

# MASTER OF SCIENCE IN QUALITY SYSTEMS MANAGEMENT

The Master of Science in Quality Systems Management is designed for individuals who seek a team-driven, resultsoriented management program and believe that a management focus in quality and organizational performance is a competitive career advantage. Students are typically experienced, working adults from both the Corporate and Department of Defense Environments.

Employers hire, promote, and recruit NGS graduates because of their extraordinary practice-based knowledge and their proven ability to achieve accelerated, tangible results. NGS is the nation's only accredited school of business that requires demonstrated results as a graduation prerequisite.

The Master's program follows a 1-2-3 progression:

- Active involvement by individual attendees, teams, and senior management in a Master's Business Project (MBP) leading to tangible improvements for an organization. Students work on their MBP in parallel to their courses.
- **2** A 12 month, 36 credit management curriculum with learnings applied to the MBP.
- **3** A results report-out by teams which verifies tangible savings.

The Master's Degree is typically completed in 12 months. Students have full-time status, yet remain at their workplace. Classes occur only outside of traditional business hours and the Master's Project is related directly to the student's current work or is aimed at a management area to which the student is transitioning.

The administration and faculty welcome and are accustomed to students whose work or public sector responsibilities require flexibility. Students begin their studies in cohort groups at any time that there is sufficient enrollment and continue straight through to degree completion. The School is noted for its ironclad guarantee that a program, once launched will provide students with the courses they need to complete their degrees without interruption.

# Specializations are available in:

- Homeland Security & Defense
- Health Systems

# Accreditation:

NGS is accredited by the New England Association of Schools and Colleges, Inc. through its Commission on Institutions of Higher Education. Inquiries regarding the accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact: Commission on Institutions of Higher Education, New England Association of Schools and Colleges 3 Burlington Woods #100, Burlington, MA 01803. Ph: 855 886 3272 E-Mail: cihe@neasc.org

Certified to operate by the State Council of Higher Education for Virginia (SCHEV).

The MSQSM curriculum consists of a 12 month, 12 course, 36 credit, 3 semester program designed as an "integrated storyboard" developed after extensive consultation with diverse focus groups of prospective employers, organizational leaders and quality practitioners. A distinguishing feature of the program is the substitution of a team-based, work-related, project of significant result (the master's business project or MBP) which replaces the conventional master's thesis. In order for a student to graduate, the projects' supervisor or "champion" must validate and formally attest to The School that results have been achieved. In the tradition akin to a traditional oral defense of a thesis, students publicly defend their results before an audience of faculty and invited experts. In the contemporary manner of programs for experienced, working adult professionals, The School emphasizes and monitors student study teams which routinely spend at least as much time outside of class as they do in class. In addition, each student is expected to spend approximately 400 out-of-class hours on the project and will be monitored by designated faculty academic advisors.

The program is offered only in cohort group format. The purpose of the MSQSM is:

- To provide students, particularly working adults and other nontraditional students, with a business- related graduate education that will empower them to make rapid contributions to private, public and military sector organizations;
- To engage students in a rigorous, exciting, challenging, theoretical and practical learning experience in a specialized curriculum that is uniquely centered in both management sciences and quality systems, predicated on a teamwork approach, and incorporating a business project that requires measurable results;
- To maintain highly qualified faculty who possess quality-related work experience as well as appropriate educational credentials;
- To provide students with the resources needed to interact with others clearly and effectively;
- To impart and demonstrate to students the aligned relationship of a management quality systems theme to ethical behavior;
- To subject the body of knowledge known as quality systems management to a process of continuous improvement derived from the application of that knowledge in the workplace and responses to research in the field.

# FOR MORE INFORMATION

Contact the Enrollment Management department by phone at 800.838.2580 ext. 109, by email at *info@ngs.edu*, or via our website at *www.ngs.edu*.

For information on financial aid, contact financialaid@ngs.edu

# MASTER OF SCIENCE IN QUALITY SYSTEMS MANAGEMENT COURSE DESCRIPTIONS

#### EDU 501: Best Practices for Master's Education

Research shows that students benefit when they are provided "best practices" for academic success in their new degree program. The course reviews program highlights through the NGS Student Primer and Project Champions Guide, and provides helpful hints from alumni. Topics include team formation, project selection and the NGS Portal. Students preview upcoming courses and practice case study analyses. (3 credits)

