



GNG/ELG 5301
Fall 2024
Faculty of Engineering- University of Ottawa

Dr. Sawsan Abdul-Majid, P. Eng. SMIEEE

Virtual Classroom Rules (ZOOM)



You can access the Zoom link for this course via your GNG/ELG 5301 course Brightspace, accessible from the Brightspace tool bar
USE UOTTAWA Email Address for BS and ZOOM



Mute your microphone: Make sure your microphone is always on mute, unmute it, only when it is your turn to speak (you will be asked to do so). Speak up or speak directly into the microphone when needed. Move microphone closer to you so that we can hear your voice clearly.



Turn off your camera. You are encouraged to turn your camera on, when you speak or present.



Leave your message to the chat box if you have questions to your Professor, Guest speakers or TAs .We will collect your questions and answer them in a proper time during or after the course.

Agenda

Introduction

Introduction to professors and TAs

Syllabus (posted at the Bright space → Content → Course information)



Dr. Claude Laguë, P.Eng., ing., FCAE | MACG, FEC | FIC
[\(https://www.linkedin.com/in/claude-laguë-a89600a/\)](https://www.linkedin.com/in/claude-laguë-a89600a/)



B.A.Sc. (1982); M.Sc. (1986)
 Professor (1989-99)
 Program Coordinator (1991-94)
 Vice Dean (1995-96)
 Department Chair (1996-99)

Farnham, QC
 Raised on a farm



Summer Student (1981)
 Project Engineer (1982-85)



Professor (since 2006)
 Dean, Faculty of Engineering (2006-16)
 Prof. Dev. & Cont. Ed. (2019-23)
 Project Leader (Revenues) (2017-19)
 Special Advisor (Campus Re-integration) (2020-22)

Adjunct Engineering Researcher (2000-06)



Professor & Industrial Chair (2000-06)
 Dean, College of Engineering (2002-06)



Visiting Engineer (1999)



Fulbright Canada Scholar (2016-17)



Ph.D. (1990)

Visiting Professor (2016-17)



Visiting Professorial Fellow (2024)



Visiting Professor (2019)

National & provincial responsibilities

Actua: Board Member (2012-16)
Association des ingénieurs en agroalimentaire du Québec: Member (1992-01); Vice President (1992-95)
Canadian Academy of Engineering: Engineering Deans Roundtable (since 2022)
Canadian Engineering Memorial Foundation: Board Member (2008-16)
Council of Ontario Deans of Engineering: Member (2006-16); Chair (2011-13)
Engineers Canada: Advisor to the Board of Directors (2011); Educator-in-Residence (2018-19); Future of Engineering Accreditation (since 2021)
Mitacs Research Council: Member (2017-23); Emeritus Member (since 2023)
National Council of Deans of Engineering and Applied Science: Member (2002-16); Chair (2008-11)
Professional Engineers Ontario: Vision Task Force (since 2023)

« Agriculture Feeds Us Three Times a Day! »

Abdel Hamou-Lhadj

P.Eng., M.Sc., MBA, C.Dir.

- ▶ Over 35 years of experience in the IT sector, including 24 successful years at IBM in leadership roles, building a career focused on governance, risk management, and regulatory compliance.
- ▶ More than 20 years of teaching experience at Canadian and international universities, guiding thousands of students through courses in management, compliance, and information technology in both English and French.
- ▶ My teaching philosophy is rooted in practical knowledge, ensuring students grasp the concepts while learning how to apply them in real-world contexts.

Dr. Sawsan Abdul-Majid, P. Eng., SMIEEE



Sawsan Abdul-Majid - Members
University of Ottawa (uottawa.ca)

- ▶ PhD in Electrical Engineering (Optical communication)
- ▶ 20+ Experience (Industrial and academic). Publications (40 +)
- ▶ Eight years Canadian industrial experience in the field of Optical fiber communication.



2002

Licensed as
Professional
Engineer of Ontario
P. Eng.



2009

Researcher/Project
Manager/ Center for
research in Photonics
(CRPuO) / University
of Ottawa – Until 2015



2015

President ANCWT
(Advancing new
Canadian women in
Technology)



2021

Winner of SOPI
(Shared online
projects Initiative)
Grant – ANCWT
online



2003

Senior Member IEEE,
uOttawa student chapter
Faculty counselor/ advisor



2014

Part time Professor
(School of Electrical
Engineering and
Computer Science-
EECS) – Until Now



2020

Winner of SOPI grant
to develop course
module Research skills
for Engineers for
ELG5301

2023

IEEE Outstanding
branch counselor award
Women in leadership
champion award



2023 Champion of Diversity award

- ▶ Presented to **Dr. Sawsan Abdul-Majid**, by the honourable Michael Ford . Ontario Minister of Citizenship and Multiculturalism.
- ▶ In Recognition of the efforts and leadership in promoting immigrants' success . Economic growth and inclusion in Ontario.

