

**Introduction to Lean Manufacturing – Fall 2016**  
**Course #: MFG K171, CRN 33043**

<b>Instructor:</b>	Charles (Chip) O'Lari
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<b>Class Hours:</b>	Thursday 6:30-9:15PM Room D128
<b>Office Hours:</b>	Before or after class, or by appointment
<b>Required Text:</b>	Lean For Dummies, 2 <sup>nd</sup> Edition, by Sayer & Williams, John Wiley & Sons, ISBN 978-1-118-11756-9

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**Course Description:**

The purpose of this course is to provide the student with the fundamental knowledge of current productivity improvement methodologies in use today within competitive manufacturing environments. This introductory course will expose the student to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. At the completion of the course, the student will be competent to participate effectively as a team member in lean implementation projects.

**Course Objectives:** By the end of this course students will be able to:

1. Understand Lean Manufacturing concepts
2. Use the tools of Lean Manufacturing
3. Participate in lean projects and Kaizen events

**Disabilities Statement:**

Students with disabilities are guaranteed reasonable accommodation under the provisions of the Americans with Disabilities Act of 1992. Disclosure of a disability must be voluntary and initiated by the student. For further assistance, please contact Matt Liscum in the Office of Disability Services at 860.215.9265 or [mliscum@threerivers.edu](mailto:mliscum@threerivers.edu). Please note that an instructor cannot provide disability accommodations until a student provides the necessary paperwork from the college's Office of Disability Services.

**Academic Integrity:**

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor.

**Plagiarism:**

Plagiarism is the unacknowledged use of another person's work or ideas in your writing. It is often known as copying word-for-word. However, even paraphrasing without acknowledgement or using the ideas of peers garnered from class discussion or a study group is considered plagiarism. Whether it is conscious or unconscious, plagiarism is a serious academic offense. Your writing for this course, and any other course at TRCC, is expected to

be original, and the product of your own thinking. A student who has plagiarized will receive a ZERO on his/her assignment and may be reported to the Academic Dean and/or Student Services Dean for disciplinary action.

### **Technology Statement:**

The use of cell phones or other technological devices is not permitted during class time, unless deemed appropriate by the instructor.

### **Electronic Learning Portfolios:**

All students are required to maintain an online learning portfolio in [Digication](#) that uses the college template. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

### **Email:**

Correspondence by email is considered a method of formal communication. Emailing an instructor is not the same as emailing or texting a friend. Please use a proper salutation, complete sentences, punctuation, proper spelling and identify yourself by name in the body of the email. **Students must use their [college issued email account](#). College issued email is the official mode of communication used by the college to contact students.**

### **Class Cancellation:**

To determine if the college is closed, please visit the TRCC webpage at <http://www.trcc.commnet.edu/> and/or sign-up for notification through MyCommNet ALERT.

### **College Withdrawal Policy:**

Course withdrawals are accepted up until the week before classes end. Withdrawal forms are available online or at the Registrar's office. The withdrawal does not have to be signed by the instructor but it is strongly advised that you speak with your instructor before withdrawing. If necessary, you can withdraw over the phone by calling the Registrar's Office at 860.215.9064. Emails and faxes are also accepted. If you are receiving financial aid, it is strongly recommended that you contact the [Financial Aid Office](#) before withdrawing. Withdrawal may affect your financial aid for current and/or future semester(s). It is your responsibility to confirm that the withdrawal has been received.

**The last day to withdraw from the Fall 2016 semester is December 9, 2016**

### **Class Attendance and Homework:**

**Attendance/Participation:** You are expected to attend all classes. Participation in class is part of the final grade. Lecture portion of course is on Powerpoint slides. All slide presentations are posted on Blackboard prior to the start of that Unit. Students are encouraged to print slide presentations from Blackboard to bring to class. If a student is unable to attend class, it is your responsibility to complete any missed assignments.

**Instructor Assistance:** Seeking help from the instructor outside of class is encouraged if you are having difficulty understanding course material. You are encouraged to seek assistance during class as well as during other times by appointment.

**Homework:** Homework is an important part of this course. All homework assigned is due by the beginning of the next class. Late homework is accepted, with deductions. Homework is posted on Blackboard. Do not copy or plagiarize other people's work. Cite all references, especially internet references.

**Evaluations and Grading:** There will be several quizzes, an independent paper, and a final exam. All grades are posted on Blackboard. The final grade is made up of the following:

- Homework 25%
- Class participation: 10%
- Quizzes 25%
- Project paper: 15%
- Final Exam: 25%

**Grading Distribution:**

A	94-100	C	73-76
A-	90-93	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	0-59

Class Schedule (subject to change at instructor's discretion):

<b><u>Week(s)</u></b>	<b><u>Unit - Topic</u></b>
1	1 - Introduction, making the case
2	2 – Value and Waste
3	3 – Voice of the Customer & Kaizen
4	4 – Takt Time
5-6	5 – Value Stream Mapping
7	6 – 5S, 7 – Mistake Proofing
8	8 – Root Cause Analysis, 9 – Total Productive Maintenance
9	10 - Changeover
10	11 – Push/Pull/Flow & Kanbans
11	12 – Cell design
12	13 – Standard work
13	14 – Value Stream Mapping Future State
14	Review
15	Final exam

## Three Rivers Community College - FALL 2016 Standard 15 Week Session

<b>Aug 25</b>	New Student Orientation
<b>Aug 28</b>	Registration deadline and last day to drop classes for full tuition refund - online (Aug 26 - in person)
<b>Aug 29</b>	Classes begin, Add and Drop Periods Begin
<b>Sep 5</b>	<b>Labor Day - college closed</b>
<b>Sep 6</b>	Last day for registered students to add a class
<b>Sep 7</b>	Convocation
<b>Sep 11</b>	Last day to drop classes and partial tuition refund
<b>Sep 16</b>	Constitution Day (observed) - classes in session
<b>Sep 26</b>	Last day to select audit option
<b>Oct 14</b>	Professional Day
<b>Oct 31</b>	Advising day (classes in session)
<b>Nov 1</b>	Continuing Degree-Seeking Student Registration for Winter '16 Intersession and Spring '17 Semester Advising day (classes in session)
<b>Nov 7</b>	Last day to select pass/fail option, last day to submit incomplete work from Spring '16 and Summer '16
<b>Nov 15</b>	New Student and Non Degree-Seeking Student Registration for Winter '16 Intersession and Spring '17 Semester, and last day to apply for spring graduation (May '17)
<b>Nov 23</b>	College Open - No classes in session
<b>Nov 24-27</b>	<b>Thanksgiving Recess</b>
<b>Dec 6 &amp; 9</b>	Reading/make-up days
<b>Dec 9</b>	Last Day to withdraw from classes
<b>Dec 16</b>	Last Day of 15 Week Session
<b>Dec 23</b>	Final grades due to Registrar's Office
<b>Dec 26</b>	<b>Christmas Day Observed - college closed</b>
<b>Dec 28</b>	Grades available on web