Lean Manufacturing

12-credit Advanced Technical Certificate

About the Certificate

Develop skills in factory layout, cell flow, Kanban, pull concepts and value stream flow analysis. Learn to apply those lean manufacturing skills to increase productivity, improve lead-time, reduce scrap, enhance safety performance and increase efficiency in floor space utilization.

What is an Advanced Technical Certificate?

An advanced technical certificate (ATC) is designed for professionals with work experience or prior education in a degree program.

For more information, call 262.691.5200.

Required Courses		Credits
First Semester		
623-161	Lean Manufacturing/Intro	3
623-162	Principles for Lean Manufacturing	3
623-163	Just In Time Lean Manufacturing	3
Total semester credits		**9**
Second Semester		
623-164	Lean/Sigma Application	3
Total semester credits		**3**

Curriculum is current as of catalog printing.

Lean Manufacturing Required Courses

623-161 Lean Manufacturing/Intro **3**
Discuss the basic tools of cellular manufacturing and the benefits of lean systems while taking a shop floor view of the techniques that differentiate cellular manufacturing from traditional manufacturing systems. Explore the theory, design, and application of topics such as cell layout, KANBAN, one-piece flow, TAKT, visual management, and Kaizen. Learn to function comfortably in a cellular environment and to effectively apply their area of expertise.

623-162 Prin for Lean Manufacturing **3**
Explore the principles of lean manufacturing through cellular manufacturing while addressing topics such as one-piece flow, the KANBAN material pull system, standard work, flexible employees, and the visual factory. Study the move from the traditional plant layout and facilities planning to the complete implementation of lean principles.
Prerequisites: 623-161 Lean Manufacturing/Intro (or concurrent)

623-163 J-I-T Lean Manufacturing **3**
Study advanced techniques in the design and development of manufacturing cells. View cellular manufacturing from the management level and focus on building the manufacturing system into a competitive weapon. Study the formation of basic strategic initiatives and progress through all aspects of the technology, all the while emphasizing the culture organization and manufacturing systems. Demonstrate the design and operation of cellular manufacturing by the assembly of actual products in a simulated factory setting.
Prerequisites: 623-161 Lean Manufacturing/Intro (or concurrent) and 623-162 Prin for Lean Manufacturing (or concurrent)

623-164 Lean/Sigma Application **3**
Examine the organization, employees, and management in a lean manufacturing company. Explore topics such as lean culture, employee involvement, employee flexibility, pay systems, flat organizations, and accountability in visual factory management. Become familiar with Kaizen waste reduction techniques, the 5 Ss, and standard work improvement. Learn the team-building skills and practices necessary to perform successfully in a lean manufacturing work environment.
Prerequisites: 623-161 Lean Manufacturing/Intro and 623-162 Prin for Lean Manufacturing and 623-163 J-I-T Lean Manufacturing