

## Careers and Pathways in Manufacturing

May 2011

*Created for all  
educators and  
guidance personnel  
in southeastern  
Wisconsin*

<b>Course Number:</b>	ED & HUD 795-2, section 752 (#0841C)
<b>Credits:</b>	One (1) Graduate Credit
<b>Instructor:</b>	Marty Gholston, MSE, Ed Leadership, MSE, BS, Ed. Second Chance Partners for Education / CESA #1 892 Main Street, Pewaukee, WI 53072 Email: <a href="mailto:mgholston@secondchancepartners.org">mgholston@secondchancepartners.org</a>
<b>Schedule:</b>	Tuesdays & Thursdays, May 3rd, 5th, 10th, 12 <sup>th</sup> , 2011 (5:00-9:00 p.m.)
<b>Location:</b>	Course session will begin at Germantown High School, then travel to various manufacturing sites in Southeastern Wisconsin.

### Course Rationale and Background:

Business leaders in southeastern WI have asked for the opportunity to partner with local educators and school districts to develop an expanded understanding of the career opportunities in the manufacturing industry. These businesses want to share information about the career paths of high-wage, high-skilled employment that is available in our area with educators so it can be shared with students and families. There is a definite need for educators and guidance personnel to be well informed in order to offer accurate, current career information and help guide students to productive career choices. Educators will be provided with information on how to assist students, who are reluctant to pursue a four year degree, with a plan for reaching their potential by gaining on the job training, skill development through technical college programs, and adult apprenticeships. The course will also emphasize the essential skills needed for success in post-secondary education options as well as the workforce.

### Course Description and Emphasis:

Teachers, counselors, and other school district personnel will learn basic concepts of the manufacturing industry and gain a new understanding of the current requirements for employment in highly technical manufacturing careers, as well as an understanding of the many careers available in the manufacturing industry. Additional emphasis will be on new technologies, current manufacturing concepts, and operational processes used to increase productivity and to monitor quality of production. Visits to several local manufacturers will be an integral part of this course. These visits will consist of a tour of the facility and a presentation and discussion with business personnel about manufacturing and career opportunities available in the industry. Business representatives will also discuss the types of skills that are necessary to be successful in their operations and will cover the basic types of operations and specific industry standards that are prevalent; i.e. culture of business, organizational charts, and leadership development within business. Requirements for employment, benefit packages, further training, and education plans will also be addressed.

## The course addresses the following Wisconsin Standards Teacher Development and Licensure

1. Teachers know the subjects they are teaching.
3. Teachers understand that children learn differently.
6. Teachers communicate well.
7. Teachers are able to plan different kinds of lessons.
10. Teachers are connected with other teachers and the community.

## Course Objectives:

1. Demonstrate understanding of various manufacturing industries in Wisconsin (Teacher Standards #1, 7)
2. Exhibit knowledge of the global aspect and interaction of manufacturers in Wisconsin (Teacher Standards #1, 10)
3. Define the key skill sets of the manufacturing industry ( Teacher Standards #1, 3, 6)
4. Demonstrate understanding of the organizational construct of business (Teacher Standards #1, 7)
5. Use the knowledge acquired to guide career decisions of students who are reluctant to pursue a four year degree ( Teacher Standards #1, 3, 7)

**Required Reading:** High-Performance Manufacturing: Portable Production Skills © 2006, Chapters 1-8.

*NOTE: Textbook will be available for use of participants during the coursework. Textbook may be purchased if participant wishes to do so.*

## Course Requirements and Evaluation:

FOR CREDIT PARTICIPANTS:

Full participation and a total of 3 different types of assignments are required for this class. The purpose of the assignments are to offer the opportunity for further reflection and understanding of the role of manufacturing and how it impacts our society and our local economy. Each assignment is meant to allow you to develop a practical understanding of operations and concepts and to assist in helping educators share the information about careers and opportunities in the manufacturing sector. If you would like to customize an assignment to meet your needs, please see the instructor.

All assignments are to be word processed using Microsoft Word and or Excel and emailed to instructor's email address: [mgholston@secondchancepartners.org](mailto:mgholston@secondchancepartners.org)

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Each assignment should be a minimum of two-pages, double spaced, font 12 or smaller, addressing the assigned topics. In completing the assignments, please consider and use the textbook, Internet resources, and information provided by the course presenters as well as primary source information. Rubrics will be used to evaluate assignments: please refer to rubric for each assignment. If you feel you can better present the information in an Excel chart format, please feel free to do so.

**Final grade will be based on participation and 3 assignments.**

- **Participation -- 10%:**  
Participants are required to attend all sessions. If an emergency occurs, it will be handled on a case by case basis. Instructor will monitor and check the participation as complete after each session. Demonstration of understanding of the material will be evaluated in the reflections.
- **Assignment 1: (Course Objectives 1, 3, 5)—40%**  
Choose 4 companies out of the total visited to complete this reflection. Reflect on the skill set, identified by businesses, necessary to enter manufacturing fields today. Include information on the differences between former manufacturing models and current manufacturing models and how those relate to skill set requirements. Create and describe a plan for sharing this information with students and parents of your school and district to help educate them about the opportunities available in the manufacturing sector. A minimum of two-pages, double spaced, font 12 or smaller, addressing the assigned issues is expected per visit. Each reflection is worth 10%.
- **Assignment 2: (Course Objectives #1, 3, 5 ) -- 25%**  
Research two WI manufacturers not included in the class visits and compare them to one of the manufacturers visited during this course. Be sure to address the similarities/differences in:
  - history of company
  - company philosophy
  - type of product (s)
  - culture of the organization
  - minimum educational requirements for employment
  - employee compensation and benefit package
- **Assignment 3: (Course Objectives #1, 2, 4) --25%**  
Interview and survey a local manufacturer to gather information on the following areas:
  - workforce demographic information
  - information about their organizational structure
  - business culture
  - employment process
  - training and education required
  - prospect for future employment
  - current employment opportunities