



Industry Operations Leadership & Management

A McMaster University Professional Certificate Program

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ENGINEERING
W Booth School of Engineering
Practice and Technology



Industry Operations Leadership & Management

Enable, Lead, & Sustain High-Performance Industry Teams.



McMaster's IOLM program is designed to enable middle-level management to drive high-performance industry teams. It utilizes rapid-adaptability, flexibility, bottom-up, and intent-based execution to sustainably scale industry 4.0 operations. Participants are instructed by leaders from industry to ensure real-time, relevant skills, techniques, and best practices are translated into immediate performance improvements within their organizations.

This program consists of five independent certificate courses with a maximum capacity of 40 participants per course. Successful participants are awarded with a McMaster Certificate of Completion. Individuals that complete all five courses receive an additional sixth certificate in Industry Operations Leadership and Management.

Participants who attend all five courses are also enrolled in a group mentorship program. An industry leader mentors each participant over ten months to derive a quantifiable leadership performance improvement. To mentor high-potential business leaders, the mentorship is compatible with Professional Development Plans.

Who Should Attend?

Middle-level managers and leaders looking to scale efficient execution of an industry business unit. Individuals interested in upskilling their own leadership and industry execution skills to drive the next era of industry.

Key Participant Audience: Key Participant Audience: Lead Hands, Managers, Supervisors, Directors, Officers, Senior NCO's, Small to Medium Sized Business Owners, and Consultants.

What to Expect?

To emphasize a real-time, relevant, industry-first approach, participants will learn directly from expert instructors, leaders in industry, and from businesses and organizations currently enacting best practices, and the use the most relevant tools. You will gain foundational knowledge and apply it through case studies and practice immersive exercises alongside panelist discussions from numerous leaders in the private and public sectors.

Why?

Drive Rapid-Adaptability and Innovation within the organization's supply chain to utilize bottom-up leadership and intent-based execution.

Improve Problem Solving, Flexibility, and Efficiency through adapting first-hand best practices, real-time industry insights, critical skills, tools, and techniques.

Reduce Disruptions and Improve Productivity through developing high-performance industry teams capable of sustainably scaling industry business units.



Live Online Teaching

Real-time conference style delivery online. 60 min. lectures interspersed with group-based discussions, team exercises, and panel webinars.



Skilled Instructors & Industry Experts

Hear from over 40 experienced leading industry experts across multiple disciplines, industries, and businesses.



Measurable Performance Improvement

Harness lessons learned, best practices, skills, techniques, and tools to enable an immediate performance improvement.



Duration

Each course consists of three days spread over three weeks. All five programs are spread over 10-months to maximize flexibility.

IMPACT

Who Should Attend?

The IOLM program has successfully enabled developers, lead hands, team leaders, customer representatives, supervisors, managers, senior managers, directors, and C-Level executives.

Past participants represented large automotive, aerospace manufacturing, food distribution, part suppliers, government, health services, oil & gas, and biotechnology industry sectors.

Deliverables

- Participants learn the fundamentals of Leadership 4.0; understand how to define, develop, and deploy high-performance industry teams.
- Specialize in strategic to tactical alignment and be able to drive rapid adaptability and innovation across their organization's supply chain.
- Perform, test, and strengthen leadership and tactical execution through practical scenario assessments, case studies, workshops, and first-hand mentorship to lead high-performance teams.
- Develop a strong understanding of the fundamentals and operational tools needed to execute an Industry Business Unit sustainably at scale.

Relevancy

The IOLM program achieved a **91% relevancy score**, as assessed by the business leadership participants. Participants understood the content, identified value to themselves or their organization, and immediately enacted the techniques or planned to do so within three months.

Professional Development Plans

The IOLM program is uniquely positioned to work in conjunction with established employee performance management processes such as Professional Development Plans.

Businesses have successfully leveraged the courses and group-based mentorship program to drive measurable leadership and execution performance improvements with their participants on the program.



ADVANCED MANUFACTURING & INDUSTRY 4.0

Develop an understanding of how advanced manufacturing techniques such as Augmented Reality, Industry, Internet of Things, Robotics, and Automation will transform the Digital Leader.



LEADERSHIP 4.0

Drive high-performance teams through executing The Strong Link Archetype to master the leadership skills necessary to sustain Industry 4.0 operations.



INVEST IN YOUR TALENTED LEADERS

Enable resilience, innovation, and cohesion within the leadership teams through diverse experiential learning directly from over 40 industry business leaders.

