MS IN LEAN MANUFACTURING

Home Department: School of Management (https://my.kettering.edu/academics/departments/business)

Available: Only available through Kettering University Online (https://online.kettering.edu/?schoolsrc=42786).

Program Advisor/Contact:
Contact Kettering University Online
kuonline@kettering.edu
810.762.9827

Program Overview
The Master of Science in Lean Manufacturing (https://online.kettering.edu/programs/masters/lean-manufacturing-masters-online/?schoolsrc=42786) program concentrates on the key elements of lean agile manufacturing operations. Students in this program can expect to complete in-depth studies of systems, processes and practices in manufacturing facilities. This discipline gives students exposure to many elements of manufacturing including lean production systems, work analysis, materials handling, quality systems, manufacturing and management metrics, as well as cutting-edge practices such as lean and agile manufacturing. The degree aims to enhance the student’s technical skills with lean methodology and analysis techniques as well as management skills to complement their technical ability, enabling the student to take a broader perspective on the manufacturing industry as a whole.

Program Educational Objective
• Develop and implement lean and competitive manufacturing facilities
• Apply appropriate quality systems tools
• Implement and evaluate suitable production control systems
• Identify and implement the requirements of a successful supply chain
• Develop a skill set to identify and manage ‘change’ effectively

Program Outcomes
The program is intended for individuals in manufacturing who aspire to have a more comprehensive knowledge in lean and agile manufacturing operations and practices. Graduates of this program can expect to possess a thorough understanding of manufacturing methods, analytical methods to make decisions within a manufacturing facility, and innovation skills to adapt to changes within the global/cross-cultural environment. This program does not require a thesis.

Prerequisite
An undergraduate course in statistics is required as a prerequisite to taking courses in the Master of Science in Lean Manufacturing program. The foundation in statistics is intended to prepare students to effectively participate and succeed in the coursework involved in this program.

Program Curriculum Requirements
Completion of 40 credits as follows:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MFGO-619</td>
<td>Six Sigma for Manufacturing</td>
</tr>
<tr>
<td>MFGO-633</td>
<td>Lean Production Systems</td>
</tr>
<tr>
<td>MFGO-635</td>
<td>Work Analysis for Lean Production Application</td>
</tr>
<tr>
<td>MFGO-639</td>
<td>Quality Assurance and Reliability</td>
</tr>
<tr>
<td>MFGO-649</td>
<td>Metrics for Lean Production Improvement</td>
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<tr>
<td>MFGO-659</td>
<td>Integrative Capstone Project</td>
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Certificate
Select three 4-credit courses in one of the Certificates listed below.

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<thead>
<tr>
<th>Global Leadership Certificate</th>
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<tbody>
<tr>
<td>BUSN-689</td>
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<tr>
<td>MGMT-649</td>
</tr>
<tr>
<td>MGMT-679</td>
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<td>Total Credit Hours</td>
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<table>
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<tr>
<th>Operations Management Certificate</th>
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<tbody>
<tr>
<td>IME-676</td>
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<tr>
<td>MGMT-609</td>
</tr>
<tr>
<td>MGMT-619</td>
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<tr>
<td>Total Credit Hours</td>
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<tr>
<th>Supply Chain and ERP Certificate</th>
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<tbody>
<tr>
<td>IME-652</td>
</tr>
<tr>
<td>IME-654</td>
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<tr>
<td>MGMT-669</td>
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<tr>
<td>Total Credit Hours</td>
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<th>Healthcare Management Certificate</th>
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<tbody>
<tr>
<td>IME-656</td>
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<tr>
<td>IME-676</td>
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<tr>
<td>or MGMT-669</td>
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<tr>
<td>HMGT-609</td>
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<tr>
<td>Total Credit Hours</td>
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