

# Process Necessary to Implement C4 Manufacturing (C4M)



*Before you can offer C4 Manufacturing at your high school, you must complete the following steps.*

- 1. Meet with manufacturing employers in your region and review the C4M curriculum and the Skills Obtained Document with these employers.**
  - Explain that the curriculum includes classroom time, hands-on exercises, and lab assignments.
- 2. Ask these employers if they would give students a job interview if they successfully obtain the C4M Certification with a minimum passing score of 80.**
  - Have a document (on your school letterhead) where the employer can sign that they agree to the job interview.
- 3. Identify students at your school who would want to work for these or similar employers and ensure that there is enough student interest to sustain a robust program.**
- 4. Meet with the nearest technical/community college to review the C4M curriculum and the Skills Obtained Document to determine if the students can be dual-enrolled or receive college credit.**
  - Develop an Articulation Agreement, if possible, between your school and the college, stating the dual enrollment and/or college credit agreement.
- 5. If there is a need for the C4M Credential at your school you must:**
  - Send a copy of the Articulation Agreement with the college (if applicable) and the interview document signed by the industries to the Program Manager of Workforce Initiatives at LED Fast Start, 627 N 4th Street 2-200, Baton Rouge, LA 70802. Contact information for the C4M Program Manager is provided at the end of this document.
- 6. Review the Equipment List Document to determine if your school currently has or will be able to purchase the necessary equipment. Some equipment is not required until later stages of the program. Contact the C4M Program Manager at LED FastStart to discuss details if needed.**
- 7. Find the instructors you need to teach this Credential by reviewing the C4M Instructor Credential Requirements Document.**
  - Send a copy of each instructor's resume to the C4M Program Manager for final approval.

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**8. Contact the C4M Program Manager to determine potential dates for training sessions to certify instructors in the C4M curriculum. No instructor may deliver any portion of the C4M curriculum prior to certification.**

- The Workforce Initiatives Team of LED FastStart will conduct on-site instructor certification training sessions at schools wanting to offer C4M or at consolidated regional locations.
- The school must have a room available with Wi-Fi, a Smart Board, or a screen and projector.
- Instructors must bring their own laptops.
- Instructors should be certified at least three weeks prior to teaching any courses.
- Certification will take place in two separate calendar weeks. Instructors are expected to attend all days. The first week of certification will be held at least three weeks prior to starting to teach any portion of C4M Courses 1 and 2. The second week will be held at least three weeks prior to teaching any portion of Courses 3 and 4. Typically, the second certification session is held a year or more later than the first session.
  - During the first week of certification, instructors will learn how to navigate through the curriculum using Moodle (the Learning Management System) and how to teach Courses 1 and 2. Instructors must navigate through the Interactive Training Modules (ITMs) and pass the end of course exam with a minimum passing score of 80 for each course in order to be certified to teach these courses.
  - The second week of certification will focus on Courses 3 and 4, with the same requirements as the first. Instructors may also be required to demonstrate their ability to complete the hands-on training exercises for these courses.

**If you have any questions please contact the C4M Program Manager at 225.219.4641**

# Skills Obtained by Achieving C4M Certification



## ◀◀ *Basic Entry Level Skills in Manufacturing on the Following Topics* ▶▶

General Safety

OSHA Safety

Team Skills

Applied Math

Precision Measurement

Hand and Small Power Tools

Hydraulics and Pneumatics

Human/Machine Interface and Programmable Logic Controller

Robotics

Instrumentation and Electricity

Practical Physics and Chemistry

Quality Control

## ◀◀ *Introduction to the Basic Principles of the Following* ▶▶

Machining

Welding

Process Technology

# C4M Instructor Credential Requirements



## ◀◀ Courses 1 & 2 ▶▶

1. Documented knowledge of the following:
  - a. Basic safety and OSHA safety (equivalent to OSHA 10 certification)
  - b. Working knowledge of Total Quality Management (TQM) principles, including LEAN Manufacturing
  - c. Working knowledge of Team Skills, including:
    - High Performance Teams
    - Effective Communications
    - Conflict Management
    - Workplace Ethics
    - Diversity
2. Minimum of 2 years in a manufacturing or industrial environment **OR** Louisiana Department of Education Teaching Certification
3. Achieve an 80 score on the individual course post assessments

## ◀◀ Courses 3 & 4 ▶▶

1. Same as Courses 1 & 2 **AND**
2. Firsthand knowledge of
  - a. Basic welding (must be able to teach stick welding)
  - b. Basic machining (must be able to teach with a table-top drill press)
  - c. Demonstrate mastery of table-top hydraulics, pneumatics and electrical trainers
  - d. Basic instrumentation and process control methods