Professors and Teaching Assistances

ELG 5301 F

- Professor: Abdelkrim Hamou-Lhadj
- Lead TA: Faria Jaheen
- TA: Blake Scott Miller

ELG 5301H

- Professor: Dr. Sawsan Abdul-Majid
- Lead TA: Faria Jaheen
- TA: Monica Mobashera

**GNG 5301
F & H**

- Professor: Dr. Claude Laguë
- Lead TA: Agnes Bezerra
- TAs: Ali Esmaili, Mayisha Farzana and Parvathi Anilkumar

Course objectives

Upon successful completion of this course, students:

- a. Will be able to build and enhance their professional networks.
- b. Will understand trends in the engineering job markets and will develop their career plans.
- c. Will understand the meaning of professional responsibilities.
- d. Will be able to communicate professionally.
- e. Will be able to lead groups and teams.
- f. Will be able to manage projects.

Course Modules



GET TO KNOW
YOURSELF (\$WOT)



JOB SEARCH, SO YOU IDENTIFY THE JOBS THAT
YOU WOULD LIKE TO DO; GROWTH & GOALS
ONLINE MODULE



TECHNICAL PROJECTS, CEED
TRAINING, AND GROUP-BASED
PROJECTS, TECHNICAL PITCH



CAREER PLANNING



RESEARCH SKILLS FOR
ENGINEERS (RSFE)



JOB APPLICATION PREPARATION (RESUME
WRITING AND CRITIQUE, LINKEDIN, INTERVIEWS
TECHNIQUES, AND MOCK INTERVIEWS)



INDUSTRY PANEL , MEET EXPERTS FROM
INDUSTRIAL COMPANIES AND
GOVERNMENT INSTITUTIONS



FINAL EXAM (IEEE
PROJECT REPORT + FINAL
PRESENTATION)

Course Plan

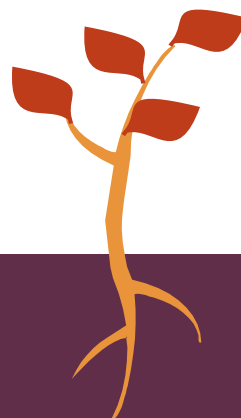
Week	Tuesdays, LEC Online	Wednesdays, TUT, On campus	Thursdays, TUT, Virtual
1: Sep 10, 11, 12	Course Introduction, Syllabus	Introduction, Peer groups & Peer Coordinators Grading, SWOT analysis	Introduction, Peer groups & Peer Coordinators Grading, SWOT analysis
2: Sep 17, 18, 19	Job Search Techniques, Engineering Practice, Key Concepts in Engineering Management	Job Search Techniques, G&G module	Job Search Techniques, G&G module
3: Sep 24, 25, 26	CEED Training	RSFE introduction, PDC presentation	RSFE introduction, PDC presentation
4: Oct 1, 2, 3	Career Planning	Career Planning	Career Planning
5: Oct 8, 9, 10	IEEE Report Standards Workshop & Technical Pitch	Projects List / groups	Projects List / groups
Reading week: October 13-19	No classes	No classes	No classes
6: Oct 22, 23, 24	Research skills for Engineers (uOttawa Library), Resume writing	Resume critiques, Makerspace tour	Resume critiques, Makerspace tour
7: Oct 29, 30, 31	LinkedIn Learning	LinkedIn Learning Workshop (Technical) Online	LinkedIn Learning Workshop (Technical) Online
8: Nov 5, 6, 7	Interview Skills	Mock Interview Workshop	Mock Interview Workshop
9: Nov 12, 13, 14	Technical Pitch	Technical Pitch	Technical Pitch
10: Nov 19, 20, 21	Industry Panel	Technical Pitch	Technical Pitch
11: Nov 26, 27, 28	ELG/GNG/DTI 5902 Industry Project	LinkedIn Learning Workshop (Professional) Online	LinkedIn Learning Workshop (Professional) Online
12: Dec 3, 4, 5	Final Presentation 1	Final Presentation 2	Final presentation 3

Team working

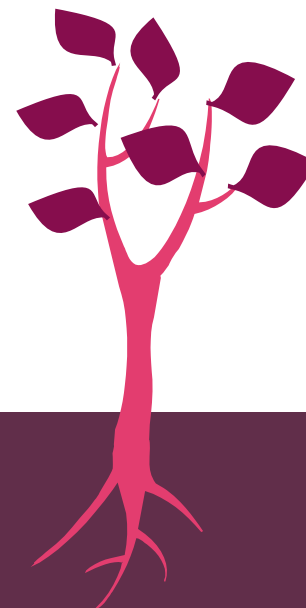
ELG/GNG5301 courses help students to foster their team working and communication skills while receiving customized technical training in collaboration with the Center for Entrepreneurship and Engineering Design (CEED), School of Engineering design and Entrepreneurship , Faculty of Engineering.



