Archived Calendar
Course Series

2023–2024

Toronto Metropolitan University

The Chang School of Continuing Education

Introduction to Privacy, Access, and Information Management

In our current data-driven economy, the rapid proliferation of emerging technologies poses significant implications with the regard to the protection of personal data and access to information. This program equips learners from all sectors with the foundational knowledge and skills needed to navigate the complex and often unpredictable world of privacy and access.

Required Courses

- ❑ CLAW 401   Information Access and Privacy Protection
- ❑ CZIT 427   Data and Info. Mgmt for Privacy
- ❑ CZLW 327   Privacy By Design

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificates

The courses in this program may be applied to the Privacy, Access, and Information Management certificate.

3-D Printing, Visualization, and Agile Product Prototyping

Learn to execute agile product design, product sculpture, and prototyping with 3-D printers. Realize your designs, animations, and product prototypes using 3-D printers.

In each course, you will prepare a 3-D model ready for optional 3-D printing at Toronto Metropolitan University's 3-D Printing Lab.

This is an Open Admissions program to help you advance or change your career.

No previous background is required.

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

What Will You Learn?

Learn how to:

- Develop and design a physical product including product design and prototyping for manufacturing.
- Utilize hands-on SOLIDWORKS tools essential for product design, focusing on modeling, lighting, texturing, animation, and rendering.
- Employ industry-standard 3-D modeling software SOLIDWORKS, including its sketching and modeling tools and its tools to finalize planes in 3-D model space.
- Draft and translate 2-D sketches into a 3-D models and combine them for product design.
- Execute modeling, lighting, texturing, animation, and rendering for successful 3-D printing of prototype designs.
- This short course series is an excellent complement to the skills you may already possess as a professional.

Required Courses (select 4)

- ❑ CKCS 230   Intro to SOLIDWORKS for 3-D Printing
- ❑ CKCS 231   Product 3-D Animation/Rendering
- ❑ CKCS 232   3-D Printing: Agile Prototyping
- ❑ CKCS 233   Product Design for 3-D Printing
- ❑ CKCS 234   Product Drawing for 3-D Printing

Course Series Requirements

- Successful completion of 4 required courses

Supplies to be purchased by the student:
You are required to purchase (or already own) the following software: Pixologic ZBrush and ZSpheres, Autodesk Mudbox, SOLIDWORKS, DynaMesh, and 3-D computer graphics software that saves objects in the STL (stereolithography) format. As well, you must own or have access to a laptop, tablet, tablet pen, and an external hard drive.

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Recommended Sequence

We recommend you take courses in the following order:

Term 1:
CKCS 233 - Product Design for 3-D Printing and
CKCS 230 - Intro to SOLIDWORKS for 3-D Printing

Term 2:
CKCS 231 - Product 3-D Animation/Rendering and
CKCS 232 - 3-D Printing: Agile Prototyping or
CKCS 234 - Product Drawing for 3-D Printing

3-D Printing, Visualization, and Agile Product Prototyping

Who Should Enrol?

This program is designed for individuals who are seeking the knowledge and skills relevant to work, and advance their careers, in the field of 3-D design, prototyping and, 3-D printing of products.

Fast Track Option

This spring, participants in the 3-D Printing Fast Track (CKCS 995) can complete all four courses in the program in one term. Access specialized material and individualized instructor support.

Industry And Careers

Careers requiring highly developed skills in 3-D design, prototyping, 3-D printing and manufacturing are:

- 3-D computer-aided designers (CAD) modelling experts
- Research and Development computer technicians and technologists
- Augmented reality developers
- Architectural Technologists and construction modelling specialists
- 3-D Printing-as-a-Service small business owners and entrepreneurs
- Engineers in all engineering fields
- Manufacturers

These specialists provide design, prototyping, and 3-D manufacturing technical expertise that supports private sector companies, and research and development initiatives worldwide.

Hadoop, Python, and Tableau Big Data Tools

This program builds hands-on technical skills in Hadoop, Python, and Tableau Big Data Tools Administration. Students program and administer, within Hadoop, Python, and Tableau dedicated administrative platform environments, big data analytics queries on unstructured data, visual data, and social media data. The most industry-adopted big data tools, applications, and administrative platform environments are Hortonworks, Hadoop, Python, and Tableau which are covered in depth.

Required Courses (Select 3)

- ❑ CKCS 107   Data Analytics Through Excel
- ❑ CKCS 113   Intro to Machine Learning
- ❑ CKCS 115   Big Data Location Analyst
- ❑ CKCS 116   Crowd-Sourcing Big Data
- ❑ CKCS 117   Sharing Economy Big Data
- ❑ CKCS 118   Big Data and Virtual Reality
- ❑ CKCS 150   Introduction to Programming in Python
- ❑ CKCS 155   Intro to Hadoop and Tableau

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, email Chang School Client Services (ce@torontomu.ca) with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award.

Introductory Accounting

This course series provides students interested in developing accounting skills with essential introductory accounting knowledge.

Required Courses (Option 1)

The professional development award may be achieved by completing all courses in either this Option or Option 2.

- ☐ CACC 110   Financial Accounting
- ☐ CACC 410   Management Accounting

Required Courses (Option 2)

The professional development award may be achieved by completing all courses in either this Option or Option 1,

- ☐ CACC 100   Introductory Financial Accounting
- ☐ CACC 333   Core Concepts of Accounting
- ☐ CACC 406   Introductory Management Accounting

Course Series Requirements

The professional development award may be achieved in one of the following ways:

- · Successful completion of courses in Option 1
  - · (CACC 110 and CACC 410)

OR

- · Successful completion of courses in Option 2
  - · (CACC 100, CACC 333, and CACC 406)

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Advanced Make-Up Artistry and Special Effects

The Chang School is proud to offer a comprehensive three-course series in Advanced Make-Up Artistry and Special Effects. Focusing on make-up artistry in film, TV, theatre, and photography, you'll learn the latest techniques and receive professional advice about succeeding in the business.

If you're thinking of beginning a career in make-up artistry, The Chang School is the place to start. And if you're already in the field but are looking to perfect your knowledge and skills, we've got the courses to help expand your career options.

Once you've successfully completed all three courses, you'll receive a Professional Development Award. This credential is widely recognized and respected across the make-up and entertainment communities.

This course series offers the following benefits:
- Enrol right away; open admissions with no application required
- Earn a Professional Development Award on successful completion of all courses
- Apply for merit-based awards

Required Courses

- ❑ CDTH 431 Make-Up Artistry for Film Video and TV
- ❑ CDTH 435 Special Effects Make-Up for Stage and Screen
- ❑ CDTH 448 Introduction to Make-Up Techniques for Theatre and Film

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

American Sign Language (ASL)

Learn American Sign Language (ASL), the most commonly used sign language for Deaf communities in Canada, the United States, and many other countries around the world.

ASL employs a range of movements in the hands, face, and body. ASL has been used for over 250 years, and is now estimated to be used by more than 500,000 people in Canada and the US.

All courses within this course series are delivered in class, allowing you to practise with your instructors and fellow students.

You will learn from a combination of lectures, in-class demonstrations, dialogues, conversations, videos, and practice using audiovisual support.

Required Courses (Select 2)

- ❑ CASL 101   Introductory American Sign Language I
- ❑ CASL 201   Introductory American Sign Language II
- ❑ CASL 301   Intermediate American Sign Language I
- ❑ CASL 401   Intermediate American Sign Language II

Course Series Requirements

- · Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Architectural Preservation

This is a highly technical program consisting of courses focused on subjects related to building renovation, restoration and rehabilitation, and historical preservation and conservation. The program is designed to provide graduates with specific knowledge and skills in architectural preservation and conservation.

No previous background is required.

Learn to design and execute renovations, restorations and rehabilitations, and historical preservation and conservation of buildings.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Courses (Select 2)

- ❑ CKAR 205   Building Codes and Regulations
- ❑ CKAR 310   Materials and Methods
- ❑ CKAR 601   Building Science for Architectural Preservation and Conservation

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Architectural Technologists Professional Career Foundations

Learn the latest in Canadian best practices and standards for materials and methods, building codes, and sustainable buildings' mechanical and electrical systems.

This program offers the solid foundational educational requirements and skill sets necessary to begin preparation toward accreditation as an architectural technologist. It is intended for those aspiring to be architectural technologist professionals who are currently in high demand with employers in architectural firms, governments, and construction companies.

No previous background is required.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this four-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Courses

- ❑ CKAR 205   Building Codes and Regulations
- ❑ CKAR 215   Computer-Aided Architectural Drawing
- ❑ CKAR 310   Materials and Methods
- ❑ CKAR 500   Sustainable Buildings

Course Series Requirements

- Successful completion of 4 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Arts and Entertainment Administration

Want to find out more about the Course Series in Arts and Entertainment Administration? Express interest to connect with this program and receive updates.

If you work in the cultural sector as an individual or as a group, Toronto Metropolitan University's G. Raymond Chang School of Continuing Education can help you develop entrepreneurial skills to support your creative work through a course series in Arts and Entertainment Administration. The course series provides learners with a blend of practical and theoretical instruction in a format that arts managers, potential arts managers, and individual artists will find suitable for their experience. The instruction addresses issues for both the for-profit and not-for-profit sectors.

Each course is taught by a seasoned professional who works in the cultural industry and who can help you develop confidence in learning to build your business.

This course series offers the following benefits:
- Enrol right away; open admissions with no application required
- Take courses in any order; no prerequisites needed
- Earn a Professional Development Award on successful completion of all courses
- Apply for merit-based awards

Required Courses

- ❑ CDAM 100 - Making a Living in the Arts
- ❑ CDAM 102 - Audience Outreach and Engagement
- ❑ CDAM 103 - Progmmatic Mktng for Arts and Ent
- ❑ CDAM 104 - Social Media Mktng Arts and Ent

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

CATIA Engineering Design

This program provides students with foundational, applied, and academic knowledge and skill sets in CATIA design. The courses offer students a comprehensive picture of current best practices in CATIA design and real-life industry applied case studies. They allow students to meet their individual interests in extending their knowledge and skills needed to support engineering design and product development. This knowledge and applicable skill set will be useful for technical digital practitioners whether they are serving on commercial, para-public, national defence, municipal, provincial, and national or international structural design projects or product development projects.

