A FLEXIBLE PROGRAM
The MSQA Distance Learning Program allows students to complete ALL of their course work online at their location.

An AFFORDABLE PROGRAM
All distance learning students pay the same low tuition and fees, regardless of their location. Whether in Atlanta, San Francisco or Bangalore, MSQA online students pay $216 per credit hour and a once-per-semester technology fee of $75. See www.msqa.edu/fees.html for the latest information.

MASTER OF SCIENCE IN QUALITY ASSURANCE
For practicing professionals in quality assurance and those who aspire to the field, two concentrations are offered:
- Quality Engineering & Technology
- Quality Systems

GRADUATE GREEN BELT CERTIFICATE
For individuals who are looking to formalize their knowledge of quality concepts, without the commitment of a full Masters degree.
MSQA Distance Learning Program

Through distance learning, students can complete ALL of their course work for the M.S. in Quality Assurance (or the Graduate Green Belt Certificate) online at their location. The online MSQA is the first program of its kind offered in the state of Georgia, and one of only a handful of graduate programs in Quality in the country, allowing professionals from all over the world to benefit from distance learning.

Our Students

The typical MSQA student has 12 years of experience in the quality field. With their MSQA degrees, our students have gone on to further their careers as Quality Engineers, Managers and Directors.

Courses are taught using WebCT, a distance learning platform that provides a virtual classroom environment complete with lecture modules, live voice and text chat, discussions, email, quizzes, and assignments. Students interact extensively with each other and the professor using the WebCT environment during the 16-week semester. The PhD level professors use the same course materials for their online classes as they do in their on-campus classes.

Employers of Southern Polytechnic's MSQA graduates include

- BellSouth
- Boeing
- Ciba-Vision
- Dell Computer
- Delta Air Lines
- GE Healthcare
- Johnson and Johnson
- Lockheed-Martin Aerospace
- Panasonic
- U.S. Department of Agriculture
- U.S. Red Cross

AT A GLANCE

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For more information please contact
Dr. Mary McShane Vaughn
Graduate Program Coordinator
678-915-7243 or gradinfo@spsu.edu
Visit us on the web at
www.msqa.edu/online

Southern Polytechnic State University is an equal opportunity educational institution which does not discriminate on the basis of race, sex, age, religion, national origin or disability.
Customize Your Education

The MSQA Degree offers two options of study, allowing you to tailor your educational experience to meet your professional needs. The Quality Engineering and Technology Concentration focuses on the technical aspects of quality. The Quality Systems Concentration, on the other hand, is designed for those who want a strong foundation in both technical and non-technical elements of quality control, who work, or desire to work, in a quality-related field. Students also can tailor their program to help prepare for ASQ certifications such as Certified Quality Manager (CQM), Certified Quality Engineer (CQE), and Six Sigma Black Belt (CSSBB).

The Quality Engineering and Technology Concentration

This concentration emphasizes the technical aspects of quality and is designed for those who have undergraduate degrees in engineering technology, physical science, mathematics, and other technical majors, and have two years of full-time experience in the field. The Quality Engineering and Technology Concentration focuses on total quality, incorporates statistical process control concepts, and on process statistical control, designed experiments, systems design and reliability.

QA Course Descriptions

QA5000 Statistical Concepts for Quality Assurance

Students will learn basic statistical concepts including exploratory data analysis, probability distributions, hypothesis testing, and regression analysis. Use of Excel and MINITAB will be introduced.

QA 6600 Methods of Analysis 3-0-3

A study of the analytical processes required to meet the standards of quality assurance. TQM concepts, quality function deployment, and the tools for continuous improvement are analyzed for their application in quality assurance. Emphasis is placed on design and performance aspects of a system wide quality assurance function.

QA 6610 Statistics for Quality Assurance 3-0-3

Descriptive statistics for discrete and continuous variables, probability concepts, probability distribution including normal, binomial, hypergeometric, Poisson distributions. TQM concepts, probability, confidence intervals and hypothesis testing, analysis of variance, regression and correlation analysis.

