4 qh Construction Law**

The procurement of construction work takes place within a legal framework. Contracts result from agreements between businesses for all forms of consultancy and construction work, whether they are formally written or not. New developments in statutes, court cases and standard form contracting have a significant impact on the kinds of deals that take place in the construction industry. Also, new business processes promote new ways of working and collaborative business arrangements that require a deeper understanding of the way that businesses interact in the construction process. The construction industry is characterized by the way that participants typically work for different practices or firms, and they are all expected to work together, usually under the terms of business agreements (formal or informal) within the statutory framework that prevails. This course explores the statutory and legal context of contracts in construction and examines the legal issues that may result in construction disputes over such matters as differing expectations regarding site conditions, time and schedule impacts, change orders and changed conditions. The course also explores some areas of contract dispute resolution, including negotiation, alternative dispute resolution, and litigation.

- **ITC6315 (IT3315) 3 qh Information Security Risk Management**

Provides a conceptual overview of security operations. Information security risk management involves assessing, modeling, communicating, and addressing risks issues. Topics covered will be statistical, financial, technical, and other risk assessment and risk modeling techniques and tools. The objective is for students to be able to present risk assessments, mitigation proposals, and justifications.

- **BTC6210 (BT3210) 4 qh Human Experimentation: Methodological Issues Fundamental to Clinical Trials**

Issues related to human experimentation will be explored, including methodological issues and the ethical, clinical, and financial repercussions of clinical trial studies. This course explores how effective study designs can mitigate the common limitations and problems of clinical trials. Students will also consider ethical issues such as selective reporting of clinical research, informed consent, and protection of research participants in domestic and international clinical trials.

- **ITP6210 (IP3210) 4 qh Introduction to Intellectual Property: Trade Secrets, Trademarks, and Unfair Competition**

This course will begin with an overview of intellectual property, its history and underlying economic policies, and will proceed to the substantive law of trade secrets, trademarks, service marks, domain names, and unfair competition. In studying each of these topics, students will cover the acquisition, infringement, remedies and defenses, licensing, and valuation of the subject intellectual property.

1.3 Choose One Specialization – 15 to 16 qh

1.3.1 Construction Management Specialization – 15 qh

- **CMG6400 (CM3400) 4 qh Introduction to Construction Management**

This course is designed to provide the foundation in both technical skills and individual written and verbal communication for construction managers. Since students will come to the program from a variety of educational and experience backgrounds, one purpose of this course will be to assess and bring all students to the level necessary for successful completion of the program. To achieve this, students will become familiar with the processes required for planning and control, including estimating, cost control, and accounting of a project's costs. They will practice scheduling techniques and progress monitoring and

reporting approaches for projects. The course will provide an introduction to organizations, purchasing, and legal aspects of construction such as contracts and construction law.

- **CMG6402 (CM3410) 4 qh Alternative Project Delivery Methods and Project Controls**

This course will provide a comprehensive overview of alternative project delivery systems in public and private sectors covering such topics as project lifecycle, project development, schedule, cost and management, project and program management, project close-out, and innovative financing strategies including contractor financing and super turnkey. This course will examine international projects, contracts, and partnering options (for example, JVs and alliances, as vehicles to ensure the meeting of project objectives). Case studies will be used to identify and practice the leadership skills required for successful project execution.

- **CMG6403 (CM3415) 4 qh Safety, Project Risk, and Quality Management**

In order to be successful in today's competitive environment in the engineering construction industry, companies must ensure that they have sound processes in place to deal with safety, risk, and quality. Students will learn how to develop and manage a risk identification, analysis, and response plan. Construction safety has improved significantly within the last few years, and students will learn the latest techniques to ensure that a project provides a safe environment for everyone. This course will also provide students those analytical tools necessary to ensure customer satisfaction in the area of quality. Both quality control and assurance processes will be examined.

1.3.2 Geographic Information Systems Specialization – 15 qh

- **GIS5101 (GIS3100) 3 qh Introduction to Geographic Information Systems**

This course introduces students to the use of a Geographic Information System. Topics include applications of geographic information; spatial data collection; data accuracy and uncertainty; data visualization of cartographic principles; geographic analysis; and legal, economic, and ethical issues associated with the use of a geographic information system

- **GIS5102 (GIS3110) 3 qh Fundamentals of GIS Analysis**

This course explores the practical application of GIS to support geographic inquiry and decision making. It focuses on technical knowledge of the common tasks that a GIS analyst faces in applying GIS to a variety of spatial problems. Students will gain hands-on experience with a leading commercial GIS software package.

- **Choose three of the following courses:**

- **RMS5105 (GIS3120) 3 qh Introduction to Remote Sensing**

This course explores the fundamental concepts of remote sensing of the environment. Topics include digital imagery from spacecraft, conventional and high-altitude aerial photography, orthophotography production, and surface modeling systems. Students will gain hands-on experience with basic functions of industry standard image processing programs.

- **GIS5201 (GIS3130) 3 qh Advanced Spatial Analysis**

This course will provide an in-depth evaluation of theoretical, mathematical, and computational foundations of GIS. Topics include spatial information theory, database theory, mathematical models of spatial objects, and GIS-based representation. Advanced concepts and techniques in raster-based GIS and high-level GIS modeling techniques are examined.

- **GIS6340 (GIS3140) 3 qh GIS Customization**

This course focuses on customization of a GIS through programming and scripting languages including Visual Basic® and software-specific languages such as ArcObjects, Avenue, and ArcMacro Language.

- **GIS6350 (GIS3150) 3 qh GIS Management and Implementation**

This course examines strategies for successful GIS management and implementation in an organizational context. The course investigates four primary issues: implementation planning; data management; data and technology assessment; and organizational setting.

- **GIS6360 (GIS3160) 3 qh Spatial Databases**
This course is designed to develop the student's skills in acquiring and building spatial data and maintaining spatial databases. This course will analyze fundamental theoretical knowledge about information systems and the unique demands created by geographic information. It includes data modeling and knowledge representation for spatial data, database schemas and models, and architectural principles for geographic information systems.
- **GIS6370 (GIS3170) 3 qh Internet-Based GIS**
This course introduces students to the basic concepts associated with publishing spatial data and serving maps on the Internet. It examines the use of internet mapping software, as well as the basics of designing and operating an effective map publishing and customization environment.
- **GIS6390 (GIS3190) 3 qh Business Applications for GIS**
This course explores the use of a Geographic Information System for business applications. Students will be introduced to spatial data analysis as it applies to sales, marketing, and demographic analysis; service and sales territories; call planning and routing, and reporting and presentation mapping. Students will gain hands-on experience with the basic functionality of industry standard business mapping software.

1.3.3 Clinical Trial Design Specialization – 16 qh

- **BT3210 3 qh Human Experimentation: Methodological Issues**
Issues related to human experimentation will be explored, including methodological issues and the ethical, clinical, and financial repercussions of clinical trial studies. This course explores how effective study designs can mitigate the common limitations and problems of clinical trials. Students will also consider ethical issues such as selective reporting of clinical research, informed consent, and protection of research participants in domestic and international clinical trials.
- **BTC6211 (BT3211) 4 qh Validation and Auditing of Clinical Trial Information**
Regulatory agencies and clinical study sponsors are intensifying their global efforts to validate and audit clinical study data. This course provides a comprehensive overview of the management of quality assurance in clinical trials, Good Clinical Practices (GCP), and management of audit outcomes as well as current issues and trends in the validation and auditing of clinical studies.
- **BTC6213 (BT3213) 4 qh Clinical Trial Design Optimization and Problem Solving**
Quantitative data analysis in the creation of dynamic drug-disease models, strategic market models, trial simulation models, and integrated financial models enable the analysis of key variables in development of clinical trials in real time. This integrated approach allows all decisions in the design to optimize value against both scientific and business criteria simultaneously and continuously. Students will learn to take a complete view of the development process at the outset -- across time, across the portfolio, and at all levels in the organization. This allows for greater insight into a drug's potential early in the development process and leads to a more focused development program for promising compounds, including an optimized clinical trial design. It also allows for earlier cessation of unpromising clinical trials, saving development time and funds.
- **PMC6212 (PMC3212) 4 qh Clinical Drug Development Data Analysis: Concepts and Applications**
In this course, students will examine the process of planning, collecting, analyzing, and reporting data from drug development studies. The focus is on the goals of each phase (1-4) of the clinical drug development process and how to achieve these objectives within the confines of the FDA regulations and ICH guidelines. In addition, students will consider requirements in other countries, including the UK Data Protection Act, issues related to the differences between the development of drugs for oncologic or AIDS indications compared to traditional drugs, cultural influences, current standards of therapy, the need for validated tools, and failure analyses.

1.3.4 Information Security Management Specialization – 15 qh

- **ITC6300 (IT3300) 3 qh Foundations of Information Security Management**
Provides a conceptual overview of information security management and information assurance (IA). Topics covered at an introductory level include information security and information assurance principles, information technology security issues, and security technologies and processes. Governance issues include policy, law, ethics, standards, as well as organizational models and communications. Risk management issues include risk assessment, threats, vulnerabilities, and security lifecycle management.
- **IT3315 3 qh Information Security Risk Mgmt.**
Provides a conceptual overview of security operations. Information security risk management involves assessing, modeling, communicating, and addressing risks issues. Topics covered will be statistical, financial, technical, and other risk assessment and risk modeling techniques and tools. The objective is for students to be able to present risk assessments, mitigation proposals, and justifications.
- **ITC6310 (IT3310) 3 qh Information Security Governance**
Information Security governance is an overarching consideration in all-risk-management related endeavors, and it is understood to be of supreme importance for information security since many issues have legal, regulatory, policy, and ethical considerations. Topics covered include the foundations for the policy, law, regulatory, ethical accountability frameworks that information security risk managers must work within.
- **ITC6320 (IT3320) 3 qh Information Security Technology**
Security technology has come a long way and organizations need to deploy a variety of security devices and tools such as intrusion detection systems and firewalls to solve the most pressing information security problems. In this course, you will be taught about key information security technologies and the context needed for deploying them successfully.