No previous background is required.

You will have the opportunity to acquire and use technical skill sets and best practices in CATIA design, together with analyses of real-life industry and engineering case studies. You will learn to transform and execute CAD system logistics with CATIA as products and design contexts change.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this two-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Courses

- ❑ CKAE 100   CATIA Engineering Design I
- ❑ CKAE 101   CATIA Engineering Design II
- ❑ CKAE 102   CATIA Engineering Design III

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Children's Publishing

This course series is intended for individuals who wish to specialize in this dynamic and growing sector within the book publishing industry. Toronto is the centre for children's publishing in Canada, and Canada is a recognized leader in children's publishing worldwide. In-depth training in children's publishing will prepare our students for entry into this vibrant sector.

This course series offers the following benefits:
- Enrol right away – open admissions with no application required
- Complete from wherever you are through a fully online format
- Get real industry experience by responding to postings for job and paid internship opportunities
- Earn a Professional Development Award on successful completion of all courses
- Use these courses towards the Certificate in Publishing
- Apply for merit-based awards

Required Courses

- ❑ CDPB 300   Children's Classics in the 21st C
- ❑ CDPB 301   Publishing for Children
- ❑ CDPB 309   Editing Books for Children and Teens
- ❑ CDPB 313   Mktg Books for Children and Teens

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Computer Applications

This course series is intended for individuals who have an interest in keeping up with the latest and hottest computer-specific applications, technology, and software. Students may take any combination of three courses in the series, in any order.

Required Courses (Select 3)

- ❑ CIND 108   Data Analytics for Non-Data Analysts
- ❑ CKCS 900   Introduction to C++
- ❑ CKCS 901   Introduction to Cloud Computing
- ❑ CKCS 902   Digital Speech Processing
- ❑ CKCS 903   Fundamentals of Speech Recognition
- ❑ CKCS 904   Introduction to Eye Tracking
- ❑ CKCS 905   Contracting for Cloud Computing
- ❑ CKCS 910   Fast Track in SEO

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Computer Programming for Game Developers

This program teaches 3-D Unity and Autodesk's Maya (in a computer lab) to equip students with the programming and scripting skills set to develop, on server-based and mobile devices, a range of commercial and serious games such as video games, learning games, "training interactive", and augmented reality simulations and applications. The project-centred approach provides hands-on engaging computer programming application and game development that are closely analogous to work projects that the students will experience in their real-world work as game developers.

Required Courses (select 3)

Select a minimum of 3 courses, totalling a minimum of 60 hours.

- ❑ CKCS 170   C++ and CSharp.net for Game Dev
- ❑ CKCS 171   Math for Game Dev Design
- ❑ CKCS 172   Game Mechanics for Game Dev

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Conservation and Renewal of Urban Buildings

In this program, students master solutions associated with existing asset evaluation of damage and deterioration; preservation and rehabilitation of existing assets and urban spaces; repair and re-use of materials associated with cost control; and best practices in adaptive re-use and sustainability. Topics include management and renewal of public and private physical assets, including built infrastructure, and fixed plants such as urban buildings, airports, hospitals, broadband networks, and interior and open-air private and public spaces.

No previous background required.

You will learn to design and execute repairs, renovations, restorations, and rehabilitations of urban buildings and infrastructures using up-to-date SMART building practices.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education

Required Courses

- ❑ CKAM 160   Infrastructure Repair
- ❑ CKAM 170   Sustainable Building Design
- ❑ CKAM 180   Preservation and Future Assets

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Costume Specialties

Theatrical costumes are created to meet the aesthetic and physical needs of a production, using specialized techniques and methods to achieve the custom designs created for the fantastical world of performance. The Course Series in Costume Specialties offers creative artists from any field — including theatre, fashion, textile, and visual arts — an opportunity to explore and develop creative practice in a studio setting.

The courses offer instruction and information for people interested in pursuing theatrical training part-time, costume and cosplay artists wishing to expand their skill set, and artisans wishing to gain alternative techniques and knowledge to incorporate into their own practice.

Through practical studio courses in a specific costume art or topic, you will not only survey a subject, but also gain problem-solving skills as you determine how to apply newly acquired skills and knowledge to creative projects. Classes begin with a short lecture and demonstration followed by hands-on exercises.

This course series offers the following benefits:
- Enrol right away — open admissions with no application required
- Take courses in any order — no prerequisites needed
- Earn a Professional Development Award on successful completion of all courses
- Apply for merit-based awards

Required Courses

- ☐ CDTH 460   Costume Painting and Dyeing
- ☐ CDTH 461   Costume Specialty Building
- ☐ CDTH 462   Costume Surface Design

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Creative Photography

If you have a passion for photography, welcome to the Course Series in Creative Photography. Short-term courses between 12 and 24 hours in the evenings, and/or weekends, will test your creative abilities. Landscape, documentary, websites, portfolio development, portraits, and even pinhole digital imaging are some of the courses offered. Courses will be taught by professional photographers who work in the industry and who will help you create your ideas.

This course series offers the following benefits:
- Enrol right away — open admissions with no application required
- Take courses in any order — no prerequisites needed
- Earn a Professional Development Award on successful completion of all courses
- Use applicable courses towards the Certificate in Photography Studies
- Exhibit your creative work through special events
- Apply for merit-based awards

Equipment/Facilities Use
Please note that equipment and facilities use outside of class time will not be provided. All course work requiring use of TMU equipment and facilities must be done during class time only.

Required Courses (Select 3)

- ❑ CDFP 312   Art Direction for Ad Agencies
- ❑ CDFP 318   Photographing in the Field
- ❑ CDFP 319   Documentary Project
- ❑ CDFP 355   Digital B&W Photography
- ❑ CDFP 388   Pinhole Digital Images
- ❑ CDFP 414   Traditional Photography
- ❑ CDFP 417   Night Photography
- ❑ CDFP 418   Landscape Photography
- ❑ CDFP 419   Exploring Toronto Landscapes
- ❑ CDFP 420   Making a Photographic Book
- ❑ CDFP 421   The Interpretive Portrait
- ❑ CDFP 422   Commercial Portraits
- ❑ CDFP 423   The Portable Portrait Flash
- ❑ CDFP 424   Introduction to Lightroom
- ❑ CDFP 425   Lightroom Advanced
- ❑ CDFP 432   Digital Printing Workshop
- ❑ CDFP 907   Using a 4x5 View Camera
- ❑ CDFP 908   Using Your Digital Camera
- ❑ CDFP 915   The Travelling Camera
- ❑ CDFP 924   Gallery Hopping
- ❑ CDFP 925   Smartphones as a Fine Art Tool
- ❑ CDFP 929   The Business of Photography
- ❑ CDFP 945   Creative Child and Animal Portraits

Course Series Requirements

- Successful completion of 3 required courses (totalling a minimum of 60 hours)

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Creative Writing

Note: This course series is currently under review. If you're interested in this course series or learning more about creative writing, reach out to our Chang School Client Services (ce@torontomu.ca).

Required Courses (Select 3)

- ❑ CWWR 110   Introduction To Creative Writing
- ❑ CWWR 120   Writing Poetry
- ❑ CWWR 130   Creative Nonfiction Essay Writing
- ❑ CWWR 298   Writing for The Children's Market
- ❑ CWWR 305   Beyond Writing Romance Novels
- ❑ CWWR 336   True to Life: Writing Your Own Story
- ❑ CWWR 369   Writers and the New Media
- ❑ CWWR 410   Short Fiction Writing - Level I
- ❑ CWWR 411   Short Fiction Writing - Level II
- ❑ CWWR 415   Fiction and Non-Fiction Writing
- ❑ CWWR 420   Novel Writing - Level I
- ❑ CWWR 421   Novel Writing - Level II
- ❑ CWWR 425   Short Fiction and Novel Writing - Level III
- ❑ CWWR 446   Writing Television Situation Comedy
- ❑ CWWR 514   Works In Progress: One-On-One Creative Writing Workshop

Certificates and Course Series

- ❑ Creative Writing

Course Series Requirements

- Successful completion of 3 required courses (totalling a minimum of 60 hours)

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Drone/RPAS Ground School

This program prepares students for Transport Canada's UAV Pilot Permit Exam, Transport Canada Compliant UAV operations, and UAV remote sensing applications.

The program focuses on drone/UAV technologies, best practices, risk and crisis management, drone equipment maintenance and repairs, flight planning, remote sensing applications, standard operation procedures, compliant operations, and post-flight image/video processing. Pilot knowledge requirements topics include air law, navigation, meteorology, aeronautics, and radiotelephony.

This comprehensive program instructs students to have a compliant drone/UAV enterprise and/or career in Canada. Students complete regulatory applications, Company Operation Manual (COM), fleet management records, operation checklists, and detailed workflows for planning, pre-flight, post flight, and flight operations management for their drone operation. During the program, Canadian UAV/drone industry leaders are invited as guest speakers to share their valuable expertise with students and provide networking opportunities.

This is an Open Admission program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education and also qualify for the Industry Canada Restricted Operator Certificate with Aeronautical (ROC-A).

Required Courses

- ❑ CKCS 175   Drone/RPAS Pilot School
- ❑ CKCS 176   Drone/RPAS Operations
- ❑ CKCS 177   RPAS Remote Sensing Apps

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Early Childhood Mental Health and Well-Being

This course series can be completed entirely online.

This program offers professionals in the field of early learning and care the opportunity to enhance professional practice skills related to child and family health, well-being, early intervention, and inclusive practices. Students will critically explore frameworks, theories, and practices — both current and evolving — as they relate to the children and families with whom they work.

Required Course

❑ CCLD 342   Assessment for Programming

Electives (Select 2)

❑ CCLD 442   Infant Mental Health
❑ CCLD 444   Therapies for Young Children
❑ CCLD 445   Inclusion and Consultation
❑ CCLD 446   Children and Chronic Illness

Course Series Requirements

- Successful completion of 1 required courses
- Successful completion of 2 electives*

*You may choose to focus on a specific area to achieve your individual goals. The electives may be grouped as follows:

- Health and Well-Being: CCLD 444, CCLD 446
- Professional Practice: CCLD 442, CCLD 445

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Entrepreneurship and Small Business

Set up your small business for success with an Entrepreneurship and Small Business certificate

Got a business idea that you want to get off the ground? Or, do you already own a small business and need help taking it to the next level? This certificate gives you the small business entrepreneurship skills to succeed in an increasingly competitive marketplace. The more you know about identifying opportunities, developing a business plan, and scaling your idea, the more successful your business can become – and the Certificate in Entrepreneurship and Small Business can help you get there.