PROGRAM CURRICULUM

Approach

The five courses under the IOLM Program utilize a walk-crawl-run approach. The first Industry Operations Leadership Fundamentals course focuses on critical skills and techniques to enable leaders to enhance current operations immediately. The Industry Tactical Planning & Execution course focuses on the daily and weekly execution of a manager or supervisor within an industry 4.0 context. The Industry Business Unit Management course enables Senior Managers to execute and scale Business Unit Operations. The Advanced Leadership Skills course enhances leadership execution at all levels, while the Advanced Industry Business Unit Execution course enables Director level business operations execution. Each course can be taken independently to tailor leadership and team execution development.



Earn a McMaster Certificate of Completion



Take any IOLM course individually or take all five to qualify for the **6th certificate** of Industry Operations Leadership and Management.

Group Mentorship Program

Participants who enroll in all five courses are placed in the Group Mentorship program. Paired with an Industry Leader Mentor, participants conduct a tailored Leadership Development Plan over ten months to derive a measurable performance improvement, top performers are awarded a Letter of Recommendation showing demonstrating their understanding and growth as an industry 4.0 leader.

Courses



Industry Operations Leadership Fundamentals

Key topics covered include the anatomy of high-performance teams, introduction to industry 4.0, leadership 4.0, tailored individual leadership approaches and strategic leadership alignment. Key skills include micro-project planning & execution, driving accountability, sustaining high-performance under high-stress, and personal stress management techniques. Participants will develop an understanding of the principles of industry business unit execution, communication skills, threat-disruption management, and continuous improvement. Business leaders will be able to assess, define, and optimize current leadership and operations approaches.



Industry Tactical Planning & Execution

Participants will cover the skills required to develop a high-performance industry team. Focused on enabling daily & weekly execution at the manager and supervisor level. Key topics covered include intent-based execution, the maneuver leadership archetype, tactical shift execution, stakeholder buy-in communication skills and disruption management. A key emphasis is placed on performance management, industry business unit digital transformation, augmented reality, and internet of things integration in industry. This course will equip candidates to execute high-performance tactical industry operations.



Industry Business Unit Management

Participants will develop the operational competencies and industry-insights needed to maneuver, sustain, and efficiently execute an industry business unit (IBU) as a senior manager and director. They will focus on understanding Lean Manufacturing within an Industry 4.0 context, how to drive innovation, agility, and cohesion; how to execute an IBU, agile project management, risk management, and an introduction to sustainability and circular economy within an industry context. After this course, participants can apply the skills and techniques to undertake and optimize an Industry 4.0 Business Unit Operation.



Advanced Leadership Skills

The Advanced Leadership Skills course is designed to solidify and elevate the leadership skills needed to develop, deploy, and drive high-performance teams. Participants will focus on cultivating a high-performance team culture, performance and change management, coaching and mentorship skills. A specific focus is placed on conflict management, design thinking, mental health, resiliency building, and instructional technique. This course will provide participants with the skills needed to drive a high-performance industry team culture.



Advanced Industry Business Unit Execution

The Advanced Industry Business Unit Execution course will equip candidates with the competencies and strategies needed to scale industry 4.0 operations. The course will focus on intent-based strategic execution, lean manufacturing techniques, sustainability, advanced project planning techniques, risk & financial management, cyber-security, forecasting & foreplanning, and auditing. Candidates will be able to assess, maneuver, and scale an industry business unit.

OUR GUEST SPEAKERS, PANELISTS & MENTORS

Meet a few of our guest speakers and mentors on the Industry Operations Leadership & Management Program.



Alex Tsoulis
Senior Advisor
Mitsubishi Heavy Industries



Andy Simoneau
Associate Professor
University Of New Brunswick



Audrey Nuk
Manager
Indigenous Services Canada



Bill Mateer
Executive
GE Aviation



Brady Pyle
Deputy Chief Human Capital Officer
NASA



Brian Macdonald
Senior Political Strategist
Samuel Associates



Colonel John McEwen, CD
Commander
32 Canadian Brigade Group



Dave Hyem
Vice President Metals & Fabrication
Boeing



Dr Katy Kamkar
Clinical Psychologist
CAMH



Egan Greenstein
Senior Director
Boeing Next



Filipa Hoppenbrouwers
Vice President Logistics
Volvo Group



Tanya Skilton
Director Global Innovation
General Motors



Florent Lefevre-Schlick
Program Manager
McMaster University



George Dom
Chief Operations Officer
ACI Jet



Graham Brown
President & CEO
Catapult



Greg Wamsley
Senior Director Of Operations
Elevate



Greg Zilberbrant
Program Lead
McMaster University



Herve Doan
Head of Quality Transport &
Logistics
Airbus



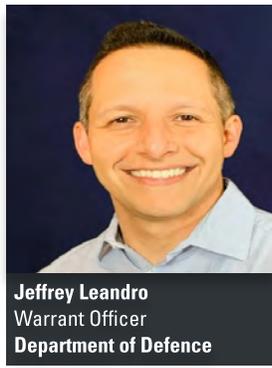
Isabelle Hertanto
Director, Cyber Security
ADGA Group Consultants



