Empowering Canada's Workforce for Sustainable Manufacturing

The Advanced Manufacturing Engineers Upskilling Program (AME-UP) is a 16-week intensive career accelerator designed to equip participants with the cutting-edge skills needed to thrive in the cleantech industry.

Whether a newcomer or a seasoned engineer looking to transition into this high-demand field, **AME-UP is the gateway to success.**

Specific Context

- **Cohort Size:**
  60+ participants
- **Delivery:**
  Virtual, once per week for 16 weeks
- **Session Length:**
  Each class is 90 mins.

Participant Requirements:

- Participants have at least 3 years of experience in Mechanical Engineering, Additive Engineering, Chemical Engineering, and Software Development.
- Participants who are newcomers, must have had PR for at least 1 year by program start date.

What's Included

- **16-Week Comprehensive Program:**
  Intensive technical training combined with real-world experience in cleantech
- **Career Support & Job Placement:**
  The program's goal is to help 80% of participants secure full-time roles within six months of completion.
- **Work-Integrated Learning (WIL):**
  Engage with top employers in project-based learning to solve real industry challenges.
- **Networking Opportunities:**
  Build connections with key industry players, mentors, and peers who are driving the future of cleantech.

Learning Outcomes

1. **Develop** an understanding of how to create a technology development roadmap and formulate an intellectual property (IP) strategy.
2. **Describe** key steps for technology commercialization.
3. **Identify** essential resources for development.
4. **Enhance** sales communication skills.
5. **Gain** confidence in career development and job search.

Program Format

Meet once per week virtually

- 20-30 minute live presentation from a subject-matter expert
- In-depth discussion with fellow participants and session moderators
- Introduction of upcoming materials and exercise examples

Online Training

- eLearning readings and videos
- Based on the material, participants have one or two exercises (1- 2 hrs of work per week)
- Participants will meet weekly with Executives in Residence (EIRs) to discuss progress and receive feedback on exercises.
- Exercises are submitted online and reviewed by either the cohort or EIRs

Program Format

EiR Involvement

- Weekly Feedback Sessions: EIRs will join meetings to provide tailored feedback to participants.
- Program Feedback: EIRs will communicate with course moderators on participant engagement, work quality, and areas needing additional instruction.

Graduation Criteria

Participation Requirements:

- Completion of the first 8 weeks of the online program is mandatory to qualify for WIL projects and technical workshops.
- Employer endorsement is required for participation in the program's second half.
- Moderators must also endorse participation in the second half.

Stipend Eligibility:

To receive the $3000 stipend, qualified participants must:

- Attend all remaining 8 weeks of workshops
- Submit a final report to employers outlining their involvement in WIL projects

Technical Workshops

During the second half of the program, industry experts will conduct workshops covering various topics. These workshops provide:

- **In-depth Learning:** Focused instruction on key industry challenges and solutions
- **Networking Opportunities:** Direct interaction with industry experts, allowing participants to expand their professional connections

AME-UP Curriculum Content Overview

	Live Webinar (Thursday)	Online eLearning (On-Demand)	Exercises (Due Thursdays)
Week 1	• Company Introductions • Tech dev intro • TRL Levels	• Program and Course Expectations • Intro to Tech Dev Roadmaps	Review course outlines
Week 2	• CTO Expectations Speaker • Discussion on TRL and MVP	• CTO Role • TRL Levels	TRL Level Analysis
Week 3	• Product Development Methodologies • Discussion on Customer Experience	• Product Development Methodologies • Core Planning • Customer Experience	Road Map
Week 4	• Intro to Detailed Roadmap • Discussion on Third-Party Vendors	• IP • Third-Party Vendors	Intellectual Property
Week 5	• CTO Panel • Intro to Resourcing and Budgeting	• Scale-Up • Design Creep • Detailed Road Map	Road Map Details
Week 6	• Contract Speaker • Discussion on Team Building • Expectations for Company Presentation	• Budgeting • Team Building • Contracts	Resources Budgeting
Week 7	• Sales & Marketing Essentials • Understanding Your Employer & Customers	• Value Proposition For Your Project	Technical Sales Presentation
Week 8	• Work Integrated Learning • Best practices	• Working with Employers	Riipen presentation
Week 9	• Management Transitions: • Understanding the Engineering Manager, Product Development Manager, and Manager of Projects roles	• Roles & responsibilities	WIL
Week 10	• IP Session • Path to commercialization	• Intellectual Property	WIL

	Live Webinar (Thursday)	Online eLearning (On-Demand)	Exercises (Due Thursdays)
Week 11	• Crafting Contracts and Building Effective Teams • Managing Teams and Third-Party Vendors	• Team Building • Contract Essentials • 3rd Party Vendors	WIL
Week 12	• Communication Essentials for Upcoming Leaders	• Persuasive Communication Techniques	WIL
Week 13	• Ethics, Leadership, and Partner Management	• Ethical Dilemmas in Cleantech and Leadership Challenges	WIL
Week 14	• Delving Deeper into TRL Levels and MVP • Expanding on Product Development Methodologies in Cleantech	• Customer Experience and its Relevance in Product Development	WIL
Week 15	• Advanced Technical Challenges and Solutions in Cleantech	• Addressing Design Creep and Innovations in Cleantech	WIL
Week 16	• Cohort review	• Closing Reflections	Final reports & WIL deliverables

Program Funders

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Questions? Get in touch: **upskill@foresightcac.com**