

**Hagerstown Community College  
OFFICIAL MASTER SYLLABUS DOCUMENT**

**COURSE: ADM 201 Lean Manufacturing & Quality Assurance**

**Credits 3**

**INSTRUCTOR:**

**SEMESTER/YEAR: Spring 2018**

**COURSE DESCRIPTION:**

This course teaches students the principals, concepts, techniques, and application of Lean Manufacturing and Quality Assurance in today's Advanced Manufacturing Environment as well as other technology based businesses. Subjects include 5S, with a focus on Safety, Morale, Extended Equipment Life, and Decreased Downtime and Defects. Six Sigma, using a systematic approach and statistical methods to improve product quality by minimizing variability in a process. Root Cause Analysis, using the 5 Whys strategy. Kaizen, using Continuous Improvement Techniques requiring both conscious and sub-conscious thinking about improvements from everyone involved in the process. Quality Assurance, focusing on techniques used to systematically monitor and evaluate various aspects of a project, service, or facility, to ensure that standards of quality are being met. Internationally agreed standards such as ISO will be discussed. Pre-req English 99 or higher. Web Based instruction is used.

**TEXTBOOK:**

**Quality Management for Organizational Excellence: Introduction to Total Quality, 8<sup>th</sup> Edition**

Author: David L. Goetsch, Stanley B. Davis

**REFERENCES (optional):**

**Total Productive Maintenance, 1st Edition**

Author: Steve Borris

Publisher: McGraw-Hill Education. ISBN-13:9780071467339 Hardcover ISBN: 0071467335

**The Lean Toolbox: A Handbook for Lean Transformation, 5<sup>th</sup> Edition**

John Bicheno, Matthias Holweg

Publisher: PICSIE Books, 2016

**STUDENT LEARNING OUTCOMES:**

After successfully completing this course, students will be able to:

- apply Total Productive Maintenance concepts.
- apply Lean Manufacturing concepts.
- understand and apply Six Sigma concepts.
- demonstrate an understanding of teamwork and its benefits.
- demonstrate an understanding the effects of negativity and culture change.
- understand and apply Problem Solving and Decision Making techniques.

**CREDIT HOUR EXPLANATION**

**Total Hours of Coursework:**

To earn one academic credit at HCC, students are required to complete a minimum of 37.5 clock hours (45 fifty-minute "academic" hours) of coursework per semester. Those hours of

coursework may be completed through a combination of hours within the classroom and hours outside the classroom. Certain courses may require more than the 37.5 minimum hours of coursework per credit. For most classes, students should expect to do at least 2 hours of coursework outside of class for each hour of in-class coursework.

<b>Assignment/Assessment</b>	<b>Clock Hours 135</b>
Textbook Chapter Readings	40 hrs
Chapter Review Questions and Answers	35 hrs
Project or Assignments	30 hrs
Exam Preparation	30 hrs

**Services for Students with Disabilities:** Students may receive reasonable accommodations if they have a diagnosed disability and present appropriate documentation. Students seeking accommodations are required to contact the Disability Support Services (DSS) office as early as possible. Students may contact a DSS staff member for an appointment at [dss@hagerstowncc.edu](mailto:dss@hagerstowncc.edu) or at 240-500-2530