QA 6611 Statistical Process Control 3-0-3

The study of the theory and application of statistical process control techniques, including P, X-bar, R, S charts, and other statistical process control charts. Emphasis will be placed upon process control and process capability

QA 6612 Design of Experiments 3-0-3

The theory and application of statistical designed experiments to include completely randomized, full and fractional factorial designs, Latin square and mixture experiments. Blocking and confounding will be covered, as well as evaluation of results. Response surface methodology is introduced along with robust design. Total quality management incorporating Taguchi's contribution will be included. QA 6611 is the prerequisite for this course.

QA 6615 Applied Systems Reliability 3-0-3

Analysis of approaches for system reliability, including the exponential, Weibull, normal, lognormal distributions, life prediction techniques, reliability test plan programs, failure mode and effects analysis, Markov models, and maintenance concepts. QA 6613 is the prerequisite for this course.

QA 6620 Inspection Systems Design 3-0-3

Understanding inspection systems, measurement principles, and limitations. Included are acceptance sampling plans such as ANSI Z1.4, ANSI Z1.9, Dodge-Romig, and stipulated risk, rich, sequential, and continuous plans. QA 6610 is a prerequisite for this course.

QA 6625 Total Quality 3-0-3

A study of the functions and responsibilities of quality organizations. TQM concepts, quality function deployment, and the tools for continuous improvement are analyzed for their application in quality assurance. Emphasis is placed on design and performance aspects of a system wide quality assurance function.

QA 6630 Technical Training Methods 3-0-3

Adult learning theory, the development and management of training programs, and presentation techniques, instructional aids, and assessment will be investigated.

QA 6640 Quality Cost and Supplier Evaluation 3-0-3

A detailed analysis of cost reductions involved in continuous improvement activities, including DPMO calculations, X-bar and R charts, and p and np charts. Total quality management and DPMO applications will be included. QA 6602 is a prerequisite for this course.

QA 6650 Systems Quality Design 3-0-3

Understanding inspection systems, measurement principles, and limitations. Included are acceptance sampling plans such as ANSI Z1.4, ANSI Z1.9, Dodge-Romig, and stipulated risk, rich, sequential, and continuous plans. QA 6610 is a prerequisite for this course.

QA 6660 Six Sigma Black Belt Concepts 3-0-3

Students will study topics in quality that encompass the body of knowledge for Six Sigma Black Belts. The student's understanding will be reinforced throughout the course by study of the American Society for Quality (ASQ) Black Belt certification exam. Students will be academically prepared to sit for the ASQ Black Belt certification exam following this course. The exam also requires completion of a Six Sigma project, which can be completed at QA 7503. QA 6650, QA 6661, QA 6662 and QA 6663 are pre-requisites for this course.

QA 6672 Human Factors in Quality Assurance (available only on campus) 3-0-3

A comprehensive survey of human factors theory, research, and applications. Emphasis will be placed on the use of human factors in the design of products, workplaces, and instrumentation. QA 6602 or QA 6602A are prerequisites for this course.

QA 6765 Quality Systems Black Belt 3-0-3

This course is designed to guide the student through a thorough and in-depth written examination of one or more topics relevant to the application of quality assurance. Emphasis is placed upon students using both traditional and electronic means to perform the research. Prerequisites for this course are QA 6660 and QA 6661, or consent of the instructor.

QA 7503 Research in Quality Assurance (Available only on campus) 3-0-3

This course is designed to guide the student through a thorough and in-depth written examination of one or more topics relevant to the application of quality assurance. Emphasis is placed upon students using both traditional and electronic means to perform the research.Prerequisites for this course are QA 6660 and QA 6661, or consent of the instructor. Special Note: This course requires two on-campus meetings, and one meeting to be held on Saturdays in March and October.