Our certificate can be completed in as little as one year, and you can do your small business courses online. This way, you can continue to plan or run your business while improving your skills at the same time.

Our online entrepreneurship courses will teach you about things like small-business management, entrepreneurial behaviour and strategy, and how to identify business opportunities. It also will show you how to run a new venture start-up as well. Our instructors have many real-world lessons to share and a wealth of experience, thanks to their work with Canada's largest undergraduate entrepreneurship and innovation program.

Once you finish your entrepreneurship certificate, you can use all the material you've created during your entrepreneur courses to help promote your business to financiers and investors, and run it as smoothly and profitably as possible.

Are you more of a mid-career professional? You can also use the skills gained during the entrepreneurship certificate to identify exciting new business opportunities for your next venture. You'll also be connected with opportunities within Toronto Metropolitan University's innovation eco-system, where you can learn from existing start-ups in a variety of innovation zones.

You need the right tools to make your business a success – and they're right here, waiting for you. Innovation awaits.

Required Courses

- ❑ CENT 500   New Venture Startup
- ❑ CENT 505   Small-Business Management
- ❑ CENT 526   Entrepreneurial Behaviour and Strategy
- ❑ CENT 601   Identifying Opportunities

Electives (Select 2)

You must consult with the academic coordinator, Dr. Philip Walsh: prwalsh@torontomu.ca. With the submission of an approved Continuing Education Certificate Exemption (Substitution/Directive) Form signed by the academic coordinator, you will complete two courses relevant to your entrepreneurial and small business interests (as indicated in your business plan developed in CENT 500).

Course Series Requirements

- • 4 required courses
- • 2 electives**
- • Cumulative grade point average (GPA) of 1.67+

**You must consult with the academic coordinator. With the submission of an approved Continuing Education Certificate Exemption (Substitution/Directive) Form signed by the academic coordinator, you will complete two courses relevant to your entrepreneurial and small business interests (as indicated in your business plan developed in CENT 500).

To graduate, you must successfully complete, within your official time span, the requirements from the year you registered in the program. For more information, refer to Time Span in our Glossary of Terms. If certificate requirements change and courses are no longer available, you may request Course Substitutions/Directives. You must apply to graduate on MyServiceHub within the appropriate application deadlines (refer to Important Dates). Visit Graduation for details.

Environmental Sciences

Learn about environmental legislation and its implementation as well as the principles of site assessment, waste management, and environmental audits. Gain knowledge of the fundamentals of air, water, and soil processes, and cover the latest in green technologies.

Human impact on the environment requires effective management practices to protect the environment. Environmental sciences offer an increasing number of career opportunities in fields as varied as ecology, occupational health and safety, physical science, bioremediation, engineering, law, and management.

No previous background is required.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Courses (Select 3)

- ❑ CKES 120   Environmental and Atmospheric Processes
- ❑ CKES 160   Waste Management
- ❑ CKES 170   Water Treatment
- ❑ CKES 180   Site Assessment
- ❑ CKES 190   Renewable Energy and Green Technology
- ❑ CKES 210   Applied Environmental Analysis
- ❑ CKES 220   Environmental Law and Practice

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Family Supports and Community Engagement

This course series addresses the growing demand for skills that expand and integrate knowledge for practitioners in the fields of early learning, family support, community engagement, and health-related sectors. It will also support learners working in diverse community-based programs.

Students will gain knowledge and competencies to address challenges experienced by contemporary families while promoting healthy child development. This course series also focuses on specific strategies to engage families in effective planning, problem-solving, and decision-making processes that will improve conditions of family and community well-being.

Required Courses

- ❑ CSWP 936   Community Engagement Practices
- ❑ CVFS 403   Family Supports Theory and Practice

Electives (Select 1)

- ❑ CINT 905   Conflict Resolution in Community Services
- ❑ CSWP 935   Engaging Diverse Communities
- ❑ CVFS 401   Contemporary Family Issues
- ❑ CVFS 406   Guiding Children's Development

Course Series Requirements

- · Successful completion of 2 required courses
- · Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Financial Predictive Data Analytics

Learn to analyze financial data and statistics, forecast financial predictions, and execute real-world, predictive financial analysis projects (including querying financial data using R and Python) to provide evidence-based financial decision-making.

No previous background is required.

This is an Open Admission program to help you advance or change your career. Those who successfully complete this 3 course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Course
- [ ] CMTH 501   Numerical Analysis I

Electives (Select 2)
- [ ] CIND 123   Data Analytics: Basic Methods
- [ ] CMTH 304   Probability
- [ ] CMTH 380   Probability and Statistics I
- [ ] CMTH 404   Statistics
- [ ] CMTH 480   Probability and Statistics II

Course Series Requirements
- Successful completion of 2 required courses
- Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Fine Art Practice

This program is an opportunity to develop practical fine art skills and gain knowledge of art history. The studio courses cover drawing, graphic design, animation, and drafting for set design. The art history courses cover prehistoric to modern art.

This course series offers the following benefits:
- Enrol right away – open admissions with no application required
- Take a mix of online and in-class courses
- Take Toronto Metropolitan University degree-credit courses
- Earn a Professional Development Award on successful completion of all courses
- Use applicable courses towards the Certificate in Design for Arts and Entertainment, the Certificate in Digital Art Production, the Certificate in Film Studies, the Certificate in Image Arts, or the Certificate in Fashion Coordination and Styling
- Apply for merit-based awards

Required Courses (Select 3)

You may only select one of CPHL 302 or CPHL 509.

- ❑ CDFA 104   Fashion Drawing I
- ❑ CDID 170   Drafting for Entertainment
- ❑ CFPN 534   Graphic Design
- ❑ CFPN 541   Animation Practices
- ❑ CMPC 101   Visual Studies I
- ❑ CMPC 103   Reframing Art History
- ❑ CMPC 203   Art in the Modern World

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Health Informatics

Explore critical and theoretical perspectives on gender and sexuality through this course series. Choose from a variety of courses that will deepen your understanding of the important interrelationships of gender, sexuality, and society.

Required Course

- ❑ CSOC 633 Sex, Gender Identities, and Sexualities

Electives (Select 2)

- ❑ CCRM 515 Gendering Justice
- ❑ CENG 602 Women's Writing
- ❑ CFNF 400 The Social Context of Human Sexuality
- ❑ CFNY 409 Gender and Food Security
- ❑ CHST 658 Sex in the City
- ❑ CINT 906 Sexuality: Power and Pleasure
- ❑ CPHL 606 Philosophy of Love and Sex
- ❑ CPOL 501 Women, Power and Politics
- ❑ CSOC 885 Women, Islam and Modernity

Course Series Requirements

- · Successful completion of 2 required courses
- · Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Hadoop, Python, and Tableau Big Data Tools

Acquire hands-on technical programming skills for Hadoop, Python, and Tableau Big Data Tools Administration.

Learn how to perform big data analytics queries on unstructured data, visual data, and social media data using Hortonworks, SQL, Hadoop, R, Python, Excel, and Tableau.

You will learn up-to-date techniques in prediction and analyses of large and complex data, These technical skill sets are sought after in most fields across private, public, and nonprofit sectors.

This is an Open Admissions program to help you advance or change your career. Classes take place in a computer lab on-campus at Toronto Metropolitan University. You are not required to bring your own laptop to class.

No previous background is required.

Required Courses (Select 2)

- ❑ CKCS 103   Intro to Full Stack Web Developer
- ❑ CKCS 107   Data Analytics Through Excel
- ❑ CKCS 113   Intro to Machine Learning
- ❑ CKCS 115   Big Data Location Analyst
- ❑ CKCS 116   Crowd-Sourcing Big Data
- ❑ CKCS 117   Sharing Economy Big Data
- ❑ CKCS 118   Big Data and Virtual Reality
- ❑ CKCS 150   Introduction to Programming in Python
- ❑ CKCS 155   Intro to Hadoop and Tableau

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Caring Clown

In celebration of 10 years of creativity, humour, and compassion, our partners at The City of Toronto Seniors Services and Long-Term Care Division put together this moving video tribute to the Caring Clown program.

Want to embark on a unique and purposeful learning experience?

Give back to your community and help improve the quality of life of long-term care residents. Explore your sense of fun and your compassionate spirit.

The Caring Clown course series combines basic clowning skills of spontaneity, playfulness, and humour with compassion and caring. Added to the mix are music and movement. No special skills are required — just a willingness to learn and be open to new challenges!

Clowns come from all walks of life. Some have been teachers, social workers, lawyers, engineers, or business professionals. Most are retired, but many also work part-time. Although Caring Clowns wear red noses, their costumes and characters are reflective of eccentric cousins, aunts, or uncles you may remember growing up.

Caring Clowns serve residents who generally have mid to advanced dementia. Many of the residents are confined to wheelchairs, and are isolated, lonely, and in need of cheer.

This course series is part of Programs for 50+ and Community Engagement at The Chang School.

Required Courses (select 4)

- ❑ CSCC 900   Caring Clown I
- ❑ CSCC 910   Caring Clown II
- ❑ CSCC 911   Caring Clown Practicum

Course Series Requirements

- Successful completion of 3 required courses

Introduction to Health Data Analytics

This program is designed for students who want to fill gaps in their professional health background to achieve greater professional development and/or transition careers into the health field. The demand for healthcare professionals with data analytical skills is growing in both health-specific and health-related fields, especially with the increase in accountability policies and the requirement of many health graduate programs that students have courses in this area to be admitted.

Required Courses

- ❑ CHIM 301   Healthcare Information Analysis
- ❑ CHIM 408   Statistics for Health Services Managers
- ❑ CHSM 301   The Healthcare Systems

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificate

The courses in this program may be applied to the Health Studies certificate or to an applicable health-related certificate.

Health Ethics

Students will be provided with opportunities for exploring and examining ethical considerations in health and healthcare systems.

Required Courses

You may only select one of CPHL 302 or CPHL 509.

- ❑ CPHL 302   Ethics and Health Care
- ❑ CPHL 444   Ethics in Health Services Management
- ❑ CPHL 509   Bioethics
- ❑ CPHL 602   Health Policy: Ethics and Justice

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificate

The courses in this program may be applied to the Health Studies certificate or to an applicable health-related certificate.

Health Informatics

Take healthcare into the future with a Health Informatics certificate.

Looking to get into the rapidly expanding health informatics industry? The Certificate in Health Informatics offered by The Chang School can be completed online (depending on which electives you pick) – and in just a few terms – so you can manage your health informatics courses on your own schedule. We provide learners with a rich education in both health informatics basics and more specialized skills. First, you'll master the healthcare informatics fundamentals, including healthcare interoperability, healthcare systems, and the management cycle. Then you can delve into specialties like organizational behaviour, leadership, and big data.

We have a wide variety of health informatics courses so you can follow your passion, whether it's organizational behaviour, data analytics, project management, human-computer interfaces in healthcare, health information access and privacy, or information systems security. Our health informatics program provides simulation exercises and case studies to help learners gain as much real-world experience as possible before you graduate.

The Certified Professional in Healthcare Information and Management Systems – Canada (CPHIMS-CA) credential signifies that a health informatics professional has the skills, knowledge, and abilities to perform safely and effectively in a broad range of practice settings. Gaining this certification after completing your certificate can help you get those high-paying IT roles in the booming healthcare sector.

Health informatics professionals are highly in-demand – start your career path to become one now.

Required Courses

- ❑ CHIM 305   Introduction to Health Informatics
- ❑ CHIM 306   Healthcare Interoperability
- ❑ CHSM 301   The Healthcare Systems
- ❑ CHSM 305   The Management Cycle

Electives (Select 3)

If you do not have a background in health information, you should complete CHIM 303.
You should select CMHR 405 if you wish to pursue CMHR 650, as CHSM 437 does not provide a prerequisite for CMHR 650.

- ❑ CHIM 301   Healthcare Information Analysis
- ❑ CHIM 303   Intro to Health Coding Classification
- ❑ CHIM 307   Human-Computer Interfaces in Healthcare
- ❑ CHIM 404   Introduction to Health Economics
- ❑ CHIM 408   Statistics for Health Services Managers
- ❑ CHSM 437   Human Resources Management in Healthcare
- ❑ CIND 119   Introduction to Big Data
- ❑ CIND 123   Data Analytics: Basic Methods
- ❑ CITM 207   Computer-Enabled Problem Solving
- ❑ CITM 301   IT Infrastructure
- ❑ CITM 820   Information Systems Security and Privacy
- ❑ CLAW 401   Information Access and Privacy Protection
- ❑ CLAW 402   Health Information Access and Privacy
- ❑ CMHR 405   Organizational Behaviour
- ❑ CMHR 523   Human Resources Management
- ❑ CMHR 640   Leadership
- ❑ CMHR 650   Management of Change
- ❑ CQMS 210   Applied Statistics for Business
- ❑ CTEC 210   Fundamentals of Project Management

Course Series Requirements

- · 4 required courses
- · 3 electives**
- · Cumulative grade point average (GPA) of 1.67+

**If you do not have a background in health information, you should complete CHIM 303. You should select CMHR 405 if you wish to pursue CMHR 650, as CHSM 437 does not provide a prerequisite for CMHR 650.

To graduate, you must successfully complete, within your official time span, the requirements from the year you registered in the program. For more information, refer to Time Span in our Glossary of Terms. If certificate requirements change and courses are no longer available, you may request Course Substitutions/Directives. You must apply to graduate on MyServiceHub within the appropriate application deadlines (refer to Important Dates). Visit Graduation for details.

The Human Body

Adults are increasingly aware of their need to learn how to transform their habits and lifestyles based on scientific evidence and to meet the health requirements of their age and health situations. This course series will provide opportunities for adults to learn about the human body and impacts to its health, including the biology- and chemistry-based science of food.

Learning about the human body requires space, time, and informed educators to provide current science and guide group discussions. Toronto Metropolitan University's Biology and Chemistry faculty deliver the science content and subject matter experts provide a synthesis of the content with current scientific findings, while also ensuring a high level of engagement and participation in group discussions.
Each course in the series will explore the science of the human body and how one can use food science to make informed and healthy choices as he or she progresses through life. The courses will provide students with the knowledge and skill sets helpful in gaining or enhancing critical understanding of the human body.

Required Courses

- ❑ CBLG 101 Anatomy and Physiology I
- ❑ CBLG 111 Anatomy and Physiology II
- ❑ CKBG 110 The Science of Food Foundations
- ❑ CKBG 115 The Science of Supplements

Course Series Requirements

- · Successful completion of 4 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Immigration and Settlement Studies

This course series provides students with the knowledge and skills needed to serve immigrants and their families directly, create policy related to that service, or create a supportive workplace environment for diverse populations

Required Courses

- ❑ CINT 913   Issues of Migration
- ❑ CINT 914   Settlement Experiences
- ❑ CINT 915   Responses to Migration

Electives (Select 1)

- ❑ CECN 640   Economics of Immigration
- ❑ CGEO 691   Canadian Immigration: Patterns and Place
- ❑ CINT 905   Conflict Resolution in Community Services
- ❑ CMHR 600   Diversity and Inclusion in the Workplace
- ❑ CMHR 700   Cross-Cultural Dimensions of Organizational Behaviour
- ❑ CPSY 620   Psychology of Immigration
- ❑ CPSY 941   Cross Cultural Psychology
- ❑ CSOC 474   Immigration, Borders and Belonging

Course Series Requirements

- Successful completion of 3 required course
- Successful completion of 1 electivec

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Intercultural Communication in the Canadian Workplace (ICCW)

The Intercultural Communication in the Canadian Workplace (ICCW) course series is offered by the Workplace Communication in Canada (WCC) Program.

The WCC Program offers on- and off-campus courses designed to help internationally and Canadian-trained individuals develop the intercultural communication and soft skills necessary for meaningful employment and career mobility in the Canadian labour market.

Required Courses

☐ CDCE 305   Intro to Intercultural Communication
☐ CDCE 306   Managing Workplace Relationships
☐ CDCE 307   Wking with Culturally Diverse Clients
☐ CDCE 308   Cross Cultural Teamwork

Course Series Requirements

- Successful completion of 4 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, email the Workplace Communication in Canada (WCC) program at wcc@torontomu.ca with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award.

Interdisciplinary Conflict Resolution and Team Building

This course series provides health and community services professionals and students with the knowledge and skills to work in interdisciplinary teams with a specific focus on understanding the nature of conflict and its root causes as well as team building. Students will explore a range of conflict resolution methods, approaches, and strategies. The relationship between conflict, conflict resolution, and issues of diversity will be addressed. The interpersonal skills and personal and professional values that impact on working in teams and the dynamics of an effective team will also be considered.

Required Courses

- ❑ CINT 905   Conflict Resolution in Community Services
- ❑ CINT 907   Team Work for Community Services

Electives (select 1)

- ❑ CINT 920   Community Collaborations
- ❑ CINT 921   Writing Bodies Differently
- ❑ CSWP 935   Engaging Diverse Communities

Course Series Requirements

- · Successful completion of 2 required course
- · Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Interdisciplinary Studies: Community Partnerships

This program provides health and community services professionals and students with the knowledge and skills to build interdisciplinary community partnerships and to understand the challenges of developing and sustaining such partnerships. Through practical examples and case studies, students will develop community facilitation skills.

Required Courses

❑ CINT 917   Interprof. Ed. for Community Development
❑ CINT 920   Community Collaborations

Course Series Requirements

- Successful completion of 2 required course

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Interdisciplinary Studies: Interdisciplinary Program Management

This program provides health and community services professionals and students with the knowledge and skills to plan and/or fundraise in various interdisciplinary team roles with a specific focus on healthcare managerial skills.

Required Course

❑ CINT 900   Program Planning and Evaluation Strategies

Electives (Select 1)

❑ CINT 904   Health Promotion and Community Development
❑ CINT 916   Principles of Fundraising

Course Series Requirements

- Successful completion of 1 required course
- Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Internationally Trained Medical Doctors (ITMD) Bridging Program

The goal of this unique learning opportunity is to successfully integrate highly qualified, skilled, and experienced internationally trained medical doctors (ITMDs) into non-licensed healthcare employment. The program provides additional skills needed for participants to gain employment in health research, health informatics, data analysis, and health management positions in Canada as an alternative to medical doctor licensing.

Required Courses

- ❑ CKHS 100   Health Research Methodology
- ❑ CKHS 110   Health Informatics and Data Management
- ❑ CKHS 120   Fund of PM for Health Professionals
- ❑ CKHS 140   Health Pro Comm and Ldshp Skills
- ❑ CKHS 150   Multidsc Hlth Rsrch/Mgnt Seminar

Supplementary Course

The following course will give you the opportunity to further develop your learning and professional skills; however, it is not required for the Professional Development Award

- ❑ CKHS 130   Practicum Placement

Course Series Requirements

- · Successful completion of 5 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, email the ITMD Bridging Program at itmds@torontomu.ca with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award.

The Internet of Things (IoT)

This program explores the technologies, architectures, and strategies for the streaming of IoT and how "always-on" data streams are managed, scaled, secured, and monetized around services, and solutions, and specifically on future connected cars, SMART cities, wearables, SMART home architectures and the Cloud, IoT analytics, IoT Open Source, connected virtual and augmented reality. Topics include emerging IoT technologies and monetization and value creation of IoT for economic prosperity and the social good.

No previous background is required.

In this course series you will learn how to operationalize technologies and strategies for the streaming of the Interenet of Things (IoT). You will learn about how "always-on" data streams are managed, scaled, secured, and monetized around services, and solutions. This course series has applications in future and current technology industries including driverless cars and vehicles, smart cities, wearables and home architectures.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education,

Required Courses

❑ CKCS 180   IoT 360 Connectivity to the World
❑ CKCS 181   Emerging IoT Technologies
❑ CKCS 182   IoT Monetization and Value Creation

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

iPhone and Android Applications Developer

As part of this course series, you will develop apps for Android and iPhone, the two most popular and prominent mobile development platforms. You will have the opportunity to learn Javascript programming for Android and Object Oriented programming for iPhone. You will also have the option to learn C# and Python.

No previous background is required and this course series is applicable to all industries.

This is an Open Admission program to help you advance or change your career. Those who successfully complete this two-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Courses

- ❑ CKCS 185   Intro to Android Apps Development
- ❑ CKCS 186   Intro to iPhone Apps Development

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Leading and Planning for Patient Experience

This program is designed for healthcare practitioners who are committed to advancing patient experience in their organizational setting, while at the same time, optimizing their leadership and planning capacities. Participants will also practice and acquire a range of skills related to the healthcare system, patient experience, project management, and conflict resolution.

Required Course

- ❑ CVIN 150   Advancing the Patient Experience

Electives (select 2)

- ❑ CHSM 301   The Healthcare Systems
- ❑ CINT 905   Conflict Resolution in Community Services
- ❑ CTEC 210   Fundamentals of Project Management
- ❑ CVNU 360   Advanced Leadership and Management

Course Series Requirements

- · Successful completion of 1 required courses
- · Successful completion of 2 electives

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Lean Six Sigma and Sustainable Industry Enterprise

Learn to promote sustainability by prioritizing, deploying, and implementing best practices with proven techniques, including Lean Six Sigma, to execute vital strategic plans in private and public enterprise. You will come away with the ability to generate organizational transformation, resulting in eco-efficiency, innovative products and services, and engaged communities, all while gaining competitive advantage globally. You will also enhance systems-thinking, decision-making, and consensus-building abilities to maximize their organizations' impacts.

No previous background required and this course series can be completed entirely online.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Courses (select 3)

- ❑ CKSS 100   Fundamentals in Sustainability I
- ❑ CKSS 101   Fundamentals in Sustainability II
- ❑ CKSS 210   Lean Six Sigma Contin Improvement
- ❑ CKSS 211   Lean Six Sigma Sust Bus Enterprise

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Marketing Innovation

Canada's competitiveness in the world depends on the ability to innovate. Having a good idea is not enough to be successful and there are specialized skills required to bring a new product or service to market. This program is for students interested in the development and marketing of new products and services.

Required Courses

- ☐ CMKT 300   Marketing Metrics and Analysis
- ☐ CMKT 400   Understanding Consumers and the New Media
- ☐ CMKT 730   Assessing/Managing Market Opportunities

Electives (Select 1)

- ☐ CMKT 500   Marketing Research
- ☐ CMKT 510   Innovations in Marketing
- ☐ CMKT 535   Integrated Marketing Communications
- ☐ CMKT 723   Services Marketing
- ☐ CMKT 731   Competitive Intelligence

Course Series Requirements

- · Successful completion of 3 required courses
- · Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificate

The courses in this program may be applied to the Strategic Marketing certificate.

Marketing Research

This program provides various techniques to measure marketing performance in organizations; it introduces the use of theories of social sciences and metrics to allow marketers to understand, analyze, and respond to consumer needs in the digital age. Students will learn how to effectively prepare, analyze, and interpret large databases and use both qualitative and quantitative tools to make strategic and sound marketing decisions.

Required Courses

You may only select one of CMKT 400 or CMKT 700.

- ❑ CMKT 300   Marketing Metrics and Analysis
- ❑ CMKT 400   Understanding Consumers and the New Media
- ❑ CMKT 500   Marketing Research
- ❑ CMKT 700   Business Intelligence/Decision Modeling

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificate

The courses in this program may be applied to the Strategic Marketing certificate.

Paediatric Health Assessment

These courses will build on nurses' existing health assessment expertise by providing advanced knowledge and specific skills for the assessment of infants, children, and adolescents. Nurses will have the opportunity to broaden their expertise with system-specific assessment approaches across all paediatric developmental stages and diverse healthcare needs. This course series includes a course held at the state-of-the-art SickKids Simulation Lab.

Required Courses

❑ CVNU 113   Paediatric Health Assessment
❑ CVNU 114   Paediatric Health Assessment Workshop

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Patient Safety and Nursing Informatics

This program blends the concepts of nursing informatics as a specialty nursing practice and its impact on promoting safe patient care within the context of clinical information and technology. The program will be of interest to nurses who are seeking to broaden their frontline and leadership experience and expertise in nursing informatics.

Required Courses

- ❑ CHSM 301 The Healthcare Systems
- ❑ CVNU 322 Computer and Information Management in Nursing

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Professional Healthcare Careers Foundations

Meet your academic university undergraduate degree course requirements to apply for entrance to healthcare career professional schools, namely: medical school, veterinary school, dentistry school, pharmacy school, midwifery school, physical therapy school, optometry school, osteopathy school, podiatry school, speech pathology, and graduate programs including environmental biology and biomedical sciences/engineering.

No previous background required. This course series is completed in class.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Course Series Requirements

- Successful completion of 3 required courses

*You may choose to focus on a specific area to achieve your individual goals. The electives may be grouped as follows:

Biology: CBLG101, CBLG111 CBLG 143, CBLG 144, CBLG 151, CBLG 311
Chemistry: CCHY 103, CCHY 242, CCHY 381, CKCH 107, CKCH 113, CKCH 142, CKCH 143, CKCH 225, CKCH 227

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Required Courses (select 3)

Please Note:
If you wish to pursue CKCH 113, you must also select CKCH 107 as together these courses are equivalent to CHY 113.
If you wish to pursue CKCH 142, you must also select CKCH 143 as together these courses are equivalent to CHY 142.
If you wish to pursue CKCH 225, you must also select CKCH 227 as together these courses are equivalent to BCH 261.

- [ ] CBLG 101   Anatomy and Physiology I
- [ ] CBLG 111   Anatomy and Physiology II
- [ ] CBLG 143   Biology I
- [ ] CBLG 144   Biology II
- [ ] CBLG 151   Microbiology I
- [ ] CBLG 311   Cell Biology
- [ ] CCHY 103   General Chemistry I
- [ ] CCHY 242   Organic Chemistry II
- [ ] CCHY 381   Physical Chemistry I
- [ ] CKCH 107   General Chemistry Laboratory
- [ ] CKCH 113   General Chemistry II
- [ ] CKCH 142   Organic Chemistry I
- [ ] CKCH 143   Organic Chemistry Laboratory
- [ ] CKCH 225   Biochemistry I
- [ ] CKCH 227   Biochemistry Laboratory I
- [ ] CMTH 125   Mathematics for Professional Programs
- [ ] CMTH 131   Modern Mathematics I
- [ ] CMTH 207   Calculus and Computational Methods I
- [ ] CMTH 231   Modern Mathematics II
- [ ] CMTH 304   Probability
- [ ] CMTH 310   Calculus and Computational Methods II
- [ ] CMTH 404   Statistics
- [ ] CPCS 110   Physics
- [ ] CPCS 120   Physics I
- [ ] CPCS 130   Physics II

Project and Workplace Budgets Coordination

This program is designed for individuals who wish to acquire the hardcore skill sets to carry out budgeting and coordination of a variety of projects in the workplace. It provides training in high-demand skills such as budget creation, cost control, workplace budget management, mobile project management, and project oversight and execution.

Note: Advanced Excel skills will be taught in this program.

Required Courses (Select 1)

- ❑ CKPM 217   Agile Project Management
- ❑ CTEC 210   Fundamentals of Project Management

Electives (Select 2)

- ❑ CKCS 107   Data Analytics Through Excel
- ❑ CKPM 212   Project Cost and Procurement Management
- ❑ CKPM 219   Mobile Project Management

Course Series Requirements

- · Successful completion of 1 required courses
- · Successful completion of 2 electives

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Project Management

Learn the skills necessary to become a project management professional. If you are already working as a project manager, upskill and earn professional development units (PDUs) to maintain your professional credentials.

No previous background is required and this course series can be completed entirely online.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

This short course series is an excellent complement to the skills you may already possess as a professional.

Required Courses (Select 3)

- ❑ CKPM 203   Planning and Scheduling
- ❑ CKPM 209   Project Risk and Quality Management
- ❑ CKPM 211   Leadership in Project Management
- ❑ CKPM 217   Agile Project Management
- ❑ CKPM 219   Mobile Project Management
- ❑ CTEC 210   Fundamentals of Project Management

Course Series Requirements

- Successful completion of 3 required courses*

*You may choose to focus on a specific area to achieve your individual goals. The electives may be grouped as follows:

Project Management Foundation: These courses cover the fundamentals of project management, planning and scheduling, and project management systems (Microsoft Project).
CKPM 203, CKPM 217, CTEC 210

Project Management Practitioner: These courses focus on managing risk and quality, as well as leading teams.
CKPM 209, CKPM 211, CTEC 210

Agile Project Management: To cater to entrepreneurial and digital environments, these courses present agile and emerging trends in project management.
CKPM 217, CKPM 219, CTEC 210

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificate

The courses in this program may be applied to the Certificate in Project Management.

Research Methodologies and Program Evaluation

This program offers an introduction to quantitative and qualitative research methodologies from anti-oppression, anti-colonial, and anti-racism perspectives to social work students and community practitioners. Using these perspectives, participants will also acquire the skills necessary to design and evaluate social programs and their own practice.

Required Courses

- ❑ CSWP 538 Social Work Research: Part I
- ❑ CSWP 638 Social Work Research: Part II
- ❑ CSWP 932 Evaluating Social Work Practices

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Retail Buying

Students will examine the role of the buyer, the procurement process, and merchandise management. An exploration of in-store design, layout, and display options using space planning software will also be covered.

Required Courses

- ❑ CRMG 400   Merchandise Buying and Planning I
- ❑ CRMG 452   Visual Merchandising and Space Planning

Electives (Select 1)

You may only select one of CRMG 806 or CRMG 909. If you intend to write the Category Management Certification Exam, you should take CRMG 806.

- ❑ CRMG 806   Retailer Perspectives on Category Management
- ❑ CRMG 909   Merchandise Buying and Planning II

Course Series Requirements

- · Successful completion of 2 required courses
- · Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificate

These courses may be applied to the Retail Management certificate.

Retail Operations and Sales Management

Students will examine a variety of systems relevant to the retail environment through case studies and online discussions. Other topics will include teamwork, employee motivation, retail metrics, and meeting consumers' needs.