All students will be assigned to peer groups.



Every peer group elect a peer group coordinator. They will closely work with their own group members and the direct TA.



Every member of groups should do their assignment individually and then during the weekly meeting they should evaluate other team members assignment, provide feedback and grade each other.



At the end, team members will work on a CEED project as a team, write IEEE technical paper as individual, present their collaboration, responsibilities and findings to the judge panel (Prof and two TAs)

Grading Matrix:

	Not Demonstrated	Misconception	Needs Improvements	Meets	Exceeds
	0%	55%	70%	80%	100%
[Week Number], [Assignment Subject]	No work is presented	The submission shows little time is spent and the work is rushed	Peer member delivers on the requirements, but there is room for improvement	Peer member meets the requirements of the deliverable	Peer member excelled at completing the activity, and proved to come up with the best deliverable in the team
[Group Number]	[Peer Name]	[Peer Name]	[Peer Name]	[Peer Name]	[Peer Name]

The Categories to evaluate peer members' assignment with Justification:



WRITING SKILLS



TEAMWORK,
COOPERATION AND
COLLABORATION



REASONING ABILITY



FAMILIARITY WITH THE
MATERIALS



LENGTH OF CONTENT

Detailed Peer group evaluation criteria

- ▶ Will be presented and explained in detail during the first tutorial sessions , both On campus and online .
- ▶ All Peer group coordinators will be trained on that , and all Direct TA, and Professors will mentor them , accordingly .

Personal & peer group grades

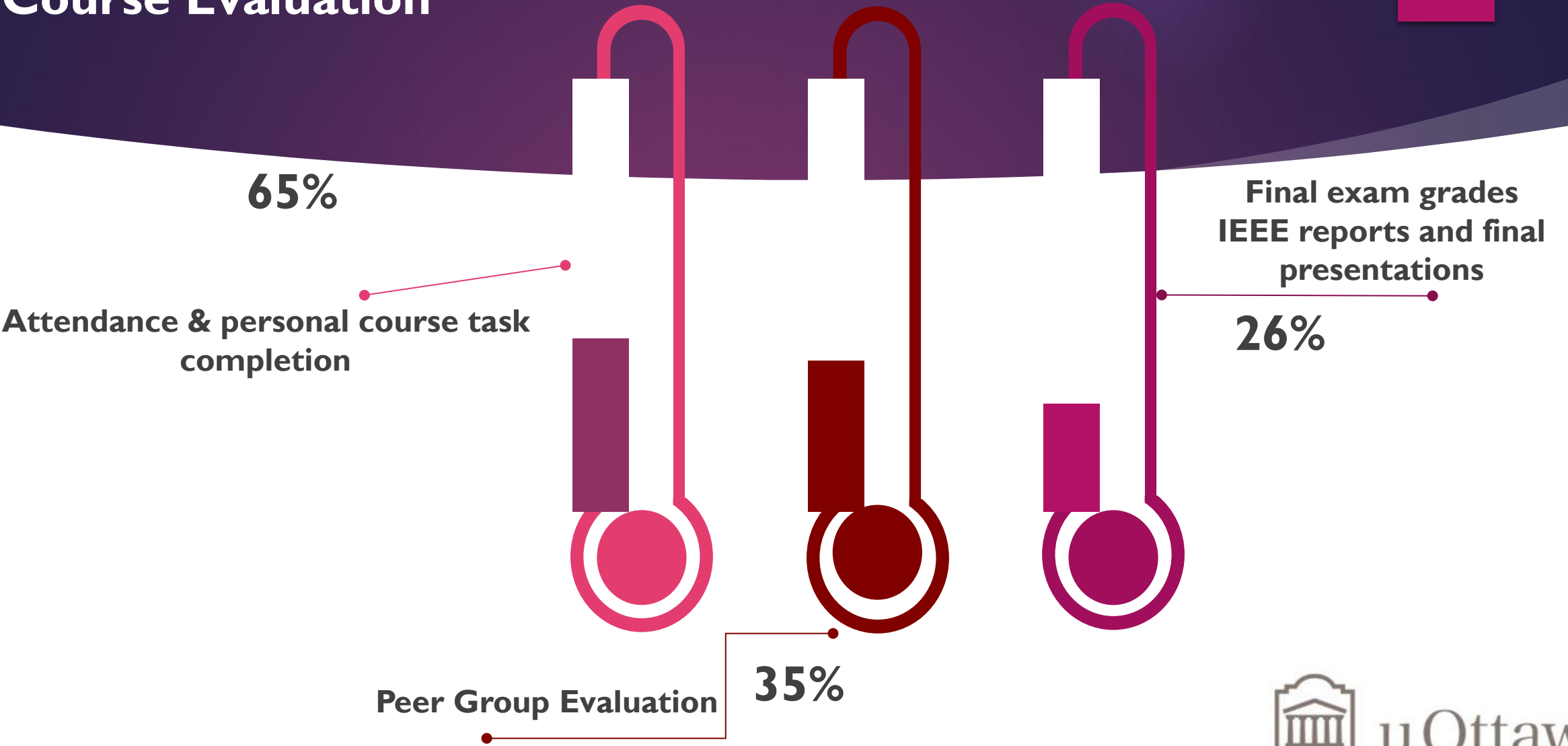
Due Week	Personal Deliverable	Grade%	Peer Assessment	Grade%
W1:	Personal SWOT Analysis	3	Peer Feedback	5
W2:	G&G module	3	Peer Feedback	0
W3:	Job Search Report	3	Peer Feedback	8
W4:	Career Plan Report	3	Peer Feedback	8
W5:	Proof of Completion of assignment for CEED Training & Attendance	5	Peer Feedback	0
W6, 7:	Research Skills for Engineers	7		
W8:	Resume Writing	6	Peer Feedback	8
W9:	LinkedIn Learning -Technical	4	Peer Feedback	0
W10A:	Mock Interviews	4		
W10B:	Technical pitch	3		
W11:	LinkedIn Learning -Professionalism	4	Peer Feedback	0
W12:	IEEE report	10	Peer Feedback	6
W13, 14:	Final presentation	10		
Total		65		35

