# Azure for Manufacturing Pathway Outline

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## **Pathway Overview**

* Blended course delivery with a weekly online lesson followed by an in-person meeting for hands-on experience with Azure technologies at CSI facility
* Six modules
* Learners will complete three MS Azure IoT Developer and Data Engineer Certifications
* Course prerequisites: Competencies *or* MS Certification in
  + 1) IIoT Developmental (at a minimum) and IIoT Fundamentals and
  + 2) Azure Data Scientist

## **Target Audience**

Learners consist of operations managers, factory operators, and liability engineers. They should come to the pathway with a basic understanding of IIoT and connected systems; however, they do not need a background in Azure.

## **Pathway Outline**

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| Module | Title | Description | MS Learn Module | SME |
| 1 | Build Commercial- Ready Industrial IoT Application | Build Industry 4.0 commercial ready application that can scale.  Basics of Azure  MS IoT Certification (AZ 220) | [AI edge engineer - Learn | Microsoft Docs](https://docs.microsoft.com/en-us/learn/paths/ai-edge-engineer/) |  |
| 2 | Quality Detection Using Vision | Predictive maintenance using vision-based system  MS Certification (AI 100) | [Create computer vision solutions with Azure Cognitive Services - Learn | Microsoft Docs](https://docs.microsoft.com/en-us/learn/paths/create-computer-vision-solutions-azure-cognitive-services/) | Cheng Chen -ITM Lubar |
| 3 | Quality Detection Using Audio | Predictive maintenance using audio-based system  Add workplace safety | [Process and Translate Speech with Azure Cognitive Speech Services - Learn | Microsoft Docs](https://docs.microsoft.com/en-us/learn/paths/process-translate-speech-azure-cognitive-speech-services/) | Hamid Seifoddini-CEAS |
| 4 | Autonomous Moving Inventory | Moving inventory back and forth between warehouse and line | [Autonomous Systems - Microsoft Autonomous Systems | Microsoft Docs](https://docs.microsoft.com/en-us/autonomous-systems/) | Jae Jin Jang- CEAS |
| 5 | Drive AI Strategy | How to use AI strategy in your business | [Define an AI strategy to create business value across industries - Learn | Microsoft Docs](https://docs.microsoft.com/en-us/learn/paths/ai-strategy-for-business-value/?WT.mc_id=sitertzn_homepage_mslearn-header-aibusinessschool) |  |
| 6 | Intelligent Supply Chain | Using IoT, block chain and AI/ML to build better supply chain  (MS Certification DP 100) | [Three keys to an intelligent supply chain - Microsoft Industry Blogs](https://cloudblogs.microsoft.com/industry-blog/manufacturing/2019/01/08/three-keys-to-an-intelligent-supply-chain/)  [Resilient operations | Microsoft Industry](https://www.microsoft.com/en-us/industry/automotive/resilient-operations?activetab=pivot:primaryr10) | Peter Zalinski or Matt Friedel |