Required Course

- ❑ CRMG 301 Retail Operations Management
- ❑ CRMG 303 Managing the Retail Workplace
- ❑ CRMG 911 Retail Sales Management

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certificate

These courses may be applied to the Retail Management certificate.

Science, Technology, Engineering, and Mathematics (STEM)

Gain the knowledge to become a professional in science, technology, engineering, and math (STEM) in the private and public sectors. This could include professions in Information Technology (IT), research positions, entrepreneurship, and more.

If you are already in STEM, this is a chance to upskill your soft transferable skills while gaining in-demand professional skill sets such as: entrepreneurship, innovative venture startups management, critical thinking, problem-solving, solution-building and execution, and interpersonal workplace relationship-building skills.

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. No previous background is required and this course series can be completed entirely online, depending on your course selection.

This short course series is an excellent complement to the skills you may already possess as a professional.

Required Courses (Select 1)

- ❑ CDCE 305   Intro to Intercultural Communication
- ❑ CDCE 306   Managing Workplace Relationships
- ❑ CDCE 307   Wking with Culturally Diverse Clients
- ❑ CDCE 308   Cross Cultural Teamwork
- ❑ CENT 500   New Venture Startup
- ❑ CENT 526   Entrepreneurial Behaviour and Strategy
- ❑ CENT 601   Identifying Opportunities

Electives (Select 2)

- ❑ CBLG 143   Biology I
- ❑ CBLG 144   Biology II
- ❑ CBLG 151   Microbiology I
- ❑ CBLG 699   Social Factors in Drug Development
- ❑ CCHY 103   General Chemistry I
- ❑ CCHY 183   Introduction to Forensic Sciences
- ❑ CCHY 242   Organic Chemistry II
- ❑ CCHY 381   Physical Chemistry I
- ❑ CCHY 583   Alternative Energies
- ❑ CCPS 109   Computer Science I
- ❑ CCPS 305   Data Structures
- ❑ CCPS 311   Object Oriented Programming and Design
- ❑ CCPS 393   Introduction to UNIX, C and C++
- ❑ CKCH 107   General Chemistry Laboratory
- ❑ CKCH 113   General Chemistry II
- ❑ CKCH 143   Organic Chemistry Laboratory
- ❑ CKCH 142   Organic Chemistry I
- ❑ CKCH 216   Analytical Chemistry I
- ❑ CKCH 217   Analytical Chemistry Laboratory I
- ❑ CKCH 223   Analytical Chemistry II
- ❑ CKCH 224   Analytical Chemistry Laboratory II
- ❑ CKCH 227   Biochemistry Laboratory I
- ❑ CKCS 160   CEH and CCE Comp Sec Exam Prep
- ❑ CKCS 230   Intro to SOLIDWORKS for 3-D Printing
- ❑ CKCS 231   Product 3-D Animation/Rendering
- ❑ CKCS 232   3-D Printing: Agile Prototyping
- ❑ CKCS 233   Product Design for 3-D Printing
- ❑ CKCS 234   Product Drawing for 3-D Printing
- ❑ CKDF 110   Computer Network Security
- ❑ CKDF 120   Computer Cryptography and Digital Steganography
- ❑ CKDF 130   Digital Forensics Systems
- ❑ CKDF 140   Security Architecture and Design
- ❑ CKDF 145   Certified Information Systems Security Professional (CISSP)
- ❑ CKES 120   Environmental and Atmospheric Processes
- ❑ CKES 170   Water Treatment
- ❑ CKES 180   Site Assessment

Science, Technology, Engineering, and Mathematics (STEM)

Course Series Requirements

- Successful completion of 1 required courses
- Successful completion of 2 electives*

*You may choose to focus on a specific area to achieve your individual goals. The electives may be grouped as follows:

Emergency Management: CSCI 232, CSCI 241

Environmental Science Management and Science: CKES 120, CKES 170, CKES 180, CKES 210, CKES 220

Information Technology: CCPS 109, CCPS 305, CCPS 311, CCPS 393, CKCS 160, CKCS 230, CKCS 231, CKCS 232, CKCS 234, CDKF 110, CDKF 120, CDKF 130, CDKF 140, CDKF 145, CKRE 110, CKRE 120, CKRE 130, CMTH 304, CMTH 404, CMTH 642, CSCI 130, CSCI 243

Mathematics: CMTH 500, CMTH 501, CMTH 600, CMTH 700, CMTH 800

Organization Operations: CKMT 104, CSCI 232

Science: CBLG 143, CBLG 144, CBLG 151, CBLG 699, CCHY 103, CCHY 183, CCHY 242, CCHY 381, CCHY 583, CKCH 107, CKCH 113, CKCH 142, CKCH 143, CKCH 216, CKCH 217, CKCH 223, CKCH 224, CKCH 227, CKES 190, CPCS 111, CPCS 120, CPCS 130, CPCS 181, CPCS 182, CPCS 581

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

- ❑ CKES 190 Renewable Energy and Green Technology
- ❑ CKES 210 Applied Environmental Analysis
- ❑ CKES 220 Environmental Law and Practice
- ❑ CKMT 104 FRM Level I Exam Prep
- ❑ CKRE 110 Digital Logic and Hardware Architecture
- ❑ CKRE 120 Programming Robotics Systems
- ❑ CKRE 130 Embedded Systems Hardware Architecture and Implementation
- ❑ CMTH 304 Probability
- ❑ CMTH 404 Statistics
- ❑ CMTH 500 Introduction to Stochastic Processes
- ❑ CMTH 501 Numerical Analysis I
- ❑ CMTH 600 Computational Methods In Mathematics
- ❑ CMTH 642 Data Analytics: Advanced Methods
- ❑ CMTH 700 Financial Mathematics I
- ❑ CMTH 800 Financial Mathematics II
- ❑ CPCS 111 Physics in the News
- ❑ CPCS 120 Physics I
- ❑ CPCS 130 Physics II
- ❑ CPCS 181 Introduction to Astronomy
- ❑ CPCS 182 Life in the Milky Way Galaxy
- ❑ CPCS 581 Advanced Topics in Astronomy
- ❑ CSCI 130 Mobile Robotic Devices Embedded Systems
- ❑ CSCI 230 Emergency Management Practice
- ❑ CSCI 232 Incident and Operations Management
- ❑ CSCI 234 Analysis of Critical Incidents
- ❑ CSCI 241 Planning for Emergency Management
- ❑ CSCI 243 Continuity and Risk Management

Scientific Research Policy and Ethics

Learn to analyze and assess government science policy, drug development regulation, clinical trials practice, scientific project oversight, intellectual property, and/or the scientific and medical ethics required in order to advance to a professional leadership position.

No previous background is required.

This is an Open Admission program to help you advance or change your career. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

This short course series is an excellent complement to the skills you may already possess as a professional.

Required Courses (select 3)

- ❑ CBLG 605   Science and Government Policy Development
- ❑ CBLG 606   Intro to Clinical Research and Trials
- ❑ CBLG 607   Intellectual Property in Science
- ❑ CIND 123   Data Analytics: Basic Methods
- ❑ CKBG 120   Drug Development Regulations
- ❑ CKBG 135   Pharma Project Best Practices
- ❑ CPHL 509   Bioethics

Course Series Requirements

- · Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Social Media Marketing

Marketing communications is in a state of transformation. This program is for students who want to learn more about how marketers can incorporate social media into their marketing plans and measure its impact; it integrates marketing metrics, marketing communications, and consumer behaviour.

Required Courses (select 2)

❑ CMKT 300   Marketing Metrics and Analysis
❑ CMKT 400   Understanding Consumers and the New Media
❑ CMKT 510   Innovations in Marketing

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certifate

The courses in this program may be applied to the Strategic Marketing certificate.

Social Media Practices and Reputation Management

A social media presence enables senior management to share their perspectives with wider audiences, both external and internal, and garner reputational benefits from being online. Preparation for social media participation includes identifying the goals of social participation, selecting the right social platform, minimizing the risk of participation, and guiding the social conversation.

This course series offers the following benefits:
- Enrol right away – open admissions with no application required
- Complete from wherever you are through a fully online format
- Take Toronto Metropolitan University degree-credit courses
- Use these courses towards the Certificate in Public Relations
- Earn a Professional Development Award on successful completion of all courses
- Apply for merit-based awards

Required Courses (select 2)

- ❏ CDPR 100   Public Relations Principles
- ❏ CDPR 108   Social Media in Public Relations
- ❏ CDPR 110   Reputation Management

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Related Certifate

The courses in this program may be applied to the Public Relations certificate.

Sports Marketing

This program is for students who wish to build an understanding in the sports marketing industry. While equipping students with metrics and analytical tools to effectively analyze the sport market, the program also adopts an applied approach of marketing theories and principles in the sports industry. Topics covered will include national and/ or international sports sponsorship, branding, promotional events, media distribution, and financial management.

Required Courses (select 2)

You may only select one of CMKT 504 or CMKT 829.

- ❑ CMKT 300   Marketing Metrics and Analysis
- ❑ CMKT 504   Effective Persuasion
- ❑ CMKT 828   Sport Marketing Concepts and Strategy
- ❑ CMKT 829   International Sport Marketing

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Survival in Urban Disasters and Emergencies

No previous background is required.

Learn what it takes to survive challenges in unforeseen situations with limited or non-existent support systems. This includes planning for urban survival, navigating by day/night, avoiding hazards and threats, implementing a psychology of survival, and engaging in recovery-on-the-ground techniques. You will learn to operationalize long-term survival strategies like finding/building expedient shelters, and ensuring access to necessities like water, fire, heat, light, and food. Learn the fundamentals of safety, security, and protection.

This is an Open Admissions program. Those who successfully complete this three-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

This short course series is an excellent complement to the skills you may already possess as a professional.

Required Courses (Select 3)

❑ CSCI 230   Emergency Management Practice
❑ CSCI 232   Incident and Operations Management
❑ CSCI 234   Analysis of Critical Incidents
❑ CSCI 243   Continuity and Risk Management

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Urban Agriculture

In order to help students develop their skills and capacity to address global problems, specifically those related to the current global food crisis and climate change, an urban agriculture course series has been developed as part of the elective offerings of The Chang School's Certificate in Food Security.

Students who complete this course series will gain in-depth knowledge of the technical aspects of urban agriculture as well as the policy dimensions and governance issues that must be taken into account in the development of effective urban agriculture systems.