James K. Franz
Vice President Global Operations
Toyota Way Academy



Jamie Engdahl
Program Director
Northrop Grumman



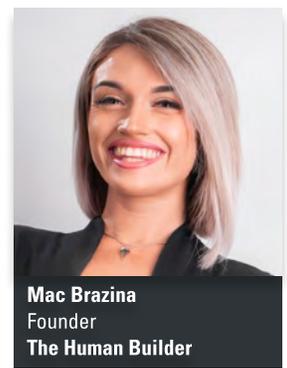
Jeffrey Leandro
Warrant Officer
Department of Defence



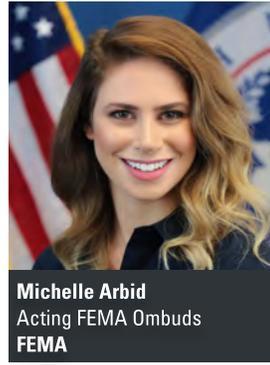
Julia Menninga
Learning And Development Director
Volvo Car UK



Lakshmi Eleswarpu
VP & CIO, Digital Transformation
Boeing Inc.



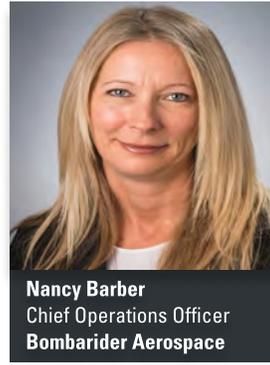
Mac Brazina
Founder
The Human Builder



Michelle Arbid
Acting FEMA Ombuds
FEMA



Michelle Oryschak
Talent And HR Consultant
JAE Consulting



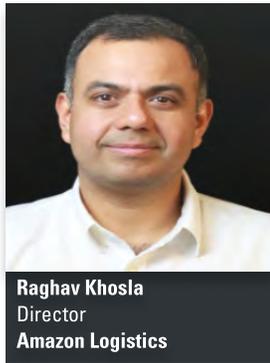
Nancy Barber
Chief Operations Officer
Bombardier Aerospace



Nicole Verkindt
Founder & CEO
OMX



Nuno Lourenco
Head of Materials Engineering &
Product Sustainability
Jaguar Land Rover



Raghav Khosla
Director
Amazon Logistics



Ron Dawson
Application Engineer
Copa Data



Rubin Jen
Agile/Project Management
Philosopher
Consultant



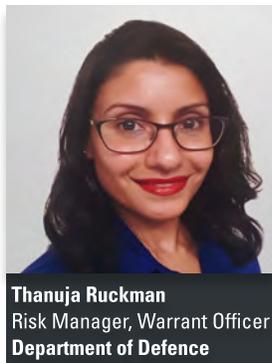
Samantha Waytowich
Mohawk Commercial Enterprise
Mohawk College



Shelley Peterson
Prin Investigator Augmented &
Mixed Reality
Lockheed Martin



Steve Wallace
Chief Executive Officer
Play On! Canada



Thanuja Ruckman
Risk Manager, Warrant Officer
Department of Defence



Vishwanath Baba
Dean & Professor of Management
McMaster University



Walter Miller
Director Continuous Improvement
BAE Systems



Yasmeen Tonnos CPCC,BA
Founder & CEO
BETR Inc.



Zoltan Koltai
Global Head Of Manufacturing
Rolls-Royce Electrical

Industry Relevance

The McMaster Certificate of Completion is a unique and innovative training and upskilling program for professionals, which delivers comprehensive, relevant, subject-focused courses in a 3-day, conference-style format. Directly developed from industry feedback, and with the exclusive participation of global industry experts, trainees learn and practice skills based on industry insights, case studies, and proven tools. Three training streams are offered, which address the main challenges faced by organizations in today's competitive economy.

TESTIMONIALS

Industry Operations Leadership Fundamentals

The Industry Operations Leadership Fundamentals Course provides a very detail introduction of what is Industry 4.0 which is unclear for many of us. It also introduces the Strong Link Archetype which provides a very specific and practical model of leadership intended to learn and develop tools, techniques and leadership styles for the Industry 4.0 environment combined with specific methodologies or techniques to enable leaders with powerful tools for project and resources management.