#### **QSM 570: Performance Based Management**

Students gain a foundation to guide them through the remainder of the curriculum. The entire curriculum and the purpose of each course are discussed. The concepts of the Baldrige Criteria and Performance Excellence, which are the underlying goals of the curriculum and the linkage of the courses, are explained with models. Topics include an overview of quality-based systems management, process redesign, process mapping, project management, and contemporary applications such as software quality management. Teams of students complete an actual process improvement at a company or organization. (3 credits)

#### QSM 581: A Systems Approach to Strategic Planning

Strategic Planning is defined as anticipatory decision making. It is a process of articulating and envisioning a desired future and developing the procedures to mobilize the organization to achieve that future. This course introduces strategic planning methods and tools within the context of systems thinking and places emphasis on planning strategies that will help organizations shape their own future rather than passively wait for the future to shape them. This course will address basic definitions and methods, the typology of planning, the process of envisioning, how to overcome barriers to strategic planning and finally key implementation strategies and lessons learned from real-life public and private organizations. (3 credits)

# QSM 550: Master's Business Project I

Students identify the process to be improved for their Master's Business Project, and declare either individual or high performance team formats. Specific projects are defined, the class instructor, acting as the 'Practicum Supervisor' for each student on their Master's Business Project, guides every project through the stages of definition, commitment from the sponsoring organizations, and project planning. (3 credits)

# EDU 638: Master's Business Development I

In this course, the faculty team follows up in detail on with individual students and teams on their progress during semester 1. Faculty assist student progress on projects, work closely with specific student teams, and review team MBP Tracker input. Faculty prompt teams in a) project management and b) database research into materials related to projects. Readings are faculty-assigned database searches. Faculty meet teams at designated times online or in person. (3 credits)

## QSM 548: Project Management

This course provides the core elements of project management and links the tools and concepts to all the other courses in the curriculum. Students will learn how to clarify deliverables, generate schedules, estimate costs, assure resources, and plan even complex projects. The knowledge and skills learned are applied directly to each team's Master's Business Project. The concepts and tools of the course are supported by software. (3 credits)

## QSM 558: Benchmarking

Benchmarking discusses benchmarking strategies, presents benchmarking principles and leads students to make practical applications to their Master's Business Project. Topics include comparative performance benchmarking, performance benchmarking, and process flow comparisons. (3 credits)

## QSM 562: Master's Business Project II

This progress monitoring point for Project Supervisors ensures that students have understood and integrated into their Master's Business Projects the knowledge gained in this semester of the program, such as Benchmarking, Activity-Based Costing, and Six Sigma Applications. Students demonstrate their familiarity with electronic databases and their readiness to implement tangible improvements. (3 credits)

## QSM 572: Financial Systems and Lean Accounting

Application of financial business theory and the cost of quality are the core concepts of this course. The focus is on cost accounting and understanding the hidden cost of inefficiency, internal and external failure, the financial implications of Lean operations, as well as calculating the cost benefit resulting from process improvements and reducing costs due to substandard service, failure of products or defects. (3 credits)

#### QSM 543: Business Process Analysis

Statistical Applications uses applied statistical analysis to improve workrelated projects. By reviewing how major national and global organizations employ these tools in diverse industries, students are guided to use statistical analyses in their own improvement projects. This course builds on the data collection skills developed in semester one, and students will use their own Master's Business Project-related data to tangibly measure improvements at their organizations. Lean Thinking, Value Stream Mapping, and the Toyota Production system are reviewed in detail. Students learn how to identify their organization's value stream, and how it fits into their Division's value stream. Current State and Future State maps are created. Opportunities for improvement are graphically displayed, waste is identified, and business process solutions are developed with a linkage to the data. Instruction is provided in throughput improvement methodologies, including throughput analysis, and Just In Time production, as applied to business and manufacturing processes. (3 credits)

#### **QSM 639: Supply Chain Management**

This course introduces supply chain management practices within the context of systems and process thinking, and places emphasis on planning strategies that help organizations optimize material, information, and workflow. Topics include the Supply Chain Fundamentals, Supply Chain Operations Reference (SCORÒ) Model, Strategic SCM initiatives, SC Integration, SC Maturity and Networks, and Best Practices that characterize best in class companies. Class discussion and case studies are an important part of learning and students will be asked to relate supply chain management approaches to their own organization. Tools and techniques for understanding, analyzing and redesigning supply chains and their networks will be discussed and practiced. (3 credits)

#### QSM 566: Master's Business Project III

A faculty review ensures that the Master's Business Projects meet NGS requirements have demonstrated practical understanding of applied systems management, and have achieved tangible financial results supported by statistical and financial analyses at their employer or sponsor. (3 credits)

