

COURSE SYLLABUS

Division: Workforce Services

Revised: January 2015

Course, Section No. and Course Title: IND 235 Statistical Quality Control

Course in which course is taught: Polymer and Advanced Manufacturing

Credit Hours: 3

Hours/Day Lecturer: 2-3

Lab: 1-2 hours

Lecturer/Lab Combination: 3-4

I. Catalog Description:

Statistical quality control gives an overview of the quality control functions within industry. May include the organization, cost and techniques of quality control. Emphasizes essentials and applications of statistics in the quality control function.

II. Relationship of the Course to Curricula Objectives in which it is taught:

Non-Curricula.

III. Required None.

IV. Course Content

- History of Statistical Quality Control
- Deming (and others) philosophy and approach
- Shewhart's concept of Statistical Quality Control
- Rational sampling
- Process capabilities and measurement
- Tolerance assessment
- Various types of control charts and tools
- Chance and assignable causes
- Cost of quality

V. LEARNER OUTCOMES:

VI: EVALUATON:

<p>The learner will have an understanding of the place quality has in the manufacturing process.</p> <p>The learner will have knowledge of the tools and control techniques used to maintain a high standard of quality in the manufacturing process.</p>	<p>Evaluation of the student will be based on the following written reports with oral presentation in class, quizzes, homework assignments, class participation and attendance and final exam</p>
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<p>The learner will feel comfortable making line decisions using tools and control techniques to maintain quality in the manufacturing process.</p>	
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<p>The learner will understand the reasoning for the use of control charts and/or process control software.</p>	
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<p>The learner will learn how to use histograms and capability analysis tools in the quality control process.</p>	
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The course supports the following DCC Educational Objectives

- Communication
- Critical Thinking
- Computation and Computer Skills
- Understanding Culture and Society