Choose one of the following courses:

- **ITC6330 (IT3330) 3 qh CISSP Preparation**
The CISSP certification is governed by the International Information Systems Security Certifications Consortium and is universally recognized as a key component in the selection process for management-level information security positions. This course will include all ten domains that make up the body of knowledge covered by the CISSP examination. The goal is to equip participants with the knowledge and technical concepts required to pass the 6-hour written test required to obtain this certification. The information covered includes the following topics:
 - Security Management Practices
 - Access Control Systems
 - Telecommunications and Network Security
 - Cryptography
 - Security Architecture and Models
 - Operations Security
 - Applications and Systems Development
 - Business Continuity Planning and Disaster Recovery Planning
 - Law, Investigation, and Ethics
 - Physical Security
- **ITC6325 (IT3325) 3 qh CISA (Certified Information Systems Auditor) Preparation**
Includes all seven domains that make up the body of knowledge covered by the CISA (Certified Information Systems Auditor) examination. The goal is to equip participants with the knowledge and technical concepts required to obtain this certification. The information covered includes the following:
 - Technical infrastructure and operations

- Management planning and organization of information systems
 - Applications development
 - Protection of information assets
 - Business process evaluations and risk management
 - Disaster recovery planning
 - The formal audit process
- **ITC6305 (IT3305) 3 qh IT Infrastructure (Systems, Networks, Telecom)**
This course introduces students to the elements of IT infrastructure – systems, networks, and telecommunications. Telecommunication fundamentals include data, voice, image, and video. The course also covers the concepts, models, architectures, protocols, standards, and security for the design, implementation, and management of digital networks. Essentials of local area networks (LAN), metropolitan area networks (MAN), and wide area networks (WAN) are discussed.

1.3.5 Employee Communication Specialization – 15 qh

- **CMN6010 (CMN3010) 3 qh Foundations of Organizational Communication**
This course examines fundamental principles and theories as well as the range of topics within the field. Specifically, students will analyze the effects of communication on organizational quality; discuss specific skill sets necessary for effective internal communication; analyze methods of managing information; discuss the value and methods used to create organizational networks; and study the influence of organizational culture on organizational communication. In addition, students will be introduced to elements of crisis communication, intercultural communication, and communication assessment.
- **CMN6020 (CMN3020) 3 qh Ethical Issues in Organizational Communication**
Organizational women and men are compelled to make ethical decisions when they communicate. Proponents of strategic ambiguity in and for organizations have been confronted and countered by other theorists who reject ambiguity as a euphemism for lying. This course examines ethical questions that directly affect how organizations communicate and what they choose to relay and omit to their various audiences. Cases and academic studies will be analyzed that reflect how ethical and unethical communication affected the fortunes of organizations. The practical values of ethical yardsticks will be analyzed and evaluated.
- **CMN6910 (CMN3031) 3 qh Organizational Communication Assessment (recommended as last course)**
If communication is central to organizational activity, then persons must be able to assess the quality of communication within organizations. This course discusses quantitative and qualitative methods for conducting these assessments called communication audits. Students will evaluate the advantages and disadvantages of each technique and participate in conducting a communication audit. This is a capstone course.

Choose two

- **CMN 6030 (CMN3030) 3 qh Professional Speaking (offered on-campus only)**
The ability to deliver effective professional presentations is empowering. This course examines the anxieties associated with professional speaking and methods for overcoming the anxieties. Students will examine styles of speaking, methods for structuring addresses, and the use/misuse of visual support. The emphasis on the course will be on practical experience in preparing, delivering, and evaluating presentations.
- **CMN6050 (CMN3050) 3 qh Crisis Communication**

Crises are a fact of life in organizations. Natural disasters, sexual harassment charges, psychopathic acts, and product call-backs are a few situations which require intelligent communication to internal and external stakeholders. This course examines crisis communication from the perspective of practitioners as well as academics. Both groups have examined accommodation as well as avoidance strategies for crisis communication. Students will study cases of crisis and examine principles and theories that can be guides for communicating during crisis.

- **CMN6070 (CMN3070) 3 qh Interviewing**

This course examines several types of interviews and interviewing procedures used in organizational contexts. Specifically, students will examine selection, performance appraisal, informational, and problem-solving interviews. The course will discuss best practices for improving the quality of an interview from the perspectives of both the interviewer and interviewee. The course will involve practical experience conducting and evaluating the various types of interviews.

- **CMN6080 (CMN3080) 3 qh Intercultural Communication in the Organization**

The world is shrinking. The ease of travel, the pervasiveness of communication technology, and the realities of economic/political interdependence has made it essential for organizational women and men to be capable communicators in intercultural settings. The result of the contemporary global village is that organizations have expanded beyond their home borders and that organizations within any location have a diverse workforce. This course discusses the impediments to effective intercultural communication and methods for overcoming these impediments.

- **CMN6090 (CMN3090) 3 qh Organizational Culture, Climate, and Communication**

Some researchers believe that the culture of the organization drives the communication quality in an organization. This course examines the relationship between organizational culture and communication and discusses the advantages and elements of a supportive communication climate. Both case analysis and academic research will be examined to address common problems pertaining to cultivating supportive communication climates and methods for improving these climates.

1.3.6 Leadership Specialization - 15 qh

- **LDR3300 (LDR6100) 3 qh Developing Your Leadership Capability (prerequisite)**

Providing the foundation for the master's degree program, this course starts with the premise that everyone is capable of leadership. It establishes this premise by exposing course participants to a series of alternative perspectives of leadership, including some contemporary collaborative models. From careful consideration of these perspectives, as well as from applying them using action learning methods, participants will build a personal model of leadership that they can put to immediate use in their workplace.

