

MLDR 6800 Course Syllabus

Master's in Manufacturing Leadership Capstone

Summer 2026

Instructor

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Office Hour (Virtual): Thursdays 8:30 – 9:30 pm starting May 29

Course Description

Student teams reinforce and master the application of principles, models, and best practices learned throughout the PMML curriculum through case studies and a capstone project. Successful completion requires integration of topics mastered in the management, leadership, and manufacturing courses. The primary objective of this course is to instill confidence in leading manufacturing businesses through economic and technological changes within PMML graduates through instructor-guided experiences.

Prerequisite

PMML Course Curriculum

Required Course Materials

Harvard Business Review Course Pack – <https://hbsp.harvard.edu/import/1280916>. Includes required case studies, software simulations, and more.

Course Goals

Once completed, the students will be able to:

1. Perform research to assess technological markets.
2. Evaluate emerging manufacturing technologies using economic and engineering models.
3. Formulate and negotiate a technology implementation plan.

Grading Policy

- Assignments - (15 of them, 3% each) 45%. Late assignments are docked 1% for being submitted after the deadline, and 1% further every additional 24 hrs after the deadline (i.e., more than 4 days late = 0%).
- Final Report 30%
- Final Presentation 25%

Assignment Due Dates

All assignments will be due at the times in the table at the end of this syllabus. These times are subject to change so please check back often.

Attendance Policy

- This is an online course with live-but-virtual lectures, office hours, and presentations.
- Attendance of live discussions and lectures is strongly recommended. They will be recorded, and recordings posted within 24 hrs.
- The instructor will hold virtual office hours each week. Teams will have assigned times within the office hour to check in and consult with the instructor. All teams are expected to have at least 1 person meet with the instructor on their behalf at least once per week.
- It is recommended that each team schedule at least two, 1-hr full-team meeting times per week, separated by a few days, to facilitate regular communication, which will be the foundation for a successful project.
- It is recommended that each team establish a Teams, Slack, etc. group to facilitate ongoing communication and task/progress tracking and documentation.
- All team members are required to attend and participate in the practice & final presentations.

Plagiarism Policy

Plagiarism is considered a serious offense. You are not allowed to copy and paste or submit materials created or published by others, as if you created the materials. All materials submitted and posted must be your own.

Student Honor Code

All students should abide by the Georgia Tech Student Honor Code

- Review the Georgia Tech Student Honor Code: www.honor.gatech.edu.
- Any student suspected of behavior in violation of the Georgia Tech Honor Code will be referred to Georgia Tech's Office of Student Integrity.

Students with Disabilities

Georgia Tech offers accommodations to students with disabilities. If you need a classroom accommodation, please make an appointment with the *ADAPTS* office (see <http://www.adapts.gatech.edu>).

Communication

Please contact your instructor, teaching assistants, and fellow learners via the Piazza discussion forums. Often, discussions with fellow learners are the sources of key pieces of learning.

Netiquette

- Netiquette refers to etiquette that is used when communicating on the Internet. When you are communicating via email, discussion forums or synchronously (real-time), please use correct spelling, punctuation and grammar consistent with the academic environment and scholarship.
- We expect all participants (learners, faculty, teaching assistants, staff) to interact respectfully. Learners who do not adhere to this guideline may be removed from the course.

Technology/Software Requirements

- Internet connection (DSL, LAN, or cable connection desirable)
- Computing device

Course Topics

Weeks	Course Topics
Week 0:	<ul style="list-style-type: none"> • Read Syllabus • Reflect on Past Team Experiences
	<ul style="list-style-type: none"> • Assignment 1: Team Charter Pre-work • Assignment 2: “The Team That Wasn’t” Case Study
Week 1: Teaming, Project Selection	<ul style="list-style-type: none"> • Team: Culture and Charter • Project Selection
	<ul style="list-style-type: none"> • Live Discussion • 8:30 – 9:15 Course Introduction, Project Overview • 9:15 – 10:30 The Team That Wasn’t Case Study Discussion
	<ul style="list-style-type: none"> • Assignment 3: Team Charter
	<ul style="list-style-type: none"> • Assignment 4: Project Selection Preference Form
	<ul style="list-style-type: none"> • Case Studies, Background Research
Week 2: Research	<ul style="list-style-type: none"> • Live Discussion • 8:30 – 9:15 Siemens Digital Transformation • 9:15 – 10:00 Boeing 737 Max Failure
	<ul style="list-style-type: none"> • Assignment 5: Siemens Digital Transformation • Assignment 6: Boeing 737 Max Failure
	<ul style="list-style-type: none"> • Assignment 7: Background Research Appendix Draft
	<ul style="list-style-type: none"> • Project Definition
Week 3: Project Definition	<ul style="list-style-type: none"> • Live Discussion • 8:30 – 9:15 Digital Supply Chain • 9:15 – 10:00 Team Consulting
	<ul style="list-style-type: none"> • Assignment 8: Digital Supply Chain

Weeks	Course Topics
	<ul style="list-style-type: none"> • Assignment 9: Project Definition Appendix Draft
<p>Week 4: Brainstorming & Idea Clustering, Concept Evaluation</p>	<ul style="list-style-type: none"> • Define Project Mission, Requirements, Constraints • Live Discussion • 8:30 – 10:00 Six Sigma Rubric • Assignment 10: Brainstorming & Idea Clustering Appendix Draft
<p>Week 5: Operational Systems Mapping & Project Development</p>	<ul style="list-style-type: none"> • Assignment 11: Operational Systems Thinking: System Maps and Models
<p>Week 6: Negotiation</p>	<ul style="list-style-type: none"> • Assignment 12: Practice Negotiation Simulation • Negotiation Simulation
<p>Week 7: Techno-Economic Analysis</p>	<ul style="list-style-type: none"> • Assignment 13: Techno-Economic Analysis
<p>Week 8: Technical Work Week</p>	<ul style="list-style-type: none"> • Teams revise and improve systems maps, techno-economic analysis, project elements
<p>Week 9: Final Report Preparation</p>	<ul style="list-style-type: none"> • Recorded Lecture: Final Report Best Practices • Assignment 14: Final Report Draft
<p>Week 10:</p>	<ul style="list-style-type: none"> • Final Report Revision, Presentation Draft • Recorded Lecture: Final Presentation Best Practices • Assignment 15: Practice Presentation
<p>Week 11:</p>	<ul style="list-style-type: none"> • Finalize Reports, Presentations
	<ul style="list-style-type: none"> • Due: Final Report

Weeks	Course Topics
Week 12:	<ul style="list-style-type: none"><li data-bbox="597 302 967 331">• Due: Final Presentations
Graduation!!!	