

MANUFACTURING ENGINEERING TECHNOLOGY - QUALITY ASSURANCE MAJOR, ASSOCIATE OF APPLIED SCIENCE

Curriculum Code #6224

Division of Engineering, Business and Information Technologies (<http://catalog.lorainccc.edu/academic-programs/engineering-business-information-technologies/>)

The quality assurance program is designed to provide students with the knowledge and cognitive skills necessary for the competent proficiencies as an entry-level quality technician. Employment opportunities exist as a quality technician or inspector, process control specialist, reliability lab technician or analyst, quality auditor, gauge control technician, or quality assurance analyst. Lorain County Community College has articulation agreements with colleges and universities including programs offered by LCCC's University Partnership.

Students may select a Manufacturing Engineering Technology – Quality Assurance Maintenance Option*

First Year

Fall Semester		Hours
CADD 111	INTRODUCTION TO COMPUTER AIDED DRAFTING ¹	2
MTHM 155	TECHNICAL MATHEMATICS I	4
QLTY 111	QUALITY MEASUREMENTS - METROLOGY	3
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ³	1
TECN 111	TECHNICAL PROBLEM SOLVING	3
TECN 115	INDUSTRIAL BLUEPRINT READING	2
Hours		15

Spring Semester		Hours
CADD 235	DETAILING AND DIMENSIONING ²	3
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 156 or MTHM 168	TECHNICAL MATHEMATICS II ² or STATISTICS	3-4
QLTY 122	BASIC QUALITY TOOLS AND APPLICATIONS ²	3
TECN 245	GEOMETRIC DIMENSIONING AND TOLERANCING ²	2
Arts and Humanities Elective ⁵		3
Hours		17-18

Second Year

Fall Semester		Hours
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS ²	3
ELCT 111	ELECTRICAL CIRCUITS I ⁴	3
PHYC 150	GENERAL PHYSICS I ²	4
TECN 131	MANUFACTURING PROCESSES I ¹	3

Social Science Elective		3
Hours		16
Spring Semester		
QLTY 221	QUALITY MANAGEMENT PRINCIPLES AND PRACTICES	3
QLTY 234	LEAN SIX SIGMA FOR PROCESS IMPROVEMENT ^{2, 4}	4
QLTY 236	RELIABILITY CENTERED MAINTENANCE ²	3
QLTY 287	WORK-BASED LEARNING I - QLTY ²	1
TECN 132	MANUFACTURING PROCESSES II ²	3
Hours		14
Total Hours		62-63

1

Indicates that this course has a prerequisite or may be taken concurrently.

2

Indicates that this course requires a prerequisite.

3

A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 13 or more credit hours.

4

Students intending to take the Maintenance Option* should substitute WTEC 112, WTEC 217, WTEC 221 in place of ELCT 111 and QLTY 234. (Note: This will result in 1 additional semester credit hour to the program for a total of 63 semester credit hours.)

5

Select any Arts and Humanities Ohio Transfer 36 (<http://catalog.lorainccc.edu/academic-information/transfer-module-requirements/>) course.

Social Science Electives

Code	Title	Hours
HSTR 151G	CIVILIZATION I	3
HSTR 152G	CIVILIZATION II	3
HSTR 161	UNITED STATES I	3
HSTR 162	UNITED STATES II	3
HSTR 171G	THE WORLD SINCE 1900	3
HSTR 252G	WOMEN IN WORLD HISTORY	3
HSTR 267G	AFRICAN AMERICAN HERITAGE	3
PLSC 156	AMERICAN NATIONAL GOVERNMENT	3
PSYH 151	INTRODUCTION TO PSYCHOLOGY	3
SOCY 151G	INTRODUCTION TO SOCIOLOGY	3

Program Contact(s):

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For information about admissions, enrollment, transfer, graduation and other general questions, please contact your advising team (<https://www.lorainccc.edu/admissions-and-enrollment/advising-and-counseling/>).

1. Apply basic quality problem solving tools and techniques to manufacturing process centered problems for quality improvement.
2. Use principles of quality management to increase profitability by making process improvements throughout an institutional organization system.
3. Use appropriate software for statistical process capability analyses for effective improvements.
4. Develop and implement effective quality improvement plans and procedures, which encourage team work and employee involvement.
5. Effectively employ lean principles and six sigma process applications in oral presentations and written legal documents.