- **LDR6110 (LDR3310) 3 qh Leading Teams**

The team is the unit of an organization where most leaders begin to develop influence skills. A team can be defined as a group of individuals whom you directly manage or those whom you influence on a project basis. Leading teams involves managing different personalities, cultures, conflicting political agendas, and varying skill levels. Through participating in and observing team dynamics, students will determine the principles of building highly effective teams. The pragmatic approach used in this course combines learning through classic case situations with experiences in leading team-based activities.

- **LDR6120 (LDR3320) 3 qh Creating Leadership Capacity: Developing Bench Strength**

Understanding organizational dynamics and developing leadership capacity within the organization are two critical challenges facing leaders today. In this course, participants will study the structure and dynamics of organizations, combining relevant research from the fields of organizational theory, social psychology, and management science to assist students in deepening their understanding of effecting change in organizations. With this context, the course focuses on developing leadership capacity, or bench strength,

throughout an organization. Participants will diagnose their own organizations so that they can respond with the most appropriate structure and processes to create leadership capacity in their environment.

- **LDR61470 (LDR3330) 3 qh Developing the Strategic Leader**
(recommended as last course)

Effective leaders look within and beyond their organizations to determine the right direction for action. Leadership capability extends beyond operational excellence; it requires an appreciation of the external environment and its impact on the organization. A common gap in leadership competence of today's administrators and managers is the ability to consider the role of the organization within its wider technologic, competitive, and economic environment. This course will build participant strategic thinking skills through case analyses of relevant businesses and institutions. Based on these analyses, students will develop recommendations for their own organizations' success and actions they can take to influence strategic change.

Choose one

- **LDR6135 (LDR3340) 3 qh The Ethical Leader**

From crises within our religious institutions to corporate fraud, our news is filled with examples of an ethical void in leadership and our society today. Citizens and employees alike are demanding that our leaders go beyond mere accountability for their actions; they're demanding moral leadership in both our institutions and society overall. Using case studies and current events, this course considers the conflicts that can arise when individual values conflict with those of the organization. The course examines actions leaders have taken and consequences faced when confronted with ethical dilemmas. From these learnings, a personal model for ethical leadership will be developed.

- **LDR6125 (LDR3350) 3 qh Managing Organizational Culture**

Management vision and values, history, size, physical characteristics, and industry all contribute to the creation of an organization's culture. The structures and processes created within each culture influence the behavior of individuals working within it. While leaders in one culture may thrive, others barely survive. This course will ask such questions as: What behavior is my organizational culture affecting? What impact does my organization's culture have on its strategy? How can I influence the culture of my organization? And Does culture survive in an era of mergers and acquisitions? Using case studies, participants will analyze organizations to define various organizational cultures and diagnose their own to determine ways to most effectively manage in that environment.

Northeastern University College of Professional Studies
Project Management Program Courses

2.0 FAST TRACK MASTER OF SCIENCE IN PROJECT MANAGEMENT – 42 QH

2.1.1 Overview

In today's economy, marked by compressed production schedules and shrinking budgets, skilled project managers are in greater demand than ever. The ability to deliver projects on time, on budget, and according to specifications is highly valued by companies in nearly every industry.

The Fast-Track 12-month Master of Science in Project Management is designed to prepare you with the skills necessary to manage and oversee small and large projects in a variety of industries, from initial project definition through performance evaluation. This degree provides you with practical and theoretical foundations that allow you to better plan, schedule, and oversee the major activities that surround a project. You will discover that you can immediately apply what you have learned in your current work environment.

2.1.2 Degree Format

The Fast-Track Master of Science in Project Management is an Online program, designed to fit your lifestyle and your higher educational goals. This format offers maximum flexibility and convenience for working professionals with demanding schedules.

2.1.3 Curriculum

Quarter 1

- **PJM6150 3 qh Project & Portfolio Management within the Enterprise Management**
Combination of
PJM6000 3 qh Project Management Practices
PJM6705 3 qh Portfolio Management in the Enterprise Environment

This course provides an overview of the project management process with specific emphasis on project definition, identification of project scope, project lifecycle, and project planning. Building on foundational skills students will examine how project managers often find themselves managing multiple projects that are sometimes inter-related and complex. Students learn how to identify, select, and de-select projects in order to develop a balanced and desirable mix of projects within a portfolio. Effective portfolio management improves the speed and quantity of multi-project flow through the organization by minimizing unnecessary multi-tasking and shifting of priorities.

- **LDR6140 (LDR3515) 6 qh Strategic Leadership**
Combination of
LDR6100 (LDR3300)
LDR6110 3 QH Leading Teams

Effective leaders look within and beyond their organizations in order to determine the right direction for action. Leadership capability extends beyond operational excellence; it requires an appreciation for the external environment and its impact on the organization. Strategic leaders also need an understanding of the ethical issues and dilemmas inherent in their decision-making and the impact of their organizations on internal members and the external environment. This course will make use of a case study approach in which participants will have the opportunity to build strategic thinking skills.

Quarter 2

- **PJM6155 6 qh Project Planning, Scheduling, & Implementation**
Combination of
PJM6010 3 qh Project Planning and Scheduling
PJM6020 3 qh Cost and Budget Management

A well-thought-out and well-managed schedule is critical to successful project management. Students will learn effective tools and techniques that allow project managers to translate specifications to realistic project plans, plan for resource needs, analyze critical path, and contingency planning strategies. Students will also learn cost estimation and budgeting methods and how cost and budget management impacts the development and execution of the project plan.

