

Master of Science in Program Management Course Descriptions

MN3301 Acquisition of Defense Systems (4-0)

This course introduces the principles and concepts that underlie successful defense acquisition management. The course focuses on management of the acquisition process for defense systems from the development of an initial desired capability or need through design, development, production, fielding, sustainment, and disposal. Students gain an understanding of successful acquisition as an interdisciplinary activity through contributions and applications of principles from business, management, and technical disciplines. The course also emphasizes the statutory, regulatory, and policy environment of acquisition. Numerous case studies illustrate the application of concepts and principles in actual acquisition programs. Prerequisites: None.

MN3303 Principles of Acquisition and Contract Management (4-0)

This course is an introduction to the principles of government acquisition and contracting. It presents the fundamentals of the Federal Acquisition Regulation (FAR) and the DoD FAR Supplement; the federal acquisition and contracting processes, including requirements determination, acquisition strategies, government contract law, ethics, contract types, contracting methods, and acquisition/contract management techniques. Prerequisites: None.

MN3302 Advanced Project Management (3-0)

This course builds on the student's experience in the acquisition workforce. Cases are used to examine each of the major disciplines in the acquisition process and bring each student to a current and common understanding of the acquisition environment, process, requirements and management approaches. Prerequisites: None.

MN3070 Fundamentals of Cost Benefit Analysis (4-0)

This course introduces you to economics as a social science and teaches you the tools of micro-economic analysis that are necessary to understand and conduct economic policy analyses. One of the key tools of economic analysis is Cost-Benefit Analysis (CBA). You will learn the utility as well as the challenges of using CBA to study the role of the public sector in our market economy. After a brief introduction to CBA, which includes motivating the need for conducting CBA in the public sector, we study the fundamental tools of microeconomics, including supply and demand, elasticity, market equilibrium, social welfare, the effects of government interventions in the economy, and how firms make decisions in competitive and non-competitive markets. We then turn to the study of how to conduct CBA and how to be critical consumers of such. Prerequisites: College Algebra or equivalent.

MN3309 Software Acquisition Management for Defense Systems (3-2)

This course focuses on the key aspects of mission critical computer resources with particular emphasis on major weapon systems embedded software. The course analyzes software development, software risk management, software in the systems acquisition life cycle, software metrics, contracting methods for software, software test and evaluation, and software configuration management. Case studies, reports, software specifications and standards, and other similar documents/materials are used. The course addresses the underlying management

principles involved in software acquisition. Significant software acquisition issues and problems are examined and solutions developed. Prerequisites: MN3331 or M3221/MN3222 or MN3301 or consent of instructor.

SE4011 Systems Engineering for Acquisition Managers (3-2)

Systems engineers flow requirements down to detailed elements, integrate elements, and verify system performance. This course concentrates on the structural and technical elements of system engineering necessary in the product development domain. Multidisciplinary activities leading to requirements analysis, design trades, and integrated product-process development are complemented by current best manufacturing practices and design for cost principles. Structured methods, decision analysis, and quality engineering foundations are emphasized. Case studies from a variety of industrial contexts are presented and discussed. Prerequisites: None.

MN3384 Acquisition Projection, Quality and Manufacturing Decision Science (3-2)

This course provides the student with an understanding of the principles and concepts of production and quality management in the DoD acquisition environment. Topics include production planning and control, "lean" production, and bottleneck analysis; quality management systems, statistical process control, and six sigma; cost estimating methods, activity based costing, and progress payments in support of production; productivity; environmental, safety and occupational health; warranties; specs & standards reform; and the Defense industrial base. Prerequisites: MN3331 or MN3221/MN3222 or MN3301 or consent of instructor.

MN3172 Resourcing National Security: Policy and Process (3-0)

This course analyzes federal policy-making with emphasis on resource decision making for national defense. The roles of principal budget participants are examined in detail. Executive (especially DoD) and congressional budget processes are assessed to indicate how national security policy is implemented through resource allocation. Spending for national security policy is tracked from budget submission through resolution, authorization and appropriation. The politics of budgeting for national defense is evaluated to indicate the dynamics of executive-legislative competition over scarce federal resources. Prerequisites: None.

MN4602 Acquisition Test and Evaluation Decision Science (3-2)

Designed to cover Developmental, Operational and Joint Test and Evaluation, including planning concepts and procedures frequently used in test and evaluation programs. Taught from the perspective of the Program Manager, Test Project Officer and Test Engineer. Actual military cases are used for examples. Topics include the role of Test and Evaluation in Systems Engineering and Acquisition Management, DT and OT test planning, introduction to test design, conduct of tests, live fire testing, modeling and simulation, human systems integration (HSI), reporting of test results, range and resource issues, and lessons learned. Student teams will write a detailed test plan. Prerequisites: MN3331 or MN3221/MN3222 or MN3301 or consent of instructor.

