



Quality Assurance Technician

Program No: 10-623-2

Associate Degree in Applied Science

Degree Completion Time: Four Terms

Degree completion time may vary based on student scheduling needs and class availability.

2012-2013

Catalog No.	Class Title	Credit(s)
Term 1		
10105124	Portfolio Introduction	1.00
10182102	Service Operations Management	3.00
10182131	Supply Chain Management	3.00
10623101	Quality Concepts	3.00
10801195	Written Communication	3.00
10809198	Introduction to Psychology	3.00
	Total	16.00
Term 2		
10623123	Blueprint Reading, Metrology, and Calibration	3.00
10623131	Planning for Six Sigma	3.00
10806112	Principles of Sustainability	3.00
10801198	Speech OR 10801196 Oral/Interpersonal Communications	3.00
10804123	Math w Business Applications	3.00
10809195	Economics	3.00
	Total	18.00
Term 3		
10105128	Career Exploration	2.00
10182106	Strategic Resource Management	3.00
10623110	Six Sigma Tools for Green Belts - Measure & Analyze	3.00
10623111	Six Sigma Tools for Green Belts - Improve & Control	4.00
10809196	Sociology - Introduction to OR 10809122 Introduction to American Government	3.00
	Total	15.00
Term 4		
10101155	Accounting for Professionals	3.00
10623115	Portfolio Assessment-Quality	1.00
10623112	Six Sigma Tools for Green Belts - Implementation	3.00
10623118	Lean Manufacturing and Execution Control	3.00
10623193	ISO 9001:2008	3.00
10623114	Six Sigma Black Belt Supplement	3.00
	Total	16.00
	Program Total	65.00

Note: Program start dates vary; check with your counselor for details.

Curriculum and program acceptance requirements are subject to change.

About the Career

Quality assurance is a program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met. In simple business terms, quality assurance is the difference between success and failure. If you believe in the idea of "quality in, quality out," and you want to play a vital role in helping an organization achieve success through quality, LTC's Quality Assurance Technician program is the way to realize your goal.

Careers

- Six Sigma Improvement Coordinator
- Continuous Improvement Coordinator
- Quality Assurance Supervisor
- Quality Assurance Technician

Admissions Steps

- Application
- Application Fee
- Entrance Assessment Scores
- Transcripts
- Program Advising Session
- Microsoft Skills Check Form (Word, PowerPoint, Excel)
- Functional Abilities Statement of Understanding Form

Program Outcomes

You'll learn to:

- Understand total quality control concepts, inspection methods, data collection, application of sampling plans, quality cost, and quality audits.
- Utilize mathematical calculations, including metric conversions, geometry, trigonometry, and basic and advanced statistical process control techniques.
- Understand and apply Six Sigma concepts of continuous improvement.
- Understand quality systems used currently in industry. These systems include, ISO 9000, Malcolm Baldrige, and Deming Prize.
- Plan quality audits to assure quality systems are working and take corrective action through continuous improvement.

Approximate Costs

- \$126 per credit (resident)
- \$182 per credit (out-of-state resident)
- Other fees vary by program (books, supplies, materials, tools, uniforms, health-related exams, etc.)

Special Note

The majority of these classes are offered in an evening delivery format with a few classes available days and evenings.

Functional Abilities

Functional abilities are the basic duties that a student must be able to perform with or without reasonable accommodations. At the postsecondary level, students must meet these requirements, and they cannot be modified.

Placement Scores

Accuplacer/ACT scores will be used to develop your educational plan. Please contact your program counselor/advisor at 920-693-1109.

Transfer agreements are available with the following institutions:

Capella University
Cardinal Stritch University
Concordia University
Franklin University
Herzing University
Lakeland College

Marian College
MSOE Rader School of Business
Ottawa University
Silver Lake College
University of Phoenix
Upper Iowa University

UW-Green Bay
UW-Oshkosh
UW-Stout

IMPORTANT: For more information on these agreements, visit gotoltc.edu/transfer.

