QUALITY ASSURANCE - TWO YEAR CERTIFICATE OF COMPLETION (CC2)

Description

The Quality Assurance Two Year Certificate of Completion program is a self-directed, outcome-based program designed to prepare students for technician-level employment in manufacturing in the quality assurance field.

Learning Outcomes

1. Demonstrate appropriate basic technical knowledge and practical skills necessary for entry-level employment in the Quality Assurance field, including but not limited to:
   a. Demonstrate the ability to safely perform routine workplace tasks in a manufacturing environment.
   b. Demonstrate the ability to perform routine service, calibration, and inspection of typical machinery and equipment.
   c. Demonstrate entry-level technical manufacturing skills consistent with industry standards and process improvement.
   d. Demonstrate the ability to inspect and evaluate manufactured component by use of traditional and new technology inspection tools within compliance of industry specifications or code.
   e. Demonstrate the acquisition of workplace human dimension skills as well as inspection documentation and reporting forms.

Entrance Requirements

Academic Entrance Requirements

- Recommended:
  - High school diploma or GED.
  - Completion of MTH 060 Beginning Algebra I or minimum placement Math Level 10.
  - Successful completion of or current enrollment in MFG 100 MFG Orientation.
  - College level computer skills.

Additional Program Costs (beyond standard tuition/fees and textbooks)

Material Costs

- Welding personal protective equipment and tools, approximately $400.

Enrollment Fees

- Fees on specific MFG courses ($260 total).

Course Requirements

Course	Title	Credits
Core Courses [1]		
MFG 100	MFG Orientation	1
MFG 101	Blueprint Reading	3
MFG 102	Blueprint Reading Sheet Metal	2
MFG 103	Welding Technology I	4
MFG 109	Lean Practices	2
MFG 110	Manufacturing Processes I	4
MFG 112	Manufacturing Processes II	3
MFG 115	Design Processes I	4
MFG 133	Quality Assurance	3
MFG 160	Materials Engineering	2
MFG 202	Metals Preparation	2
MFG 203	Layout	2
MFG 238	Optical Comparator	1
MFG 239	Coordinate Measurement Machine	1
MFG 254	Manufacturing Jigs and Fixtures	2
MFG 262	Welding Inspection/Quality Control	2
Other Required Courses		
Choose one from the following:		3-4
BA 178	Customer Service	
BA 285	Business Human Relations	
COMM 115	Introduction to Intercultural Communication	
COMM 218	Interpersonal Communication	
COMM 219	Small Group Communication	
MTH 102	Applied Technical Mathematics (or choose from the foundational requirements math list)	4
WR 121	Academic Composition	4
Total Credits		49-50

[1] Most manufacturing courses carry a $25-$75 fee to cover software or lab materials (see class schedule for individual courses and fees).

Advising Notes

Nearly all MFG courses are self-directed, outcome-based curricula. This provides students with a greater degree of flexibility than most other COCC programs. The Manufacturing and Applied Technology Center (MATC) hours of operation provide students with ample time to complete their coursework during a term.

Upon starting their program, students review their desired certificate outcome with their advisor and a sequence of coursework is identified for them. With the exception of classes in a series (e.g. Manufacturing Processes I, II, III) or those with specific prerequisites (as identified in the catalog) most classes can be taken in any order, provided that instructor permission is obtained.

This two year certificate is designed for students planning to enter their chosen career upon graduation. Often only selected credits are considered transferable to public or private baccalaureate institutions. Prior to starting any manufacturing technology program, students are advised to contact the institution to which they intend to transfer and identify what credits may be transferable.

Performance Standards

- Academic Requirements:
  - Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.

- All courses in the program must be completed with a grade of C or higher.

Sample Plan

First Term		Credits
MFG 100	MFG Orientation	1
MFG 101	Blueprint Reading	3
MFG 103	Welding Technology I	4
MFG 110	Manufacturing Processes I	4
MFG 202	Metals Preparation	2
MTH 102	Applied Technical Mathematics (choose from the foundational requirements math list)	4
	Credits	18
Second Term		
MFG 112	Manufacturing Processes II	3
MFG 115	Design Processes I	4
MFG 133	Quality Assurance	3
WR 121	Academic Composition	4
	Credits	14
Third Term		
MFG 102	Blueprint Reading Sheet Metal	2
MFG 109	Lean Practices	2
MFG 160	Materials Engineering	2
MFG 203	Layout	2
MFG 238	Optical Comparator	1
MFG 239	Coordinate Measurement Machine	1
	Credits	10
Fourth Term		
Choose one from the following:		3-4
BA 178	Customer Service	
BA 285	Business Human Relations	
COMM 115	Introduction to Intercultural Communication	
COMM 218	Interpersonal Communication	
COMM 219	Small Group Communication	
MFG 254	Manufacturing Jigs and Fixtures	2
MFG 262	Welding Inspection/Quality Control	2
	Credits	7-8
	Total Credits	49-50