MN4474 Organizational Analysis (3-1)

This course prepares leaders to analyze, understand, and influence organizations and organizational processes. The focus is on principles and techniques for diagnosing managerial

problems and developing solutions. The course combines theoretical and practical knowledge to prepare students for situations that commonly arise and give them the tools to deal with unexpected or unusual situations. First, we build foundational understanding of how organizations work, viewing people, technologies, tasks, and structures as interrelated components of complex systems. Then we apply this understanding to real organizations. From a leadership perspective, we identify ways to improve an organization's efficiency and effectiveness, motivate subordinate and peer performance, manage organizational boundaries, and increase the likelihood that evidence-based decisions and actions will be taken. Students complete a course project analyzing the structures, processes, boundary-spanning activities, and environment of an organization. Prerequisites: None.

MN4045 Defense-Focused Managerial Inquiry (3-0)

Fundamentally, this is a course in thinking critically and analytically. It is also a unique, practical opportunity for students to develop a research question, methodology, and proposal for their MBA project or master's thesis. Indeed, many students can expect to complete the initial stages of their MBA project or thesis by fulfilling the course requirement for a team-based research report. As Cooper and Schindler write: "Research is any organized inquiry carried out to provide information for solving problems. Business research is a systematic inquiry that provides information to guide business decisions. This includes reporting, descriptive, explanatory, and predictive studies. The managers of tomorrow will need to know more than any managers in history. Research will be a major contributor to that knowledge. Managers will find knowledge of research methods to be of value in many situations. They may need to conduct research either for themselves or for others. As buyers of research services, they will need to be able to judge research quality. Finally, they may become research specialists themselves." Punch prefers to describe research as "organized common sense," since it "supports the idea that good research is within the grasp of many people." In this way, we can "simplify the more technical aspects of research methods, and enhance understanding, by showing the logic behind them." This course similarly seeks to examine the logic of research methods--recognizing that these methods may differ across disciplines and subspecialties--rather than focus on detailed models or procedures that may hold little meaning for the military's managers. It is not a course in rules or required steps; rather, it is a course in understanding the principles, concepts, and range of techniques that define the craft of research. Prerequisites: None.

MN4470 Strategic Planning and Policy for the Acquisition Logistics Manager (4-0)

The course explores and analyzes the concepts, processes and methods of strategic logistics planning and execution, emphasizing proactive techniques to ensure maximum logistics influence on major weapon systems acquisition as well as optimum life cycle management of fielded systems. The course will examine and analyze key opportunities for maximum logistics influence in requirements development, contracting, test and evaluation, reliability and maintainability, as well as financial management and communications. The course will feature logistics management relevance to service roles and missions. The course will employ lectures, guided discussions, case studies, role-playing, panel discussions and lessons learned in the DoD acquisition environment. Prerequisites: MN3331 or MN3301 or MN3221/MN3222 or consent of instructor.

MN4105 Strategic Management (3-0)

Strategic Management entails the establishment of an organization's direction and the implementation and evaluation of that direction given the organization's external environment and its internal capabilities. The principal aim of this course is the transfer and adaptation of the principles of business strategic management to the Department of Defense and other federal agencies. In previous courses, students concentrate on the functional elements of management (e.g., accounting, finance, acquisition, logistics, contracting, etc.). This course addresses the challenges of setting direction and implementing strategies for the total system or whole organization. Cases and approaches from the public and private sectors enable students to develop the knowledge, skills, and abilities to strategically think, plan, and manage. Prerequisite: MN3012 or consent of Instructor.

MN4090 Capstone Applied Project (0-6)

This course reflects laboratory hours dedicated to presenting research techniques and independent/team efforts needed to conduct Joint Applied Project research and analysis and to produce the Professional Report. These laboratory hours will be used by students and student teams for interactions with their Joint Applied Project advisors, Academic Associate(s), editors, and thesis processors in producing high quality, disciplined research products for publication as appropriate. Prerequisites: None.

MN4307 Defense Acquisition Program Management Case Studies (4-0)

This course provides the student with knowledge and understanding of major systems management control processes and tools, application of program management control systems and the use of computer-based management information systems with strategic media choices so as to develop effective media campaigns, interact effectively with the print and broadcast news media, and handle press conferences and similar media events. Particular attention is focused on anticipating and handling crisis communication. Specifically, students will learn to organize crisis management teams, develop crisis management plans, and create communication plans to manage information and public perception. Case studies involving program management problem solving and decision making in the acquisition environment are used. Prerequisites: MN3331 or MN3221/MN3222 or MN3301 or consent of Instructor.