- **CMN6060 (CMN3510) 6 qh Internal & External Negotiation and Mediation**
Combination of
CMN6060
LDR6135

Vendor contracts, budget allocations, collective bargaining agreements, employee actions, closings, are all common activities that require sophisticated negotiation competencies. In addition to those activities that require formal negotiation or mediation, leaders also find themselves in informal negotiations with their various constituents and colleges. This course introduces participants to the techniques of dispute resolution, the process of mediation and facilitation, and various techniques of negotiation. This course will use both case studies and simulations.

Quarter 3

- **PJM6160 6 qh Project Risk and Quality Strategies for Project Success**
Combination of
PJM6015 3 qh Risk Management
PJM6135 3 qh Project Quality Management

This course focuses on how risk and quality management can positively or negatively impact project goals and outcomes. The accurate identification of risks and quality metrics and the understanding of how to account for potential impacts can greatly affect the likelihood of project success. Quantitative techniques for risk and quality assessment and decision making will be examined, as will the steps and elements of a risk and quality management plan, including the ongoing monitoring of progress.

- **PJM6140 3 qh Recovery Techniques for Troubled Projects**
Based on
PJM6140 3 qh Managing Troubled Projects

Organizations plan and execute projects at a rapid rate. In some instances the project is not always thought out or properly aligned with the organizations goals. This course focuses on techniques to examine when a project is in trouble but, more importantly, focuses on techniques to monitor the warning signs and skills to mitigate risk to the organization.

Northeastern University College of Professional Studies
Project Management Program Courses

Quarter 4

- **PJM6165 6 qh Project Evaluation & Financial Analysis**
Combination of
PJM6125 3 qh Project Evaluation and Assessment
PJM6130 3 qh Organizational and Financial Views of Projects

This course is designed to provide project managers with a basic understanding of the core financial concepts driving project management. Topics included are financial statements, project cost and value, risk and return, and strategy for planning capital. Students in this course will learn to develop metrics for determining and reporting project performance. Both quantitative and qualitative approaches of evaluation will be examined, with an emphasis on Earned Value Management. Stakeholder analysis and techniques for reporting performance results will also be examined.

- **TBD 6 qh Master's Project (Capstone)**

3.0 MASTER OF SCIENCE IN LEADERSHIP WITH PROJECT MANAGEMENT SPECIALIZATION – 42 TO 45 QH

3.1 Core Courses – 27 – 30 qh

3.1.1 Required – 21 qh

- **LDR3300 3 qh Developing Your leadership Capability**
Providing the foundation for the master's degree program, this course starts with the premise that everyone is capable of leadership. It establishes this premise by exposing course participants to a series of alternative perspectives of leadership, including some contemporary collaborative models. From careful consideration of these perspectives, as well as from applying them using action learning methods, participants will build a personal model of leadership that they can put to immediate use in their workplace.
- **LDR6110 (LDR3310) 3 qh Leading Teams**
The team is the unit of an organization where most leaders begin to develop influence skills. A team can be defined as a group of individuals whom you directly manage or those whom you influence on a project basis. Leading teams involves managing different personalities, cultures, conflicting political agendas, and varying skill levels. Through participating in and observing team dynamics, students will determine the principles of building highly effective teams. The pragmatic approach used in this course combines learning through classic case situations with experiences in leading team-based activities.
- **LDR6120 (LDR3320) 3 qh Creating Leadership Capacity: Developing Bench Strength**
Understanding organizational dynamics and developing leadership capacity within the organization are two critical challenges facing leaders today. In this course, participants will study the structure and dynamics of organizations, combining relevant research from the fields of organizational theory, social psychology, and management science to assist students in deepening their understanding of effecting change in organizations. With this context, the course focuses on developing leadership capacity, or bench strength, throughout an organization. Participants will diagnose their own organizations so that they can respond with the most appropriate structure and processes to create leadership capacity in their environment.
- **LDR6125 (LDR3350) 3 qh Managing Organizational Culture**
Management vision and values, history, size, physical characteristics, and industry all contribute to the creation of an organization's culture. The structures and processes created within each culture influence the behavior of individuals working within it. While leaders in one culture may thrive, others barely survive. This course will ask such questions as: What behavior is my organizational culture affecting? What impact does my organization's culture have on its strategy? How can I influence the culture of my organization? And Does culture survive in an era of mergers and acquisitions? Using case studies, participants will analyze organizations to define various organizational cultures and diagnose their own to determine ways to most effectively manage in that environment.
- **LDR6135 (LDR3340) 3 qh The Ethical Leader**
From crises within our religious institutions to corporate fraud, our news is filled with examples of an ethical void in leadership and our society today. Citizens and employees alike are demanding that our leaders go beyond mere accountability for their actions; they're demanding moral leadership in both our institutions and society overall. Using case studies and current events, this course considers the conflicts that can arise when individual values conflict with those of the organization. The course examines actions leaders have taken and consequences faced when confronted with ethical dilemmas. From these learnings, a personal model for ethical leadership will be developed.
- **LDR6140 (LDR3330) 3 qh Developing the Strategic Leader**
Effective leaders look within and beyond their organizations to determine the right direction for action. Leadership capability extends beyond operational excellence; it requires an appreciation of the external

environment and its impact on the organization. A common gap in leadership competence of today's administrators and managers is the ability to consider the role of the organization within its wider technologic, competitive, and economic environment. This course will build participant strategic thinking skills through case analyses of relevant businesses and institutions. Based on these analyses, students will develop recommendations for their own organizations' success and actions they can take to influence strategic change.

