A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 0
Lab Hours/Week: 0
OJT Hours/Week: *
Prerequisites: None
Corequisites: None
MnTC Goals: None

The course teaches the theory and applications of statistical analysis, quality problem solving and implementation. Prerequisites: Junior status or consent of instructor.

B. COURSE EFFECTIVE DATES: 08/01/2024 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Advanced Topics in Quality
2. Benchmarking and Auditing
3. Other variable control charts
4. Probability
5. Process Capability
6. Quality Costs
8. Quality advocates and Total Quality Management
9. Quality basics
10. Quality control charts for attributes
11. Quality improvement: Problem Solving
12. Reliability
13. Statistics
14. Variable Control Charts

D. LEARNING OUTCOMES (General)

1. describe key concepts related to the Quality field.
2. identify and discuss the achievements of the quality masters.
3. utilize different systematic techniques for problem solving purposes.
4. develop tools and diagrams to understand customer's needs.
5. determine descriptive statistics (e.g. Mean) for a given set of numbers.
6. create and interpret a frequency diagram and a histogram.
7. distinguish the difference between common cause and special cause variation.
8. construct control charts for variables and attributes in support of related analysis.
9. formulate and evaluate process capability data.
10. measure the reliability of systems.
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted