

# R·I·T

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## Quality Management Certificate Program



The Center for  
**Multidisciplinary**  
Studies

The objective of this certificate is to equip students with state-of-the-art tools and skills necessary to function as quality professionals in a variety of settings. Students completing this program will be well-positioned to work as quality team leaders, trainers, facilitators, and managers in a variety of organizational levels and settings. The certificate is four courses, each four credits, and is offered totally online.

## Required Courses:

### *0684-310: Introduction to Quality*

An introduction to the fundamental concepts of total quality management. Includes an overview of the competitive environment, the cost of non-quality, and the history of quality; a systematic examination of the leading definitions of quality and models of quality management; and an exploration of the implication of quality management concepts for organizational structure and roles, decision making and interpersonal relations. Credit 4

### *0684-340: Quality Data Analysis*

An introductory course in statistics and probability that provides students with techniques to analyze and interpret quality control data. Topics include problem solving techniques such as the fishbone and flowcharting, descriptive statistics (statistical tables and graphs, measures of central tendency and dispersion), a brief overview of the normal distribution, and one-way ANOVA. (Prerequisites: 0684-310, Introduction to Quality.) Offered online only. Credit 4

### *0684-410: Introduction to Lean Six Sigma*

Six Sigma techniques, introduced to industry in the late 1980's, use data-driven decisions to reduce defects, drive down costs and increase efficiency. This methodology focuses on minimizing process variation, thereby enabling the process to operate more smoothly and efficiently. Lean is a process that focuses on eliminating waste and streamlining operations. Lean Six Sigma, a more recent technique, combines the two processes. Data-driven decisions are still present, but the emphasis

on speed for the process improvement is key. Combining these two methods into Lean Six Sigma provides a powerful tool to make improvements in any process or business. In this course, students learn the history, context, and tools of Lean/Six Sigma through lectures and case studies, and begin to apply the process in a course project. Offered online only. Credit 4

## Either of the following:

### *0684-420: Statistical Quality Tools*

An introductory course in Statistical Quality Control techniques used in determining operating quality levels and recognizing degrees of process control and capability in a service industry or a manufacturing process. Topics include tools for diagnosing sources of variation; construction and interpretation of charts for variables and attributes; process capability; and ANOVA. Students will also be given a short overview of design of experiments (DOE) concepts and Taguchi methods. Offered online only. Credit 4

### *0684-430: Management for Quality*

Successful companies integrate quality techniques and concepts throughout their operations. This course addresses issues in developing and managing an effective organization, including defining a quality philosophy, delighting the customer, the role of strategic planning, enhancing employee involvement, and sustaining quality initiatives. Additional topics include understanding quality standards and systems, benchmarking, and vendor and supplier assurance. (Prerequisites: 0684-310, Introduction to Quality; 0684-340, Quality Data Analysis.) Offered online only. Credit 4

# About the CMS Certificate Program

Build an academic program that you can complete at a pace that suits your lifestyle. The Center for Multidisciplinary Studies offers several certificate programs designed for students who want to gain expertise in a specific area of study or who wish to focus on one area of study at a time. Credits earned in these programs may be applied toward a degree in Applied Arts and Science. Ask a CMS advisor for more information.

Students must achieve a program GPA of at least 2.0 in order to be certified. A CMS academic advisor can explain the details. Just give them a call or send them an e-mail.

## A Degree As Unique As You.

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