BOARD INFINITY

COURSE 4 OF 4 · ADVANCES IN MANUFACTURING TECHNOLOGY SPECIALIZATION

Key Enablers and Challenges in Implementing Industry 4.0

Full course syllabus - every module, video lesson, reading and assignment, from adoption challenges to the enablers that overcome them.

Board Infinity
Instructor · Offered on Coursera

3	48	14	2 weeks
Modules	Video lessons	Assignments	At 10 hours a week

INSIDE THE COURSE

01	Key Adoption Challenges - External	4 hours to complete
02	Key Adoption Challenges - Internal	4 hours to complete
03	Key Enablers and Drivers for Implementation Industry 4.0	9 hours to complete

Enroll on Coursera

https://www.coursera.org/learn/key-enablers-and-challenges-in-industry-4-point-0

01 ABOUT THE COURSE

From adoption challenges to enablers.

Key Enablers and Challenges in Implementing Industry 4.0 delves into what it takes to adopt Industry 4.0 in the manufacturing sector. Across three modules you work through the external challenges, the internal challenges, and the key enablers and drivers that make implementation succeed.

It combines theoretical insight with practical case studies - 48 videos, 11 readings and 14 assignments in all, closing with a peer-reviewed analysis. It covers supply chain issues, legal and regulatory compliance, skill gaps, organizational change, data security and financial constraints.

WHO IT'S FOR

Manufacturing engineers
Addressing the challenges of implementing Industry 4.0 technologies.

Production managers
Leading people, budgets and change through an Industry 4.0 rollout.

Industrial engineers
Connecting processes, data and infrastructure into one strategy.

Industry 4.0 professionals
Enhancing strategic and practical skills in modern manufacturing.

WHAT YOU'LL LEARN

01 **Tackle external adoption challenges** Module 1
Identify and address supply chain, legal and regulatory, and workforce-readiness challenges of Industry 4.0 adoption

02 **Overcome internal barriers** Module 2
Manage organizational change, data security and data management, and financial and technical constraints

03 **Develop implementation strategies** Module 3
Develop strategies leveraging technology and process optimization for successful implementation

04 **Build workforce readiness** Modules 1 & 3
Implement training programs to enhance workforce readiness and continuous learning

02 SYLLABUS

Three modules, one implementation path.

2 weeks to complete at 10 hours a week. Flexible schedule - learn at your own pace.

01 Key Adoption Challenges - External

4 hours
14 videos

Supply chain, legal and regulatory compliance, and workforce readiness

BY THE END OF THIS MODULE YOU CAN

- Explain how Industry 4.0 changes supply chain dynamics and overcome its challenges
- Understand the legal and regulatory landscape and its compliance challenges
- Follow guidelines for ensuring legal compliance in Industry 4.0 initiatives
- Identify skill gaps and address them through training and talent management

CONTENTS: 14 videos (68 min) · 3 readings (90 min) · 4 assignments (105 min) · 1 plugin (5 min)

TOPICS: Supply Chain Challenges in Implementing Industry 4.0 · Legal and Regulation Challenges in Adoption · Skill Gap and Workforce Readiness · Quick Course Check-In (plugin)

You'll leave with: strategies for the supply chain, legal and regulatory, and workforce challenges that sit outside your organization.

02 Key Adoption Challenges - Internal

4 hours
12 videos

Organizational change, data security, and financial and technical constraints

BY THE END OF THIS MODULE YOU CAN

- Manage organizational change and overcome resistance within organizations
- Build a culture of innovation and adaptability
- Assess data security risks and apply data governance and compliance measures
- Address budget and technical constraints, and measure ROI on projects

CONTENTS: 12 videos (63 min) · 3 readings (90 min) · 4 assignments (105 min)

TOPICS: Organizational Challenges in Adoption · Information Security and Data Management Challenges · Financial and Technical Challenges

You'll leave with: a way to tackle the people, data and budget barriers inside your organization, and to measure the ROI of Industry 4.0 projects.

03 Key Enablers and Drivers for Implementation Industry 4.0

9 hours

22 videos

Strategy, technology, process and data, infrastructure, and people

BY THE END OF THIS MODULE YOU CAN

- Develop a comprehensive implementation strategy and leverage partnerships
- Select the right technology stack and implement advanced manufacturing systems
- Streamline processes, apply improvement methods and make data-driven decisions
- Plan infrastructure investment with risk assessment, and upskill the workforce

CONTENTS: 22 videos (115 min) · 5 readings (150 min) · 6 assignments (135 min) · 1 peer review (120 min)

PEER REVIEW: Industry 4.0 Implementation Challenges and Enablers (2 hours)

TOPICS: Overcoming the Challenges Using Key Enablers and Drivers; Technology Drivers and Enablers; Process and Data Enablers; Physical Infrastructure as Key Enablers; Leveraging People as Enablers

You'll leave with: a comprehensive implementation strategy built on technology, process and data, infrastructure and people - and a peer-reviewed analysis of Industry 4.0 challenges and enablers.

03 TOOLS & SKILLS

The themes that run through the course.

Industry 4.0 adoption — Core theme

Implementing Industry 4.0 in manufacturing - the thread through all three modules.

In this course: Move from the challenges to a strategy that overcomes them.

External adoption challenges — Module 1

Supply chain issues, legal and regulatory compliance, and workforce skill gaps.

In this course: Strategies, compliance guidelines and talent management.

Internal adoption challenges — Module 2

Organizational change, data security and management, and financial constraints.

In this course: Change management, data governance and ROI analysis.

Key enablers & drivers — Module 3

Technology, process and data, physical infrastructure, and people.

In this course: Implementation strategy, tech stack selection and upskilling.

SKILLS YOU LEAVE WITH

External challenges

- Supply chain risk & strategy
- Law, regulation & compliance
- Skill-gap identification
- Talent management strategy

Organizational skills

- Change management
- Data security & governance
- Budget & investment planning
- ROI analysis & performance metrics

Implementation skills

- Digital transformation strategy
- Technology stack selection
- Process improvement & optimization
- Workforce development & innovation

04 CERTIFICATE & CAREER

Finish with a shareable certificate.

Add it to LinkedIn
Add this credential to your LinkedIn profile, resume, or CV.

Share it anywhere
Share it on social media and in your performance review.

Earned, not attended
Awarded on completion of the graded quizzes and the peer-reviewed assignment.

Course 4 of 4
The final course of the Advances in Manufacturing Technology Specialization.

WHERE THESE SKILLS ARE IN DEMAND

Manufacturing Engineer · Production Manager · Industrial Engineer · Digital Transformation Lead · Supply Chain Manager · Operations Excellence Manager



Board Infinity

Instructor · Offered on Coursera

Intermediate level · Taught in English · 3 languages available · Flexible schedule

Ready to lead the Industry 4.0 rollout?

Enrollment, lessons, grading and the certificate all happen on Coursera.

Enroll on Coursera

Course page: coursera.org/learn/key-enablers-and-challenges-in-industry-4-point-0

Want a coach alongside the course?

Board Infinity 1:1 coaching is a separate, optional Board Infinity offering - it is not part of the Coursera course. Details: https://www.boardinfinity.com/career-coaching/

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