QA 7503 Applications in Quality Assurance (available only on campus) 3-0-3

Elective Course 6 credit hours or

ONE Research/Project course will be completed for Graduation

REQUISITE Courses

Total of 24 credit hours

NUMBER COURSE TITLE HOURS
QA 6602 Design of Experiments 3
QA 6615 Applied Systems Reliability 3
QA 6620 Inspection System Design 3
QA 6660 Six Sigma Black Belt 3
QA 6672 Human Factors in Quality Assurance 3
QA 6665 Quality Systems Design 3
QA 6615 Total Quality 3
QA 6610 Statistical Quality Assurance 3
QA 6611 Statistical Process Control 3
QA 6612 Design of Experiments 3
QA 6613 Linear Regression Analysis 3
QA 6615 Applied Systems Reliability 3
QA 6650 Quality Systems Design 3

Required Courses 24 credit hours

ELECTIVE Courses

Two are needed; prerequisites must be satisfied

NUMBER COURSE TITLE HOURS
QA 7503 Graduate Seminar 3
QA 7503 Applications in Quality (On campus only) 3

Total Credits Required for Graduation 33 credit hours

MSQA Quality Systems Concentration Curriculum

REQUISITE Courses

Total of 24 credit hours

NUMBER COURSE TITLE HOURS
QA 6602 Design of Experiments 3
QA 6615 Applied Systems Reliability 3
QA 6620 Inspection System Design 3
QA 6660 Six Sigma Black Belt 3
QA 6672 Human Factors in Quality Assurance 3
QA 6665 Quality Systems Design 3

Required Courses 24 credit hours

ELECTIVE Courses

Two are needed; prerequisites must be satisfied

NUMBER COURSE TITLE HOURS
QA 7503 Graduate Seminar 3
QA 7503 Applications in Quality (On campus only) 3

TotalCredits Required for Graduation 33 credit hours

MSQA Quality Engineering & Technology Concentration Curriculum

REQUISITE Courses

Total of 24 credit hours

NUMBER COURSE TITLE HOURS
QA 6602 Design of Experiments 3
QA 6615 Applied Systems Reliability 3
QA 6620 Inspection System Design 3
QA 6660 Six Sigma Black Belt 3
QA 6672 Human Factors in Quality Assurance 3
QA 6665 Quality Systems Design 3

Required Courses 24 credit hours

ELECTIVE Courses

Two are needed; prerequisites must be satisfied

NUMBER COURSE TITLE HOURS
QA 7503 Graduate Seminar 3
QA 7503 Applications in Quality (On campus only) 3

Total Credits Required for Graduation 33 credit hours

Graduate Green Belt Certificate Required Courses

NUMBER COURSE TITLE HOURS
QA 6602 Total Quality 3
QA 6610 Statistical Quality Assurance 3
QA 6611 Statistical Process Control 3
QA 6650 Quality Systems Design 3

Required Course 24 credit hours

ELECTIVE Courses

Two are needed; prerequisites must be satisfied

NUMBER COURSE TITLE HOURS
QA 7503 Graduate Seminar 3
QA 7503 Applications in Quality (On campus only) 3

Total Credits Required for Graduation 33 credit hours

Graduate Black Belt Certificate Required Courses

NUMBER COURSE TITLE HOURS
QA 6602 Total Quality 3
QA 6610 Statistical Quality Assurance 3
QA 6611 Statistical Process Control 3
QA 6650 Quality Systems Design 3

Required Course 24 credit hours

ELECTIVE Courses

Two are needed; prerequisites must be satisfied

NUMBER COURSE TITLE HOURS
QA 7503 Graduate Seminar 3
QA 7503 Applications in Quality (On campus only) 3

Total Credits Required for Graduation 33 credit hours

Graduate Green Belt Certificate Required Courses

NUMBER COURSE TITLE HOURS
QA 6602 Total Quality 3
QA 6610 Statistical Quality Assurance 3
QA 6611 Statistical Process Control 3
QA 6650 Quality Systems Design 3

Required Course 24 credit hours

ELECTIVE Courses

Two are needed; prerequisites must be satisfied

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QA 7503 Graduate Seminar 3
QA 7503 Applications in Quality (On campus only) 3

Total Credits Required for Graduation 33 credit hours