10101155 Accounting for Professionals

...is the study of the information that can be interpreted from financial statements. Students analyze financial statements and apply managerial accounting concepts in an accelerated format. **COREQUISITE:** *Microsoft Excel skills or equivalent*

10105124 Portfolio Introduction

...prepares the student to develop a personal and professional portfolio, to identify self-awareness through various self-assessments and apply these results to the workplace and other environments, to write goal statements and understand their value, to develop an individual history of events and achievements, and to identify significant learning experiences throughout the student's life.

10105128 Career Exploration

...prepares the student to develop a career plan, write a resume, create a cover letter, prepare for an interview, search for work on the Internet, adapt a resume for an electronic scan, and post a resume and cover letter on the Internet. **PREREQUISITE:** *10105124 Portfolio Introduction*

10182102 Service Operations Management

...introduces the student to the basic coverage of the concepts and current issues in service operation management. Topics include the value equation in operations management; understanding services; building the service system; operating the service system; enterprise resource management (ERP) and supply chain management concepts in the service sector.

10182106 Strategic Resource Management

...introduces the learner to explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.

10182131 Supply Chain Management

...has been developed to provide a basic understanding of the planning and control of materials into, through, and out of organizations. In addition, those who want to become certified by APICS need a fundamentals course to learn about the material planning and control system. This course will provide a basis for further study leading to certification. **COREQUISITE:** *Microsoft Word, Excel or equivalent*

10623101 Quality Concepts

... provides an overview of quality systems, methods and analysis using Minitab software. Basic quality philosophies such as Deming's principles, continuous improvement, quality costs, supplier relations and inspection theory will be presented. The components of a basic quality system compatible with ISO9000 and Six Sigma will be explored. Minitab software will be taught and utilized to collect and analyze data. Techniques such as pareto, trend analysis, histograms, cause and effect diagrams and corrective/preventive action techniques will be applied to the data in order to address problems and improve processes. **COREQUISITE:** *Microsoft Word and PowerPoint skills or equivalent*

10623110 Six Sigma Tools for Green Belts - Measure and Analyze

...provides the learner with the skills to collect and analyze data to solve problems and improve processes within an organization. The learner will utilize statistical techniques for process mapping, failure mode and effects analysis, probability, confidence intervals, measurement systems analysis, and hypothesis testing to create and implement a data collection plan. Will accept 10623119 Six Sigma Tools for Supply Chain Managers in place of this class. **COREQUISITES:** *Microsoft Excel skills or equivalent*

10623111 Six Sigma Tools for Green Belts - Improve & Control

...provides the student with the skills and tools to select and implement solutions to solve problems and improve processes within an organization. An emphasis will be placed on the use of statistical techniques to create and select solutions. The student will learn how to create a control plan to implement solutions. Statistical techniques emphasized will be correlation, regression, statistical process control, control plan development, and mistake proofing. **COREQUISITE:** *10623110 Six Sigma Tools for Green Belts-Measure & Analyze or 10623119 Six Sigma Tools Mtls Mgmt and Microsoft Excel Skills or equivalent*

10623112 Six Sigma Tools for Green Belts - Implementation

...introduces the student to the implementation of a six sigma project. Students will apply the techniques used in the above courses on a real problem in their place of employment. An emphasis will be placed on team skills required to successfully implement the project. Skills emphasized will be project charter, time management, and constraint management. **COREQUISITE:** *10623111 Six Sigma Tools for Green Belts-Improve & Control*

10623114 Six Sigma Black Belt Supplement

...provides the student with the knowledge to achieve the level of Six Sigma --Black Belt. Students are expected to possess additional proficiency in high level Statistical Analysis, Reliability, Life Testing, and Project Management through the DMAIC process. Hypothesis Testing, Analysis of Variance, Design of Experiments, Failure Rates and MTBF are explored. Students will learn how to "build quality in" at the design stage by use of the concepts of Design for Six Sigma (DFSS) and Minitab. **PREREQUISITES:** *10623119 Six Sigma Tools-Supply Chain or 10623110 Six Sigma-Meas/Analyze, and 10623111 Six Sigma-Improve/Cntrl or 10623111C3 Six Sigma-Improve/Cntrl and 10623112 Six Sigma-Impl Proj or Equiv Six Sigma Green Belt Cert involving a Project*

