**SOUTH SUBURBAN COLLEGE**

**SOUTH HOLLAND, IL 60473**

**COURSE OUTLINE GUIDE**

**ICCB Course Name and Number** MFG 103 **Semester Hours:** 3

**IAI Number:**

**Curriculum:** MFG.BASIC

**Required:** Yes **Elective:** **Replacement for:**

**Contact:** Becky Admave 708-210-5763 badmave@ssc.edu **Date Submitted:** March 2014

**Course Title: SSC Catalog/ICCB: (36 characters)** Quality and Measuring in Manufacturing

**Contact Hrs: Lecture -**  2 **Lab -**  2 **Intern -**  0

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**Description of course to appear in catalog: (Include prerequisites, lab fee, etc.)**

This course provides exploration of the field of manufacturing, including key skills needed in the manufacturing world and provides an introduction to controlling and improving quality in a manufacturing setting. It explores ways that manufacturers use data and analysis to improve quality. Students will have the opportunity to earn the Quality and Measurement Certification through the Manufacturing Skill Standards Council (MSSC).

**Description for Schedule: (two sentence maximum)**

* **Pre-requisites:** None
* **Lab Fee:** $175, includes certification testing
* **Textbook(s) and other required materials:** (include author, title, publisher, etc.)

Manufacturing Skill Standards Council, *High-Performance Manufacturing*,
Woodland Hills, CA, 2006 ISBN 0-07-861487-2

Warren Hammer, *Blueprint Reading Basics*, 3rd ed., Industrial Press, 2001. ISBN: 978-0831-131258.

**General objectives of the course:** (8-10 measurable objectives preferred)

At the conclusion of the course, the student will be able to:

1. Explain the key elements of a quality system.

2. Identify the steps involved in building quality into a product.

3. Explain the importance of data collection and analysis to quality.

4. Identify the roles of management and production workers regarding quality.

5. Identify methods of inspecting materials, processes, and final products.

6. Demonstarte an understanding of basic measurements in manufacturing.

7. Read basic drawings and blueprints for manufacturing.

8. Demonstrate an understanding of geometric dimensioning and tolerance.

**Other Aims of this Course**:

**Topical Outline: (may be on a weekly basis)**

1. Internal Quality Audit activities
2. Calibration of Gages
3. Continous Improvements
4. Inspection of materials and products at all phases
5. Documentation
6. Communication of quality issues
7. Corrective actions
8. Outcomes and trends
9. Fundamentals of blue print reading
10. Common measurement systems
11. Precision measurement tools.

**Methods of presentation:** (Include out-of-class requirements such as field trips, etc.)

Lecture, Demonstration, Problem solving, small groups and discussion

**Methods of evaluation:**

Tests, quizzes, and student presentations

**Course Requirements**:

1. **Materials**:

2. **Space Needs**: Classroom

3. **Library Holding Needs**:

4. **Instructors:** Does certification criteria require that a full-time faculty member be employed for the program to be accredited? NO.

 If yes, would the College need to hire a full-time faculty member for this purpose or is there one already in place.

5. **Impact on Enrollment:** Estimate the impact this course will have on enrollment in other courses in the same division or group requirement. Enrollments should complement each other.

**6. Statement of Possible Conflict or Overlap:** Indicate statements of agreement or disagreement of other faculty members or division directors concerning subject matter content of course and its relationship with existing course.

**7. Are you considering this course for the General Education Requirements?**

**Yes []** **No [X]**

 **If yes, give rationale why and in what grouping.**

**8. Class Capacity:**What is the expected class capacity for this course? 24

If the capacity is different than standard contractual capacities of 38 lectures and 24 lab size classes, please submit supporting documentation and a rationale for the proposed variation in class size.

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9. **Outcomes Assessment Component:** Provide details of the assessment measures that will be used in this course.

100% of students who complete the course will take the MSSC Quality Assessment.

10. **General Education Objectives: G1, G4, T1, C1, C4 , M1**

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