- **LDR7995 (LDR3370) 3 qh Master's Project**

For this capstone course, students design and conduct a research project with the advice of a faculty member and approval for the project from the Graduate Director.

3.1.2 Elective Courses – 3 qh

Choose one

- **CMN6010 (CMN3010) 3 qh Foundations of Organizational Communication**

This course examines fundamental principles and theories as well as the range of topics within the field. Specifically, students will analyze the effects of communication on organizational quality; discuss specific skill sets necessary for effective internal communication; analyze methods of managing information; discuss the value and methods used to create organizational networks; and study the influence of organizational culture on organizational communication. In addition, students will be introduced to elements of crisis communication, intercultural communication, and communication assessment.

- **CMN6060 (CMN3060) 3 qh Negotiation, Mediation, and Facilitation**

This course introduces students to the techniques of dispute resolution. The curriculum pays particular attention to the processes of mediation, facilitation, and negotiation. Students will examine techniques suggested by practitioners and researchers regarding best practices for effective negotiation. A central part of the course requires students to participate in and evaluate negotiation simulations.

- **CMN6110 (CMN3110) 3 qh Group Dynamics and Interpersonal Conflict: Meeting Management**

Meetings are pervasive in organizational contexts. This course examines common problems with organization meetings and intervention techniques that can be employed to reduce the tensions associated with such interaction. Methods used for evaluating individual members in meeting contexts will be discussed. A central part of the course involves participation in and evaluation of meeting interaction.

- **HRM6005 (HRM3100) 3 qh Creating a High Performance Organization**

As our global and domestic environments grow more complex, organizations seeking excellence are faced with a myriad of strategic choices, and many of those choices are the responsibility of the HR manager. This class will look at the choices that are critical and central to a growing organization and the role that HRM plays in the decision-making process. Major topics include motivation, perception, interpersonal communication, leadership, power and influence, decision making, group dynamics, team building, corporate culture, and socialization. Students will also learn how to motivate employees and create a team-based culture of support, learning, and renewal. Through a variety of pedagogical approaches, consistent emphasis will be placed on the practical application of specific skills, theories, and concepts that will empower students to become effective HR managers and leaders in their organizations.

- **LDR6360 (LDR3360) 3 qh Dynamics of Change at the Community and Social Level**

Given the interplay among government, business, and society, leaders may be called upon to effect change at a community or social level. Understanding the dynamics of change at this level requires understanding the needs of the multiple stakeholders involved. In this course, students will learn to assess the needs and interests of multiple stakeholders simultaneously; examine national and international trends, issues, and political shifts; and consider ways to bring the public interest and common good into organizational decision-making processes.

- **NPM6110 (NPM3110) 3 qh Legal and Governance Issues in Nonprofit Organizations**

Nonprofit organizations operate under specific laws, and in this course, students will examine these laws and consider their effect on the establishment and operation of nonprofit organizations. Students will learn about incorporation and tax exempt status, general liability, regulatory compliance/reporting, and contracts. Students will pay special attention to the roles, responsibilities, processes, and powers of boards of directors.

3.1.3 Open Electives- 3 to 6 qh

Open electives must include at least 3 quarter hours of non-business electives (not ACC, FI, HRM, MIS, or PM prefixes).

3.1.4 Project Management Specialization – 15 qh

- **PJM6000 (PM3200)3 qh Project Management Practices**

This course provides an overview of the project management process with specific emphasis on project definition, identification of project scope, project lifecycle, and project planning. Case studies will be used to examine best practices and common project management pitfalls.

Must be the first course taken for the Project Management Specialization.

- **PJM6010 (PM3210)3 qh Project Planning and Scheduling**

A well-thought-out and well-managed schedule is critical to successful project management. Students will learn effective operations research tools and techniques that will allow project managers to translate specifications to realistic project plans, minimizing bottlenecks and downtime. Students will also learn to identify and plan for resource needs, develop contingencies, and manage risk and scope creep.

- **PJM6015 (PM3215)3 qh Risk Management**

The accurate identification of risks, and understanding of how to account for the potential impact of risks, can greatly impact the likelihood of project success. Quantitative techniques for risk assessment and decision making will be examined, as will the steps and elements of a risk management plan, including the ongoing monitoring of risk factors.

Choose two

- **PJM6020 (PM3220)3 qh Cost and Budget Management**

This course explores cost estimation methods, break-even analysis, earned value management, and developing confidence levels. Students will also learn to manage the project budget and revise cost estimates. Other topics covered include outsourcing decisions and management, vendor selection and negotiation, and general cost containment.

- **PJM6125 (PM3225) 3 qh Project Evaluation and Assessment**

Students in this course will learn to develop metrics for determining and reporting project performance. Both quantitative and qualitative approaches of evaluation will be examined, with an emphasis on Earned Value Management. Stakeholder analysis and techniques for reporting performance results will also be examined.

(recommended as last course)

- **PJM6705 (PM3205) 3 qh Portfolio Management in the Enterprise Environment**

An ever-increasing number of project managers are being asked to manage multiple, sometimes inter-related, complex projects. The ability to manage multiple projects and their resources, and to manage inter-project relationships is now a cornerstone skill for a senior project manager. This course defines the strategies, processes, methods of information, analysis, and preferred deliverables of an effective portfolio management approach. Students learn how to identify, select, and de-select in order to develop a balanced and desirable mix of projects to nurture by means project termination decisions and management. Effective portfolio management improves the speed and quantity of multi-project flow through the organization by minimizing unnecessary multi-tasking and shifting of priorities. The course

Project Management Program Courses

provides students with the opportunity 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.

- **CMN6060 (CMN3060) 3 qh Negotiation, Mediation, and Facilitation**

This course introduces students to the techniques of dispute resolution. The curriculum pays particular attention to the processes of mediation, facilitation, and negotiation. Students will examine techniques suggested by practitioners and researchers regarding best practices for effective negotiation. A central part of the course requires students to participate in and evaluate negotiation simulations.

4.0 GRADUATE CERTIFICATE IN PROJECT MANAGEMENT – 18 QH

4.1 Required - 9 qh

- **PJM6000 (PM3200)3 qh Project Management Practices**
This course provides an overview of the project management process with specific emphasis on project definition, identification of project scope, project lifecycle, and project planning. Case studies will be used to examine best practices and common project management pitfalls.
Must be the first course taken.
- **PJM6010 (PM3210)3 qh Project Planning and Scheduling**
A well-thought-out and well-managed schedule is critical to successful project management. Students will learn effective operations research tools and techniques that will allow project managers to translate specifications to realistic project plans, minimizing bottlenecks and downtime. Students will also learn to identify and plan for resource needs, develop contingencies, and manage risk and scope creep.
- **PJM6015 (PM3215)3 qh Risk Management**
The accurate identification of risks, and understanding of how to account for the potential impact of risks, can greatly impact the likelihood of project success. Quantitative techniques for risk assessment and decision making will be examined, as will the steps and elements of a risk management plan, including the ongoing monitoring of risk factors.

4.2 Elective Courses – 9 qh

Choose three

- **PJM6020 (PM3220)3 qh Cost and Budget Management**
This course explores cost estimation methods, break-even analysis, earned value management, and developing confidence levels. Students will also learn to manage the project budget and revise cost estimates. Other topics covered include outsourcing decisions and management, vendor selection and negotiation, and general cost containment.
- **PJM6125 (PM3225) 3 qh Project Evaluation and Assessment**
Students in this course will learn to develop metrics for determining and reporting project performance. Both quantitative and qualitative approaches of evaluation will be examined, with an emphasis on Earned Value Management. Stakeholder analysis and techniques for reporting performance results will also be examined.
(recommended as last course)
- **CMN6060 (CMN3060) 3 qh Negotiation, Mediation, and Facilitation**
This course introduces students to the techniques of dispute resolution. The curriculum pays particular attention to the processes of mediation, facilitation, and negotiation. Students will examine techniques suggested by practitioners and researchers regarding best practices for effective negotiation. A central part of the course requires students to participate in and evaluate negotiation simulations.
- **CMN6110 (CMN3110) 3 qh Group Dynamics and Interpersonal Conflict: Meeting Management**
Meetings are pervasive in organizational contexts. This course examines common problems with organization meetings and intervention techniques that can be employed to reduce the tensions associated with such interaction. Methods used for evaluating individual members in meeting contexts will be discussed. A central part of the course involves participation in and evaluation of meeting interaction.

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- **LDR6110 (LDR3310) 3 qh Leading Teams**

The team is the unit of an organization where most leaders begin to develop influence skills. A team can be defined as a group of individuals whom you directly manage or those whom you influence on a project basis. Leading teams involves managing different personalities, cultures, conflicting political agendas, and varying skill levels. Through participating in and observing team dynamics, students will determine the principles of building highly effective teams. The pragmatic approach used in this course combines learning through classic case situations with experiences in leading team-based activities.
- **CMG6400 (CM3400) 4 qh Introduction to Construction Management**

This course is designed to provide the foundation in both technical skills and individual written and verbal communication for construction managers. Since students will come to the program from a variety of educational and experience backgrounds, one purpose of this course will be to assess and bring all students to the level necessary for successful completion of the program. To achieve this, students will become familiar with the processes required for planning and control, including estimating, cost control, and accounting of a project's costs. They will practice scheduling techniques and progress monitoring and reporting approaches for projects. The course will provide an introduction to organizations, purchasing, and legal aspects of construction such as contracts and construction law
- **RGA6100 (RA3100)4 qh Introduction to Drug and Medical Device Regulations**

This course provides an overview of drug, Biologics, and device development and the FDA. Through course work and discussion, students will gain the foundations necessary to build a strong understanding of regulatory affairs. Topics include the historic development of U.S. drug laws, law vs. regulation, FDA and industry functions, policy-guided science, and cases shaping history into the present state of regulation.

