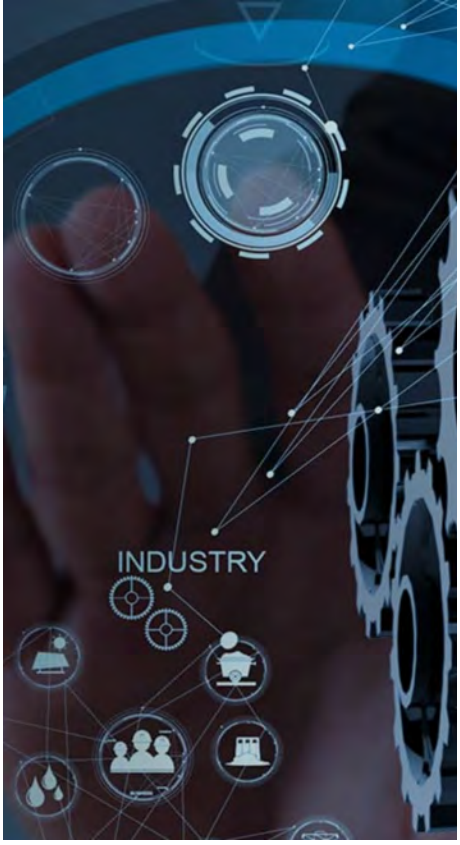
ENGINEERING
W Booth School of Engineering
Practice and Technology

McMaster University

Industry 4.0 and Cyber-Physical Systems

A McMaster University Professional Certificate Course

PROGRAM OVERVIEW



The essence of Industry 4.0 is the evolution of industries towards the development of interconnected devices, processes and systems, best summarized as the integration of cyber-physical systems in and outside of an organization. It encompasses internal physical and cyber assets such as machinery, equipment, processes, databases, and the networked integration of external components such as suppliers, supply chain elements and customers.

The Industry 4.0 and Cyber-Physical Systems (CPS) certificate is the first practical and applied program in Canada. We have designed this three-day intensive program for engineers, managers and decision-makers in manufacturing and various support roles. This program will inform, educate, and provide candidates with the latest tools to help them lead and manage the transformational journey required to make their organization more efficient and competitive in the new digital age.

Earn a McMaster Certificate of Completion

When you complete a course, you will earn a McMaster Certificate, enhancing your resume to help you stay competitive or stand out in the job market.

WHAT YOU'LL LEARN

Dates: January 27-29, 2021

- fundamental building blocks of an Industry 4.0 solution,
- the components of Industry 4.0 and Cyber-Physical systems
- trends and best practices for developing and deploying Industry 4.0 solutions
- practical tools to help you successfully implement digital change at different levels in your organization.

Module 1	We examine IoT's current state across industries and market adoption and then discuss the business case to do something versus doing nothing.
Module 2	We identify and analyze the different elements of an Industry 4.0 solution.
Module 3	Presentation and case studies in matching operational and business goals with Industry 4.0 technologies, handling and analyzing IoT data - Machine Learning, AI, AR/VR.
Module 4	Cyber-Physical Systems, adoption, and applications.
Module 5	Case studies and workshops with CPS across different scales – moving from an individual process to an operational scale and supply chain management.
Module 6	Team building - combining manufacturing and tech people for the right IoT team and connecting Industry 4.0 and CPS with people.

What To Expect Each Day

Each day will cover unique topics in 30 to 60-minute burst sessions, and the following is what you might expect during a typical day during the certificate course:

Morning
- Morning review, introductions
- Instruction and in-class group exercises

Afternoon
- Lunch break
- Guest speakers, discussions
- Group work, networking, after action review

TUITION/ FEES
& Discount Options

McMaster offers a range of subsidies in collaboration with NGEN Supercluster to enable Canadian Businesses. Find out more about discount options by booking a call with our team.

Regular Cost per Course
$2,000 CAD + HST

NGEN Canadian Business/ Alumni Cost
$1500 CAD + HST

NGEN AMP UP Canadian Manufacturing Cost
$750 CAD + HST

TAKE THE NEXT STEP
Contact Us

Ready to get started? Got questions about the McMaster certificate course? Our team is here to help.

- Determine if this course is right for you and your goals
- Learn more about McMaster's certificate programs

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