Course Evaluation

- 1- Attendance & personal course task completion 65%
- 2- Peer groups evaluation 35%
- 3- IEEE Report + IEEE Peer Group Feedback + Final Presentation (12+ 6+10) = 26%
- 4- Final exam grades (26%) will not be posted on Bright space.
- 5- Check your Uozone for your final grade.

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Course Evaluation



Technical Projects

Via this course, you will receive customized CEED training on Arduino from TA Faria Jaheen.

You will complete one Technical report:

1. CEED Project Description using Standard (Technical) report

(10 marks Personal + 6 marks Peer group = 16)

2. Final presentation will be taking home exam, where you will prepare your final project and present it as Final presentation **(10 marks)**.

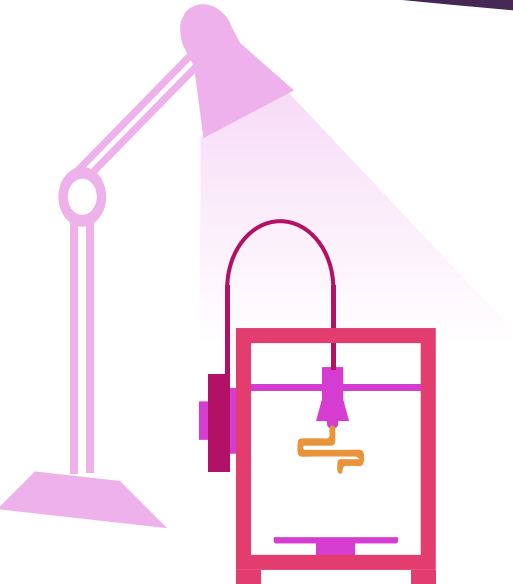
Students enrolled at on campus tutorials will present on campus.

Students enrolled at Online tutorials will present online via Zoom.