This course series can be completed entirely online.

Required Courses (Select 3)

- ❑ CVFN 410   Understanding Urban Agriculture
- ❑ CVFN 411   Dimensions of Urban Agriculture
- ❑ CVFN 412   Practicing Urban Agriculture
- ❑ CVFN 413   Urban Agriculture Policy-Making

Course Series Requirements

- · Successful completion of 4 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Virtual Reality (VR) and Augmented Reality (AR) Developer for Smartphones

Develop Augmented Reality (AR) and Virtual Reality (VR) apps and experiences for Android and iPhone, the two most popular and prominent mobile development platforms. You will have the opportunity to acquire the hands-on technical skills necessary to work in the VR and AR wearables industry — currently dominated by juggernauts like Google, Apple, Samsung, Microsoft, Facebook, HTC, and Disney. You will also have the opportunity to master 3D Unity and learn (or upskill in) C# programming for Android and iPhone AR and VR app development.

No previous background is required.

This program takes place in a computer lab and all AR and VR equipment is provided except for smartphones (bring your own).

This is an Open Admissions program to help you advance or change your career. Those who successfully complete this two-course program are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education.

Required Courses

❑ CKCS 122   VR Developer for Smartphones
❑ CKCS 123   AR Developer for Smartphones

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Website Design

This program provides in-depth, practical, and theoretical information needed to design websites that effectively communicate and encourage interaction.

This course series offers the following benefits:
- Enrol right away – open admissions with no application required
- Take courses in any order – no prerequisites needed
- Take a mix of online and in-class courses
- Take Toronto Metropolitan University degree-credit courses
- Earn a Professional Development Award on successful completion of all courses
- Use applicable courses towards the Certificate in Digital Art Production
- Apply for merit-based awards

Required Courses

Students should select 3 of the courses below.

- ❑ CEID 100   Digital Skills and Innovation
- ❑ CFPN 534   Graphic Design
- ❑ CFPN 535   User Experience Design
- ❑ CFPN 542   Design for Mobile Devices

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Workplace Communication in Canada (WCC)

Established in 2007, the Workplace Communication in Canada (WCC) Program provides exceptional intercultural communication and soft skills training. The WCC program helps professionals in the Canadian workplace to enhance awareness and understanding of cultural differences in communication. This can result in better utilization of diverse talent and increased productivity for today's global workplace.

The program's goal is to maximize the employability and leverage preparedness for professional bridging programs of internationally educated professionals by implementing the following:
- a competency-based curriculum (using detailed performance indicators)
- a workplace-focused curriculum (materials developed in partnership with pan-professional and subject-matter experts)
- an experiential curriculum (using role plays, simulations with actors, workplace scenarios, debate clubs, and group work)

Required Courses (Select 4)

- ❑ CDCE 700   Effective Speaking and Listening
- ❑ CDCE 710   Intro to Interpersonal Communic.
- ❑ CDCE 720   Client-Centred Communication
- ❑ CDCE 730   Presenting with Impact
- ❑ CDCE 740   Teamwork Communication

Course Series Requirements

- Successful completion of 4 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, email the Workplace Communication in Canada (WCC) program at wcc@torontomu.ca with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award.

EarlyON Child and Family Centres

Harness the knowledge and skills required by both professionals in early learning and family supports to fully engage families from diverse communities during this time of transition in Ontario. Explore the needs of the broader community to serve families and children through courses that address the growing demand for expanded understanding, integrating knowledge from the fields of early learning and family supports. You'll learn strategies to support families in programs and services, approaches to work effectively across diverse groups, and gain competencies in meeting the developmental needs of children from birth to 12 years of age.

This course series can be completed entirely online.

Required Courses

- ❑ CCLD 231   Families in Canadian Context I
- ❑ CCLD 435   Theory and Practice of Family Support

Electives (Select 1)

- ❑ CVFS 406   Guiding Children's Development
- ❑ CINT 900   Program Planning and Evaluation Strategies

Course Series Requirements

- · Successful completion of 2 required courses
- · Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Inclusive Media: Real-time Closed Captioning and Audio Description/Described Video

Learn how to use the latest live closed captioning (CC) and audio description/described video (AD/DV) techniques and technologies to create inclusive and accessible broadcast content for a variety of audiences. Through hands-on training and theoretical learning, explore CC and AD/DV software tools, script writing and re-speaking techniques, and relevant industry regulations and legislation. Industry experts will help you develop both fundamental and advanced skills for this growing field.

This course series offers the following benefits:
- Enrol right away – open admissions with no application required
- Earn a Professional Development Award on successful completion of all required courses
- Apply for merit-based awards

Required Courses (Select 4)

- ❑ CDIM 100   Inclusive Media and Regulations
- ❑ CDIM 101   Respeaking for Live Captioning
- ❑ CDIM 102   Audio Description
- ❑ CDIM 103   Advanced CC and Intro to NER
- ❑ CDIM 104   Audio Description Advanced

Course Series Requirements

- Successful completion of 4 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Leadership in Accessibility and Inclusion

Note: This course series is currently under review. If you're interested in this course series or learning more about the topic of accessibility and inclusion, reach out to our Chang School Client Services (ce@torontomu.ca).

Increase inclusion and optimize accessibility in your workplace and community. This course series provides a foundation of knowledge on accessibility and inclusion and builds on this through courses on legislation, digital accessibility, employment, and public space design.

An experiential learning capstone course — a project-based opportunity in the community provides the opportunity to apply the concepts and knowledge gained through your studies. Expand on your first-hand experience with policy and organizational changes and build marketable hands-on experience as you build your personal network in the community.

This course series can be completed entirely online.

Required Courses (Select 4)

- ❑ CDIM 100   Inclusive Media and Regulations
- ❑ CDIM 101   Respeaking for Live Captioning
- ❑ CDIM 102   Audio Description
- ❑ CDIM 103   Advanced CC and Intro to NER
- ❑ CDIM 104   Audio Description Advanced

Course Series Requirements

- Successful completion of 3 required courses
- Successful completion of 1 elective

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Workplace Mental Health in Healthcare Settings

This course series provides supervisors, managers, and directors the knowledge and understanding to manage the stress of frontline workers in healthcare settings. You will first explore the causes and impacts of on–the-job mental distress and post-traumatic stress disorder (PTSD), while learning about coping strategies and responsibilities of employers.

Next, leading practices to manage the spectrum of good psychological health and safety in the workplace will be exposed, using peer–to-peer learning opportunities that identify programs and services to support workers, as well as hands-on resources and learning plans.

Required Courses

❑ CVOH 110 Promote Frontline Worker Mental Health
❑ CVOH 115 Support Frontline Worker Mental Health

Course Series Requirements

· Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Toy Invention

Are you interested in toy invention and looking for hands-on learning and guidance from industry experts like Spin Master?

Our Course Series in Toy Invention will give you the knowledge and skills needed to pitch toy concepts to professional toy companies. Learn how to prototype a toy concept, test your concept, and then get direct feedback from industry professionals. You'll walk away with a portfolio displaying your toy ideas and newly acquired presentation skills, including a complete prototype and a video you created to promote your toy.

Classes for this course series are not currently being scheduled.

Industry and Careers
This course series can lead to career paths in roles such as:
- Toy inventor
- Toy and games inventor
- Toy entrepreneur

Who Should Take This Course Series?
Playful, open-minded makers interested in pursuing a career in toy invention. Our learners come from a variety of diverse backgrounds, including — but not limited to — education, psychology, storytelling, design (industrial, graphic, etc.), engineering (mechanical, industrial, etc.), and other technology fields.

What Will You Learn?
This program is highly experiential and project-based, and it will include in-studio learning as you progress through different stages of the toy concept development process.

After completing this course series, you will be able to:
- Identify the principles of toy invention and elements of gamification.
- Apply creative tools and methods to find novel ideas for toys.
- Prototype toy concepts.
- Conduct market research.
- Identify the relevant intellectual property protections required for a toy invention.
- Successfully communicate new toy concepts — verbally, in print, and in video

Required Courses

- ☐ CDTI 100   Principles of Toy Invention
- ☐ CDTI 110   Toy Box
- ☐ CDTI 120   The Business Side of Toys - Talk Series
- ☐ CDTI 130   Toy Bootcamp

Course Series Requirements
- Successful completion of 4 required courses

This course series is cohort-based; all participants will move through the completion of the four required courses as a group. You should be prepared to commit to completing the entire course series, which will take place over one academic year (Fall and Winter terms). CDTI 110 will take place in the Fall term, and CDTI 120 and CDTI 130 will take place in the Winter term.

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Cannabis Essentials

Our unique suite of cannabis courses provides you with essential skills for success in Canada's hottest new industry!

Designed and delivered by industry experts, our three courses prepare you with the business, regulatory, and plant science fundamentals that will help you start your own business or join an expanding team. Successfully complete two of the three courses and earn a Professional Development Award.

CZEN 420 The Business of Cannabis

A "Cool Course" in the 2019 Maclean's Canadian Universities Guidebook! Building on Toronto Metropolitan's expertise in entrepreneurship education, this course includes industry guest speakers who will discuss a range of topics, including financing for cannabis businesses and the complex regulations pertaining to the cultivation, processing, distribution, marketing, and selling of cannabis.

CZLW 420 Cannabis Law for Business

This course provides an understanding of the cannabis industry's complex regulatory environment, which is essential for strategic business decision-making. You will interpret important legislation from a business perspective and examine how to effectively bring cannabis products (including edibles) to market by considering various issues, including marketing and advertising, intellectual property, and import/export.

CKBG 420 Trends in Cannabis Science

In this introductory course, you will learn about the interaction between humans and cannabis focusing on trends in medicinal, wellness and recreational applications of cannabis. Selective alteration of cannabis genetics and agricultural determinants of the crop production, extraction of active ingredients, and formulation of novel delivery formats will be examined. You will also be introduced to the role of the physiological endocannabinoid system and learn about major cannabinoids — THC and CBD, minor cannabinoids, and terpenes.

