

CAMM 155

Quality Concepts in Manufacturing

3 Credits

Community College of Baltimore County Common Course Outline

Description

CAMM 155 – Quality Concepts in Manufacturing: includes an overview of technological literacy, total quality management concepts, and a review of quality practices with local industries. Students receive instruction on basic statistics and applications of graphic tools used in statistical process control.

Pre-requisites: ACLT 052 or ACLT 053 or (ESOL 052 and ESOL 054) and MATH 081

Overall Course Objectives

Upon completion of this course, students will be able to:

1. describe the primary function, responsibility, and working procedures for personnel in quality and inspection positions;
2. differentiate various manufacturing technologies and the advantages and disadvantages of each technology;
3. explain the history of the technological ages and the various technological achievements of each;
4. demonstrate technological literacy and key techniques used in industry;
5. implement the basic concept of continuous process improvement and product variation;
6. apply the Plan, Do, Check, Act (PDCA) cycle to solve a given problem;
7. evaluate quality culture in the workplace using industry standards;
8. interpret basic chart/graph tools used in statistical process control;
9. determine which chart/graphic tool to use in a particular inspection situation;
10. categorize the different levels of quality audits; and
11. use a manufacturing process audit checklist.

Major Topics

- I. Quality and Inspector Processes Assessor Job Description
- II. Manufacturing Technologies
- III. History of Technology
- IV. Characteristics of a Technologically Literate Person
- V. Total Quality Management
- VI. General Quality Culture
- VII. Local Industry Quality Culture

The Common Course Outline (CCO) determines the essential nature of each course.
For more information, see your professor's syllabus.

- VIII. Production Processes
- IX. Quality Control Plans
- X. Statistical Process Control
- XI. Basic Statistics and Applications
- XII. Statistical Process Control Charts
- XIII. Quality Improvement: Audits

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- One written paper or project
- Five quizzes
- Six homework assignments
- Midterm exam
- Final exam

Date Revised: 12/1/2020