LTC *LAKESHORE TECHNICAL COLLEGE*

ABOUT THE PROGRAM

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.

PROGRAM OUTCOMES

• 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 Lean Six Sigma concepts of continuous improvement.
• Understand quality systems used currently in industry. These systems include, ISO 9000, Malcolm Baldridge, and Deming Prize.
• Plan quality audits to assure quality systems are working and take corrective action through continuous improvement.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

LTC credits transfer to over 30 universities. For more information visit gotoltc.edu/future-students/transfer.

PROGRAM ADMISSIONS STEPS

• Work with Career Coach to:
 - Submit application and $30 fee.
 - Submit official transcripts (high school and other colleges).

ENROLLMENT PROCESS

After you are admitted to your program you will meet with your Advisor to plan your first semester schedule, review your entire plan of study, discuss placement assessment results and complete any additional enrollment requirements. Enrollment requirements for this program's courses include:
 - Complete an assessment for placement (Accuplacer or ACT).
 - Complete Functional Abilities Statement of Understanding form.
 - Meet with your program's advisor.

APPROXIMATE COSTS

• $140 per credit (resident)
• Other fees vary by program (books, supplies, materials, tools, uniforms, health related exams, etc.) Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit gotoltc.edu/Financial-Aid or talk with your Career Coach about how to apply for aid.

CONTACT

LTC Career Coach
920.693.1162 • CareerCoach@gotoltc.edu

Catalog No.	Class Title	Credit(s)
	Term 1	
10103131	Word 2013-Level 1	1
10103181	Excel 2013-Level 1	1
10182131	Supply Chain Management	3
10623101	Quality Concepts	3
10623118	Lean Manufacturing Overview	3
10801195	Written Communication OR 10801136 English Composition 1	3
10809198	Introduction to Psychology OR 10809188 Developmental Psychology	3
		17
	Term 2	
10809166	Intro to Ethics OR 10806112 Principles of Sustainability	3
10801198	Speech OR 10801196 Oral/Interpersonal Communications	3
10804123	Math with Business Applications	3
10623193	ISO 9001 Internal Auditor OR 10623195 ISO 9001 Concepts	3
10809195	Economics	3
		15
	Term 3	
10101155	Accounting for Professionals	3
10105128	Personal Branding	2
10196188	Project Management	3
10623110	Lean Six Sigma - Measure and Analyze	4
10623111	Lean Sigma Tools - Improve & Control	4
		16
	Term 4	
10182102	Service Operations Management	3
10623112	Lean Six Sigma - Implementation	3
10623114	Lean Six Sigma Tools - Black Belt	4
10809196	Introduction to Sociology OR 10809122 Introduction to American Government	3
		13
		TOTAL 61

Curriculum and Program Acceptance requirements are subject to change.
Program start dates vary; check with your advisor for details.

The **Hire** in HIGHER EDUCATION

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. PREREQUISITE: 10804123 Math w Business Applications or CONDITION: 101101 Paralegal program requirements met

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 equivalent

EXCEL 2013 - LEVEL 1…introduces the student to creating, modifying and formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks. This course is offered in a self-paced format.

INTRODUCTION 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 equivalent

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 equivalent

ISO 9001 INTERNAL AUDITOR…is designed to introduce participants to the current QS/ISO 9001 and ISO 19011 standards. The course is structured to provide a detailed review of the standards, how to document procedures, and how to perform audits. Students will practice preparation for and conducting audits in a local business. Successful completion of this course qualifies the student to receive the ISO 9001 Internal Auditor certificate (19-623-8)

LEAN MANUFACTURING OVERVIEW...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.

LEAN SIX SIGMA - IMPLEMENTATION…introduces the student to the implementation of a six sigma project. Students apply the techniques used in prior Lean Six Sigma courses to a real problem in their place of employment. An emphasis is placed on team skills required to successfully implement the project. Skills demonstrated include project initiation, time management, and constraint management. Student final projects demonstrate their mastery of both DMAIC and Lean methodologies. COREQUISITE: 10623111 Lean Six Sigma-Improve & Control

LEAN SIX SIGMA - IMPROVE & CONTROL…provides the student with the skills and tools to select and implement solutions to solve problems and improve processes. An emphasis is placed on the use of statistical techniques in solution selection including correlation, regression, and statistical process control. Lean manufacturing methods including SMED, POUS, cellular manufacturing, mistake proofing, TPM, 5S and visual management are practiced. Students learn how to create a control plan. MiniTab skill expansion is included.

LEAN SIX SIGMA - MEASURE AND ANALYZE...provides the student with skills and tools to collect and analyze data to solve problems and improve processes within an organization. Various techniques for process mapping are explored including SIPOC, FMEA, VSM, standard work sheets, and spaghetti diagrams. Statistical tools are explored including probability, confidence intervals, measurement systems analysis, hypothesis testing, and TAKT time analysis to create and implement a data collection plan. MiniTab introduction is included.

LEAN SIX SIGMA TOOLS - BLACK BELT...provides the student with the knowledge to achieve Lean Six Sigma-Black Belt. Students demonstrate additional proficiency in high level statistical analysis including reliability, hypothesis testing, ANOVA, DOE, failure rates & MTBF. Project management through the DMAIC process is examined. Students learn how to "build quality in" at the design stage by use of the concepts of design for six sigma (DFSS). Advanced lean tools are explored including 3P, Jidoka, and Heijunka. PREREQUISITES: 10623119 Six Sigma Tools-Supply Chain or 10623110 Lean Six Sigma-Meas/Analyze & 10623111 Lean Six Sigma-Improve/Cntrl or 10623111C3 Six Sigma-Improve/Cntrl & 10623112 Lean Six Sigma-Impl or Equiv Six Sigma Green Belt Cert w/Project

MATH WITH BUSINESS APPLICATIONS...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: 10834109 Pre-Algebra or equivalent and COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

PERSONAL BRANDING...focuses on the importance of developing a strong brand identity for yourself as a professional. As a prospective employee, you are constantly selling yourself from how you talk, walk, dress, your facial expressions, and your body language; people are always forming impressions of you. In this course, you will develop a professional resume, cover letter, practice interview skills, and learn the role of social media in career development.

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. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

PROJECT 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.

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.

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.

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 equivalent

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.

WORD 2013 - LEVEL 1…introduces the student to word processing features such as creating, saving, editing, formatting, and printing documents, creating basic diagrams, and applying these concepts to produce usable documents. This course is offered in a self-paced format.

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 equivalent and COREQUISITE: 10838105 Intro Rdg & Study Skills or equivalent