Required Courses (Select 2)

- ❑ CZEN 420   The Business of Cannabis
- ❑ CZLW 420   Cannabis Law for Business
- ❑ CKBG 420   Trends in Cannabis Science

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Cybersecurity

Cybercrime is at an all-time high and has the potential to affect everyone. The Canadian labour market has an acute shortage of technically and analytically skilled experts needed to fill cybersecurity professional jobs that can help thwart this global threat. Canadian employers lament that they can't fill the large number of roles.

To address this, The G. Raymond Chang School of Continuing Education has created a new, fully online Cybersecurity Fast Track Course Series program as part of the federal government's mandate to offer Canadians and Permanent Residents a four-week, open admissions, career-ready program in cybersecurity.

This program may be financed using the Canada Tax Credit Benefit. As part of your tuition, you may request at any time pre-arranged phone meetings with our cybersecurity tutor or with your course instructors.

In this two-course course series, comprising 78 hours of instruction, students gain hands-on, experiential learning by applying open-source cybersecurity technical applications. Specialized software and tools are also used in order to perform penetration testing, digital forensics, data protection, and network privacy solutions in private and public sector closed networks and cloud-based enterprise environments.

Various security techniques that are essential for any security professional will be introduced using state of the art virtual desktop infrastructure environment. The environment will have many virtual machines with pre-installed and configured tools to perform the various tasks expected from a security professional.

This course series will also cover some of the most popular techniques, including, CIA Triad, the different types of hacking, auditing, digital forensic, and incident response. Digital forensic techniques are used in the evidentiary process and the various methodologies intrinsic to computer forensics with an emphasis on computer incident response and information system protection.

For more information, email Chang School Client Services (ce@torontomu.ca) and Academic Coordinator Alex Ferworn at aferworn@torontomu.ca

Required Courses

- ❑ CKDF 110   Computer Network Security
- ❑ CKDF 130   Digital Forensics Systems

Course Series Requirements

This is an open admissions program, which means you can enrol in these cybersecurity courses right away. No prior background is required.

Computer Network Security

Companies choose brand and product colours to enhance recognition and gain advantage in the marketplace, and accurate, consistent print and digital output is essential. Through this course series, gain a fundamental understanding of colour and colour management systems, and learn how to effectively manage colour across different platforms for both print and packaging using industry standard practices, tools, and procedures.

The three courses in this series combine theory with hands-on learning to increase your colour management skills and knowledge – practice what you've learned in state-of-the art colour management labs. This series is suitable for industry professionals looking to increase their colour management competency beyond an introductory level.

This course series offers the following benefits:
- Enrol right away – open admissions with no application required
- Earn a Professional Development Award on successful completion of all courses
- Apply for merit-based awards

Required Courses

- ❑ CDGA 110   Colour Management - Intro
- ❑ CDGA 120   Colour Management - Printing
- ❑ CDGA 130   Colour Management - Packaging

Course Series Requirements

- Successful completion of 3 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Blockchain for Business

For many, blockchain is all about "cryptocurrencies," such as Bitcoin, however, the applications of blockchain are much broader than financial transactions. In fact, blockchain technology has been deemed as significant an invention as the Internet.

Blockchain has the potential to change business processes and models in a distributed and decentralized manner. This technology is deemed to be transformative for businesses across the world, transcending industries and geographies alike. Any business that makes use of an intermediary to verify transactions could make use of blockchain technology.

This course series aims to help fill a knowledge gap for professionals seeking essential knowledge in the ways in which blockchain technology works and how it can be applied effectively to solve business problems.

Required Courses

❏ CZIT 200   Blockchain Architecture and Applications
❏ CZLW 200   Blockchain: Risk Management

Course Series Requirements

- Successful completion of 2 required courses

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Internationally Trained Health Professionals (ITHP) bridging program

(formerly ITMD - Internationally Trained Medical Doctors program)

Internationally educated health professionals are highly skilled individuals with a breadth of knowledge and experience. With the right tools, skills, and support to help guide them, they can gain meaningful employment in the Canadian healthcare sector. Our ITHP bridging program provides internationally educated professionals with Canadian-specific education and skills required to gain employment and hands-on support to ensure their success. This unique opportunity helps learners attain non-licensed healthcare employment in areas such as health research, health informatics, data analysis, and health administration (alternative careers in healthcare). Learners obtain more than just in-demand skills and knowledge – they are provided a supportive bridge to building a successful future in Canada.

This program offers continuous learners the opportunity to register in one of three specialized healthcare streams:
- Long-term Care and Ethics in Healthcare
- Health Research/Data Analytics in Healthcare/ Health Informatics
- Health Administration

Learners in each stream are required to take three to five courses, which includes courses in Job Search Strategies and Communications. The program also provides job search support to assist in finding future employment and an optional four to six-week work placement.

Industry and Careers

This program can lead to career paths in various roles such as:
- Case manager
- Clinical administrator
- Clinical research associate
- Hospital scheduling coordinator
- Health services coordinator
- Long-term care patient support assistant
- Hospital administration/administrator
- Medical office associate
- Patient services representative
- Long-term care recreation aide
- Research assistant/associate

Long-term Care and Ethics in Healthcare

- ❑ CHSM 301 — The Healthcare Systems
- ❑ CHSM 307 — Principles of Long Term Care Service Del.
- ❑ CPHL 302 — Ethics and Health Care
- ❑ CINT 901 — Gerontology: Critical Issues and Future Trends

Health Research/Data Analytics in Healthcare

- ❑ CHSM 301 — The Healthcare Systems
- ❑ CHIM 301 — Healthcare Information Analysis
- ❑ CHIM 305 — Introduction to Health Informatics
- ❑ CHIM 408 — Statistics for Health Services Managers

Health Administration

- ❑ CHSM 301 — The Healthcare Systems
- ❑ CLAW 122 — Business Law
- ❑ CLAW 402 — Health Information Access and Privacy
- ❑ CHIM 303 — Intro to Health Coding Classification
- ❑ CHSM 437 — Human Resources Management in Healthcare

Communications

- ❑ CDCE 400 — Exploring Leadership Skills
- ❑ CCMN 279 — Introduction to Professional Communication

Job Search and Placement Preparation

- ❑ CDCE 600 — Job Search Strategies

Course Series Requirements

- A minimum of three courses from any healthcare streams
- One communications course
- An optional work placement
- One job search course

Note: CHSM 301 is a prerequisite for CHIM 301 and CHIM 303 and CLAW 122 is a prerequisite for CLAW 402.

Internationally Trained Health Professionals (ITHP) bridging program
(formerly ITMD - Internationally Trained Medical Doctors program)

Who Should Take This Course Series?
Internationally educated healthcare professionals who are looking to reconfigure their existing professional knowledge to gain meaningful employment in non-licensed jobs within the healthcare sector in Canada.

What Will You Learn?
You will gain the following from this program:
- Increased knowledge of the Ontario healthcare system
- Canadian-specific job search strategies to help you secure future employment
- Work placements or work integrated learning opportunities
- Professional communication training to strengthen your communication and interview skills
- The opportunity to work towards a certificate

Full Stack Developer

Accelerate or start your career in full stack development and get noticed by employers. The Canadian labour force is experiencing a shortage of tech talent at the same time that employers are in immediate need of them. Between 2022 and 2028, the expected number of job openings for full stack developers alone — not including associated developer roles — is almost 11,000. Our fully online, flexible Course Series in Full Stack Developer that can be completed in a single term is a fast track route for aspiring developers to sharpen their technical and data analysis skills to be competitive in the job market.

If you have more time and are looking for professional development skills, like project management and professional communication, both of which are critical to career advancement, then the Certificate in Full Stack Developer might be an option for you. You will be able to apply the completed courses in the course series towards the certificate.

Career-Ready Support Offered

While enrolled in the Course Series in Full Stack Developer, you will receive a variety of support, including:

- Virtual mentor services: the virtual mentor is available free of charge while taking courses for 1-on-1 Zoom meetings and for consultations by email about the coursework, assignments, final projects, and for career advising.
- Employer networking support: participating employers will provide informal career and networking support through LinkedIn.
- Career support: full stack developer job search and career advising sessions will be offered throughout your courses.

Industry and Careers

This course series can lead to career paths in roles such as:

- Consultant (finance, healthcare, government, IT, among other industries)
- Full stack developer
- Start up and small-to-medium business owner/manager
- Web apps developer
- Website developer
- Web services developer

Required Courses

- ❑ CKCS 145   Full Stack Developer
- ❑ CKCS 149   Python Programming

Course Series Requirements

- 2 required courses
- Cumulative grade point average (GPA) of 1.67+

The two-course series is flexible in that no courses have prerequisites; continuous learners may take the courses in any order and in combination, or fast track their learning by taking all two courses concurrently in the same term.

Those who successfully complete this course series are eligible to earn a Professional Development Award from The G. Raymond Chang School of Continuing Education. Once you have successfully completed the courses, submit the Request for Professional Development Award (PDA) form with your name, student number, and the course series you have completed. Upon verification, you will receive your professional development award within 4 to 6 weeks.

Full Stack Developer

Who Should Take This Course Series?
- Individuals looking to make a career pivot by adding specialized skill sets for moving up in their careers
- High school diploma holders and university and college undergraduate degree recipients
- New Canadians looking for Canadian credentials to help them enter the job market
- Employers in small, medium, and large sized businesses who need to send their staff to upskill in full stack cloud developer coding and scripting capacities in potential candidates

This course series is also applicable to working professionals who are:
- Aspiring coders, web, and software developers
- Looking to upskill and require new technical skills to stay current in their jobs
- Working in a career that requires a computer science or STEM university-level credential
- Returning to the workforce or preparing to switch careers and need a university credential to demonstrate readiness for today's technical professional roles in a range of fields

What Will You Learn?
After completing this course series, you will be able to do the following:
- Construct fully functional websites and mobile applications, from end-to-end, by using various languages and tools
- Front-end development and production: create and customize responsive web pages using a variety of languages (SQL, JavaScript) and full stack developers' tools (Git, GitHub, Unix Shell)
- Back-end development and deployment: design a dynamic database/data store for retrieval of data using SQL and embed SQL statements in Python code that is supporting the middleware.
- Effectively leverage middleware to achieve web development project goals: architect the middleware in Python with support libraries, such as Flask from Pallets Project
- Perform Beta testing for full stack website-related product improvement: leverage tools, libraries, apps, and various software to perform a number of tiered, technical activities required to deliver a polished end-to-end website or mobile application