The Professors and Guest Speakers have a great balance between academical and practical experience, providing useful and practical tools and techniques to transfer the acquired knowledge into immediate action. In my particular case as a Plant Manager at Tesla, understanding the Industry 4.0 environment, and the upcoming trends and technologies in manufacturing, is providing me with a different perspective to better understand the challenges that my team and I are and will be facing in the following years and as well to better lead and manage the new generations that are developing in this fast changing and technologically advanced environment.

Leonardo Guerrero

Plant Manager

Tesla Inc.



Industry Tactical Planning & Execution

The Industry Tactical Planning & Execution Course is a great introductory course for Supervisors and Managers who are looking to develop high performance teams by improving communication, driving clear accountability across their team members, while achieving the strategic goals of the organization. The course provides tried and tested strategies to improve communications and improve efficiencies while ensuring quality and safety are never compromised. If you are looking to take your leadership skills to the next level, this course is for you.

Joe Figliomeni

Director of Business Operations

Princess Margaret Cancer Foundation



Industry Operations Leadership Fundamentals

The MacMaster IOLF had a great selection of very knowledgeable presenters from a variety of fields who were able to discuss the impacts of key theories in practice based on their experience. I was particularly impressed with the consideration MacMaster had in bringing in a speaker to address mental health within the context of managing. It is a topic often cited as important, but rarely are managers provided tools to deal address it.

Thanuja Rukman

Manager

Department of National Defence



Industry Tactical Planning & Execution

I found the Industry Tactical Planning and Execution course innovative, interesting and exciting. Ashan and the team undertook the difficult challenge of redefining and articulating the age-old philosophical problem of good leadership practices, and brought them into the 21st century.

I feel they hit the nail on the head. Infusing tried and tested intent-based bottom-up execution techniques into the rapidly evolving business world, the course delivered tools, techniques and resources to enable anyone, to better themselves in the tradecraft of management and leadership. Personally, I've since delved into the Intent Based Execution principles, utilizing the attributes of high performance teams to reduce the decision action cycle. These adjustments have made my team more effective and efficient, driving bottom up innovation while remaining on task, on schedule and on budget.

Andrew Liberman

Sargeant

Department of National Defence



Industry Tactical Planning & Execution

In the Industry Tactical Planning and Execution course, participants gain a sharp understanding of the new kind of operational leader who is capable of taking the necessary actions to scale the tactical level execution in order to respond to disruptions and the rapidly evolving needs of the market and industry. Each lecture is highly intent-based and enables participants to engage directly with the industry leaders through many relevant and insightful open discussions. Participants are encouraged and guided to revisit and redefine the contingency plans within their own operational team to reach their full potential in tactical planning and execution. I would like to share my appreciation to Ashan and his entire team for the excellent, well thought content.

Maedeh Pourmajidian

Post-doctoral fellow

McMaster University



Industry Operations Leadership Fundamentals

IOLF Course is a professional certifiicate course from McMaster University, it is my pleasure to attend it to help me to develop personal leadership skills and gain valuable insight from industry leaders. It provides incredible opportunities to connect leaders across industry, share insights, drive operational solutions, and strengthen leadership and execution skills.

During the course, I enjoyed its mentorship program, which each participant conduct a 360 self-assessment, derive key observations and deductions culminating with a tailored leadership development plan to drive a performance improvement; this really helped me to reevaluate my leadership and management skills in current work environment, develop a plan to be a tactical industry leader. I highly recommend this course.

Tommy Liu

Senior Manager, Data Engineering

The Center for Addiction and Mental Health



Course Daily Schedule

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

Morning	○	Session Introduction, mentorship check-In
	○	Instruction and group exercises
Afternoon	○	Lunch break
	○	Guest speakers, presentations
	○	Panelist discussions, after-action review

Tuition/ Fees

McMaster's Certificates of Completion are eligible for qualifying Canadian businesses and associations in collaboration with NGen Canada and the AMP UP Program to obtain a subsidy for our current offerings. Please add HST for Canadian applicants, and VAT for international applicants.

IOLM Program Participant

- All Five Courses
- Mentorship Program
- Six Certificates

NGEN AMP UP / Association Cost

\$3,750 CAD

Alumni & NGEN Member Cost

\$7,500 CAD

Regular Cost

\$10,000 CAD

Per Course

- Course Certificate

NGEN AMP UP / Association Cost

\$750 CAD

Alumni & NGEN Member Cost

\$1,500 CAD

Regular Cost

\$2,000 CAD

Register

New applicants can register for upcoming courses at www.mccmcmaster.ca

Course Dates

View all upcoming course dates at www.mccmcmaster.ca

Take the Next Step

Ready to enroll?

Do you have questions about the McMaster certificate course?

Our team is here to help.

- Determine if this program is right for you or your organization
- Learn more about McMaster's certificate programs

Program Lead

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