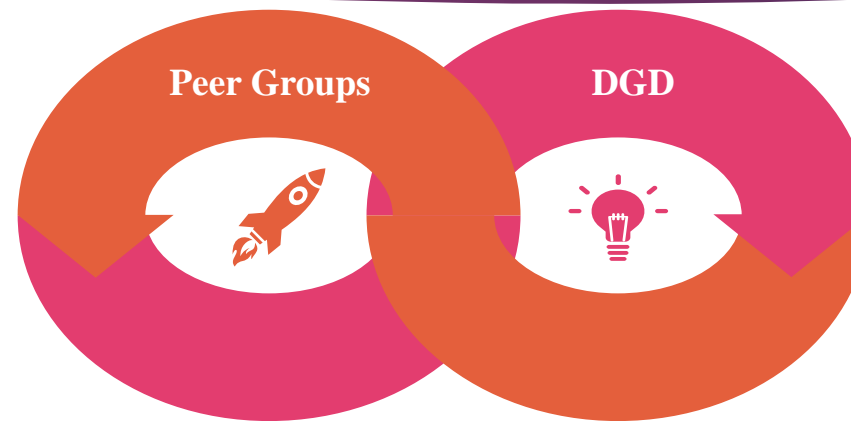
Your final exam is a sum (IEEE Technical reports and final presentation)

IEEE Report+ **Technical pitch** + IEEE Peer Group Feedback + Final Presentation

(10 +6+10) = **26%**



DGD groups - Workshops - Peer groups



All students from ELG 5301 F, ELG 5301 H, GNG 5301 F and GNG 5301 H are now enrolled in peer groups.



Let me and your TA know if you do not see yourself enrolled into a peer group

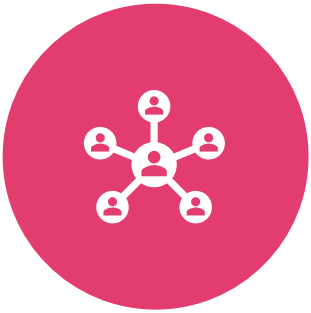


Make sure to work closely with your peers and your peer group coordinator (who will be elected by the group members)



Peer group coordinators reports closely to direct TAs

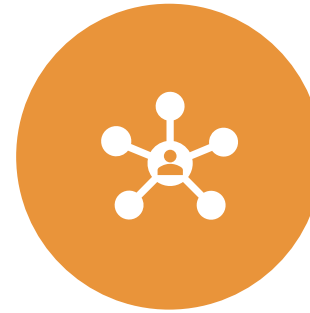
Notes



ALL STUDENTS ARE
ASSIGNED TO PEER
GROUPS.



EVERY PEER GROUP WILL
ELECT A PEER GROUP
COORDINATOR.





ALL PEER GROUP
COORDINATORS SHALL
COORDINATE CLOSELY
WITH THEIR OWN GROUP
MEMBERS AND THE
CORRESPONDING TA.




DGD SESSIONS TO USE
CORRESPONDENCE ZOOM LINKS.
MAKE SURE TO ACCESS YOUR ELG
5301 F, ELG 5301 H, GNG 5301 F AND
GNG 5301 H ZOOM LINK
ACCORDINGLY.



<https://www.linkedin.com/company/ancwt/>

[YouTube](#) [ANCWT Channel](#)

[ANCWT Website](#)



What is it?

ANCWT is uOttawa-based employment bridging program to help newcomer women (immigrants & refugees) in STEM find their dream jobs in Canada.

When is founded?

Established by me in **2016** at the University of Ottawa

What were our achievements?

Successfully completed six cohorts, training **80** women and achieving a **70%** job placement rate.

How did we help women during the pandemic?

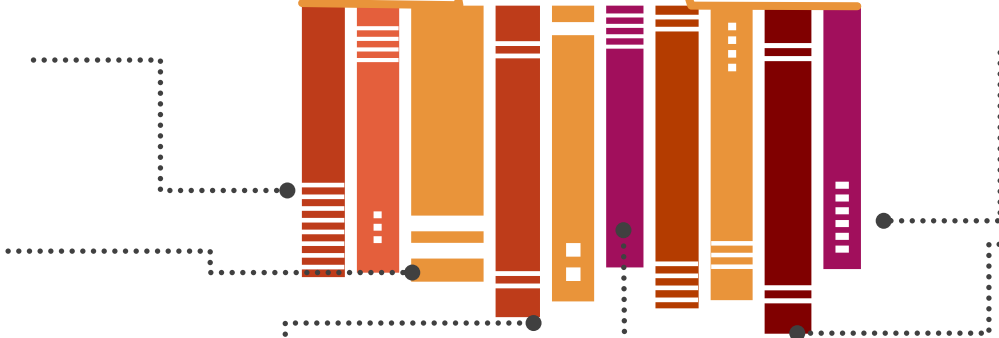
ANCWT offered **online cohorts** (2021 and 2022)

What collaboration did we have?

Collaborating with **Carlton U professors** on second online cohort, for winter 2022, current collaboration with U Alberta , U Regina

How did we encourage women?

We implemented ANCWT **3MT competition** during 2020, 2021 and 2022 industry panel



Q & A