10623115 Portfolio Assessment-Quality

...prepares the student to identify what they have learned throughout the quality assurance program, write career goals, re-examine their resume, research and collect project samples of their achievements, and analyze their achievements within the college core abilities. **PREREQUISITES:** *10105124 Portfolio Introduction and 10105126 Career Assessment*

10623118 Lean Manufacturing and Execution Control

...expands the learner's ability to develop skills to prioritize and sequence work, execute work plans, implement controls, and create and analyze performance evaluations. It allows the student to explore the execution of quality initiatives and continuous improvement plans in addition to the control and handling of inventories.

10623123 Blueprint Reading, Metrology and Calibration

...provides knowledge and skill in the understanding of quality measurement, quality measurement devices and their proper application. Quality measurement topics include precision, accuracy, control of variation, gage R/R, calibration techniques and blueprint/specification reading. The quality measurement devices portion of this course provides hands-on use of common measurement and test equipment. The applications portion shows how measurement and test equipment is used to ensure useful results in practical situations.

10623131 Planning for Six Sigma

...uses Design for Six Sigma (DFSS) tools and techniques to build high levels of quality into the design of products, services, and processes. The DMADV process is used to identify critical-to-customer requirements and incorporate them into effective specifications, methods and process controls. The techniques for the automotive APQP process and the Stage-Gate qualification system used by industrial, health care and service businesses, are presented and applied to the course materials.

10623193 ISO 9001:2008

...is designed to introduce participants to the QS/ISO 9001: 2008 standards. The course is structured to teach the QS/ISO 9001: 2008 standards, how to document procedures, and how to perform audits. All of the QS automotive standards will be introduced.

10801195 Written Communication

...teaches the writing process, which includes prewriting, drafting, revising, and editing. Through a variety of writing assignments, the student will analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Keyboarding skills are required for this course. It also develops critical reading and thinking skills through the analysis of a variety of written documents. **PREREQUISITE:** *10831103 Intro to College Wrtg or CONDITION: Written Comm Prepared Learner (Accuplacer Wrtg min score of 86 or Equivalent) and COREQUISITE: 10838105 Intro Rdg & Study Skills or CONDITION: Reading Accuplacer min score of 74 or equivalent*

10801198 Speech

...explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form the basis of the course. **COREQUISITE:** *10838105 Intro Reading and Study Skills or CONDITION: Reading accuplcer minimum score of 74 or equivalent*

10804123 Math w Business Apps

...covers real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, apply math concepts to the purchasing/buying process, apply math concepts to the selling process, and basic statistics with business/consumer applications. **PREREQUISITE:** *Accuplacer Math minimum score of 79 or Equivalent or 10834109 Pre-Algebra and COREQUISITE: 10838105 Intro Reading and Study Skills or CONDITION: Reading accuplcer minimum score of 74 or equivalent*

10806112 Principles of Sustainability

...prepares students to develop sustainable literacy, analyze interconnections among physical and biological sciences and environmental systems, summarize effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal/recycling in the U.S., and analyze approaches used by your community.

10809195 Economics

...provides the participant with an overview of how a market-oriented economic system operates, and it surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues. **COREQUISITE:** *10838105 Intro Reading and Study Skills or Accuplacer Reading score of 74 or equivalent*

10809196 Introduction to Sociology

...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. **COREQUISITE:** *10838105 Intro Reading and Study Skills or Accuplacer Reading score of 74 or equivalent*

10809198 Intro to Psychology

...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. **COREQUISITE:** *10838105 Intro Reading and Study Skills or Accuplacer Reading score of 74 or equivalent*