**SOUTH SUBURBAN COLLEGE**

**SOUTH HOLLAND, IL 60473**

**COURSE OUTLINE GUIDE**

**ICCB Course Name and Number** MFG 107 **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)** Manufacturing Maintenance

**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 further exploration of the field of manufacturing, including key skills needed in the manufacturing world, provides a basic understanding of tools and equipment used in manufacturing, and knowledge of how to improve productivity through predictive and preventive maintenance. Students will have the opportunity to earn the Maintenance Certification through 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

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

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

1. Identify common tools and equipment.
2. Identify how tools and equipment are used in manufacturing.
3. Identify proper tool maintenance and housekeeping procedures.
4. Identify safety systems and sensors on tools and equipment.
5. Explain the purpose of preventive and predictive maintenance.
6. Demonstrate an understanding of the importance of routine repair to maintain a production schedule.
7. Recognize potential maintenance issues with basic production systems, including when to inform about problems with
	1. Electrical systems
	2. Pneumatic systems
	3. Hydraulic systems
	4. Machine automation systems
	5. Lubication processes
	6. Bearings and couplings
	7. Belts and chain drives
8. Demonstrate an understanding of how to utilize technical manuals and SOPs.

**Other Aims of this Course**:

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

1. Tools on the Job
2. Computers in Manufacturing
3. Tool Related Safety
4. Ergonomics
5. Routine Maintenance
6. Preventive Maintenance
7. Predictive Maintenance
8. Equipment Procedures and Training

**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**: Textbook

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 MSSC Maintenance Assessment.

10. **General Education Objectives: G1, G4, T1, T2, C1, C4**

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