5.0 PRINCIPLES OF PROJECT MANAGEMENT CERTIFICATE PROGRAM – 3.6 CEUs

- **PDP0200 3.6 CEUs**

The primary objective of NEU's online Principles of Project Management is to relate standardized project management principles to each student's day-to-day, on-the-job activities, such that practices learned in class can be applied the same day in the "real world." Though not exclusively a Project Management Professional (PMP) exam preparation class, students will also be able to answer practice PMP exam questions in an online environment similar to the actual online exam format.

Unique to Northeastern, each week throughout the certificate program students will receive:

- usable tips, templates, and other tools
- easily accessible reference sources (in print and online)
- access to current industry articles and best practices
- up-to-date information about careers within project management, and the project management profession
- a discussion topic linking course material to actual practices at their own job site
- a chance to practice developing (and get feedback on) key documents, using a real-world case study project
- interactive discussion with other students and the course instructor

The 12-week program is aligned with the Project Management Body of Knowledge (PMBOK) -- 4th edition, the Project Management Institute's published standard for project management, with each student earning 36 professional development units (PDUs) upon completion. The program provides:

- an introduction to project management
- effective project startup processes
- plans to address project risk
- tested practices for staffing and communicating clearly with your project team
- methods for accurately scoping project requirements, schedule and budget
- examples of performance metrics to maintain project quality
- tools for maintaining control of the project throughout its lifecycle
- practice questions for the PMP exam

In short, the student who successfully completes the Principles of Project Management Certificate Program will not only have solid understanding of project management concepts, but also a shelf of everyday references to use, beginning with the first day of class.

6.0 UNDERGRADUATE ELECTIVES IN PROJECT MANAGEMENT

The Project Management Program offers three undergraduate electives.

- **MGT2410 (MGT4410) 3 qh Project Management**

This course focuses both on the analytical tools to manage projects as well as the people-management tools necessary for project success. The entire process of implementing a project, from project definition to the evaluation of feasibility, scheduling, financial, and budgetary factors is examined in detail. Contemporary management techniques, based on Project Management Institute (PMI) current practices, are used in case analyses to deepen student understanding. Current software options are discussed.

Prerequisites

- **MGT1002 (MGT4102) 3 qh Dynamics of Business 2**

Building on the foundation established in MGT 4101 Dynamics of Business 1, this course focuses on the tools -- particularly financial, marketing, and information systems -- required to operate businesses in the twenty-first century. Consumer-oriented marketing, investment basics, the securities market, and e-business are representative of the content covered to help students demystify the complexities of the business world.

- **ENG3003 (ENG4380) 3 qh Writing for the Professions 1**

This course introduces the vocabulary and philosophy of business communications. Students practice planning, writing, and analyzing effective business letters and memoranda.

- **HRM2101 (HRM4301) 3 qh Organizational Behavior**

Organizational Behavior asks the question: What is needed to become an effective organization? Organization members and leaders seek the elusive goals of a highly motivated, innovative workforce, committed to ethical contribution to individuals and society. The study of organizational behavior examines individual learning and motivation as well as interpersonal communication, conflict management, group roles and dynamics, and can determine the levels of each factor. The teaching of this course relies heavily on techniques to analyze, apply knowledge, and develop personal insight and skills.

- **MGT4412 6 qh Project Management Practices & Application**

This highly interactive, skill oriented course offers a balance of the critical and technical skills needed to be a successful project leader. The entire process of implementing a project with is examined. Participants will utilize various tools and techniques to achieve the following: identify project stakeholders, develop the project scope definition, scheduling, financial, and budgetary factors, quality criteria and successful project close-out is examined in detail. Contemporary management techniques, based on Project Management Institute (PMI) current practices, are used in case analyses to deepen student understanding. Current software options are discussed.

- **MGT2515 (MGT4415) 6 qh Project Management and Service Operations Management**

Combines the content of MGT2410 (MGT4410) Project Management and OM 4404 Service Operations Management. This course focuses both on the analytical tools to manage projects as well as the people-management tools necessary for project success. The entire process of implementing a project, from project definition to the evaluation of feasibility, scheduling, financial, and budgetary factors is examined in detail. The Operations Management segment integrates concepts and principles related to the management of operations functions. Topics include product and process design; capacities planning; facilities design; purchasing; inventory management; the planning and control of the flow of materials into, through, and out of organizations; and quality assurance.

Prerequisites at least 80 qh plus

Project Management Program Courses

- **MGT1002 (MGT4102) 3 qh Dynamics of Business 2**
Building on the foundation established in MGT 4101 Dynamics of Business 1, this course focuses on the tools -- particularly financial, marketing, and information systems -- required to operate businesses in the twenty-first century. Consumer-oriented marketing, investment basics, the securities market, and e-business are representative of the content covered to help students demystify the complexities of the business world.
- **ECN2002 (ECN4251) 3 qh Statistics 2**
The study of statistics continues with sampling and basic estimation techniques, "t" distribution, testing of statistical hypotheses, and analysis of variances.
Prerequisite:
 - **ECN4250 Statistics 1 or equivalent.**
- **MTH2002 (MTH4111) 3 qh College Algebra 2**
This is the second course in a two-quarter sequence of algebra. Topics include polynomial, logarithmic, and exponential functions; exponential and logarithmic equations; systems of linear equations; and matrices. Requires students to use a graphing calculator, the make and model to be specified at the first class meeting.